

THE UNIVERSITY OF MANITOBA
A COMPARISON OF THE WORK OF
KARL MARX AND HAROLD INNIS
WITH SPECIAL REFERENCE TO TECHNOLOGY

by
GORDON DAVIES

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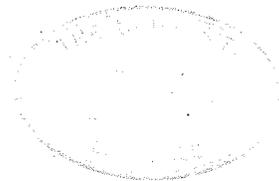
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of the degree of

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ABSTRACT

This thesis compares and contrasts the approaches and models which Karl Marx and Harold Innis developed in their economic studies. Of special interest is Marx's and Innis's understanding of economic change and its relation to social change, the role of technology in bringing about this change, and the source and influence of economic and social power. In particular, their work is examined and compared in regard to: their choice of the dominant economic element in the economic system and society, how this element acted on and affected society, the implications of their choice for their understanding of the nature and origin of economic and social power, their views on the nature of history, their attitude to the evolution of technology, the effect of their environment and background on their work, the role in their work of a dialectical approach, the political effect of their work on the two men, and the nature of their predictions for the future.

Marx's system and the role of technology in it is investigated, first by general analysis, and then with respect to the pre-capitalist and capitalist periods of history. The evolution of Innis's concern with distribution, monopoly, and technology in staple industries in his

earlier work is then examined. Following this Innis's later work on the evolution of history, with special emphasis on the economic element of communication and ideas, is investigated in connection with these three leading threads. The work of Marx and Innis is then compared.

Marx's and Innis's models were similar in their emphasis on technology and their concern with power. Marx's model was fundamentally one of exploitation based on production while Innis's model was more concerned with distributional linkages and the diffusion of the effects of technology throughout society.

With Marx, the analysis of production was the key to understanding both the economy and society. He believed that a system of production rested on material and social preconditions produced in the past and that, given its preconditions, a society adopted the system of ethics, politics, law, religion, etc. that best suited the exploitation and development of the forces of production at that time. Society was a direct, almost mechanical, product of production and the wealth and power of the ruling class was based on their ability, due to their ownership of the means of production, to exploit the other classes.

For Innis, distribution held the key to understanding the shape of a culture. His concern with distribution, monopoly, and technology were leading threads throughout his work. Technological change altered the power base of rival groups in society (industries in his earlier work, "monop-

lies of knowledge" in his later) and changed the effectiveness of the use of various types of both intellectual and material resources. In his later work he believed that the possibilities of the dominant medium of communication (the distribution of ideas) determined over the long run the nature of the culture which would become dominant. "Monopolies of knowledge" based on the possibilities of the medium tended to appear and grow to the point where they created an imbalance in society. Innis viewed society as an organic whole shaped by the media which interacted with the indigenous elements of the culture. The influence of "monopolies of knowledge" was due to the monopolistic advantages they possessed for the exploitation of the medium on which they were based.

Marx claimed that history was a process of evolution, from primitive communism to communism, propelled by the internal logic of the technology of production brought about by exploitation by the dominant classes. With Innis, history was cyclical. Apparently, he did not see a logic in the development of distribution, i.e. communication and transportation, which stretched across civilisations though he did think that each civilisation followed its own logic of evolution and that space and time biased media alternately dominated society as monopoly brought forth reaction and the appearance and growth of a new monopoly.

It would seem Marx's choice of production and Innis's choice of distribution as the dominant element in

history was influenced by their environment. Marx lived in England during the "Industrial Revolution" while Innis lived almost a century later in Canada where transportation was, and had been, of clearly vital and visible importance.

Marx and Innis both believed that the cause of social change was internal to societies. In Marx's opinion, history evolved in a dialectical manner. Innis, however, never explicitly adopted the dialectic though he may have implicitly used a dialectical approach in his later work.

Marx was vitally concerned throughout his life with politics and power and his work reinforced this concern. Innis, although becoming more politically conscious as a result of his later work, remained interested in the evolution of cultures primarily because of his concern with economics and the evolution of economic life. Marx's vision of the future was optimistic and he saw the ending of capitalism and the beginning of a glorious new age in communism. Innis was basically pessimistic and believed that if something was not done to counter Western civilization's space bias then this culture would either fall or blow itself apart.

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CHAPTER I

INTRODUCTION

Three of the most important problems facing contemporary society are the understanding of economic and social change, the importance of technology in bringing about this change, and the understanding of the source and influence of social and economic power. Karl Marx and Harold Adams Innis were two major political economists whose work in economics was both directly and indirectly concerned with these questions. This thesis examines the writings of these two men in relation to these questions and, in the interest of balance and breadth, in relation to each other.

Economics has been defined as:

the study of how men and society end up choosing, with or without the use of money, to employ scarce productive resources, which would have alternative uses, to produce various commodities over time and distribute them for consumption, now and in the future, among various people and groups in society.¹

To include economic history fully the definition might be changed to read: Economics is the study of how men may choose, choose, and have chosen ... to employ scarce pro-

¹Paul A. Samuelson and Anthony Scott, Economics, 3rd Canadian ed. (Toronto: McGraw Hill of Canada, 1971), p. 7.

ductive resources ... to produce various commodities over time and distribute them among various people and groups in society and how and why those choices have changed. As political economicsts of the time before the division of political economy into economics, political science, and sociology had occurred or was just occurring, both Marx and Innis were interested in the study of production, distribution, and consumption but they were also interested in the political and social context in which they occurred.

In attempting to understand anything as complex as the history of man, or even of an economy or industry, it is usually necessary to construct a system to explain it. Systems have a number of advantages and a number of disadvantages. The advantages relate to the fact that a system enables the mind to organize the tremendous amount of information needed to explain what is going on and how the elements of the things in question interact with each other. In addition, in a similar situation to the one under consideration a system will permit us to extract the salient information which must be analysed if what is occurring is to be understood. The problem with a system is that the system may be wrong, either in particular or in general principles, in which case the wrong conclusions will be drawn from the original situation and the wrong inferences made in the new situation; if the new situation was looked at without preconception, the correct analysis may have been made.

Because of the size and complexity of the questions with which Marx and Innis were dealing they both chose to construct systems to explain what they had found in their analysis and to assist them in furthering their work. Innis tended to leave his systems in a somewhat more implicit form, however, than did Marx. Both were political economists faced with examining change over vast areas containing complex cultures over long periods of time. It is of great interest and perhaps considerable significance that their systems were similar in many crucial aspects.

Both Marx and Innis believed that an understanding of the whole of a society could be gained by understanding its economic structure. They were also of the opinion that although production, distribution, and consumption were very important in comprehending the economic and social structure of the society, one of these elements possessed a predominant influence and that by gaining an understanding of the state of this element, the rest of society would fall into place.

Both Marx and Innis also believed that in the study of history, since history is the study of change, a theory of history not only needs to be able to explain the structure of the culture or industry at any particular time but also needs to be able to explain change from one structure to another. They believed that the fundamental cause of change in history lay in changing technology. Changes in technology acted by changing the nature of the dominant

force in the economic structure. The effects of this change in the economic structure work through into the continuous struggle for power or control of the society between rival groups by changing or challenging the power base of these groups. The changes in the ability to control or direct society lead in turn to changes in the social and/or intellectual structure of society.

Marx believed that the most important element in understanding the economic structure of society was production. For, man is a productive and social animal to the extent that he cannot exist as such outside society.¹ Society, therefore, tends to be organized towards the most efficient method of production. It follows that when production, which forms for Marx the basis of the substructure of society, is understood, then the rest of society, or its superstructure, will be comprehensible since in purpose it is always designed to maximize production under a certain system of economic organization.

Marx saw history advancing through a dialectical process of thesis, antithesis, synthesis. The dynamic force in this process lies in the changing mode of production which determines the change in the rest of society just as the existing mode of production determines the existing nature of society. A change in the mode of production,

¹Karl Marx, A Contribution to the Critique of Political Economy, trans. N. I. Stone from 2nd German ed. (Chicago: Charles H. Kerr & Company, 1904), p. 286.

which is to say a change in the technology of production, changes the relations of the members of society to the means of production, which is to say the technical instruments of production, and to each other. This change results in a change in the ability of the classes of society, which those individuals compose, to gain and/or maintain power.

Innis in both his earlier and later work believed that an understanding of the system of distribution, i.e. communications and transport, will reveal the bent of society. The institutions of society are shaped by the possibilities of distribution and of the development of monopolies on this basis.

Changes in technology change the opportunities for the development or maintenance of monopoly. As a result of this change the ability of rivals to appear and/or compete changes. With the growth or decline of rivals and the altering of the ability of the central monopoly to control its marginal areas the related institutions change.

In his earlier work Innis is concerned with studying the development of the industries which were dominant during the early development of Canada. Because of the special circumstances in which they developed the abilities and restrictions of the transportation system were of vital importance in their development. Demand existed for large supplies of foreign goods and these demands could only be met by developing large scale exports since import substitution was virtually impossible. The export opportunities

were to a large extent determined by transportation costs. To increase exports and thus imports society streamlined its institutions.

Changes in the technology of transportation resulted in changes in monopoly or market opportunities. Changes in the ability to compete meant a change in the nature of the institutions needed. The changes worked themselves out through competition, expansion, contraction, or collapse of the industrial structures under study.

Innis in his later work proceeded on the assumption that the ability of an "empire," "civilization," or culture to survive and to expand successfully depends on economic considerations. The most important of these, and the one which is dominant, is the system of distribution for goods, people, and especially ideas which the culture possesses. The ability of the distribution system to carry "knowledge," i.e. information and ideas, across space and across time depends on the technology used. Its ability in these respective areas determines the bent of the civilization and where the monopolies of knowledge which shape its intellectual and political evolution will emerge.

The nature of the technology not only determines what type of monopoly of knowledge will appear but also determines the probable shape of the civilization which will succeed it. This is because of Innis's crucial assumption that such monopolies, unless checked by a rival whose influence, based on a rival technology, is about as strong, will

tend to grow to the point of creating an imbalance in that society's culture. This imbalance leads either to the emergence of a new technology in that culture with the opposite bent or "bias" which in turn produces a new monopoly of knowledge and a new culture, or it leads to the complete collapse of that culture before the forces of a new rival on the margin whose cultural "bias" is probably the opposite of the dominant culture since it developed on the margin of the first without getting "caught" by the dominant civilization. Even in the first case where a new technology emerges it is usually introduced from the margins of the civilization in imbalance since it is that very imbalance which is inhibiting creativity at its center.

The remainder of the thesis will explore the systems which Marx and Innis developed on the basis of their economic studies to explain history and will then proceed to compare the structure, implications, conclusions, and predictions of the systems developed by these two political economists. Chapter two will explore Marx's general approach to economics and how he and his co-worker Engels attempted to apply his system to the pre-capitalist period of world development. Chapter three will examine Marx's application of his system to the capitalist phase of development. Chapter four will outline the development of Innis's ideas and approach in his earlier work. Chapter five will examine Innis's approach to the history of man in his later work. Chapter six will juxtapose the two approaches and will ex-

plore the influence on their work of their economic studies, their view of history, and their backgrounds.¹

¹In view of the large scope of this thesis attention is drawn to this question but exploration in depth will not be attempted.

CHAPTER II

THE MARXIAN SYSTEM

Karl Marx stated in his theses on Feuerbach "The philosophers have only interpreted the world in various ways; the point however is to change it."¹ Nevertheless he spent the bulk of his life in at least as actively trying to interpret the world as to change it. Marx's place in history, indeed, rests more firmly on his attempt to interpret the world than on the success of his personal efforts to bring about social change.

In his efforts to understand the world Marx constructed a system designed to explain the past and future as well as the present. This system was based on two important assumptions. The first of these is that the present is a product of the past as the future will be the product of the present. The second is that the nature of the structure of society is always determined by its economic structure. From these two assumptions of Marx came his two great continuing interests, the study of the unfolding of history and the study of economics.

¹Frederick Engels, Ludwig Feuerbach and the outcome of classical German philosophy (London: Lawrence & Wishart, 1947), p. 78.

Marx became interested in these two areas around the age of twenty-four when he had already become a political and philosophical radical. His opinions had already forced him from Germany and the German university world into France and journalism; in 1842-43 he was editor of the Rheinische Zeitung in Paris. The newspaper became involved in controversies on the Moselle peasantry, free trade, and French socialism. Marx felt compelled to take up the study of economics in addition to his interests in philosophy, jurisprudence, and history.¹ After the young firebrand was forced from his editorship he continued his studies and was led by them

to the conclusion that legal relations as well as forms of state could neither be understood by themselves, nor explained by the so-called progress of the human mind, but that they are rooted in the material conditions of life.²

From here his studies of political economy led him on to the general conclusion which he says, once reached, continued to serve as the leading thread in his studies.

In the social production which men carry on they enter into definite relations that are indispensable and independent of their will: these relations of production correspond to a definite state of development of their material powers of production. The sum total of these relations of production constitutes the economic structure--the real foundation, on which rise legal and political superstructures and to which correspond definite forms of social consciousness. ... At a certain stage of their development, the material forces of production come in conflict with the existing re-

¹Marx, Critique of Political Economy, p. 10.

²Ibid., p. 11.

lations of production, or--what is but a legal expression for the same thing--with the property relations within which they had been at work before. ... Then comes the period of social revolution. With the change of the economic foundation the entire immense superstructure is more or less rapidly transformed. ... No social order ever disappears before all the productive forces for which there is room in it, have been developed; and new higher relations of production never appear before the material conditions have matured in the womb of the old society. ... In broad outline we can designate the Asiatic, the ancient, the feudal, and the modern bourgeois methods of production as so many epochs in the progress of the economic formulation of society. The bourgeois relations of production are the last antagonistic form of the social process of production.¹

Just as his studies led him towards a particular view of history they also led him towards a particular view of the proper approach to be used in economic analysis. The proper subject for analysis "is first of all material production"² and the starting point is "the socially determined production of individuals."³ He argued that "whenever we speak, therefore, of production, we always have in mind production at a certain stage of social development."⁴ If this was kept in mind then the error of generalizing universal laws from the analysis of one society would be avoided. This does not mean that Marx was unwilling to discuss "production in general" since "all stages of production have certain

¹Marx, Critique of Political Economy, pp. 11-13.

²David McLellan, Marx's Grundrisse (London: Macmillan, 1971), p. 16.

³Ibid.

⁴Ibid., p. 17.

landmarks in common"¹ and "it is a rational abstraction, in so far as it singles out and fixes the common features, thereby saving us repetition."² It must always be remembered though that these features are composed of different elements which themselves have different times of appearance and different destinations. It is because of this that

the conditions which generally govern production must be differentiated in order that the essential points of difference should not be lost sight of in view of the general uniformity which is due to the fact that the subject, mankind, and the object, nature, remain the same.³

Marx felt that the connection of production, distribution, consumption, and exchange which the economists made, "production standing for the general, distribution and exchange for the special, and consumption for the individual"⁴ was shallow and he further objected to their assumption that "Production is determined ... by universal laws, while distributions depends on social chance."⁵ He vehemently rejected any suggestion "that distribution exists side by side with production as a self-contained independent sphere."⁶

In regard to these four economic classifications Marx argued that they altogether form a single whole with

¹McLellan, Marx's Grundrisse, p. 18.

²Ibid.

³Ibid., p. 18-19.

⁴Ibid., p. 22.

⁵Ibid., pp. 22-23.

⁶Ibid., p. 23.

production dominant. He felt that whether production and consumption

are considered as activities of one individual or separate individuals, they appear at any rate as aspects of one process in which production forms the actual starting point and is, therefore, the predominating factor.¹

He further argued that because in the study of production there appeared land, labour, and capital and in the study of distribution there also appeared rent, wages, interest and profit and because the appearance of the latter assumed the existence of the former that

distribution is itself a product of production, not only in so far as the material goods are concerned, since only the results of production can be distributed: but also as regards its form, since the definite manner of participation in production determines the particular form of distribution, the form under which participation in distribution takes place.²

Distribution for Marx was more than "the distribution of products" but it was also the "distribution of the means of production" and the "distribution of the members of society among the various kinds of production."³ The first of these types of distribution was the result of the second and third. The second and third types were bound up with the organization of production. The relation of these distributions to production he felt was "plainly a question which falls

¹McLellan, Marx's Grundrisse, p. 27.

²Ibid., p. 29.

³Ibid., p. 30.

within the province of production."¹ Marx argued also that exchange was manifestly a constituent part of production since it was "an intermediary factor between production and its dependent distribution, on the one hand, and consumption on the other."² Thus for Marx, although he did not regard the four elements as being identical, he did feel that they were "all members of one entity, different aspects of one unit" and that "production predominates."³

It might be noted that although production was felt to precede distribution it was admitted that any form of production had certain pre-conditions. Even when they appeared to have a natural, spontaneous origin Marx argued that

By the very process of production they are changed from natural to historical, and if they appear during one period as a natural prerequisite of production they formed at other periods its historical result.⁴

It was thus in connection with the discussion and analysis of production that he felt the question "How do general historical conditions affect production and what part does it play at all in the course of history?"⁵ was to be taken up. It was also in this context that his assumption that

¹McLellan, Marx's Grundrisse, p. 30.

²Ibid., p. 32.

³Ibid., p. 33.

⁴Ibid., p. 30.

⁵Ibid., p. 31.

the past produces the present and the present the future was so important to his work.

Marx undertook his historical writings and developed his theory of history as an integral part of his study of production. He was concerned with history particularly in his study of the emergence of the preconditions of capitalism and in his study of how communism was to emerge from its preceding stage, capitalism.

One of the prerequisites of wage labour and one of the historic conditions for capital is free labour and the exchange of free labour against money, in order to reproduce money. ... Another prerequisite is the separation of free labour from the objective conditions of its realization--from the means and material of labour.¹

In the appearance of these, society evolved through a number of stages. Man's original society was one in which everything was communally owned. Marx believed that in some places this form survived in a modified form into the historical period. The forms were the Oriental, the modified Oriental or Slavonic, and the Germanic societies. Following the collapse of the communal society a slave society dominated by the emergence of the state appeared. This was the "ancient" or "classical" type of society. The successor of the classical society was the feudal society whose emergence was also linked to the German type of society. Capitalist society evolved in turn from the feudal society.

¹Karl Marx, Pre-capitalist Economic Formations, trans. Jack Cohen, ed. and with Introduction by E. J. Hobsbawm (New York: International Publishers, 1965), p. 67.

Marx's views on the early evolution of society are presented in two main sources besides Capital. The first and earlier source is Pre-capitalist Economic Formations which is Hobsbawm's translation of that part of Marx's Grundrisse which is most concerned with analyzing the history of the pre-capitalist periods. The second and later source is The Origin of the Family Private Property and The State by Frederick Engels.¹

Marx viewed man as appearing on earth as a migratory group. "Hence the tribal community ... appears ... as the precondition of the joint (temporary) appropriation of the soil."² During the first period of history, which is to say the period of the collapse of primitive communism, the two most important series of events was the evolution of the family and the evolution of the means and mode of production. Society was originally based on kin relationships. In the context of these relationships man developed the forces of production. As the forces of production evolved so did

private property and exchange, distinctions of wealth, exploitation of the labour power of others, and, by

¹The Origin of the Family is based principally on Marx's incomplete Ethnological Notebooks and Engels in writing the book viewed himself as executing a bequest. I have, therefore, used it as a guide to Marx's own opinions. In addition, I have, from time to time, used other works of Engels on the assumption that during the period of close co-operation of Marx and Engels the views of the latter were not fundamentally different from the former and could be used to shed light on Marx's opinions.

²Marx, Pre-capitalist Formations, p. 68.

this agency, the foundations of class antagonism are formed. These new elements of society strive in the course of time to adapt the old state of society to the new conditions, until the impossibility of this leads to a complete revolution. The old form of society founded on sexual relations is abolished in the clash with the recently developed classes. A new society steps into being, crystallized into the state.¹

In his study of ethnology Marx adopted Morgan's² general scheme of social and economic evolution for the period before the start of civilization and the rise of the state. Humanity began in the state of "Lower Savagery" in which man possessed speech and relied on arboreal hunting and gathering. This was succeeded by "Middle Savagery" during which man now possessed fishing and fire. "Higher Savagery" followed beginning with the invention of archery and concluding with the development of pottery. During this period village life developed. "Lower Barbarism" comprised the period between the development of pottery and the beginning of the systematic raising of crops and herding of livestock. "Middle Barbarism" comprised the period between the appearance of agriculture and the beginning of the use of iron. (The failure of the inhabitants of the American continents to progress past this point is ascribed to the

¹Frederick Engels, The Origin of the Family Private Property and the State, trans. Ernest Untermann (Chicago: Charles H. Kerr & Company Co-operative, 1902), p. 10.

²Lewis H. Morgan, Ancient Society or Researches in the Lines of Human Progress from Savagery, through Barbarism, to Civilization (N. P.: Henry Holt & Co., 1877).

different natural resources of the two continental systems. Because America possessed only one grain and one domestic animal, the llama, the ability of its inhabitants to develop was fatally handicapped.) The period of "Upper Barbarism" which preceded civilization was marked by the development of iron and the further improvement of other methods of production in agriculture and continued improvements in architecture and communication.

As the economic base of society developed so did the structure of society which is to say the "family" or kin group. Initially all men and women were held to be in one universal, common marriage in the tribe. The second or "consanguine family" forbade different generations to intermarry. The third or Punaluan family extended the prohibition to brothers and sisters of the same mother. The prohibition of marriage to all consanguine relatives of the female line marked the appearance of the "gens." Until the emergence of the state the gens remained the dominant social building block in the organization of the tribe. The Punaluan family was suitable for the Middle and Upper stages of Savagery. During the consanguine and punaluan kinship systems life was basically lived in communal households. As the forces of production increased the minimum "safe" size for a household declined and during the Lower Stage of Barbarism the "pairing" family began to emerge and group marriage decayed. The decay of communal living damaged the position of women since previously in a household the women were from one "gens" and

the men from several so that the former had the advantage of greater cohesiveness. The family's evolution until this point, it was suggested, had been at least partly due to the biological advantages from reducing inbreeding among closely related people. The next step was completely due to the advance of the technology of production.

The appearance of flocks in Europe and Asia during the Middle Stage of Barbarism was the key to the next development of society. Initially the old ownership forms endured for the new technology, the animal herd. The herd was owned by the gens. This new technology, however, was easy to supervise and produced a larger surplus than previous methods and was self reproducing. The larger surplus meant slavery became a viable institution and the habit of killing captive enemies gave way to the custom of enslaving them. Slavery became not only practical but necessary since people increased more slowly than the herds. In the traditional division of labour, work inside the household fell to the women and outside the household fell to men so that to men also fell the possession for use of those means of production which were used outside the household. The management of the new technology fell, therefore, to them. Previously inheritance had been through the female side since in group marriage the father was sometimes difficult to detect. The pairing family made it possible to attribute paternity with a fair degree of certainty. It was to the advantage of the household that the flock remain within the

household on the death of the "owner" instead of being distributed through the gens. From this came the custom of paternal inheritance and the tracing of descent through the male line. It became necessary to ensure female faithfulness and the system of monogamy, and occasionally polygamy developed. Women, from being the dominant group in society, came under the authority of men. During the transitional period in the middle and higher stage of barbarism the old collective household declined into collective land ownership by a group of patriarchal households and hence to the family unit. In regards to the modern (monogamous) family

Marx adds: "The modern family contains the germ not only of slavery (servitus), but also of serfdom, because it has from the start a relation to agricultural service. It comprises in miniature all those contrasts that later on develop more broadly in society and the state."¹

In the communal period, before the emergence of private property, men of the earliest settled communities regarded themselves "as its [the earth's] communal proprietors, and as those of the community which produces and reproduces itself by living labour."² The individual, however, only regarded himself as an owner because he was part of the community. This form of ownership was universal in the beginning and survived into the historical period in

¹Engels, The Origin, p. 71.

²Marx, Pre-capitalist Formations, p. 69.

several variants as mentioned above.

The least evolved and longest surviving communal form Marx termed the "Asiatic Form." In this form an all embracing unity came to stand above the small common bodies as the "social proprietor." The community remained the hereditary possessor of the land and an individual was propertyless unless he received a grant through the community from the social proprietor. The despot had become identified with the unity of the community and was thereby the owner of the surplus property. The appearance of this form is tentatively linked to an early need for mass organization such as a need to maintain a complex irrigation system. Because of its organization this society was peculiarly resistant to change and further evolution.

Its foundation is tribal or common property, in most cases created through a combination of manufacture and agriculture within the small community which thus becomes entirely self-sustaining and contains within itself all conditions of production and surplus production.¹

This culture failed to develop the separation of town and country and the further division of merchant and producer and as such was unable to improve its technology through the development of the division of labour. It permanently stagnated as a result.

The second form of communal ownership that developed was the least stable of the three.

¹Marx, Pre-capitalist Formations, p. 70.

It is the product of a more dynamic (bewegten) historical life, of the modification of the original tribes. The community is here also the first precondition, but ... it is not here the substance of which the individuals are mere accidents... . The basis here is not the land, but the city as already created seat (center) of the rural population (landowners). The cultivated area appears as the territory of the city; not, as in the other case, the village as a mere appendage to the land.¹

This community faced difficulties with rival communities and a condition of its existence was that the kinship groups organized for war. There was a tendency for these groups to differentiate into higher and lower subgroups and this was further "developed" by the conquest of neighbors. In this society there was both common land (ager publica) and "private" land. Individual property was able to emerge because such property did not require communal labour for its valorization as was the case with the first form.

The more the community was only a unity against outsiders the more favourable were the conditions for individuals to become private proprietors. The community then became a relationship of free and equal proprietors to each other for their protection and that of the common land. To hold land within this community, however, it was still necessary for the individual to be a member of the community. In the same way the individual still reproduced himself by co-operation of labour but here the co-operation was in

¹Marx, Pre-capitalist Formations, p. 71.

defence and not production. For the continued existence of the community

the condition of life of the peasant is reproduction of himself as proprietor of a parcel of land, and, in that quality as a member of the commune.¹

The need for land to maintain this with an expanding population made for war, and thus for differentiation amongst the "equal" members. The differentiation was worsened by the tendency of the "patricians" of the society to usurp the ager publica and have it used under their direction. From the conflicts here "Ancient" Society evolved.

A third form of still basically communal ownership also evolved. This Marx termed the Germanic. This form was important in history because in action together with the declining world of "ancient society" it produced feudalism. This society had a looser inter-relationship of its members that did either of the others. The community here existed not as a union as in the second form but as an association and agreement. It did not normally have a political existence and to enter on a "real" existence its members had to be called together. As there were no civic magistrates, when the meeting ended so did its political form. An ager publica existed in this form but did so only as a supplement to the individual property among the members. Each household contained an independent economy. The community was here "genuinely the common property of the individual

¹Marx, Pre-capitalist Formations, p. 74.

owners, and not of the union of owners, possessing an existence of its own in the city, distinct from that of the individual members."¹

Marx emphasised that even in this period, as the existence of a man was determined by society so "the real existence of the community is determined by the specific form of its ownership of the objective conditions of labour."² For Marx

these different forms of relationship of communal tribal members to the tribal land--to the earth upon which it has settled--depend partly on the natural character (Naturanlagen) of the tribe, partly on the economic conditions in which the tribe really exercises its ownership of land, i.e. appropriates its fruits by means of labour. And this in turn will depend on the climate, the physical properties of the social, the physically conditioned mode of its utilisation, the relationships of hostile or neighbouring tribes, and such modifications as are introduced by migrations, historical events, etc.³

In Marx's opinion the evolutionary possibilities of the ancient and oriental phase were limited by the purpose of production at that time which was the reproduction of relations between individuals and the community which were assumed in each case as given--and had a definite predetermined existence--both as regards to the conditions of labour and the relations between one man and his co-workers, fellow tribesmen, etc.

When the limitations were transcended, decay and

¹Marx, Pre-capitalist Formations, p. 80.

²Ibid., p. 82.

³Ibid.

disintegration ensued. Nevertheless, the forces which were to transcend these limitations, i.e. the evolution of slavery, the concentration of landed property, the development of a monetary economy, conquest, etc., "appeared nevertheless up to a point to be compatible with the base, and merely innocent extensions of it or else mere abuses arising from it."¹ If the community was to grow it had to reproduce its structure by production and population growth. This growth eventually led to a situation where it couldn't reproduce its structure so the community and its property relations declined and decayed.

The gentile, i.e. tribal or communal, constitution was said in The Origin of the Family to reach its peak of development in the stage, Lower Barbarism. During this period tribes and their associated gens split into new tribes and gens while related tribes came together again in federations. Inter-tribal disagreements were settled by war with the loser suffering extermination or expulsion from the area since the gentile order provided for neither master nor servant. The population was small and neutral zones separated by the tribes. The division of labour within the tribe was sexual in nature.

With the development of grazing in Europe and Asia decay set in. Some tribes became nomadic and were able to produce a considerable and increasing surplus which differed

¹Marx, Pre-capitalist Formations, p. 83.

from that produced by non-nomadic peoples. Exchange on a regular basis became both feasible and sensible. When private exchange developed money became a useful and necessary invention. It was also postulated that horticulture developed to supply winter feed for the cattle and people in Nomadic tribes. Other important inventions were made in the period, Upper Barbarism, such as the weaving loom, the smelting of copper and tin, and the use and working of gold and silver. As human productivity increased so did the value of labour power.

For the early communities the only barrier they could encounter to obtaining the natural conditions of production, the land, was some other community. War was thus one of the earliest tasks of the community for the defence of its property and the acquisition of new property. Man began to be captured with the land instead of being exterminated.

Where man himself is captured as an organic accessory of the land and together with it, he is captured as one of the conditions of production, and this is the origin of slavery and serfdom, which soon debase and modify the original forms of all communities and themselves become their foundation.¹

In the communal period property was for a man his national condition of production which belonged to him since he was part of the tribe. Man saw himself subjectively as himself and objectively in the natural inorganic conditions

¹Marx, Pre-capitalistic Formations, p. 88.

of his own being which stemmed from his community and himself. In brief, property was based on membership in a tribe. When one tribe was subjected it became propertyless and became part of the "inorganic conditions of the conquering tribe's reproduction, which that community regards as its own."¹ In this way slavery was an outgrowth of the original communal property system.

Slavery's appearance was simultaneously the first division of social labour and the first division of society into classes. The second division followed hard on the heels of the first. The pressure of property differentials led to the collapse of collective agriculture and the emergence of a rich free class and a poor free class. Monogamy and the subjection of women accompanied the collapse of collective agriculture.

The discovery of the plow and the emergence of large scale agriculture brought the emergence of the town, and with the development of the forces of production eventually a new split in the division of labour appeared with the separation of agriculture and handicrafts. Large scale production for exchange and not use followed. Commodities appeared in the world and trade received a great boost and was stimulated to develop both internally and externally. The growth of trade saw the emergence of money in the form of precious metals.

¹Marx, Pre-capitalist Formations, p. 91.

Increased wealth brought increased dangers to communities. The amalgamation of tribes and the emergence of nations was the result. Initially this continued under the basic "institutional" structure of the communal period. A military democracy of free men under an elected war leader emerged. However, the waging of wars for profit led to the emergence of kings and nobles on the resulting plunder.

In this manner the organs of the gentile constitution were gradually torn away from their roots in the nation, tribe, phratry and gens, and the whole gentile order reversed into its antithesis. The organization of tribes for the purpose of the free administration of affairs was turned into an organization for plundering and oppressing their neighbors. The organs of gentilism changed from servants of the public to independent organs of rule oppressing their own people. This could not have happened, if the greed for wealth had not divided the gentiles into rich and poor; if the "differences of property in a gens had not changed the community of interest into antagonism of the gentiles" (Karl Marx); and if the extension of slavery had not begun by branding work for a living as slavish and more ignominious than plundering.¹

Before the complete arrival of the state and "civilization" one more class appeared. The merchant class developed along with money and private property. With them and private property came usury, the mortgage, and foreclosure. These strengthened the growth of large land holding, the growth of slavery as the dominant form of production, and the increasing division of the free population on the basis of wealth. The complete bankruptcy of the old tribal

¹Engels, The Origin, p. 199-200.

or gentile constitution led to the reconstruction of society on the basis of the state. This corresponded to the organization of society on the basis of slavery and not communal ownership and production.

To summarize, the first period of traceable human evolution, for Marx, saw dramatic changes in economic and social organization. At the opening of the period production was on a communal basis organized around kinship. Property was also communal as was the family in which women had a very high position. Technological improvements led to an increase in human productivity, particularly outside the household. Monogamy and slavery arose as the result. Improved productivity also led to further advances both in the means of production and the mode of its organization. Three general classes and three general divisions of labour (which are not co-incidental) appeared out of the originally homogeneous mass of society. These were the slaves, the poor free, and the rich free in the case of the former and rural agriculture, urban handicrafts, and trade in the case of the latter. Inequalities of private property brought inequalities of power and divergence of interests. Class conflict was not long in developing. Technological development was sometimes prevented either by the lack of resources as in the Americas or by the creation of a social organization under the pressure of the need of a particular system of production which managed to prevent the development of a division of labour while simultaneously preventing the accumulation of a surplus in the community

case of the "Asiatic Form" of production. The absence of technological change meant the absence of social development beyond the corresponding stage.

The Origin of the Family traced the formation of the state in the light of the evidence then available for Athens, Rome, and the Germans. The evolution of the state among the Germans, while still following the basic form postulated, was peculiar in several crucial aspects with the result that feudalism and not a new slave based state emerged.

With the emergence of the new economic system and the consequent bankruptcy of the old a new structure for society was called into existence. The new constitution was based on the state. The state divided its members by territory and not kinship. It created a public power of coercion not co-incidental with the old self-armed population. It also created taxes to pay for itself. The two basic pillars supporting the new society were slavery and the taxes used to police and defend society. As might be expected in the analysis the two basic supports became, as they developed, the two forces pushing the system towards its collapse.

It was suggested in the case of Athens that her prosperity after 500 B.C. was a reflection of the success of the new Athenian state. It was argued, however, that the fruit of this prosperity was the increase in the number of slaves and the concentration of wealth in a few hands. The result:

the mass of the free citizens were impoverished and had to face the choice of either competing with their own labour against slave labour, which was considered ignoble and vile, besides promising little success, or to be ruined. Under the prevailing circumstances they necessarily chose the latter course and being in the majority they ruined the whole Attic state.¹

In the case of Rome not just one state was ruined but the entire civilized, i.e. western, world. The structure which replaced the Roman state was, however, suitable for further evolution into capitalism. By the time of the expulsion of the Kings from Rome the basic structure of the state was established.

The whole history of the Roman republic moves inside of this constitution: The struggles between patricians and plebs for admission to office and participation in the allotment of state lands, the merging of the patrician nobility in the new class of large property and money owners; the gradual absorption by the latter of all the land of the smallholders who had been ruined by military service; the cultivation of these enormous new tracts by slaves: the resulting depopulation of Italy which not only opened the doors to the imperial tyrants, but also to their successors, the German barbarians.²

By the time of the barbarian invasion it was postulated that the Romans had, except where resisted by the Greek language and culture, destroyed all nationality so that the Empire was united only by the state. However, "the Roman state had become an immense complicated machine designed exclusively for the oppression of its subjects."³ The

¹Engels, Origin of the Family, p. 143.

²Ibid., p. 157.

³Ibid., p. 179.

result was "universal reduction to poverty, decrease of traffic, return of agriculture to a lower state."¹ The collapse of the urban and external market due to this decay in traffic meant slavery became "economically impossible."² From being at the start of the period a means of advancing production, slavery and the state became a handicap to it. A new system of social organization was necessary.

The necessary revolution was carried through by the German barbarians. At the time of their invasion it is argued that they possessed a gentile military constitution with "public meetings, councils of gentile chiefs, and military leaders who coveted actual royal power."³ Under the pressure of the conquests this original gentile constitution was overthrown as it became necessary to strengthen the authority of the military leader which meant the arrival of true kingship. The monarch seized the communal and as yet unassigned national lands and distributed them amongst his retinue who in turn displaced the old council of gentile chiefs. Although new states emerged they "benefited" from the previous development of productive forces during the Roman period which went on during the earlier phases of slavery.

¹Engels, Origin of the Family, p. 180.

²Ibid., p. 182.

³Ibid., p. 175.

The third form of ownership is feudal or estate property. If antiquity started out from the town and its little territory, the Middle Ages started out from the country. This different starting point was determined by the sparseness of the population at that time, which was scattered over a large area and received no large increase from the conquerors. In contrast to Greece and Rome, feudal development at the outset, therefore, extends over a much wider territory, prepared by the Roman conquests and the spread of agriculture at first associated with it. The last centuries of the declining Roman Empire and its conquest by the barbarians destroyed a number of productive forces; agriculture had declined, industry had decayed for want of a market, trade had died out or been violently suspended, the rural and urban population had decreased. From these conditions and the mode of organization of the conquest determined by them, feudal property developed under the influence of the German military constitution. Like tribal and communal ownership, it is based again on a community; but the directly producing class standing over against it is not, as in the case of the ancient community, the slaves, but the enserfed peasantry.¹

During the ancient period slavery protected by the state led to a development of agriculture and initially also a development of industry and trade. After a certain point, however, the forces of production came in conflict with the social organization of slavery and eventually slavery itself collapsed being replaced by a system of serfdom in agricultural areas which, during the Middle Ages, was reflected in a similar structure in the towns. Interestingly, however, the rise and fall of slavery does not seem so much due to technological change but to the working out of

¹Karl Marx and Frederick Engels, The German Ideology Part One with selections from Parts Two and Three, together with Marx's "Introduction to a Critique of Political Economy," ed. and with introduction by C. J. Arthur (New York: International Publishers, 1970), p. 45.

the possibilities of one system of the division of labour. Nevertheless, it is on the basis of the initial gains of slavery that a new technology with superior possibilities of development arose.

As noted above feudalism formed the third period of economic development for Marx. As in the ancient period the general division of labour into the agricultural countryside, the urban handicrafts, and trade continued. The separation of industry and commerce in the towns was held to already have existed in the older towns and to have developed in the newer ones as they entered into mutual relations with other towns. Nevertheless Marx stressed that the division of labour was generally undeveloped, not occurring in industry in the various trades or even much between them. The actual structure of social control was held to be "the heirarchical structure of land ownership, and the armed bodies of retainers"¹ which protected the nobility against the serfs.

Since Marx believed that the dominant sector of the economy tended to impress the structure of its property system on the other sectors of the economy it is not surprising that he found that in this period the towns reflected the countryside. He referred to the guild system as the counterpart of the feudal land holding system even though the property of the non-merchant townsman consisted chiefly

¹Marx and Engels, German Ideology, p. 45.

of his own labour. Marx saw the guild system as a product of

the necessity for association against the organized robber nobility, the need for communal covered markets in an age when the industrialist was at the same time merchant, the growing competition of the escaped serfs into the rising towns, the feudal structure of the whole society.¹

An urban heirarchy similar to the rural was established with the appearance of the journeyman and apprentice as population expanded faster than the number of masters. The nature of property in the medieval town partook of the nature of estate capital rather than of "modern" capital which "can be assessed in money and indifferently invested in this thing or that."² This is because the capital of the time existed in the shape of "a house, the tools of the craft, and the natural hereditary customers"³ which not only tended to descend from father to son being unrealizable due to the poor development of commerce and circulation but in addition was "directly connected with the particular work of the owner, inseparable from it."⁴

Since Marx viewed history as the history of class struggle it is not surprising that he looked at history during the Middle Ages as a series of class struggles. In Marx's opinion these struggles were basically country

¹Marx and Engels, German Ideology, p. 46.

²Ibid., 71.

³Ibid.

⁴Ibid.

against town, town against lords, rabble and journeymen against masters, peasants against lords. The organization of society in response to the technology of the day, which is to say the then current division of labour in society, was held by Marx to have been crucial to the prospects of each of these struggles. In Marx's opinion the town was "the concentration of population, of the instruments of production, of capital, of pleasures, of needs, while the country demonstrates just the opposite fact, isolation and separation."¹ As a result of this the town was acquainted with politics while the countryside was not. Thus, "the great risings of the Middle Ages all radiated from the country, but equally remained totally ineffective because of the isolation and consequent crudity of the peasants."² The struggles of the rabbles in the towns were similarly hopeless. The first settlers in the newer towns brought with them or accumulated some capital in the form of tools and skill and in time as groups with similar interests acquired collective property and organized into communities, guilds, to defend their position. The later arrivals came separately and found their access to training and the communal activities of the guilds barred by their present organized "owners," the masters, who needed day labourers. The masters organized the rabble in the former's interests and

¹Marx and Engels, German Ideology, p. 69.

²Ibid., p. 71.

because of the rabble's unorganized nature the latter never successfully revolted against the masters. The journeymen and apprentices employed by the masters were also opposed in interests to the masters but were even more effectively prevented from revolting. The direct influence of the master on the journeyman's life, the human bond which tended to develop between the master and journeyman which separated him from other journeymen, and the journeyman's own interest in becoming a master himself, all combined to prevent the journeymen from progressing beyond "small acts of insubordination within separate guilds."¹ These struggles, however, were an endemic and natural feature of feudal organization and were compatible with it. The decline of this phase of economic development required a further advance in the technology of production.

In Marx's opinion the division of labour was of vital importance in the technology of a society and improvements in it could have as important a result on production and its super-structure as improvements in the instruments of production. The development of commerce which was the second great division of labour, served, in Marx's opinion, to act as a leaven throughout the whole of feudal society having numerous effects which all worked towards providing the two basic requirements of capitalist society, money able

¹Marx and Engels, German Ideology, p. 70.

to act as capital unfettered by restrictions and labour separated from the means and material of labour.

The profits of trade with its brother, those of usury, were eventually to provide, in company with "the cities and government finance which arise with them"¹ the formation of monetary wealth. These sources were also supplemented by the hoarding of "tenant farmers, peasants, etc., though to a smaller extent."² Initially, however, "the money capital formed by means of usury and commerce was prevented from turning into industrial capital, in the country by the feudal constitution, in the towns by the guild organization."³

Trade, as well as resulting in the accumulation of money capital also played an important role in the other half of what Marx called "primitive accumulation." Primitive accumulation was

nothing else than the historical process of divorcing the producer from the means of production. It appears as primitive, because it forms the pre-historic stage of capital and of the mode of production corresponding with it.⁴

¹Marx, Pre-capitalist Formations, p. 113.

²Ibid.

³Karl Marx, The Process of Capitalist Production, Vol. 1 of Capital; A Critique of Political Economy, ed. Frederick Engels, trans. from 3rd German ed. by Samuel Moore and Edward Aveling, rev. and amplified according to the 4th German ed. by Ernest Untermann (Chicago: Charles H. Kerr & Company, 1906), p. 823.

⁴Ibid., 1:786.

The other half of this process was the creation of free labour. "The expropriation of the agriculture producer, of the peasant, from the soil, is the basis of the whole process."¹ It was very important that both of these processes, the accumulation of money and the "free" labour occurred since

the mere existence of monetary wealth, even its conquest of a sort of supremacy, is not sufficient for this dissolution to result in capital. If it were, then ancient Rome, Byzantium, etc. would have concluded their history with free labour and capital, or rather, would have entered on a new history. There the dissolution of the old relations of property was also tied to the development of monetary wealth-of commerce, etc. However, in fact the result of this dissolution was not industry, but the domination of countryside over city.²

The growth of trade had an acidic effect on the old property relations since, even for the dominant class, the landlords, the feudal form of production was based on production for use. The growth of trade and monetary wealth offered the feudal landlord the opportunity "to exchange his corn, cattle, etc. for imported use values, instead of squandering his own production with his retainers, whose number, indeed, was to a large extent taken as his measure of wealth."³ Initially the growth of the "taste" of the lords for money was said to have weakened feudal organization in two ways. The first, which is investigated by Marx

¹Marx, Capital, 1:787.

²Marx, Pre-capitalist Formations, pp. 109-110.

³Ibid., p. 112.

himself, occurred, it was believed, in England where the great lords were prompted to undertake the rationalization of agriculture which led to the development of conditions suitable for the growth of capitalism. In England, Marx argued, this process was assisted by the fortunate coincidence of the appearance of a new nobility following the self-decimation of the old in civil war and the development of a market for wool in Flanders which gave special encouragement to enclosure. The second way it weakened the structure of feudalism was investigated by Engels in "The Mark."¹ In Eastern Europe, the lords, to increase their rent rolls, began to encourage colonization by competitively granting colonists improvements in their status. Unfortunately for Eastern European peasants the destruction of the wars of the Reformation and the Thirty Years war, Engels believed, resulted in regression to serfdom.

Marx also held that it was as a result of the development of commerce that the bourgeoisie evolved class consciousness. With the growth of intercourse between towns the improvement in knowledge of each other led the residents of towns to recognize that they faced common conditions and the same antagonists independently of themselves as individuals. The bourgeoisie, however, only formed a class in

¹Marx approved Engel's conclusions. In Engel's letter to Marx dated December 22, 1882, Engels said in reference to "The Mark," "I am glad that on the history of serfdom we proceed in agreement." Marx, Pre-capitalist Formations, p. 148.

their struggle against other classes and they remained hostile and competitive amongst themselves. Trade also encouraged the development of the forces of production in the towns by providing a larger market which led to further divisions of labour and higher productivity.

Usury made two contributions to the decline of feudalism. It assisted the rise of money wealth which was independent of landed property and it tended to ruin small peasants leaving them landless. When the usurer attacked the landlord, however, there was no effect on the mode of production although the lot of the exploited class might have grown worse or the usurer might have replaced the former landlord.

At the end of the feudal period after the disappearance of serfdom Marx expected the majority of the population to have consisted of free peasant proprietors. In the larger seignorial domains the lord's overseer was thought to have probably already been replaced by the tenant farmer. There also existed agricultural labourers. He felt that although those relying on agricultural labour completely were few, their numbers were swollen by those who used part of their leisure time in this way. Generally at this time it was also felt that the peasants still had access to the common lands. The idea of estate property and production for use was already giving way to the idea of production for exchange in which capitalism was rooted. The heart of the evolution of this "new" idea lay in the development in the

towns of the handicrafts in support of the development of trade which encouraged the division of labour, the center for Marx of technological progress in the pre-machine age.

The end of the feudal period was also marked by the decline of the political influence of the feudal nobility and the rise of the absolute monarchy which straddled the nobility and bourgeoisie. The bourgeoisie served as the counterpoise to the nobility in this new political system.¹ The root of bourgeoisie's military power which could break the armour-clad feudal cavalry lay in the fact that the burghers possessed the industry and money needed to provide the powder and firearms required by the new military technology which was developing.² Their economic power lay in their money wealth.

Along with the decline of the feudal attitude to property and the power of the nobility Engels also argued that the rise of the bourgeoisie also sparked a religious revolt against medieval catholicism which had acted as a powerful justification and embodiment of the feudal order. The revolt began in the rise of the Albigensian heresy in southern France during the rise of towns there and eventually culminated in the Reformation³ which in turn in England

¹Lewis S. Feuer, ed. Basic Writings on Politics and Philosophy: Karl Marx and Friedrich Engels (Garden City: Anchor Books, Doubleday & Company, 1959), p. 9.

²Frederick Engels, Herr Eugen Dühring's Revolution in Science (New York: International Publishers, 1939), p. 185.

³Engels, Feuerbach, p. 67.

helped the rise of the proleteriat by opening the church lands to secular exploitation and enclosure.

The first rural element to join the ranks of the future proleteriat were those who had formed the large bands of feudal retainers. These were dissolved partly because of the victory of royal power, "itself a product of bourgeois development"¹ and partly because of the nobility's growing "taste" for money. The enclosure movement to enable the landlords to take advantage of the market for wool in Flanders swelled this beginning as did the process of land seizure and dissolution of hereditary tenancies on church lands during the Reformation. This process proceeded against the intent of the law in the 16th and 17th centuries and with the law's subsequent support. It reflected in the earlier period the continuing influence of the previous economic system and its final disappearance in the second.

Although as a result of the above process following the twilight of feudal organization in England large numbers of destitute people were produced they were not ready made proletarians.

This "free" proleteriat could not possibly be absorbed by the nascent manufactures as fast as it was thrown upon the world. On the other hand, these men, suddenly dragged from their wanted mode of life, could not as suddenly adapt themselves to the discipline of their new conditions. They were turned en masse into beggars, robbers, vagabonds, partly from inclination;

¹Marx, Capital, 1:789.

in most cases from the stress of circumstances.¹

The governments, alarmed at the increase in the number of vagabonds responded with harsh laws against them.

Thus were the agricultural people, first forcibly expropriated from the soil, driven from their homes, turned into vagabonds, and then whipped, branded, tortured by laws grotesquely terrible, into the discipline necessary for the wage system.²

The capitalist farmer also, according to Marx, developed towards the end of the period of primitive accumulation. He grew from the lord's overseer, to a producer to whom the lord provided cattle, seeds and implements and who himself employed wage labour. From here he grew into a half-farmer or metayer who supplied half the stock himself. The final stage was a full farmer "who makes his own capital breed by employing wage-labourers, and who pays a part of the surplus product to the landlord as rent."³ Unlike the peasantry he benefitted from the decline in wages during enclosure and from enclosure itself since his size enabled him to take part in the usurpation of common lands.

The creation of an embryonic proletariat also helped to produce a new market for exploitation since the expropriated peasant had now to buy his means of nourishment which became part of the "material elements of variable capital"⁴

¹Marx, Capital, 1:806.

²Ibid., 1:808-809.

³Ibid., 1:815.

⁴Ibid., 1:817.

in the same way the "raw materials of industry dependent upon home agriculture ... were transformed into an element of constant capital."¹

It was, Marx believed, in this fashion, through the slow advance of the forces of production, that Man moved from a communal society based on a system of production for use with no classes in existence to the eve of the capitalist system with its sharply defined classes and privately owned means of production used to produce for exchange. By the end of the feudal period both money capital and free labour separated from the means and material of labour existed. From this point Marx passed on to the analysis of capitalism which forms the next chapter.

¹Marx, Capital, 1:817-818.

CHAPTER III

THE MARXIAN SYSTEM AND CAPITALISM

The ultimate objective of Marx's economic and historical studies was the gaining of an understanding of the evolution of the capitalist mode of production and of the corresponding evolution of society. Indeed, the largest part of Marx's work is concerned with analyzing the capitalist period.

Marx believed that capitalism not only had two prerequisites for its existence, monetary wealth and "free" labour, which were the products of the past evolution of society but also that there were a number of other prerequisites which had to be present or created if capitalism was to develop fully. "Its first prerequisite is the involvement of the entire countryside in the production, not of use values but of exchange values."¹ A second was "free competition inside the nation"² while a third was "the development of theoretical mechanics."³ A fourth and fifth were that a machine was part of the process and that the

¹Marx, Pre-Capitalist Formations, p. 117.

²Marx and Engels, German Ideology, p. 77.

³Ibid.

skills needed in the industry should be easy to learn and that the industry be otherwise resistant to the influence of guilds. In regard to the former he noted "labour which from the first presupposed a machine, even of the crudest sort, soon showed itself most capable of development"¹ and as an example of an industry that quite early became a capitalist industry he discussed weaving which he specifically noted demanded "little skill and soon splitting up into countless branches, by its whole nature resisted the trammels of the guild."² Two final prerequisites were "an already advanced concentration of population, particularly in the countryside"³ and the extension of commerce for "only when commerce has become world commerce and has as its basis large scale industry, when all nations are drawn into the competitive struggle, is the permanence of the acquired productive forces assured."⁴

These requirements for growth were provided in various ways. Some were found ready to hand in an industry like weaving which already used a machine, the loom, was widely diffused throughout the countryside, and was easy to learn. Others had been provided by the increase of productive forces during the Middle Ages as in the case of the

¹Marx and Engels, German Ideology, p. 73.

²Ibid.

³Ibid., p. 72.

⁴Ibid.

growth of population in Flanders, and later England and France. The discovery of America helped provide for the expansion of commerce, and colonies in Marx's opinion were also to be helpful in accumulating money wealth. Finally, the bourgeoisie itself called into existence what was required but not yet present. Freedom of competition inside the nation Marx said, "had everywhere to be conquered by a revolution--1640 and 1688 in England, 1789 in France."¹ Similarly in regards to the science of mechanics which was to be so important in capitalist development he noted it "was altogether the most popular science in France and England in the eighteenth century."²

For Marx capitalism was divided into two periods, the first of which was manufacture and the second was machine industry.

During the first period capitalism became the dominant mode of production and capitalists the dominant class. The individual capitalist could emerge in this period from either trade or production. The appearance of the capitalist was one of those events for Marx in which it was true as in Hegel's dialectics that a quantitative change after a certain point creates a qualitative change. The small entrepreneur did not become a capitalist, even though he paid wages, until he employed sufficient labour so that he

¹Marx and Engels, German Ideology, p. 77.

²Ibid.

could entirely support himself and increase his capital solely on the revenues provided by the "surplus" or "unpaid" labour of his employees and until he himself ceased to participate in the actual process of production except perhaps as a supervisor. Marx did not, however, believe that during the period of manufacture many capitalist emerged directly from the old guild masters. Generally he felt they emerged from the merchants. In this case,

the merchant takes possession in a direct way of production...--instance the English clothier of the 17th century, who brings the weavers, although they remain independently at work, under his control by selling wool to them and buying cloth from them.¹

For the merchant, having brought them under his sway, and probably having transformed a subsidiary activity into the primary one of the weavers' households, "the next step is to remove them from their homes and to assemble them in a single house of labour."²

In this way Marx thought manufacture slowly emerged side by side with the old mode of production and gradually became dominant. Manufacture emerged, he emphasized, amongst those rural industries like spinning and weaving which suited the prerequisites of capitalist development. Manufacture could also, however, emerge in other industries early in the

¹Karl Marx, The Process of Capitalist Production, Vol. 3 of Capital; A Critique of Political Economy, ed. Frederick Engels, trans. from 1st German ed. by Ernest Untermann (Chicago: Charles H. Kerr & Company, 1909), p. 393.

²Karl Marx, Pre-capitalist Formations, p. 116.

development of manufacture as a result of either of two other influences. The first was that there was mass production for export. Manufactures could grow "on the basis of large scale maritime and overland trade, and in the centers of such trade, as in the Italian cities, Constantinople, the Flemish, Dutch cities, some Spanish ones such as Barcelona, etc."¹ The second was that the branch of industry required a greater concentration of labour, of natural power, and of the means of production than was usual and also required mass production. In this category Marx included "glass works, metal factories, sawmills, etc."² Both of these two influences, it should be noted, were effective because they prevented the continued dominance of guild production either by undermining the principle of production for use on which guild production rested, or by making small scale production which alone was suitable for guild organization virtually impossible. Producers were thereby free to develop production as they saw fit.

There was, for Marx, three ways in which the transition to capitalist in the manufacturing period of capitalism occurred.

First, the merchant becomes directly an industrial capitalist. This is the case in crafts conditioned on commerce, especially industries producing luxuries, which are imported by merchants together with the raw materials and laborers from foreign countries,

¹Marx, Pre-capitalist Formations, p. 116.

²Ibid.

as they were in Italy from Constantinople in the 15th century. In the second place, the merchant converts the small masters into his middle men or, perhaps, buys direct from the self-producer leaving him nominally independent and his mode of production unchanged. In the third place, the industrial [sic] becomes a merchant and produces immediately on a large scale for commerce.¹

An interesting example of the dialectical approach of Marx to history, where a thesis develops in time into its antithesis, is that apparently he saw the development of manufacture, in at least the second case, as reflecting a dialectical reversal of the towns' role in history. He observed

manufacture became a refuge of the peasants from the guilds which excluded them or paid them badly, just as earlier the guild-towns had served as a refuge for the peasants from the oppressive landed nobility.²

Marx saw the more violent aspects of commerce and colonialism as having played a vital role in the growth of capitalism during the period of manufacture. Because for Marx the merchant was virtually by definition a robber since he produced no objects for himself, yet often lived well, it was hardly surprising that he felt that

Merchant's capital in its supremacy everywhere stands for a system of robbery, and its development, among trading nations of old and new times is always connected with plundering, piracy, snatching of slaves, conquest of colonies.³

¹Marx, Capital, 3:395.

²Marx and Engels, German Ideology, p. 73.

³Marx, Capital, 389-390.

In Marx's view of history this, while deplorable, was not only inevitable but was also important in advancing man through, and out of, the period of primitive accumulation.

The discovery of gold and silver in America, ... the beginning of the conquest and looting of the East Indies, the turning of Africa into a warren of the commercial hunting of black skins . . . are the chief momenta of primitive accumulation. On their heels treads the commercial war of the European nations, with the globe for a theatre.¹

These forces of accumulation, or momenta as he refers to them, Marx felt, all came into a systematic combination in England at the end of the 17th century. This combination embraced "the colonies, the national debt, the modern mode of taxation, and the protectionist system."² Marx drew particular attention to two facts about this list. "These methods depend in part on brute force, e.g., the colonial system. But they all employ the power of the state."³ It was this observation that brought forth the famous remark, with its less famous but equally important definition, "Force is the midwife of every society pregnant with a new one. It is itself an economic power."⁴ Two other important points were implicit in his remarks on this part of primitive accumulation. The first was that the bourgeoisie had by this point become powerful enough to make the state serve its own ends and the second was it offered a further reason

¹Marx, Capital, 1:823.

²Ibid.

³Ibid.

⁴Ibid.

why the British bourgeoisie were particularly successful in developing their forces of production in the 18th century. It may also have implied that the British bourgeoisie were already especially well developed in Europe at this time but this latter interpretation was unlikely.

During the time from the discovery of the Americas until the end of the eighteenth century Marx believed that the influence of commerce on the development of economies was more important than the development of industry. He felt that the colonial system and the public debt were of special importance in deciding which of the states with conditions generally favourable to further development would develop first.

In his opinion the period from the discovery of the Americas, until the middle of the seventeenth century, was the time of the ripening of the conditions of manufacturing as the markets expanded and gold flowed into Europe. The accumulation of movable capital accelerated while guild production did not. The balance of influence in society was transformed. "Trade and manufacture created the big bourgeoisie; in the guilds was concentrated the petty bourgeoisie, which was no longer dominant in the towns as formerly, but had to bow to the might of the great manufacturers and merchants."¹ Also of great importance was that the state

¹Marx and Engels, German Ideology, p. 75.

"was daily less and less able to do without money."¹ The bourgeoisie, Marx thought, benefitted from the bullionism which the state imposed for fiscal reasons since "these masses of money which were hurled onto the market became the chief object of speculative buying."² On the other hand he notes that the governments began selling privileges as a source of money and imposed export duties.

The flowering of manufacture, Marx thought, began in the middle of the seventeenth century and lasted till the end of the eighteenth. Although the industrial forces of production were rapidly advancing, he believed that commerce and trade remained the decisive economic force. The colonial system played a predominant role in this period. It

ripened, like a hot-house trade and navigation. . . . The Colonies secured a market for the budding manufactures and, through the monopoly of the market, an increased accumulation. The treasures captured outside Europe by undisguised looting, enslavement, and murder, floated back to the mother-country and were turned into capital.³

Not only did it provide markets and capital but "It proclaimed surplus-value making as the sole end and aim of humanity"⁴ reflecting and assisting the growth of capitalist ideology. In addition he thought the colonial system served

¹Marx and Engels, German Ideology, p. 75.

²Ibid.

³Marx, Capital, 1:826.

⁴Ibid., 1:827.

as a "forcing house" for the development of public credit through its maritime trade and commercial wars. The creation of a public debt was important to capitalism since

It endows barren money with the power of breeding and thus turns it into capital, without the necessity of exposing itself to the troubles and risks inseparable from its employment in industry or even in usury.¹

As well as thus assisting accumulation it also "has given rise to joint stock companies, to dealings in negotiable effects of all kinds, and to agiotage, in a word to stock exchange gambling and the modern bankocracy."²

To Marx, the accent the nations put on trade and colonies was sensible and inevitable since "In the period of manufacture properly so-called it is, . . . , the commercial supremacy that gives industrial predominance."³ The reason for this was

Manufacture could not be carried on without protection, since if the slightest change takes place in other countries it can lose its market and be ruined; under reasonably favourable conditions it may easily be introduced into a country, but for this very reason can easily be destroyed. At the same time the mode of production in which it is carried on, particularly in the eighteenth century, in the countryside, it is to such an extent interwoven with the vital relationships of a great mass of individuals, that no country dare jeopardise its existence by permitting free competition. Insofar as it manages to export, it therefore depends entirely on the extension or restriction of commerce . . .⁴

¹Marx, Capital, 1:827.

²Ibid.

³Ibid., 1:826.

⁴Marx and Engels, German Ideology, p. 76.

The merchant class during this period was therefore the dominant element amongst the bourgeoisie and the one most concerned with obtaining from the state protection and monopolies.

The great achievement of manufacture and the climax of its development of the forces of production was the creation of "a productive mechanism whose parts are human beings."¹ This productive mechanism could be created in either of two ways. The first was

By the assemblage, in one workshop under the control of a single capitalist, of labourers belonging to various independent handicrafts, but through whose hands a given article must pass on its way to completion.²

In this case, although at first simple co-operation was used a change rapidly occurred as each handicraft worker, being concerned with employing his skill in accomplishing only one thing gradually lost,

through want of practise, the ability to carry on, to its full extent his old handicraft. But, on the other hand, his activity now confined in one groove, assumes the form best adapted to the narrowed sphere of action.³

The end result was the process of production was split into a number of detailed processes each of which was the exclusive function of one workman with "the manufacture as a whole, being carried on by men in conjunction."⁴ The second

¹Marx, Capital, 1:371.

²Ibid., 1:369.

³Ibid.

⁴Ibid., 370.

way it could be created was

by one capitalist employing simultaneously in one workshop a number of artificers, who all do the same, or the same kind of work, such as making paper, type, or needles. This is co-operation in its most elementary form.¹

Initially each labourer works in the old way making the entire commodity himself.

But very soon external circumstances cause a different use to be made of the concentration of the workmen in one spot, and of the simultaneousness of their work. An increased quantity of the article has perhaps to be delivered within a given time. The work is therefore redistributed. Instead of each man being allowed to perform all the various operations in succession, these operations are changed into disconnected, isolated ones carried on side by side; . . . This . . . gradually ossifies into a systematic division of labour. The commodity, from being the individual product of an independent artificer becomes the social product of a union of artificers, each of whom performs one, and only one, of the constituent partial operations.²

To understand the division of labour in manufacture Marx feels it is necessary to grasp two points.

First, the decomposition of a process of production into its various successive steps coincides, here, strictly with the resolution into its successive manual operations. . . . each operation . . . retains the character of a handicraft This narrow technical basis excludes a really scientific analysis of any definite process of industrial production, It is just because handicraft skill continues, . . . to be the foundation of the process of production, that each workman becomes exclusively assigned to a particular function, and that for the rest of his life, his labour-power is turned into the organ of this detail function.

Secondly, this division of labour is a particular sort of co-operation, and many of its disadvantages

¹Marx, Capital, 1:370.

²Ibid.

spring from the general character of co-operation, and not from this particular form of it.¹

For Marx the key to increased production in manufacture lay in, that by repeatedly doing one thing, the artisan perfected not only his own skill and tools for the purpose but permitted him to teach these to his successors so that they could be handed down.

Manufacture, in fact, produces the skill of the detail labourer, by reproducing and driving to an extreme within the workshop, the naturally developed differentiation of trade, which it found ready to hand in society at large. On the other hand, the conversion of fractional work into the life-calling of one man, corresponds to the tendency shown by earlier societies, to make trades hereditary.²

Manufacture had four major developments with great importance for the future. The first was that

The manufacturing period simplifies, improves, and multiplies the implements of labour by adapting them to the exclusively special functions of each detail labourer. It thus creates at the same time one of the material conditions for the existence of machinery, which consists of a combination of simple instruments.³

The second was that "Manufacture, begets in every handicraft that it seizes upon a class of so-called unskilled labourers, a class that handicraft industry strictly excluded."⁴ As "every process of production, . . . , requires certain simple manipulations, which every man is capable of doing"⁵ when

¹Marx, Capital, 1:371-72.

²Ibid., 1:372-73.

³Ibid., 1:375.

⁴Ibid., 1:384.

⁵Ibid.

these processes were separated into their manipulations manufacture "also begins to make a specialty of the absence of all development."¹ This was important not only to the development of the proleteriat but it was also useful in increasing capital accumulation since it removed the need for an apprenticeship from the unskilled and by removing the "wasted time" it allowed the more skilled artisan to develop this skill faster. The third was that the over-riding law of capitalist development in the machine period came into existence during the manufacture period. This "law" was "that the minimum amount of capital, which is bound to be in the hands of each capitalist must keep increasing."² This was because as productivity of labour rose, Marx felt that the amount of fixed capital, workshops, tools, and especially raw material, consumed in a time period rose. The fourth was that it was during manufacture that the great antithesis which was to be resolved by the socialist revolution developed; which was that there was complete regulation inside the workshop and complete anarchy outside. This new antithesis was reflected in the fact that while the division of labour before the development of manufacture had each artisan producing a commodity, after, in the workshop only the finished product of all the workmen was a commodity.

A number of other developments of some importance

¹Marx, Capital, 1:384.

²Ibid., 1:395.

also occurred in Marx's opinion during this period. The decline of the working conditions for labour began. The process of manufacture increased the intensity of labour by reducing the changes in his work that the labourer had to make. Unfortunately for him "constant labour of one uniform kind disturbs the intensity and flow of a man's animal spirits."¹ The rule, that the labour time expended on a commodity should not exceed that which is socially necessary for production, ceased to be merely the effect of competition but became "a technical law of the production process itself"² because of the interdependence of the labourers in producing the commodity. A third effect arose out of this. Since in manufacture the relative number of artisans in each different skill was directly proportional to the amount of socially necessary labour in each activity (i.e. the average length of time needed to complete the activity under "normal" conditions), when production expanded it did so in fixed sized blocks of labourers. Marx felt, however, that as the number of such "blocks" under the control of a capitalist rose that further divisions of labour often developed in supervision and the transportation of the partly finished product between artisans and/or artisan groups. Two other developments of this period he felt were the elaboration of a hierarchy of wages parallel to that of skills and the

¹Marx, Capital, 1:374.

²Ibid., 1:379.

beginning of the division of intelligence from labour with the appearance of the detail labourer. This process climaxed in the machine age "which makes science a productive force distinct from labour and presses it into the service of capital."¹

Although manufacture in many ways advanced the forces of production it still had important disadvantages and problems. Marx noted that although the intensity of labour increased in manufacture and the space between the phases of production was lessened, nevertheless the separation of functions remained.

The establishment and maintenance of a connection between the isolated functions necessitates the incessant transport of the article from one hand to another. From the standpoint of modern mechanical industry, this necessity stands forth as a characteristic and costly disadvantage, and one that is imminent in the principal of manufacture.²

In the evolution of manufacture, Marx pointed out that there was a tendency for manufacture to develop "into a combination of manufactures,"³ by which he meant large manufactures began to develop either a forward or backward system of vertical integration. Nevertheless, in his opinion, the technological structure in manufacture was insufficient for a completely vertically integrated system to grow up.

¹Marx, Capital, 1:397.

²Ibid., 1:378.

³Ibid., 1:381.

In spite of the many advantages offered by this combination of manufacture, it never grows into a complete technical system on its own foundation. That happens only on its transformation into an industry carried on by machinery.¹

As in any normal system of production which evolved freely Marx felt that "at a given stage in its development, the narrow technical basis on which manufacture rested, came into conflict with requirements of production that were created by manufacture itself."² In particular, Marx felt it was the development of the workshop which was the immediate cause of the revolution in production. The division of labour brought forth machines. Machines ended the technical need of the detail labourer rooted in handicraft production.

In the period of Modern, or Machine Age Capitalism the key to the evolution of production and society was believed by Marx to be the evolution of the new technology of machines. The evolution of the Marxian system to its dialectical climax when the "expropriators are expropriated"³ depended upon a series of crucial assumptions on the nature of the technology which was and would become available and on the behaviour of capitalists and proletarians.

The most important assumption of Marx in his analysis of the evolution of the capitalist system in the period

¹Marx, Capital, 1:382.

²Ibid., 1:404.

³Ibid., 1:837.

of modern industry was the "law of the falling tendency of the rate of profit." This assumption was based on the belief that there was a general labour-saving bias in the technological advances of the period.

From this "law" flowed four series of events which by the time of their completion would leave the world divided between an overwhelmingly numerous proleteriat living in "misery" confronted by a small capitalist class.¹ Marx believed that the falling rate of profit would lead to a falling rate of interest which in the end would ruin those dependent on interest for their revenue and drive them into the proleteriat. The fall in the rate of profit in the advanced parts of the world would, Marx believed, lead to the export of capital abroad and the development of a world market and world economy. This world economy could, however, be composed of different types of national economies. The development of the world market led in turn to the exploitation of rich foreign soils. With the competition of these soils, the ground rent of the soils in Europe would disappear and with it the landlord class. He also believed that the falling rate of profit would prevent all the labourers displaced by technological advance from being re-absorbed into the work force and thus would lead to the growth of the "industrial reserve army." This "law" also ensured in-

¹Fred M. Gottheil, Marx's Economic Predictions (Evaston: Northwestern University Press, 1966), pp. 203-205.

creasing economic instability. Marx held the rate of profit was "the incentive of capitalist production" and felt

its fall checks the formation of new independent capitals and thus seems to threaten the development of the process of capitalist production. It promotes overproduction, speculation, crises, surplus-capital along with surplus population.¹

The second vital assumption of Marx concerned the proleteriat. He assumed that the workers, grouped into factory towns, working with advanced technology and reduced to a common level of skill, existing in a chaotic capitalist society at a minimal level of subsistence, would become conscious of themselves as a class, and would, as a conscious class struggle developed, substitute political for economic goals.

Two other important assumptions were that technology would destroy the basis of the petty bourgeoisie and drive them into the proleteriat and that the capitalist class itself would decrease in size as the smaller capitalists were ruined during the crises.

According to Marx a worker sold his labour power in the market, if he possessed no capital himself, for the amount of money he needed to maintain it. The maintenance of his ability to labour could also include the maintenance of a family, etc. and this maintenance might or might not be at the level of mere survival. These questions were decided by society and the answers might vary from one epoch to an-

¹Marx, Capital, 3:283.

other. Normally a man was believed to be able to produce a greater value in commodities than he needed to maintain his labour power. The "surplus value" which the labourer produced was the value in the commodities which he produced over and above that which was paid to him by the capitalist. This surplus value was appropriated by the capitalist and was the source of all increases in value of capital whether it was in the form of rent, profit, or interest.

Initially, for Marx, the final value of a commodity, "C", was composed of three things. 1) of the value of the means of production used in the production process, which he called "constant capital", "c"; 2) of the value of the labour power used in its production which was paid to the labourer, which he called "variable capital", "v"; and 3) of the surplus value "s". Marx, therefore, could write

$$C = c + v + s$$

Since for Marx all surplus value was the product of living labour power he defined the "rate of surplus value", "s'", as s/v . By the "organic composition of capital" Marx meant the ratio $c/(c + v)$. Marx believed that capitalists, however, were not concerned with the science of production but were solely concerned with the "rate of profit", "p'", which was defined to be the ratio $s/(c + v)$ or p/k where "p" was profit and "k" was the cost price to the capitalist.

Marx recognised that under the capitalist system competition always drove the rate of profit in all indus-

tries, or as he called them, "spheres of production," towards equality. In addition he recognised that the organic composition of capital varied from industry to industry. He assumed, however, that the "intensity of exploitation" and, therefore, the rate of surplus value and the length of the working day were the same in all spheres of production or at least tended towards equality.¹ This raised a problem. If "s" was a constant proportion or multiple of "v" and " $c/(c + v)$ " varied, it logically followed that " $s/(c + v)$ ", the rate of profit, also varied. Marx's solution was to assume that "the total surplus value [produced in the economy] will be shared out among the . . . capitalists in proportion to their share of the total capital."² In those industries where the organic composition of capital was higher than the social (or average) organic composition of capital, the rate of profit exceeded the rate of surplus value produced and where the organic composition was less, the rate of profit was less than the rate of surplus value. For Marx, while the "value of the product" was still $c + v + s$ the "value of the commodity" was $v + s +$ (that part of c actually consumed in the production process). In the same way the "cost price of the commodity" was $v +$ (the used up c) while the "price of the commodity" was the

¹Marx, Capital, 3:168.

²Eric Roll, A History of Economic Thought, rev. and enlarged ed. (London: Faber & Faber, 1961), p. 277.

cost price of the commodity plus the average rate of profit calculated on the total variable and constant capital of the capitalist.

The actual market price, Marx recognised, was not always equal to "the price of the commodity," which is to say to its market value. He noted

the assumption that the commodities of the various spheres of production are sold at their values implies, of course, only that their value is the center of gravity around which prices fluctuate, and around which their rise and falls tends to an equilibrium.¹

The profit which an individual capitalist could make could be increased two ways. The first was by making the labourer work longer for the same wage, which Marx defined as increasing absolute surplus value and hence profit. The second was by making the worker produce a higher output in the same time period and thus increase relative surplus labour.

It was to the advantage of the capitalist, therefore, to increase the working day and the intensity of the work to the greatest degree possible. It was in the interest of the labourers that the work day was such that the worker "will each day spend, set in motion, put into action only as much of it [labour power] as is compatible with its normal duration, and healthy development."² Between these interests force decided.

¹Marx, Capital, 3:209-210.

²Ibid., 1:258.

Hence it is that in the history of capitalist production, the determination of what is a working day, presents itself as a struggle between collective capital, i.e. the class of capitalists, and collective labour, i.e. the working class.¹

As an alternative to raising the intensity of the work, the capitalist could develop new techniques of production which would increase productivity and raise relative surplus labour. The most common way of doing this was by adopting new machinery. The adoption of this new machinery was made, however, only when the value of the machine was less than the value of the labour power replaced by it.² Machinery also could increase surplus labour by reducing the value of the labour-power.

The value of labour-power was determined, not only by the labour time necessary to maintain the individual adult laborer, but also by that necessary to maintain his family. Machinery, by throwing every member of that family on to the labour market [which it accomplishes by lowering the strength and skill requirements of labour], spreads the value of the man's labour power over his whole family. It thus depreciates his labour power.³

Most important of all

Machinery produces relative surplus value; . . . , when it is first introduced sporadically into an industry by converting the labour employed by the owner of that machinery, into labour of a higher degree and efficiency, by raising the social value of the article produced above its individual value, and thus enabling the capitalist to replace the value of a day's labour

¹Marx, Capital, 1:258.

²Ibid., 1:429.

³Ibid., 1:431.

power by a smaller portion of the day's product. During this transition period, when the use of machinery is a sort of monopoly, the profits are therefore exceptional.¹

When Marx's innovator had made his new invention and had installed it Marx believed he would seek to enlarge his sales since "in the same measure in which production has expanded, his need to sell has also increased."² (original italics). The capitalist, to gain control of the market, reduced his price slightly. This in turn forced the other capitalists to reduce their prices and sell their products below their price of production. "In one word--this appears as the effect of competition--these capitalists are compelled to introduce the new method of production."³ The innovator's original quasi-monopoly thereby vanishes and new innovations are needed if the monopoly is to be re-established.

Marx regarded innovation and technological advance as a cumulative and accelerating process during the period of modern industrial capitalism. The process was both internal within industries and external between them. Internally,

when machinery is first introduced into an industry, new methods of producing it more cheaply follow blow upon blow, and so do improvements, that not only affect individual parts and details of the machine, but its entire build.⁴

¹Marx, Capital, 1:443-444.

²Karl Marx, Wage Labour and Capital, trans. J. L. Hoyness, app. by Frederick Engels (Vancouver: The Whitehead Estate, n.d.), p. 37.

³Marx, Capital, 3:311.

⁴Ibid., 1:422.

Externally,

A radical change in the mode of production in one sphere of industry involves a similar change in other spheres. This happens at first in such branches of industry as are connected together by being separate phases of a process, and yet are isolated by the social division of labour, in such a way that each of them produces an independent commodity. . . . But more especially, the revolution in the modes of production of industry and agriculture made necessary a revolution in the general conditions of the social process of production, i.e., in the means of communication and transport.¹

Marx believed that competition constantly forced capitalists to innovate. Marx then made two important assumptions. The first of these was that technological advance was heavily biased in a labour saving direction so that "the proportion of the variable to the constant capital has been reduced."² The second was that he assumed productivity increased more slowly than the capital used per man. This assumption was demonstrated by the fact that although Marx never included a specific relation in his model which linked changes in organic composition of capital to changes in productivity he, in all his examples dealing with increasing organic compositions of capital, never assigned a sufficient increase in the productivity of labour to maintain the rate of profit.³ Under these two assumptions the pressure on the capitalist to innovate inevitably led to a rise in

¹Marx, Capital, 1:418-419.

²Ibid., 3:311.

³Gottheil, Marx's Economic Predictions, p. 99-100.

the organic composition of capital and a fall in the rate of profit.

Marx recognised that a number of forces could counteract the tendency of the rate of profit to fall. In Chapter XIV of volume III of Capital Marx noted six forces which could temporarily check this decline. These were: an increase in the intensity of exploitation, the depression of wages below their value, the cheapening of the elements of constant capital, relative overpopulation, foreign trade, and an increase in the number and/or size of joint stock companies (which latter, however, only appeared to counteract the decline since its dividends were low relative to the average rate of profit and were not considered as profit). He claimed, however, that in the final analysis, these actually hastened the decline,¹ a point on which he did not always elaborate. Marx also assumed that opportunities for the profit rate to rise as a result of (1) changing values of variable and constant capital, (2) changing values of capital turnover, (3) changing values of merchant capital, and (4) changing distributions of profit were in the long run unimportant or overshadowed by the effect of capital accumulation resulting from innovation.²

As the rate of profit fell, Marx believed it was inevitable that the rate of interest would also fall. Marx

¹Marx, Capital, 3:274.

²Gottheil, Marx's Economic Predictions, 114-115.

believed that interest on money capital originated from profit which was in turn based on the appropriation of the surplus labour of the workers. The maximum rate of interest was, therefore, the total appropriation of the profit of the industrial capitalist by the money capitalist.¹ It followed that as the rate of profit fell so would the maximum rate of interest.

Although the declining rate of profit ensured the development of crises Marx felt a number of other forces generated, or could generate crises. For the economy to be prosperous it was necessary for the capital goods and consumer goods sectors of the economy to be in, and remain in harmony. Since no outside party supervised the growth of either sector Marx thought it extremely probable that sooner or later one sector would overproduce and a crisis would be brought on. The probability of an imbalance was, if anything, heightened by Marx's discovery that with the accumulation of capital these two sectors had to grow at different rates if they were to remain in harmony.² Crises could also result from problems occurring in the financial system since much production occurred on credit and a failure of credit would result in forced sales below the cost of some goods. In addition, very high rates of innovation with the result of

¹Marx, Capital, 3:421.

²Gottheil, Marx's Economic Predictions, pp. 133-135.

rapid capital depreciation and problems of replacing capital in discrete "lumps" were also held by Marx as being likely to create crises.¹ These crises served to bring to fulfillment those requirements (which were not directly fulfilled through the decline in the rate of profit) needed to bring the evolution of capitalism to its conclusion. It helped to centralize "money" and ruin the smaller capitals which were forced to the periphery of capitalist production as the minimum amount of capital required for competition in their industry rose.² Finally, Marx expected the crises to eventually bring on the final proletarian revolution.³

As the economic base of society changed during the development of capitalism, Marx believed that the structure of the rest of society changed to reflect the growth of the forces of production which was occurring under the "supervision" of the bourgeoisie. As production changed so did religion, the state, ethics, law, and science, etc.

During the feudal period society had a certain structure. Christianity was the religious counterpart of society.⁴ The ostensible ethics of society were those of

¹Gottheil, Marx's Economic Predictions, pp. 137-141.

²Ibid., p. 147.

³Ibid., p. 174.

⁴Engels, Feuerbach, p. 67.

the Catholic Christian Church.¹ Science was the handmaiden of the Church.² The basis of the political system was the hierarchical system of land ownership and the armed retainers with it, as noted above, and the lords, therefore, dominated the political structure. Law was also a patchwork before the development of capitalism.

Local privileges, differential duties, exceptional laws of all kinds affected not only foreigners or people living in the colonies, but often enough also whole categories of the nationals of each country.³

The development of the towns and the emergence of the burghers and their transformation into the bourgeoisie led to series of changes in the rest of society as the productive forces under their control grew. As noted above (p. 43) the conflict of interest between the bourgeoisie and the structure of feudal society, which was mirrored in the Catholic Church, led to the rise of heresies. The political effect of the rivalry was the emergence of the absolute monarchy (see p. 43 above). The "independence" of the state here was the result of the estates not yet having fully developed into classes and of the power in society being mixed in nature so "no one section of the population can achieve dominance over the others."⁴ With the bourgeoisie's

¹Engels, Anti-Duhring, pp. 103-104.

²Frederick Engels, Socialism, Utopian and Scientific, trans. Edward Aveling (New York: New York Labour News Company, 1901), p. xxii.

³Engels, Anti-Duhring, p. 116.

⁴Marx and Engels, German Ideology, p. 80.

emergence and the emergence of protestantism, protestant moralities appeared.¹ The advancement of commerce also led to the restoration of the highly developed Roman civil law² though, of course, before the development of manufacture the guild system everywhere secured its privileges in law where they were later to form barriers to the growth of manufacture.³ Science also revived as the bourgeoisie rose since "the bourgeoisie, for the development of its industrial production, required a science which ascertained the physical properties of natural objects and the modes of action of the forces of nature."⁴

Because of the tremendous growth of productive forces during capitalism social change was also rapid during both the earlier manufacturing period and the subsequent period of modern industry. In England and north-western Europe (France and the Benelux countries), it seems Marx generally regarded the period of manufacture as stretching from the discovery of America at the start of the 16th century until the end of the 18th century. He in turn divided manufacturing in two sub-periods with the break coming in the mid-seventeenth century, the earlier one comprising its rise and the later its full development. As the bourgeoisie gained strength so did the drive for religious

¹Engels, Anti-Duhring, p. 104.

²Marx and Engels, German Ideology, pp. 80-81.

³Engels, Anti-Duhring, p. 116.

⁴Engels, Socialism, p. xxii.

reform.¹ Occasionally, as in Germany, where the bourgeoisie was only partly developed and wars hindered the advancement of its powers, a religion suitable for the absolute state emerged as in Lutheranism. The religious form initially adopted by the growing bourgeoisie elsewhere was Calvinism and this in turn evolved into deism and rationalism. In Marx's opinion,

for a society based upon the production of commodities, in which the producers in general enter into social relations with one another by treating their products as commodities and values, whereby they reduce their individual private labour to the standard of homogeneous labour--for such a society, Christianity with its cultus of abstract man, more especially in its bourgeois developments, Protestantism, Deism, etc., is the most fitting form of religion.²

The advances in the productive forces brought with them, during manufacturing, political as well as religious change.

The centralised State power, with its ubiquitous organs of standing army, police, bureaucracy, clergy, and judicature--organs wrought after the plan of a systematic and hierarchic division of labour--originates from the days of absolute monarchy, serving nascent middle-class society as a mighty weapon in its struggles against feudalism. Still, its development remained clogged by all manner of mediaeval rubbish, seignorial rights, local privileges, municipal and guild monopolies and provincial constitutions. The gigantic broom of the French Revolution of the eighteenth century swept away all these relics of bygone times, thus clearing simultaneously the social soil of its last hindrances to the super-

¹Engels, Feuerbach, p. 67.

²Marx, Capital, 1:91.

structure of the modern State edifice.¹

In England, of course, the corresponding revolutionary struggle had occurred earlier in the revolutions of 1640 and 1689. A new ethics emerged as well in this period, or towards its end. This was referred to as "the modern Bourgeois morality."² Law also developed as the forces of production advanced. The French Revolution, for example,

created in the Code Civil a masterly adaption of the old Roman law--that almost perfect expression of the juridical relations corresponding to the economic stage called by Marx the production of commodities--to modern capitalistic conditions.³

Science, of course, continued its development and in manufacture the separation of intelligence from labour, as mentioned above, was begun.

The modern capitalist period, with its even greater advances in the force of production saw, Marx believed, the further evolution of society. In religion, the development of capitalism initially brought materialism to the bourgeoisie but these later cynically returned to religion as a means of holding back the coming proletarian revolution.⁴ Under communism, of course, the religious reflex of the real world would vanish "when the practical relations of everyday

¹Karl Marx and Friedrich Engels, Writings on the Paris Commune, ed. Hal Draper (New York and London: Monthly Review Press, 1971), p. 70.

²Engels, Anti-Duhring, p. 104.

³Marx and Engels, German Ideology, p. 81.

⁴Engels, Socialism, xxxvi.

life offer to man none but perfectly intelligible and reasonable relations with regard to his fellowmen and to nature."¹ In modern capitalism the state had also reached its final or near final stage.

It is nothing more than the form of organization which the bourgeoisie necessarily adopt both for internal and external purposes, for the mutual guarantee of their property and interests. . . . The most perfect example of the modern State is North America.²

The state, or public power, would, under communism, "lose its political power"³ and thus vanish. The modern period also saw the appearance of a new morality, "the proletarian morality of the future."⁴ Science, as noted above, also became a productive force distinct from labour and was pressed into the service of capital. Under communism of course, "all the springs of co-operative wealth" would "flow" more freely though the distinction of manual and intellectual labour would vanish.⁵

In the capitalist period Marx believed that the logic of technology as he understood it led inevitably to the growth of the productive powers of society. In turn,

¹Marx, Capital, 1:92.

²Marx and Engels, German Ideology, p. 80.

³Feuer, Basic Writings, p. 104.

⁴Engels, Anti-Duhring, p. 104.

⁵Karl Marx, Critique of the Gotha Program, rev. ed., appendixes by Marx, Engels and Lenin, (New York: International Publishers, 1938), p. 10.

as these forces of production increased, he saw the class structure of society, along with religion, the state and structure of political power, ethics, and science, etc. all undergo changes in response to the changes in the economic substructure of society. This idea, is explicit throughout his work.

CHAPTER IV

THE EARLIER INNIS

During the first part of his academic career, Harold Innis's principal concern was the discovery, development, and application of the "staple thesis" to Canadian economic history and Canadian economic problems. The main publications of this period are A History of the Canadian Pacific Railway (1923), The Fur Trade in Canada (1930), Problems of Staple Production in Canada (1933), Settlement and the Mining Frontier (1936), and finally The Cod Fisheries (1940).

Innis's design, during this period, "as he conceived it, was to study the impact of the industrialism of the Western European Empires upon colonial Canada."¹ One of the principal influences on him during this period was Thorstein Veblen. In his 1929 article on Veblen, Innis commented that "it is the method of approach which must be stressed"² noting that "the constructive part of Veblen's work was essentially the elaboration of an extended argument showing

¹D. C. Creighton, Harold Innis: Portrait of a Scholar (Toronto: University of Toronto Press, 1957), p. 59.

²Harold A. Innis, Essays in Canadian Economic History, ed. Mary Q. Innis (Toronto: University of Toronto Press, 1956), p. 24.

the effects of machine industry and the industrial revolution."¹ From his years at the University of Chicago where he took his Ph. D., two important influences were J. M. Clark and C. S. Duncan. Clark was another disciple of Veblen and believed

'Machines impose conditions as well as provide services' and one of these conditions is that 'overhead costs are universal.' Another is that habits and institutions adapt to the technical demands of production and consumption.²

C. S. Duncan was Innis's professor of marketing at Chicago and had always stressed the relation "between the physical characteristics of a commodity and the marketing structure built up in relation to it."³ These human influences interacted with his own thorough researches and his unrivalled personal acquaintance with the geography of Canada⁴ to produce, by the time of the completion of The Fur Trade in Canada, the articulation of the staple thesis and the basic outline of its applicability to Canadian economic history.

Innis held that a "staple trade" occurred when one

¹Innis, Essays, p. 23.

²Robin Neill, A New Theory of Value / The Canadian Economics of H. A. Innis (Toronto: University of Toronto Press, 1972), p. 33.

³Creighton, Harold Innis, p. 60.

⁴In 1915 to support himself at university he taught for the summer in Alberta. In 1924 he journeyed by canoe from the Peace River to Fort Resolution and from there north by river steamer to the mouth of the MacKenzie River. In 1926 he visited the Yukon, in 1927 the Maritimes and Ontario, in 1928 Northern Ontario, and in 1929 he journeyed into Hudson's Bay.

area became totally dependent on having its needs supplied by a second area in return for the export by the first area of one, usually only partly processed, commodity. This situation was often created when transportation costs were high between an undeveloped (colonial) area and developed areas which made most "colonial" exports uncompetitive, when the underdeveloped area was in a position to supply the developed ones with a product which was in great demand in the latter, and when there existed no institutional reason why the undeveloped area could not take advantage of having all its other needs supplied by the developed areas. The result was

The raw material supplied to the mother country stimulated the manufactures of the finished product and also of the products which were in demand in the colony. Large-scale production of raw materials was encouraged by improvements of technique of production, of marketing, and of transport as well as by improvement in the manufacture of the finished product. As a consequence, energy in the colony was drawn into the production of the staple commodity both directly and indirectly. Population was involved directly in the production of the staple and indirectly in the production of facilities promoting production. Agriculture, industry, transportation, trade, finance, and governmental activities tend to become subordinate to the production of the staple for a more highly specialized manufacturing community.¹

It is not, however, at all necessary that a region be part of a mercantile empire, it is only necessary that the

¹Harold A. Innis, The Fur Trade in Canada, based on rev. ed. by S. D. Clark and W. T. Easterbrook, foreward by Robin W. Winks (Toronto: Toronto University Press, 1962), p. 385.

general conditions be present.

The reason for the development of Canada as a staple economy went back, Innis believed, to the circumstances surrounding the first settlement of Canada. Innis argued that "depreciation of the social heritage is serious"¹ as "a sudden change of cultural traits can be made only with great difficulty and with the disappearance of many of the peoples concerned."² The maintenance of the settlers' European cultural traits in Canada required the importation of goods and to do this one or more exports were needed which were in such demand in the home market and in such supply in Canada that large profits, to compensate for risk, could be made even after the transportation and other overhead costs had been covered. However,

the number of goods produced in a northern temperate climate dominated by pre-Cambrian formations, to be obtained with little difficulty in sufficient quantity and disposed of satisfactorily in the home market under prevailing transport conditions was limited.³

As a result a staple economy tended to evolve in Canada with one staple replacing another as demand and technology changed. The process began with codfish and was followed by fur. Then there came wheat, timber, minerals and pulp and paper in Eastern Canada; lumber, gold, and later fish in

¹Innis, The Fur Trade in Canada, p. 383.

²Ibid.

³Ibid., p. 384.

British Columbia; and wheat, minerals, and pulp and paper in Central Canada. The demands of each of these staples profoundly modified and shaped Canada.

Cod was the first staple and it led to the creation of a large industry along the Canadian east coast. The existence of this in turn led to the beginnings of the fur trade which became the first dominant staple of the interior. The fur trade produced a centralized empire covering about half the continent. It set out the boundaries of Canada and provided the first settled areas to feed and defend itself. The decline of the fur trade in Eastern Canada led to the rise of other staples, particularly timber, whose reliance on the St. Lawrence system continued the forces making for centralization. The needs and opportunities offered by the timber staple increased settlement. Increased settlement and a shift from squared timber to deals made for a demand for improved transportation. The heavy capital investment needed for these improvements in transportation produced the Act of Union in 1840 and, in time, Confederation. It also helped to create a strong financial organization intimately linked with the government. The rise of the machine industry and the growth of the strength of capitalism occurred in the institutional background characteristic of the fur trade with, in Innis's opinion, remarkably little disturbance. Centralization and the technological possibilities of the railroad in Canada eased industrialism's sweep across North America. The machine industry and its possibilities resulted

in the rise of Canada's most recent staples, wheat, pulp and paper, and minerals. The overhead problems of wheat transportation necessitated the development of industry behind a tariff barrier to provide a return cargo for the railways to the West. The development of the pulp and paper industry saw to it that the power supplies needed for industry would be developed. The expansion of the mining industry was also furthered by the development of surplus power by the pulp and paper industry and by the expansion of the transportation system which was undertaken to lower the railways' own overhead costs.

Innis felt that the forces of staple production gave Canada her boundaries and created the centralization and concentration of governmental and financial power in Eastern Canada and the close relationship of the Canadian government and economic activities. In addition, the needs of staples also have shaped Canada's productive capacity and products and "Canada has remained fundamentally a product of Europe"¹ because of the maintenance of connections with Europe as a result of the ties of staple production. "The diversity of institutions which has attended this relationship has made for greater elasticity in organization and for greater tolerance among her peoples."¹

Although produced prior to the development of the

¹Innis, The Fur Trade in Canada, p. 401.

staple thesis proper, A History of the Canadian Pacific Railway was a very interesting and important milestone in Innis's development. Not only was it the end of the journeyman period of his career, being his re-worked thesis, but it also showed that even at this date Innis had encountered not only all the basic questions with which he would deal but that he also had developed the research methods which he would use throughout his work.

It might be noted that these research methods were based on drowning himself in his sources, his extensive foot-noting in his earlier period accenting the visibility of this, and visiting where possible the locations under consideration. His research efforts were as intensive for his later works as his earlier ones to the extent his health permitted. But the research was, of necessity, no longer in the actual primary information as with his earlier research and, with the exception of Russia, he did not expand his travels beyond those he had undertaken in his earlier work to help prepare himself for the later. His concern with primary sources and his extensive foot-noting were responsible for the fact-crammed appearance of his work and the requirement that in general it is better to start his books from the conclusion so that the separate building blocks of the work can be understood in their context rather than start them at the beginning and work through them wondering just how they fit together.

One very interesting aspect of this first book is

how he encounters what would become the major concerns of his life's work, the problems of monopoly, transportation, and geography, and the political impact of these three items. It is striking that in this, his first major book, he is concerned with analyzing the effects of a carrier technology, which created a monopoly, the success of which built up to a point of disequilibrium and called into existence rivals, and of the political impact both of the technology and of the specific monopoly it generated. It is true, of course, that the carrier in question was one which could actually transmit goods and people as well as just information, but Innis's concern with its political effects is surely a concern with information and ideas as well.

A second interesting element is that, as is usually the case for Innis, the questions he was concerned with led him to formulate his next project in a way that it would be a continuation of his last one. In regard to The Fur Trade in Canada he wrote,

An interest in this subject has followed from a study of the Canadian Pacific Railway. A sense of the incompleteness of that volume and of all volumes which have centered on that subject and on the subject of Canadian Confederation is the occasion for this work. A history of the fur trade is complementary to the history of the recent industrial growth of Canada.¹

and again in his autobiography,

¹Innis, The Fur Trade in Canada, rev. ed. (Toronto: Toronto University Press, 1970), p. vii.

My immediate task was offsetting the limitations of my thesis by attempting to show the inherent unity of Canada as it developed before the railroad in relation to lakes and rivers. For this reason I concentrated in the beginning on the history of the fur trade as the oldest staple trade of the continent.¹

Innis's concern with geography is only the reverse side of his concern with transportation. In 1944 he wrote "Geography has been effective in determining the grooves of economic life through its effects on transportation and communication"² elaborating on his statement that

Geography provides the grooves which determine the course and to a large extent the character of economic life. Population, in terms of numbers and quality, and technology are largely determined by geographic background, and political institutions have been to an important extent shaped through wars in relation to this background.³

He was not, however, a true geographic determinist for he further commented in that paragraph, "the effects of geography may be offset by technology."⁴ It is with the advance of technology and its offsetting effects that Innis was to be most concerned.

It is in the first chapter of A History of the Canadian Pacific Railway that most of the foreshadowing of Innis's

¹Neill, A New Theory of Value, p. 36 quoting Innis, "Autobiography," (unpublished), p. 107-8.

²Harold A. Innis, Political Economy in the Modern State (Toronto: The Ryerson Press, 1946), p. 88.

³Ibid., p. 87.

⁴Ibid.

later concerns occurs. This chapter served as the introduction to give the background to the building of the railway. It was concerned with showing how and why the geography of the country had shaped the boundaries of Canada and how it affected the growth of the colonies so that by the 1860's there existed a political desire for union and an East-West Railway. He saw Canada as divided into three regions: the Pacific Coast, The Hudson Bay basin, and the St. Lawrence and the Maritimes. In each case he saw the fur trade as having been instrumental in opening up the region and encouraging settlement because of the transport costs. This, of course, was the outline of his next work, The Fur Trade in Canada. He also briefly reviewed the pattern of British Columbia's gold-rushes and their role in advancing the region's development and creating, after their ebb, a desire there for a wider union. This would form the basis for Settlement and the Mining Frontier. In dealing with the St. Lawrence basin he noted how the river pointed men inland and forced them to develop monopoly companies to succeed temporarily against the rivals in the south and north though they were in the end defeated by settlement. He also noted how the basin then offered opportunities for a series of new drives to finance a rival transportation system to that in New York tapping the trade of the hinterland. He felt that the imperialistic nature of a commercial center in the East reinforced the patriotic concern over the development of American influence in the Bay's basin and the evident advan-

tages of westward Canadian expansion to the Pacific contributing to the demand for a transcontinental railway. He also commented on the deleterious and divisive nature of the sunken coastline of the Maritimes. This contains the glimmerings of the ideas of the Cod Fisheries.

The bulk of the remainder of the book traces the evolution of the financial and real capital structure of the Canadian Pacific Railway and how the development of the railway and Western Canada were closely inter-twined, the advancement of each pulling the expansion of the other forward. He also noted how Eastern Canada was able to benefit from a shifting of the financial burden to the West and how this had an alienating effect on the residents of the West. All these matters again became of major concern to Innis in his writings on the 1930's depression, such as Problems of Staple Production in Canada.

The Fur Trade in Canada was the first of Innis's studies of the staple industries in Canada and is a study of a succession of business organizations based on the exploitation of one product and their evolution in response to a series of developments in transportation.

The influence of geography in setting the "grooves" for the industry and the influence of the physical characteristics of the product on the trade formed Innis's first chapter. It not only served to introduce the topic but also to provide the most important information needed to understand the unfolding of the succeeding history. In this

chapter he demonstrated that, because the amphibious *Castor Canadensis* Kuhl (the Canadian Beaver) could be hunted for its hide in the summer as well as the winter and because it was slow to mature and did not migrate, that once the Indians could improve their hunting technique with European iron, the destruction of the beaver was certain.

In the language of economists, the heavy fixed capital of the beaver became a serious handicap with the improved technique of Indian hunting methods, incidental to the borrowing of iron from Europeans. Depreciation through obsolescence of the beavers defensive equipment was so rapid as to involve the immediate and complete destruction of the animal.¹

In addition, Innis was also concerned to show that the beaver's range followed the isothermal lines, the deciduous forest area, and the Canadian Shield with its waterways into the Northwest. The lure of finer fur as well as the vanishing of the beaver in the South served to pull the trade inland. The result was

the problem of the fur trade became one of organizing the transport of supplies and furs over increasingly great distances. In this movement the waterways of the beaver area were of primary importance and occupied a vital position in the economic development of North America.²

The fur trade as a separate industry from that of its parent, the cod fisheries, emerged in the sixteenth century when the demand for beaver hats made the transportation of beaver by the existing technology from North America,

¹Innis, The Fur Trade in Canada (1962), p. 5.

²Ibid., p. 6.

with its great river basins and hunting cultures which meant its beaver supply could be readily tapped, to Europe a paying proposition. The Indians soon realized the superior nature of many European goods for their lifestyle after gaining access to them through trade and became dependent on them. The disappearance of the beaver pulled the trade inland but it was Indian cultural development, in the form of agriculture, and Indian transportation technology, the canoe, that made the expansion possible. European technology had at the same time reached a point where an increased demand for fur could be satisfied despite high overhead costs if this light commodity could be supplied in quantity. "Thus Europe provided the push which complimented the Indian pull for trade."¹

Everything was now present for the creation, rise, and fall, of the three great organizations which dominated the fur trade.

New France was the first of these organizations. It, like the Indian, could satisfy all its needs by producing the fur in demand by France but "a colony engaged in the fur trade was not in a position to develop industries to compete with the manufactures of the mother country. Its weakness necessitated reliance upon the military support of the mother country."² New France's access to the needed

¹Innis, The Fur Trade in Canada, (1962), p. 16.

²Ibid., p. 391.

supplies of furs was challenged by the existence of alternative marketing routes via Hudson Bay and Albany. It also faced the problem of constantly increasing distance to fur resources as beaver extermination progressed. The increasing distances, capital investment, and overhead costs forced the development of monopolies to handle external trade. Military needs to defend against encroachment on the fur producing area forced centralization and state control in the colony. In the internal trade, competition with Albany and Hudson's Bay, with their lower transport costs, forced the development of individual initiative.

The final collapse resulted from the superior British efficiency in manufacture combined with control of shorter routes to the interior from New York and Hudson Bay.¹ The termination of the struggle also coincided with the reaching of the geographical limits of trade for the day's technology and marked the victory of the possibilities of settlement in the shape of New England.

The conquest of New France saw the influx of Anglo and Yankee merchants into Canada. They found themselves faced by the same problems as the French but, backed by British manufacturing and sea power, held Canada for the British fur market against the Americans in 1776 and 1812 with a rebuilt centralized but energetic fur trading organization.

The needs of the fur trade for monopoly in the

¹Innis, The Fur Trade in Canada, (1962), p. 166.

external trade and initiative in the internal trade produced the Northwest Company. The need and desire to expand past the old fur frontiers forced the adoption of new transportation and supply techniques on the Great Lakes and further west. The waterways along the edge of the Shield provided a highway from the mouth of the St. Lawrence to the mouth of the Mackenzie, which, at the height of its power, the company extended to the mouth of the Columbia. The development of agricultural areas to supplement the lower St. Lawrence basin and the adoption of bateaux on the Great Lakes overcame the limitations of an all canoe route and lowered costs sufficiently so that as long as expansion continued the decentralized, enterprising "Nor'westers" maintained a decisive advantage over the centralized Hudson's Bay Company despite the latter's lower transport costs.

By 1821 the Northwest Company had built up an organization which extended from the Atlantic to the Pacific. The foundations of the present Dominion of Canada had been securely laid. The boundaries of the trade changed slightly in later periods but primarily the territory over which the Northwest Company had organized its trade was the territory which later became the Dominion.¹

The end of expansion saw, however, the rise to complete dominance of transportation cost and centralized control of trade. The Hudson's Bay Company's "short haul," when combined with the technological advance of the capital intensive York boat, further assisted by the re-organization

¹Innis, The Fur Trade in Canada, (1962), p. 262.

of the management system in the 1810's which encouraged initiative by its employees while maintaining control, resulted in the collapse of the Northwest Company, and the union of the companies in 1821.

The Hudson's Bay Company's monopoly lasted until the 1860's and it took the greatest possible advantage of its centralized authority since the need for encouraging initiative had vanished with its rival. The monopoly began to collapse in the 1850's and 1860's with the autonomous growth of settlement. In the 1840's Oregon was lost, then came the British Columbia gold rushes opening more of its territory, and finally there came Confederation, the C.P.R. and a new era of competition as a result of the railway. In the succeeding century, however, the Hudson's Bay Company's size and the strength of its organization kept it in the forefront of the trade in the trade's constant retreat northward before settlement.

In the long run Innis saw the fur trade as keeping the northern half of North America British against the pull of the diversified central North American economy, until the rise of new staples, and as establishing Canada's borders. He also held that the symbiotic relationship of Indian and trader was responsible for the relatively peaceful relations of the whites and Indians in Canadian history and for the creation of a Metis nationality.

In each case in Innis's study of the fur trade a change in technology resulted in changes in the structure

of the trade as a result of changes in the ability to compete in the market. The changes worked themselves out by competition but, because of the large amounts of capital involved and the heavy centralization, the effects of the changes in technology rapidly made their effects felt.

Although Innis did not believe that social scientists had any business in government he was called upon to venture his opinions on the problems facing Canada in the depression. It was under this stimulation that Innis again briefly took up the problems of the railways and the wheat economy of the West. In this context his major undertakings were his The Problems of Staple Production in Canada and The Canadian Economy and its Problems. The second he co-edited with J. F. Plumtre.

Innis was primarily an economic historian and naturally he looked to Canada's past for an explanation of her problems. He was not in favour of deficit financing on the Keynesian model since he saw the "overexpansion" of the public debt, which had been forced on Canada by the need to expand the railway system due to overhead costs, as the source of many of the problems afflicting the government and the economy.

Innis saw the structure of the Canadian economy and its problems intimately tied to the problems and possibilities of the carrier technology embodied in the railway confronted with the geography of Canada. The C.P.R., built with government assistance, had initiated a period of great

prosperity in opening the West and creating a new staple. The C.P.R.'s prosperity and monopoly in Western Canada attracted the construction of independent rival lines. The Western Canada wheat export and goods import trade created a natural tendency for these rivals to also expand into transcontinental lines. Upon doing so they ran into the problem of crossing long, relatively non-paying stretches which had been responsible for forcing the Canadian government to support the construction of the C.P.R. and to impose a high tariff to ensure a return flow of industrial goods from the East for the grain exports from the West. When expansion stopped due to the reaching of the geographical limits for wheat cultivation the overhead costs of these non-paying stretches led, as had been the case with the Northwest Company in an earlier context, to collapse as the debt burden caught up to, and passed, the cash flow. The result was the creation of the C.N.R. and a large new debt burden for the government. This debt burden was further worsened by the problem of overhead costs in expanding other transportation and communication networks in the vast, sparsely settled Canadian spaces. Examples of these networks which Innis dealt with were the provincial railways like the Ontarian T.N.O. and the British Columbian P.G.E.R., the Prairie telephone systems, and the Ontario Hydro-Electric Commission.

Innis also notes that Canada had been able to industrialize rapidly because of the growth of the wheat economy

and its transportation network. This expansion occurred because geographical expansion was possible at a very rapid rate once a certain technological level was reached and had been eased by the centralized and linked nature of Canadian government and finance which had been produced by previous staples. It was also made possible because there had already developed a world market capable of absorbing all this wheat.

During expansion, the government made possible rapid expansion and government credit reduced overhead costs. The government recovered the cost of the overhead through the tariff and the structure of the railway rates. The end of the boom of the 1920's coincided with the end of the expansion of the wheat economy with the reaching of its geographical limits. With the end of expansion real capital imports and traffic fell and deficits rose on government controlled rail lines. A rise in the rates was impractical as it might further reduce traffic and increase the alienation of the West. The problem was compounded because Western imports fell as the price of wheat fell. In addition, the tariff ceased to justify itself, with the end of expansion, as a charge upon exploiters of virgin resources and became a purely protectionist device further burdening agriculture's already heavy load. The problems with wheat were also reflected in problems in the pulp and paper industry which also had its market severely cut by the depression in the United States. The result was "Canada's first serious

depression."¹ The cushion offered in the past by virgin resources was almost exhausted. Government ownership contributed, in Innis's opinion, to the inelasticity of overhead costs since bankruptcy, which would have thrown the burden on the bond holders was impractical, and in addition, "conservative banking policy and heavy continued outlays of dividends on the part of corporations have made for further inelasticity."²

Innis in the 1930's believed that, given this structure of the economy and this set of resulting problems, "the enormous debt of the Canadian government is a crucial problem"³ particularly as much of the debt was held outside Canada. While Innis felt that the general problems resulting from what he considered was the world postwar adjustment crisis would be solved for Canada "through the scaling down of war debts and the efforts of the United States to stimulate recovery,"⁴ he did feel that

the enormous pressure of fixed charges in relation to depreciated exchange in a principal market for our raw materials and an appreciated exchange in the market to which we pay a large proportion of debts and interest charges⁵

was a deep rooted problem of our national life and in need

¹Harold A. Innis, Problems of Staple Production in Canada (Toronto: The Ryerson Press, 1933), p. 113.

²Ibid.

³Ibid., p. 113.

⁴Ibid., p. vii.

⁵Ibid.

of immediate action. His concrete suggestions were all concerned with checking, adjusting, reducing, and strengthening the support for the debt. His suggestions included, among others, reducing government expenditure, centralizing government borrowing, improving securities legislation, restricting immigration, revamping the tariff and railway rate structure to even the burden on the West and East, and improving marketing methods through co-operation and improving the unemployment relief machinery and legislation protecting labour.¹

In Innis's writing in the 1930's on the economy's problems he was not as concerned with dynamics and change as was usual but was more concerned with static analysis. Nevertheless, he proceeded in the same manner and with a similar technique in analysing the behaviour of the economy.

Like the Fur Trade in Canada, Innis's monograph, Settlement and the Mining Frontier, "followed from a study of the Canadian Pacific Railway."² It was not, however, remarkable for revealing any particular new idea or attitude of Innis. Innis did feel though, that examples from the mining industry did offer an excellent example of the rise of, and dangers and opportunities in, a staple industry.

¹Innis, Staple Production, pp. vii-ix.

²W. A. Mackintosh and W. L. G. Joerg, gen. eds. Canadian Frontiers of Settlement, vol. 9, A.R.M. Lower, Settlement and the Forest Frontier in Eastern Canada . . . Harold A. Innis, Settlement and the Mining Frontier (Toronto: Macmillan Company of Canada, 1936), p. 171.

Mining was a good example, Innis believed, of a staple industry because it usually developed where opportunities for the growth of alternative employment were liable to be quite limited, particularly in the short run since it was unusual to find good agricultural land in close proximity to its location. Mining's development was, however, usually very rapid and called into existence subsidiary occupations designed to support it. Most noticeable among its subsidiaries were agriculture, even where conditions would ordinarily not be thought favourable, service industries, transportation, if this was not initially present as in the case of the Klondike, and the development of power resources, the latter being particularly important as the present was approached. With the exhaustion of the mineral deposits there might or might not be further growth as a result of the previous influx of labour and capital and the construction of power and transportation systems.

Mining was also another industry where transportation was of crucial importance to its development. Innis was particularly concerned with following the inter-relatedness of the evolution of the Canadian systems of transportation, particularly the railways, and the mining industry. In Innis's opinion,

the mining industry, as represented by placer mining in British Columbia, was an important factor in determining the time at which a transcontinental railway was built, as the fur trade was important

in determining the location.¹

The Kootenay and Northern Ontario mines, he noted, tended to follow the expansion of the railway and to reduce its overhead.

All in all, Settlement and the Mining Frontier offered an interesting application of the staple thesis to three regions, the Klondike, the Kootenay, and Northern Ontario, where the mining industry, though with a number of differences due to differing geographies, ore deposits, and levels of technology, served as the staple industry. It also demonstrated the close relationship between Innis's concern with staple production and his concern with transportation.

The last of Innis's studies on staple industries was The Cod Fisheries, An International Economy. It was also the beginning of his studies of communications and the evolution of empires.

The transportation technology available was very important to the cod fisheries both in terms of securing the good, cod fish, and in delivering the good to the distant markets in the Caribbean and the southern United States, and in the Mediterranean and along the Atlantic coasts of Europe. The fishing areas, involved in exploiting the fisheries, in both the New World and, to a lesser extent, the Old World, were dependent on them for the rest of their supplies.

¹Innis, Settlement and the Mining Frontier, p. 171.

Again, changes in technology brought changes in market opportunities and in the competitiveness of the contestants and these changes worked their way out through competition, usually, but not necessarily, of a commercial nature.

At the same time that Innis was interested in the rise and fall of the industry and its participants he was also interested in the rise and fall of empires since the fate of three were closely bound up in the trade, the British, the French, and the New England commercial empire of the eighteenth and nineteenth century. The technology used by each of the competitors together with their geographic location determined the nature of the institutions developed as well as their success or failure.

Innis's study of the fisheries was of particular interest because it attempted to apply the staple thesis to a situation where the forces in the industry worked against, rather than for, the establishment of a monopoly in the trade. In his introductory chapter Innis noted that everything conspired to encourage the growth of decentralization and regionalism in the fisheries. The geography of the North American region with its sunken river systems producing scattered harbours and bays made the sea a series of by-ways rather than a centralizing highway as the St. Lawrence had been for the interior in the fur trade, etc. The geography also led fishermen east towards the banks rather than inland to new staples and it discouraged diversification in the north while permitting it in the south (New

England) after settlement occurred. In addition, the existence of different types of cod and the stable nature of the fish population, even with quite heavy fishing, led to the appearance of regions of diverse concerns even in the same staple. Furthermore, the fact that the largest technical unit needed was the individual ship which owed its success to the individual initiative of the fisherman prevented the emergence of large concerns during most of the industry's history since their ability to mobilize larger amounts of capital was not a competitive edge while control over long distances could even be a handicap. As a result of the failure of large organizations to emerge, the history of the fishing industry tended to be one of slow movements of attrition and not sudden shifts. In addition, both production, as a result of geography, climate, technique, and a steady supply of fish, and demand, as a result of protein needs, lack of cold storage, taste rigidity, and Catholicism were stabilized for long periods.

Since the productive unit was also the transport unit, commercialism followed settlement on the North Atlantic Seaboard. Spain and Portugal, benefitting from solar salt, helped open the fisheries but were forced out by inflation and were replaced by England and France. The scattered nature of the French fishing ports along the French coast prevented them from becoming an effective pressure group and, benefitting from their own supplies of solar salt, they concentrated on the Gulf fishery, a "green"

fishery. Squeezed between Newfoundland and New England they were almost entirely forced out by 1763. In England, the concentrated ports of the West Country established a monopoly of the seasonal Newfoundland fisheries but New England, with its opportunities for agriculture and its winter fishery, began to be settled early and became a new commercial locus in the British Empire. Their interests remained compatible with the rest of the Empire during the struggle to expel the French but they, thereafter, became interested in commercially exploiting the French West Indies to the detriment of the vested interests in Britain of the British West Indies. The American Revolution followed. Meanwhile, the expulsion of the French and the limitations of transportation together with the opportunities of the fisheries led to establishment of Halifax as a new commercial locus which attempted to replace New England in the Empire surviving after the Revolution. The decline of the British West Indies prevented a clash similar to that which had destroyed the First Empire and the competition from New England served to check the growth of monopoly. With the rise of "Free Trade" in England, Nova Scotia realised she would continue to need help in competing with New England. This led her eventually into Confederation. Settlement was slow to develop in Newfoundland but when it finally came she became yet another commercial locus in competition with her neighbors. Her concern with guarding her fishery interests kept her out of Confederation, the new home of one of her

rivals.

Innis believed that development of mechanization and capitalism completely dislocated the old political and economic system of the fisheries. The trawler, steamship, and railway created a continental pull with the rise of a fresh fish market in North America. The new technology spread northward from New England, already the most diversified area. New England tapped the American market, Nova Scotia the Canadian, and the trawler pushed Newfoundland from its European markets and forced it to concentrate on the West Indian market. The collapse of the latter in the Depression led to the complete economic and political collapse of Newfoundland. Rule by commission replaced responsible government. Innis noted that the collapse of commercialism in the face of capitalism caused severe dislocation to the fishing regions of France, New England, Nova Scotia, and Newfoundland. But the severity of the transition from a maritime to a continental economy decreased with an increasing diversity of existing economic activities and opportunities.

In his later work Innis was to see the checking of the influence of ideas through competition as the source of creativity. The checking of these influences was, however, then considered as usually dependent upon the competition of more than one carrier technology. In the case of Nova Scotia in The Cod Fisheries a single carrier technology, the ship (predominantly the schooner), which was able to transport

goods and people as well as information, served to support, in tandem with the opportunities of geography, rival interests and influences. It was this concentration on one technology, and this in the context of one industry, which kept this book as part of his first period though it gives interesting foreshadowings of his second period.

In and around Nova Scotia clashed New England, Halifax, and the English Channel Island interests. Her population had the Yankee, Scottish, and Arcadian as well as English nationality well represented. All this "contributed to the 'intellectual awakening of Nova Scotia' and that balancing of interests which made her the cradle of responsible government in the 'Second British Empire.'"¹

In addition, both New England and, to a lesser extent, Nova Scotia, although tied to continental states, had continued, Innis believed, to exert an influence on history. Their traditional assertiveness had, he felt, evinced itself from time to time in the foreign policy of their respective states and they had also played a large role in the evolution of the culture of their respective states. Innis thought that Nova Scotia's influence was enhanced by the cultural stability she had achieved by being the center earlier in her career of conflicting influences, and that New England

¹Harold A. Innis, The Cod Fisheries: The History of an International Economy, rev. ed. (Toronto: University of Toronto, 1954), p. 490.

had played a similar and even more pronounced role as a cultural leader and cradle of politically and culturally leading men.

In this first period, Innis was concerned with studying the evolution of a number of industries important to Canada and which often had effects outside as well as inside the Dominion. In writing his histories he was concerned with studying and describing industries often basic to the form and development of the Canadian nation. Innis was at this time concerned with changes in the technology of distribution because in these industries distribution was particularly important to firms competing in a product market where transportation overhead was the critical cost element. The firms were interested in political and economic power to the extent this power enabled them to dispose of rivals. Further, political and military power was related to the ability of the industry to mobilize and effectively organize the producers in the "colonial" area and the vested interests in the developed area and this in turn was generally dependent on how well the distribution system was organized to keep costs down and profits up and to encourage the initiative of the producers. Economic power, of course, lay in the ability of the firm to undercut its rivals' prices. This, when transportation costs were critical, lay in the area of the distribution of inputs and outputs. The key to the victory or defeat of the business organizations or commercial loci in these industries was

their ability to break the discipline of competition and secure a monopoly by lowering their costs which permitted them to lower their prices below that of the former competitive price. This concern with changes in the technology of distribution and with monopoly was perhaps the most important connection of his earlier and later work and the root of many of the similarities and differences of his work and that of Marx.

CHAPTER V

THE LATER INNIS

Innis's later work continued to proceed on the assumption that an understanding of the system of distribution would provide an understanding of the basic institutional structure of a society and that changes in the technology of distribution would lead to changes in society's structure. In his later work, however, Innis was interested in all forms of communication and transportation, not just those that could carry goods and people, but also those that just carried "knowledge." He was also now concerned directly with the study of the ability of empires, civilizations, and cultures to survive and expand and not just indirectly concerned through the study of an industry important to them.

Innis himself regarded his later work as an extension of his earlier concerns. In his preface to The Bias of Communications he wrote,

I may have extended the theory of monopoly to undue limits, but it is part of the task of the social scientist to test the limits of his tools and indicate their possibilities, particularly at a period

when he is tempted to disregard them entirely.¹

Innis's studies of communications followed directly from his concern with Canadian staple industries. The pulp and paper industry was an important staple industry and was the most recent phase of the wood trade whose earlier phases had been dealt with by A. R. M. Lower in his North American Assault on the Canadian Forest. Innis had considered contributing a volume on this later phase to the Carnegie project, The Relations of Canada and the United States. He had, however, taken up The Cod Fisheries instead. With the completion of this project he returned to the earlier interest. Innis was always concerned in his studies with all facets of the industry in question, the demand side as well as the supply side. In taking up the demand side of the pulp and paper industry he was drawn into examining the reasons for the expansion in the demand for newsprint which was rooted in the evolution of the printing industry in America and England.

In 1942 he published his first article, "The Newspaper in Economic Development," on his new study. This article followed the evolution of the press from the early eighteenth century to the present. Innis had already come to the conclusion that what he would later call a medium of communication could have a profound influence on all parts

¹Harold A. Innis, The Bias of Communication, introduction by Marshall McLuhan (Toronto: University of Toronto Press, 1951), p. xvii.

of a society's development. He noted, for instance, "The concentration of the natural sciences on the problems of physics and chemistry concerned with speed reflects the influence of newspapers"¹ and "educational systems and literacy have been subject to their influence, directly and indirectly."² More importantly, in his study of newspapers and their influence, the single most powerful force in the evolution of newspapers, and thereby the nature of their influence, he found in the technology of newspaper production changes. In addition, in newspapers he had his first encounter with the development of monopolies in the area of communications. He referred to the tendency for monopolies to develop within the newspaper industry (both in terms of circulation and in maintaining "monopolistic positions in the political field"³) and to the newspaper industry as a monopoly,

Newspapers were concerned not only with the freedom of the press as a support to their monopoly position in resisting higher costs of raw material, but also with the measures designed to increase the number of readers and to widen the market.⁴

Innis's concern with the effect of geography, which is to say space, remained in evidence, e.g. "The size of the con-

¹Innis, Political Economy in the Modern State, p. 32.

²Ibid., p. 23.

³Ibid., p. 19.

⁴Ibid., p. 17.

continent has necessitated variation and uniformity."¹ Even more important, however, a new concern with time and the concept of time emerged. He argued that time "cannot be regarded as a straight line but as a series of curves depending in part on technological advances,"² for example, "With technological advances in communication the field for long term securities tends to be narrowed in relation to the demand for short term securities."³ He ended with a call for social scientists to study time as well as space.

During the war years Innis read omniverously and by 1947 he began to publish his results with his presidential address to the Royal Society of Canada, "Minerva's Owl." Until his death in 1952 Innis continued to publish his results, the bulk of which are collected in Empire and Communications, 1950, The Bias of Communication, 1951, and Changing Concepts of Time, 1952. The manuscript which would have been the vehicle for his conclusions, A History of Communications, was never completed but was heavily raided in the preparation of the Beit lectures which were later revised and published as Empire and Communications.

Innis's own list of major influences and predecessors for this period of his work was "Kroeber, Mead, Marx, Mosca,

¹Innis, Political Economy in the Modern State, p. 27.

²Ibid., p. 34.

³Ibid.

Pareto, Sorokin, Spengler, Toynbee, Veblen, and others."¹ Kroeber was quite possibly of greater importance than some of the others named, and in Innis's paper, "The Bias of Communication"; Innis stated his purpose was to add a footnote to the suggestive comments on the strength and weakness of various cultural elements in Kroeber's Configurations of Cultural Growth. In his work Kroeber had noted

the empirical phenomena, over and over again, and with remarkably few exceptions, compel the conclusion that there are whole arrays of events in the history of culture which are objectively describable only in terms of the metaphors of "growth," "realization," and "death."²

Kroeber did not, however, venture to offer an explanation and thus left Innis free to build on this suggestion.

The universe in which man dwells has at least four dimensions. Three of these, length, breadth, and height, together make up space. The fourth dimension is time. Humanity is concerned with communication not only across space but across time. Innis generally referred to the carrier technologies of knowledge, either across space or time, as media. Humanity also wishes to communicate both ideas and information. By ideas I mean that which is thought about at different levels of abstraction. By infor-

¹Harold A. Innis, Empire and Communications, rev. by Mary Q. Innis, foreword by Marshall McLuhan (Toronto: University of Toronto Press, 1972), p. xiii.

²A. L. Kroeber, Configurations of Cultural Growth, (Berkeley and Los Angeles, 1944), p. 91, quoted in R. H. Vost, "Harold Adams Innis and the Study of Civilization," (unpublished).

mation I mean that news, intelligence, or data upon which people determine their actions and interactions. Both of these things Innis lumped together as knowledge since both could be transmitted in the same way.

For Innis a medium of communication could be one of a very large number of things. These included readily recognisable ones such as inscribed stone, clay tablets, papyrus, parchment, paper, the voice, radio, and television. Alphabets were also media. Printing, when it was applied to paper could create what Innis regarded as a number of different media such as the pamphlet, the book, and the newspaper.¹ He also believed architecture was a medium, and that so were law codes and literatures, etc. Similarly Innis spoke of the ways societies could approach the use of media more or less as media themselves. In this context he referred to the written and the oral traditions.

Although all media served to transmit information Innis believed that they were not all equally effective in transmitting knowledge either across space or across time. Each of the various media, Innis believed, generally favored the transportation of knowledge either across time or space. They were, therefore, said to be biased in the direction in which they were most efficient as transmitters. In general,

¹Indeed, with the arrival of printing Innis saw a quantum change in media type. He observed "We can conveniently divide the history of the West into the writing and printing period. (See Harold A. Innis, Empire and Communications, p. 8.

one would expect a space biased medium to be light, easy to transport, but not necessarily durable, such as papyrus, paper, or radio. Time biased media on the other hand would be durable, but probably not easy to transport or to acquire such as clay tablets, parchments, or a difficult alphabet which because of its difficulty was carefully guarded once learned and made for conservatism. Stone was an exception to this general rule since its utilization, especially in architecture, implied centralisation and thus indirectly space control.

These biases meant that a society in which a medium became dominant would share the bias of that medium. When a time biased medium was dominant then the society, Innis felt, would find it difficult to expand successfully but would have a strong social memory and be difficult to disrupt. He also noted "materials that emphasise time favour decentralisation and hierarchical types of institutions."¹ When a space biased medium was dominant in a society then he thought the society would be relatively well able to expand but probably would not have a particularly well developed social memory and if disrupted would find recovery difficult or impossible. Innis noted that space biased media "are suited to wide areas in administration and trade" and "favour centralisation and systems of government less hierarchical

¹Innis, Empire and Communications, p. 7.

in character."¹

Innis's lifelong concern with monopolies was alive and flourishing in his later work. He saw in history a natural tendency for the growth of monopolies of knowledge in societies. These monopolies were, of course, closely related to the communication media in use, some media being more favourable to a particular type of monopoly than others. The vested interests which assumed dominance in a society tended to be religious where time biased media were dominant and secular bureaucracies where spaced biased media were dominant. As in his other studies, however, Innis, who was a small "l" liberal and as such had no love for monopolies, saw monopoly inevitably bringing forth a rival to which it might succumb. In this context, in his opening to "Minerva's Owl" he said

In each period I have attempted to trace the implications of the media of communication for the character of knowledge and to suggest that a monopoly or an oligopoly of knowledge is built up to the point that equilibrium is disturbed.²

In explaining how this monopoly might appear and develop he argued in "The Bias of Communication" that

We can perhaps assume that the use of a medium of communication over a long period will to some extent determine the character of knowledge to be communicated and suggest its pervasive influence will eventually create a civilization in which life and flexibility will become exceedingly

¹Innis, Empire and Communications, p. 7.

²Innis, Bias of Communication, p. 3-4.

difficult to maintain and the advantages of a new medium will become such as to lead to the emergence of a new civilization.¹

Although in history it would seem that the development of monopolies of knowledge was inevitable with any medium of communication, it did not follow to Innis that the collapse of the civilization was an immediate corollary. At rare intervals the bias of one medium was "offset by the influence of another medium and stability achieved."² The balance could last for a greater or longer period of time but where the period was relatively short it made for a great outburst of creativity particularly where it was a case of the oral tradition meeting with a new variety of the written tradition. For Innis the meeting of the untrammelled oral tradition of the Greeks with the written tradition imported from the Phoenician in the form of the alphabet "supported a brief period of cultural activity such as has never been equalled."³ In England the meeting of the still strong oral tradition and printing, which was partly under suppression, also resulted in a burst of creativity in the age of Shakespeare. "In Athens, tragedy flourished before writing was firmly established and in England before printing had developed its overwhelming power."⁴ The particular power of

¹Innis, Bias of Communication, p. 34.

²Ibid., p. 64.

³Ibid.

⁴Innis, Empire and Communications, p. 148.

the oral tradition was that it allowed for interaction between people which could provide "freshness and elasticity"¹ providing the dead hand of tradition which resulted from the fact it "emphasized memory and training"² could be avoided. This was the case when there was a constant influx of new knowledge, again providing this new knowledge was not so complete as to already approach perfection. Periods of long stability occurred when two media with different biases came into competition in the same culture. The medium with the space bias supported the state and control of space while the other supported a religious hierarchy and control of time. When this occurred Innis quoted Metternich to the effect "Church and Army [3] are serving order through the power of discipline and through hierarchical arrangement."⁴ Two examples of this process were the Kassite period of Babylonian history when Sumerian clay with its time bias

¹Innis, Bias of Communication, p. 4.

²Ibid., p. 9.

³Innis, also like Metternich, put the state first in this balance.

A balanced concern with space or extent of territory and duration of time appears to depend on a dual arrangement in which the church is subordinate to the state and ensures that the mobilization of the intellectual resources of the civilization concerned, by religion or by the state will be at the disposal of both and that they will be used in planning for a calculated future in relation to the government of territory of definite extent. (See Innis, Bias of Communication, pp. 75-76.)

⁴Innis, Bias of Communication, p. 64.

was offset by Babylonian stone with its testimony to centralization and space control and in the Byzantine Empire when time biased parchment was offset by the simple alphabet and use of papyrus by the state bureaucracy.

Innis felt when the balance of two differently biased media did not occur, the civilization followed the regular pattern or model for the rise and decline of a civilization. He felt that civilization was dependent on the initial existence of a minimum of armed force. The army was the first requirement of civilization. Under the protection of armed force, learning developed.¹ With learning, or rather with the development of cultural activity and mobilization of intellectual resources, a medium would be adopted. In the exploitation of this medium, monopolistic elements would enter the culture and rigidities would develop. In the case where this medium was a written one there would also be a weakening of contact with the oral tradition and the vernacular. When the relationship of the vernacular, i.e. of the people, to the institutional monopoly of knowledge declined one effect was usually the emergence of individualism. Innis felt that technical changes in the marginal areas would not be adopted because of the monopoly at the center of the civilization and the success of armed force would decline. Stimulated by this decline of armed force, Innis felt that the ruling elements of society, or

¹Innis, Bias of Communication, p. 133.

the scholars directed by them, would put forth greater intellectual efforts. He also, however, felt the problem of rigidities resulting from the dominance of the monopoly of knowledge in the culture meant collapse was inevitable. The period of greater effort before the collapse was Innis's "Minerva's Owl."¹

Innis also believed that

the limitations of culture, in point of duration, are in part a result of the inability to master the intellectual resources of a people to the point where stagnation can be avoided and where boredom can be evaded.²

The reason for this was apparently that "Intense cultural activity is followed by fatigue"³ seemingly in a similar manner to the way an intense exploitation of a people's

¹If the scholars were able to find an area which still had "an effective combination of the oral tradition and the vernacular in public opinion with technology and science" which was receptive to cultural importation "following the success of organized force" a partial transplantation of the culture and a second intense flowering might occur due to "the migration of scholars engaged in Herculean efforts in a declining civilization to a new area with possibilities of protection." (See Innis, Bias of Communication, pp. 4-5). This was also an element of Innis's "Minerva's Owl." It would seem this effect was usually relatively unimportant though Innis felt it occasionally was important, though its effects on the host could differ. When Greek literature was imported into Rome after the fall of the Hellenistic kingdoms its perfection killed Roman literature, but, by diverting efforts into Roman law, it stimulated the latter's development. When Constantinople was in decline the partial transplanting of Greek lore to Italy, by its incompleteness, stimulated creativity and led to the Renaissance.

²Innis, Bias of Communication, p. 133.

³Ibid.

ability to pay taxes can be followed by a tax rebellion or an inability to continue to pay at the same level. (It would seem that the second might be connected to the first.) In general, Innis felt "Cultural activity . . . is designed to emphasize prestige. It becomes an index of power."¹ Innis felt that when a civilization started to slip it reacted in two ways renewed military activity and increased ferocity and the development of libraries. The reverse side of the coin was the growth of individualism at the center and the rise of problems at the margin.

Innis believed that eventually a set of invaders would overwhelm the center. They would develop a new center and in turn adopt a medium of communication, usually some form of writing. The cycle would thereupon begin again.

Innis, still following his interest in understanding systems of distribution and how they affected the structure of societies, and how they were themselves affected by changes in technology, proceeded to apply his new theory or model of history to most of the civilizations known to western history, and to his own civilization. He became, during this effort, deeply concerned about his own civilization.

In understanding Innis's discussions of early civilizations and empires it is necessary to bear in mind Innis's view of "stone" as a medium. It would seem that

¹Innis, Bias of Communication, p. 133.

stone should be a time biased medium since it is difficult to transport and is very durable. For Innis, however, stone was not a time biased medium. The message which was usually to be conveyed to the viewer was not even knowledge in the usual sense but was the prestige of the "writer." Stone itself could not only be chiselled, it could be used in the construction of capitals. The building of capitals required "intense cultural activity during a short period of time."¹ This in turn required "the development of armed force to a high state of efficiency"² to provide the needed space control which would permit this activity. Capitals, which were to say stone whose message was prestige, could, therefore, indicate a space biased society. Innis also noted that there was a tendency in a society using stone for there to develop "an emphasis on types of architecture calculated to reflect a control over time as well as space"³ because of political problems, especially where government rested on a patriarchal dynastic system, and of the general problems of "maintaining a high cultural level over a long period of time."⁴

The first of Innis's studies in civilizations was, chronologically, Egypt. Here geography, he felt, called

¹Innis, Bias of Communication, p. 133.

²Ibid.

³Ibid.

⁴Ibid.

for the emergence of the state and of space and time control through the need to both control and predict the Nile's floods. Time control emerged through the discovery of the sidereal year which was measured in relation to the appearance of Sirius. This gave time control to the monarch and through material victories came the emergence of a stone capital at Memphis. Time control was reinforced through funeral rites and the pyramids. Writing emerged from the funeral rites and the development of a bureaucracy. The monopoly of stone and its burdens permitted the emergence of papyrus which was adapted to the ready evolution of a complex system of writing. As noted above, a complex writing system is a time biased medium. Initially, however, the space biased elements of papyrus dominated with the increase of the bureaucracy and improvement in imperial administration. After 2000 B. C., however, "literacy was valued as a stepping stone to prosperity and social rank. Scribes became a restricted class and writing a privileged profession."¹ Papyrus, initially, also saw the emergence of a more democratic religious development in Orsis and Isis. Also about the same time as the development of papyrus the problems of the sidereal year were becoming evident. The solar year was discovered by the priests at Heliopolis weakening the time control of the centralized monarchy. The growth of the bureaucracy also favoured decentralization.

¹Innis, Empire and Communications, p. 17.

The combination of these problems saw the collapse of Egypt before the Hyksos with their new military technology.

The complexity of Egyptian cultural elements handicapped the adoption by the conquerors of Egyptian ways. Egypt adopted the new technology and launched a successful counteroffensive which created an Empire. The needs of empire encouraged the adoption of a new medium from the periphery, the cuneiform system of writing, and the creation of a new Imperial religion under Akhnation. The strong monopoly power of the priests at Thebes in alliance with the military hereditary privileged class prevented the adoption of the needed reforms. The increasing growth of religious power culminated on the death of Ramses XII when "kingship was assumed by the royal priests."¹

The weakness of a theocratic society was shown in the invasions of the Assyrians, the Persians, and the Greeks but its strength was evident in the periodic outbreaks against foreign domination and in the difficulties of Assyrians and Persians in attempts to establish empires in Egypt.²

Egypt's history, in Innis's opinion, showed the emergence and development of a society based on stone and space and time control, its challenge by the new medium of papyrus with the hieratic script, and the creation of a new monopoly on this basis which destroyed the revived empire by preventing the rise of another new medium.

¹Innis, Empire and Communications, p. 22.

²Ibid.

In Babylonia a similar somewhat time biased society arose but here conflict of two different media did lead to a balance from time to time and for greater or shorter periods. "In the north the use of stone in architecture, sculpture, and writing emphasized the importance of monarchy and centralized power."¹ In the south clay replaced stone both for architecture and, more importantly for writing.

Though admirably adapted by its durability to use over a long period of time, clay as a heavy material was less suited as a medium of communication over large areas. . . . The characteristics of clay favoured the conventionalizing of writing, decentralization of cities, the growth of continuing organization in the temples, and religious control. Abstraction was furthered by the necessity of keeping accounts and the use of mathematics, particularly in trade between communities.²

Innis saw the history of Babylonia as the history of the clash of north and south.

The difficulties of political organization were evident in the ultimate break-down of Sumerian empires and in the success of Semitic invaders, as the advantages of cultural organization were evident in the tenacity of Sumerian institutions under alien rule.³

In this conflict of civilizations and the media on which they were based, Innis saw the emergence of law as a secular institution to check the demands of religion and force. The balance of stone and clay was finally mastered by the Kassites,

¹Innis, Empire and Communications, p. 28.

²Innis, Bias of Communication, p. 37.

³Ibid.

equipped with more efficient instruments of warfare, particularly the horse and chariot, the invaders captured and dominated Babylon from about 1740 B. C. to the end of the thirteenth century.¹

Peace and empire led to the development of trade and, with control of religion, they led also to the development of efficiency in writing. This occurred on the margin in Syria and in Phoenicia. The result was "a new simplified type of writing which became the basis of new developments in communication and political organization shown in the Assyrian and Persian Empires."² Innis also thought "A flexible alphabet favoured the growth of trade, development of the trading cities of the Phoenicians, and the emergence of smaller nations dependent on distinct languages."³

An interesting example of the importance Innis attributed to media in the production of ideas and philosophies occurred in his brief discussion of the Hebrew philosophy's evolution. Originally an oral tradition, the beliefs of the tribes were written down and became sacred writings reflecting the emphasis of the Egyptians on the sacredness of the written word. At the same time statues and graven images were prohibited because of the importance of these to the large religious rivals of the Hebrews. In addition Innis goes so far as to postulate that

¹Innis, Bias of Communication, p. 37.

²Innis, Empire and Communications, p. 54.

³Innis, Bias of Communication, p. 39.

concentration on the abstract in writing opened the way for an advance from blood relationship to universal ethical standards, to the influence of the prophets in opposition to the absolute power of kings, and to an emphasis on monotheism.¹

In time, of course, though originally based on the vernacular, the sacred writings built up a monopoly of knowledge centering in the priesthood. They became so divorced from the vernacular that Hebrew was replaced by Aramaic as the spoken language while Hebrew remained the sacred tongue and the basis of a tremendous power of time control, even when space control entirely vanished.

The Assyrian Empire was built on further technical military advance particularly in the development of cavalry. It also developed a system of provincial administration and in competition with Egypt and Babylon it began the development of a new capital at Nineveh along with the establishment of libraries. The Assyrian accent on cultivating the literary achievements of Babylonia and Sumeria did prevent, however, the development of an Assyrian literature. The use of Aramaic and the adoption of pen and parchment after the eighth century further strengthened administration. The attempt to control both Babylon and Egypt after 668 B. C. proved, however, impossible and Nineveh fell in 612 B. C.

Persia, backed by new advances in the bow and pike, built up a successor Empire to Assyria under Cyrus and

¹Innis, Bias of Communications, p. 39.

Cambyses. As in the case of Assyria, the empire was based on administration, using the new Aramaic alphabet and parchment, and the development of a system of satraps and roads. For prestige new capitals were created and in answer to the problem of rival religious centers a program of toleration was tried which saw the return of the Hebrews from their Babylonian exile. The demands on continuity of administrative ability in the dynasty showed there was inadequate control of time and the Empire finally collapsed before Alexander.

In the case of Assyria and Persia the imbalance in the culture of Babylonia, i.e. the religious monopoly of knowledge based on clay and a system of writing tied to scribes, finally resulted in the development of a new form of communication which was space biased in nature. New Empires were constructed, possessing, however, problems with enduring time control.

Innis's work on Greece is interesting both because it was his study of the "oral tradition" in action under optimum conditions and because it emphasized the importance of the original elements in the matrix out of which the society and its ideas came as well the influence of media in shaping the direction of the evolution of ideas.

One might presume there was the existence of, or potential for, the development of an oral tradition in all societies which did not have writing, yet there was not a Greece produced by each, either before or during the adoption

of writing.

The key factors for Innis in Greece's development were i) the fact that in the Greek nomadic society a priesthood and sanctuary were of minimum importance; ii) the civilization which the Greeks supplanted left them relatively uninfluenced as did their civilized neighbors since any cultural importation was transmarine which made for a winnowing of cultural importations; and iii) a continual addition from the north to their population which kept both the people and language from ossifying.

The Greek epic reflected the existence and collapse of a system of monarchies. The weakening of kinship bonds and the eventual limitations of the epic, even with its ability to be adapted in the oral tradition, led to the evolution of a popular poetry and the emergence of Hesiod and lyric poetry. The lyre, originally used with epic poetry, also furthered the development of lyric poetry. The first arrival of papyrus in limited supplies happened to coincide with this development and hastened its spread.

Innis felt that in the Homeric poems the first steps in the development of Greek thought were taken.

The old nature gods were unable to meet new demands. Deities of universal significance were built up to express the higher functions of life and myths were transformed to influence the conduct of men.¹

Without a strong priesthood this anthropomorphism and absence of a concern about magic "assumed rationalism and the

¹Innis, Empire and Communications, p. 63.

necessity of finding order and coherence in the world."¹ In maritime Ionia, a merchant, the discoverer of trigonometry, began the development of philosophy, the advancing of universal generalisations and the discarding of allegory and myth in the study of nature through the development of geometry and science. "Without a sacred book and a powerful priesthood the ties of religion were weakened and rational philosophy was developed by the ablest minds to answer the demand for generalisations acceptable to everyone."² In addition, "no energy was lost in learning a second language and the freshness and elasticity of an oral tradition left their stamp on thought and literature."³

With the evolution of a commercial state and the emergence of the hopilite, space control and new problems emerged. On the example, probably, of the colonies where the confusion of traditional laws had led to the creation of law codes, Athens appointed Draco and then Solon to prepare a code of law. The law code of Solon followed the pattern of Ionian scientific ideas and proceeded on the basis of a "universal truth." This "truth" was that "violation of justice meant disruption of the life of the community."⁴ From this followed the introduction of personal responsibi-

¹Innis, Empire and Communications, p. 63.

²Ibid., p. 66.

³Ibid.

⁴Ibid., p. 68.

lity and social rather than individual retribution. In addition the constitution was revived to attempt to balance the people and aristocrats of birth or wealth. Case law developed and merchants were favoured. The development of merchant wealth led, however, to tyrants. Commerce also brought the development of mathematics which in turn is time biased and reflecting this, mystery religions emerged which were favoured by the tyrants as a counter to the religious position of the old nobility. Pythagoras developed a philosophy based on numbers and music suitable for the elite and a reconciliation of Apollonian and Dionysian religion was possible. The reforms saw the downfall of tyrants and in Athens with its oral tradition a period of law reform under Cleisthenes. Cleisthenes broke the old noble control of time introducing a solar year governing a democratic system of election to democratic councils. On this basis of the spacial concept of Ionia and the time concept of the mystery religions was constructed the "political society which stood the test of resistance to the Persian Empire."¹

The Persian Wars brought to Athens Ionian refugees who gave a new stimulus to philosophic speculation while at the same time the drama emerged from the mystery religions as the climax of the oral tradition. As the fifth century progressed the written tradition progressed in Athens and nationalism led to the decline of the mystery religions and

¹Innis, Empire and Communications, p. 75.

time control. The division of Athens and Sparta was accentuated and the Peloponnesian War exhausted Greece. Socrates, backed by the oral tradition, rejected the materialistic drift of philosophy discovering the soul and getting himself executed for his trouble. Plato more or less ignored experimental science and concentrated on marrying the written and oral tradition in his dialogues. By Aristotle's time the written tradition was victorious and prose and classification emerged into their own.

The victory of writing and the development of cavalry and superb infantry led to a pronounced space bias. The ephemeral empire of Alexander, which possessed neither capital nor religion, was produced. The successor states sought the development of time control through the creation of capitals and libraries or intellectual centers: Pella and Athens, Pergamon, Antioch, and Alexandria. Libraries and classification signified the collapse of time control and this was reflected in the growth of individualism as reflected in the growth of rhetoric. Time control problems in the case of Egypt also necessitated the creation of a new god. The victory of writing was not, Innis thought, complete and he felt the concept of a civilization based on the ear remained a strong undercurrent in Western civilization whenever secular bureaucracy declined. The close linkage between sound and the alphabet provided the basis for an enduring and resistant Greek culture during the period of Roman domination. Greece

re-emerged victorious after the spatial defeat of Rome in the West.

Even in the case of Greece where the media operated in so productive a manner that the roots of modern Western Civilization were created, the media did not create the culture except through interaction with the pre-existing structure of society and through interaction with elements introduced from neighboring societies.

Rome, although the written tradition was introduced early in its history, also possessed a strong oral tradition in law. Following the revolution which established the republic the pontifices took over control of the legal tradition while the tribunate was established to guard the plebians. This pontifical monopoly called forth the demand for written laws but, even after the twelve tables were prepared, interpretation remained in the hands of the pontifices who developed the law through a series of legal fictions. Even after the plebians obtained the right to the office of pontifex maximus the development of law through the oral tradition was continued by the lawyers who, Innis suggested, may have had continuing connections with the priesthood. Even by the time of Cicero the case law and system of precedent were still dominated by memory in the oral tradition. The establishment of the perigrine court with the development of trade, and the contact with standard commercial practices abroad, increased flexibility which resulted in the development of Roman Civil Law and the "Contract."

"Lex" or international and ordinary constitutional law remained firmly in the written tradition with the attendant problems of inflexibility.

Roman force and flexible Roman law made for the rapid development of Empire and by 146 B.C. Greece and North Africa were under Rome. The excellence of Greek literature curtailed the development of Roman literature and encouraged the development of law and the development of prose in response to politics, e.g. Cicero. Rome's conquests also brought her access to large supplies of papyrus. The simple alphabet made possible the development of bureaucracy. With the growth of the space bias and national imperialism, Roman religion declined to being a servant of the state too impersonal for ordinary men. Individualism developed with reading and the flexible script and so did foreign cults. Problems of space control by the time of Augustus when the boundaries of expansion were reached along with the collapse of time control led to counter-measures: e.g., the development of Rome as an imperial capital, the growth of bureaucracy, and the construction of libraries. The imbalance was too severe and despite the codification of law (representing the bankruptcy of the one area of vibrant oral tradition) and the development of a concept of "divine empire" problems with time control in a civilization based on papyrus and bureaucracy continued. The monopoly of knowledge based on a bureaucracy resting on papyrus and the legions saw the rise of cavalry outside the

empire. Inside the empire, a new medium, parchment, increased in importance along with a new language, the Greek vernacular, in which the sacred book of a new foreign mystery religion, Christianity, was written. An attempt to call in the mystery religion to support the state was first made by Aurelian. Constantine saw to the introduction of Christianity as a legal religion.

When cavalry shattered the old Empire, two civilizations rose to replace it. In the East appeared Byzantium where parchment and its time bias and papyrus and its space bias led to a long period of stability. In the West, with the severing of the supply of papyrus first by the Barbarian invasions and later by the Moslems, a heavily time biased civilization based on parchment developed.

The Middle Ages saw the rise of a monopoly of knowledge on the basis of parchment, a medium well adapted to the needs and possibilities of development present in monasticism. Moslem pressure produced Frankish centralization but inadequate time control resulted in the collapse of the Empire. Charlemagne needed educated officials and ordered the establishment of schools at all the abbeys. After the collapse of his empire, education became the preserve of the Church. The expense and difficulty of recopying not only led to censorship in favour of religious writings but also led to the development of writing and reading into a complex art. Cluny led the monastic element in the Church in the resistance to the attempt by the revi-

ving Holy Roman Empire to influence the Church and produced Hildebrand and the election of the Pope by the cardinals. Hildebrand centralized the Church by separating the Church from the feudal investiture of land and by enforcing celibacy. The former weakened the secular influence and the latter prevented ecclesiastical dynasties from developing and rivalling Rome. Innis felt "the power of the Church was reflected in its success in the struggle with Frederick II, in the development of the Gothic cathedral from 1040 to 1244, and in the work of Albertus Magnus and Thomas Aquinas."¹ He felt this power together with the Western military development of heavy cavalry resulted in the crusades and sack of Constantinople in 1204.

In response to the monopoly power of the Church based on parchment, the new medium, paper from China, which appeared on the margin of Christendom in Spain and Sicily, grew in importance. Paper supported the growth of trade and cities, as did the adoption of arabic numerals. It also supported the growth of the vernaculars. The rise of vernaculars was supported by the courts as was the development of Roman law. Codification of canon law helped, however, to offset the latter. The Church attempted to dominate learning at the universities and to check the spread of heresies based on the vernacular. Some success was experienced with the introduction of the Inquisition. The increasing strength of the vernaculars and of administration based on paper

¹Innis, Empire and Communications, p. 135.

resulted, however, in the Babylonian Captivity. The monopoly based on the monastery was replaced with a new one based on the copyist guilds in the big cities and attached to the universities like Paris. In response, printing was developed in Germany. This was done on the basis of private enterprise which was possible because of the relatively small number of letters that could be used after the discovery of movable type.

Printing ushered in another new era. It also had a powerful impact on the forces which would develop in the future. Innis believed "the discovery of printing in the middle of the fifteenth century implied the beginning of a return to a type of civilization dominated by the eye rather than the ear."¹ The ear period had been the result of the power of the Greek oral tradition, even after its submergence by writing, and of the flexibility of the alphabet. These forces, Innis believed, had destroyed the monopoly of complex systems of writing which had been the basis of the large scale organizations of the East. In addition, "the adaptability of the alphabet to language weakened the possibilities of uniformity and enhanced the problems of government with fatal results to large scale political organization."²

Printing, Innis noted, developed in Italy and

¹Innis, Bias of Communication, p. 138.

²Innis, Empire and Communications, p. 84.

Germany on the margin of the area of the copyists in centralized France. With the exhaustion of existing manuscripts by the end of the fifteenth century new markets were sought. The small book and the pamphlet emerged. In Germany, opposition to Paris scholasticism and to French led to mysticism, biblical literalism, and the use of the German vernacular. The pamphlet in the vernacular together with the opposition to Paris Scholasticism contributed to the Reformation in Germany.

The printing, due to the controversies of the Reformation in Germany, led to the repression of heretical writings in France. This again called forth development on France's margins in Switzerland and Holland. French mercantilism, which favoured the export of paper, also increased the smuggling of literature into France. The development of printed sheets, type founding, and the postal system led, Innis thought, to the appearance of financial centers in Holland, first at Antwerp and then Amsterdam. These centers supported Holland against the Empire and France.

In England, Tudor absolutism discouraged printing but encouraged the Renaissance and Reformation by abolishing the monasteries, ending clerical celibacy, and introducing educational reforms. The Revocation of the Edict of Nantes, Innis noted, sent paper makers to England and Holland improving their paper making industries. In England, new printing suppression was called forth by the growth of

sedition literature caused by the increase in the number of book sellers looking for a market. This "contributed to the outbreak of civil war."¹ Restrictions on printing led also to an emphasis on the Bible and this facilitated attacks on Aristotelianism and scholastic philosophy contributing to an interest in science. Suppression also saw the rise of the coffeehouse and newspaper. The improved communications strengthened the representative power of parliament. The absolute power pretensions of the crown called forth the absolute power pretensions of parliament. The absolute parliament provided the basis of public credit and of conflict with the common law tradition maintained in North America. The restrictions on the political pamphlet in England led to a concentration on literature. This drowned American literature and forced American concentration on newspapers. The American newspapers did, however, make good use of the protests of Wilkes and Junius in England against suppression of the press. The press's importance in the revolution "was recognised in a bill of rights guaranteeing freedom of the press."²

Innis believed that in France the struggles against the repression of printing and the problems of government centralization in the ancien régime resulted in the emergence of the newspaper as the artillery of ideas in the

¹Innis, Bias of Communication, p. 55.

²Ibid., p. 58.

revolution. The effect of this was that newspaper journalists were influential in French politics throughout the nineteenth century.

The violence of the French Revolution resulted in England in new taxes on newspapers. This led, Innis thought, to the Times' monopoly and to concentration again on literature in England and, in response to the latter effect, to the continued concentration on the newspaper in the United States.

Before considering Innis's view of his own civilization, it might be wise to also note the conclusions of Innis's brief studies of India and China. He was, unlike Marx, more concerned with China than India.

Briefly, in the history of India Innis saw that the monopoly of the oral tradition of the Brahmans called forth competition from Buddhism and writing under the impact of the empires of Alexander and Askoka. Writing proved unable to compete and Buddhism declined but the instability of the civilization remained. It called forth the invasion by Islam which succeeded in establishing itself thanks to the introduction of the alphabet and paper.

In China, as in the early Middle East, Innis saw the system of writing as having been crucial to the evolution of the nature of the culture. The Chinese system of writing was, at one and the same time, conservative and space-biased. A system of ideographs eventually developed on the basis of paper and the brush into some 1,500 words

but an alphabet did not develop though to some extent the ideographs did become phonetic. The result was that, although there were tremendous differences in Chinese dialects, the same system of writing could be used and understood by people of any dialect. It was thus suitable for use in imperial organization and so was space-biased. Problems with time control, Innis believed, repeatedly led to dynastic collapse. Nevertheless, the written language was difficult to learn and was not suitable to change to suit the vernaculars' evolution.

By its persistency the Chinese language maintained its own institutions political, religious and linguistic, substantially unchanged. Its implications to printing were obvious in the growth of a learned class and its limited impact on public opinion.¹

Since the written tradition was restricted to the learned class the people developed the oral tradition. "The spoken press was born in song, and ballads were effective weapons of public criticism being reflections of public opinion rather than news."² Innis noted, however, that public opinion was only of limited effectiveness since in times of dynastic degeneracy there was no constitutional protection for scholars and writers.

Innis thought that the division of the literati and the people smoothed the way for the growth of Buddhism after the development of block printing. He observed, "every

¹Harold Adams Innis, A History of Communications, University of Manitoba Library (unrevised and incomplete micro-filmed manuscript), Chapter 4, p. 12.

²Ibid., Chapter 4, p. 20.

advance in printing had as its motive the expansion of religion."¹ This would seem, however, to contradict his views elsewhere on the evolution of the newspaper though it might apply to the pre-modern era as analysed in his work. Innis felt that the problems of printing with the Chinese script were the reason why, even after the development of movable type in the eleventh century, printing remained a state monopoly.

Innis believed the script was responsible for the "deficiencies" of the Chinese language and culture which evolved in response to the opportunities and problems of the script. Conservatism and propriety in writing heavily influenced Chinese life. He believed the rules of propriety and the crust of Chinese formalism checked a rich spiritual growth. Innis also felt that because of the very rational qualities of the Chinese language, due to its being based on the pictograph system, it "was not adapted to poetry, or to systematic thinking or to the rhetorical arts of the Hellenistic, Latin, French, German, and Russian languages. . . . The art of script meant an emphasis on reading and writing, song remained with the people."²

Innis also traced the revolution, which ended the Chinese Empire, to the introduction of the Western style of

¹Innis, A History of Communications, Chapter 4, p.7.

²Ibid., p. 20.

newspaper and periodical to China.¹

Innis believed that the history of his own time, the later nineteenth and earlier twentieth century, had been profoundly, and probably unhappily, influenced by the evolution of the monopoly of knowledge based on the newspaper.

The newspaper, Innis believed, had developed primarily in the United States and these developments had gradually spread through the rest of the world beginning in England. The United States, as mentioned above, was forced to concentrate on the newspaper because of the flowering of English literature as a result of the restrictions on the English press. In the United States concern with news and with speed saw newspapers adopt innovations in the struggle for markets. The struggle for markets was primarily economic in nature because politically the newspapers tended to check each other by competition. The innovations, Innis noted, were generally made on the frontier. Pulitzer began in St. Louis and Hearst in San Francisco. The innovations were later introduced into the Eastern United States and then spread to Britain.

Journalism encouraged the adoption of the telegraph which, Innis thought, broke the monopoly of the existing political centers and contributed to the Civil War. In Europe the "new journalism" started restricting diplomatic flexibility, especially in England, and was also responsible

¹Harold A. Innis, "Printing in China in the 20th century," History of Communications, passim.

for the breakdown of European unity. Innis believed that, except in France where a political and personal journalism flourished, in continental Europe the strong position of the book slowed the newspapers' evolution. He felt that understanding between countries became more difficult because different media were dominant. Innis thought that, in the same way that the introduction of printing in the sixteenth and seventeenth centuries had led to savage religious wars, the "application of power to communication industries hastened the consolidation of vernaculars, the rise of nationalism, revolution, and new outbreaks of savagery in the twentieth century."¹ Innis also noted that in their competition for markets newspaper constantly increased their appeal to sensationalism and the present. He felt that the need of newspapers for advertising to pay for circulation had biased the economy towards mass production, rapid turnover, and efficient distribution.² For Innis, the age of the newspaper emphasised regionalism and decentralism, and he also noted that the newspaper was adapted to control over vast areas. The newspaper was, however, at the same time committed to the "destruction of time and continuity"³ and was thus even more destabilizing. Innis felt The Treaty of

¹Innis, Bias of Communication, p. 29.

²Ibid., p. 187.

³Ibid., p. 188.

Versailles, 1919, was the victory of the press.

The monopoly of knowledge based on the press brought forth a rival based on the ear in the form of the radio. Innis felt that the radio did have some time biased influence. He saw this in the development of planning bureaucracy and collectivism. Innis, however, was concerned that "without experience in meeting these demands an appeal is made to organised force as an instrument of continuity."¹ He also saw in the Second World War that "an appeal to the ear made it possible to destroy the results of the Treaty of Versailles."² In addition, he felt "the spoken language provided a new base for the exploitation of nationalism and a far more effective device for appealing to large numbers."³ He also noted that the ultimate goal of newspapers was reached since "illiteracy was no longer a serious barrier."⁴ The result, Innis felt, was centralism within language units and increased instability between them. A paradoxical trend in the radio, and one which was continued in the cinema and television, was the continued growth in the importance of the ephemeral in attracting the attention of large numbers of people. He resolved this paradox by noting, "planning is a word for short periods - for long periods it is suspect

¹Innis, Bias of Communication, p. 189.

²Ibid., p. 81.

³Ibid.

⁴Ibid.

and with it, the planner."¹ Innis also was concerned that the collapse of the old time monopolies had opened the way for further expansion of the state. The religions which emerged as the result of the new concern with time were, another paradox, concerned with the present, e.g. "Fascism, Communism, and our way of life."² The overall problem of our age, as Innis saw it, was that our civilization was concerned with things in time, and not things outside of time.

Innis did not give a clear solution to the problem he saw. Because he felt history was determined to a great extent by the media, he might have felt none was possible. He, however, closed his lecture "A Plea for Time" with the pregnant passage "I can best close this paper by an appeal to the Holy Writ, 'Without vision the people perish.'"³ It would seem he considered the development of religion as an answer to at least some of the problems he saw.

History was to Innis a series of successful or unsuccessful attempts by man to overcome an imbalance in his society created by the dominant medium in that society. Unfortunately, even if an imbalance was overcome, another usually developed with the rise in the society of the new medium. Occasionally, when the dominant monopoly was

¹Innis, The Bias of Communication, p. 87.

²Ibid., p. 88.

³Ibid., p. 91.

heavily entrenched in the society the attempt to remove it could fail. It seemed to be only monopolies based on time biased media which had this strength but, even in these cases, the imbalance remained in the society which would lead to continuing efforts either to correct this imbalance or to the eventual, final subjugation of the society. Innis believed that force established, supported, and overwhelmed societies but he also believed that the ability to use force was related to the intellectual structure which had built up on the basis of existing cultural elements under the censorship of the dominant medium or media of the society.

In pre-modern times it would seem Innis believed the most important medium in a society was probably the script in use. The bias of the script could affect the effectiveness of the space or time bias of the technology with which it was used. Occasionally the relative efficiency of two carriers could also decide the bias of the society. Parchment and the Aramaic alphabet in the immediately pre-Assyrian period in Babylonia assisted the development of trade when it was adopted in place of clay. In the same way, although both the secular bureaucracy and the Church used the same alphabet in the later Roman Empire a time biased civilization arose on parchment in the West while in the East the continued use of papyrus prevented the creation of a completely time biased society on a similar model. It is, however, possible to greatly overestimate the

importance of relative time bias in the case of two media in a society and it would seem that under a particular set of initial circumstances there is a "pure" tendency in any media which will determine the shape of society should that medium become dominant. In modern times the application of power to communication industries created the dominant media.

In the long run, therefore, Innis thought that the general shape of a society was determined by its technology for distribution. He felt it was changes in this technology that eventually resulted in the changes in the society. The changes in the technology came as a result of reactions in the society to imbalances created by the rise of a monopoly of knowledge and the power of this monopoly to try and restrict change and development.

CHAPTER VI
A COMPARATIVE EXAMINATION OF
MARX AND INNIS

Although separated in their development both geographically and by nearly a century of dramatic change both Karl Marx and Harold A. Innis became political economists seeking the answer to the question "what are the forces which determine history and how are they shaping the world?" Their search, however, led in different directions starting from their premise that the structure of society changes under the impact of economic change. They both found the source of economic change principally in changes in the technology of the society. From here in many respects their paths were to diverge. The basic similarities of their approaches will be examined first and will be followed by an examination of their differences.

Both Marx and Innis believed social forces rather than "Great Men" were of dominant importance in history. It is revealing that Innis in Empire and Communications made but one reference to Napoleon and one to the Napoleonic Wars. He quoted Napoleon's comment that "si je lache la bride à la

presse, je ne resterai pas trois mois au pouvoir"¹ and noted that "during the Napoleonic wars international capital fled from Amsterdam and Paris to England. The paper making machine (Fourdrinier) was invented in France and improved and adopted in England."² The first observation was one illustrating the power of a medium in a dramatic fashion and the second was a note on the evolution of the medium's technical base and thereby its potential power. In the opening of The Eighteenth Brumaire of Louis Bonaparte Marx observed

Men make their own history, but they do not make it just as they please; they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given, and transmitted from the past.³

This is not to say that the individual was erased from consideration in the work of either; he was merely subordinated to the social forces. For his part, Innis's discussion of the work of Plato and Aristotle was enough to discredit a view that the individual was erased. It was, however, true that each Greek philosopher was working inside the influence of the dominant and/or rising or declining media of his day. This profoundly affected their work; Plato tried to salvage the dialogue and Aristotle abandoned it. In the same way Marx could praise "the greatness of

¹Innis, Empire and Communications, p. 154.

²Ibid.

³Karl Marx, The Eighteenth Brumaire of Louis Bonaparte (New York: International Publishers, 1963), p. 15.

Watt's genius"¹ almost immediately after emphasizing "A critical history of technology would show how little any of the inventions of the eighteenth century are the work of a single individual."²

Both Marx and Innis may have seen a dialectical process at work in history though Innis never explicitly embraced the dialectical approach. With Marx, history's evolution was permeated by the dialectic in action. With Innis, the suggestion of the dialectic approach did not clearly enter his work until he entered his "later" phase. In his earlier work, the seeds of his later more dialectical thinking lay only in his concern with monopoly and with its tendency to create rivals for itself through its success.

Marx's belief that history evolved in a dialectical manner, via a process of thesis, antithesis, and synthesis was taken from Hegel, though Marx's contention that "the ideal is nothing else than the material world reflected by the human mind, and translated into forms of thought"³ stands Hegel "on his head." This "dialectic" was the most "mystical" part of Marx's work. He held all objects, phenomena, and ideas were a complex of opposing elements, possessing an inner hostility to themselves. A process of negation, and then negation of the negation (the antithesis)

¹Marx, Capital, 1:412.

²Ibid., 1:406.

³Ibid., 1:25.

leading to a synthesis set in. Marx also believed that when sufficient quantitative changes had occurred in a phenomenon it was qualitatively transformed from one state to another. The whole trend of history in Marx's view, from "primitive communism" as a thesis to "Communism" as a synthesis by the contradictory stages of slavery, feudalism, and capitalism, might be seen as a very large scale example of this process. A smaller example of the working out of the dialectical process in history was the evolution of personal private property of the petty industry and agriculture of the late Middle Ages into the common individual property of Communism through bourgeois private property. The first negation was the appearance of capitalist private property which resulted from the capitalist mode of appropriation. "But capitalist production begets with the inexorability of a law of nature, its own negation."¹ "The expropriators are expropriated."² The synthesis "does not re-establish private property for the producer, but gives him individual property based on the acquisitions of the capitalist era."³ An example of the Hegalian law of the transformation of a change in quantity into a change in quality, Marx said, was provided by the fact that "the possessor of money or commodities actually turns into a capitalist only where the minimum advanced for

¹Marx, Capital, 1:25.

²Ibid., 1:837.

³Ibid.

production greatly exceeds the maximum of the middle ages,"¹ otherwise he remained a small master employing journeymen.

Unlike Marx, Innis did not embrace the dialectic explicitly, even in his later work, nor did his syntheses necessarily lead to a higher level. Nevertheless, when his approach is examined, one tends to see a thesis replaced by its opposite (if it is assumed the opposite of time bias is space bias), or negated, and the opposite was in turn replaced by its opposite, i.e. the negation was negated. In Egypt, space biased stone, though it might be more accurate to say centralization biased stone which implied space control, was supplanted by a medium supporting a time biased system of writing. This system was first challenged by a more space biased system of writing and then, in the long run, supplanted by a system of writing more adapted to space control. In Babylonia clay and cuneiform were challenged by stone and finally replaced by a new system of writing, Aramaic on parchment. In the Roman Empire a space biased system of media, papyrus with an alphabet, was replaced or challenged by a time biased medium, parchment. This was in turn supplanted by a space biased medium, paper, upon which developed an even more space biased medium, printing. Printing and paper were eventually challenged by radio which Innis considered to have time biased elements as it rested upon the ear. The radio was in turn challenged by the tele-

¹Marx, Capital, 1:837.

vision, which for Innis marked a return to the eye. In Innis's work, however, a true synthesis of thesis and anti-thesis, which is to say a synthesis which incorporates both the thesis and antithesis into itself, was seldom achieved since the two oppositely biased media were seldom in balance in a society in Innis's view. Occasionally it was achieved as in Kassite Babylon and Byzantium but even here it was not stable in the long run. Instability was, however, one of the assumptions of the dialectic and one of the most curious of Marx's beliefs was that he expected Communism to be permanent. As in Marx's case, however, Innis's process of evolution was internally generated as was necessary in a dialectic system. One technology, in Innis's view, seemed to bring forth its rival and successor. In both Marx's and Innis's opinion the process of technological change followed by social change was fought out between social organizations of "the haves" versus "the have nots." Marx called his categories of "haves" and "have nots," classes. Innis called his "haves" the possessors of a monopoly of knowledge.

Although the processes of technological and social change were similar, in the actual system of technical evolution there seems to have been an important difference between the approaches of Marx and Innis. Part of this may be related to the two different approaches Innis and Marx took to history. As discussed below (p. 175), Marx saw history as the evolution of man from a "Fall from Grace,"

the collapse of primitive communism, to a "Redemption," the achievement of Communism, while Innis tended more to see it as one thing (cycle of growth, maturity, and death) after another. There was for Marx a logic in the evolution of the technological methods of producing goods, particularly after the beginning of the manufacturing period and in the evolution of the ancient from the communal period. Because in Marx's view man was a productive animal, Marx felt man naturally sought out and followed the logic of this technical evolution. Innis's man was not a productive animal by definition in quite the same way as Marx's man was. Although Marx's man was selfish after the "fall" he was not quite the monopolistic animal we find in Innis's work. Innis' man was an "economic man" in a broadly conceived way. As well as being a "monopolistic animal," who always sought to create monopolies, Innis's man seems to have had two major needs. These were personal security in space and "knowledge" of his "place in eternity." Whenever a monopoly of knowledge had developed in society to the point where an imbalance sufficient to imperil either of these needs had built up then a reaction occurred and a new medium was introduced. The shift between "stages" or, more correctly, civilizations, was not as "predictable" in Innis's work as it was in Marx's where each successive stage grew directly out of the possibilities and logic of the previous stage. In Innis's system a need evolved in a society for a medium with a bias opposite to the one of the medium currently dominating the society.

A suitable medium was thereafter discovered, introduced, or appeared on the margin. This was adopted by those outside of the dominant monopoly of knowledge who needed the opportunities it could provide. There was not one, and only one, possible new medium which could appear on the perimeter and which was determined by the currently dominant medium's level of technical development as would have been the case if an exact parallel with the Marxian system had existed. There might well have existed several media from which chance or local circumstance chose one. An example of this occurred in Innis's study of the Middle and Near East in the second millenium B.C. Aramaic and parchment became the basis of Assyrian and Persian development while papyrus and Phoenecian became the basis of Greek and Phoenecian development. If there was not apparently a clear logic of technical evolution which stretched across civilizations in Innis's work there did, however, seem to have existed the idea that each medium had its own logic which was followed by those in "control" of it which inevitably produced a monopoly of knowledge.

It is conceivable that some sort of continuing logic in the development of the instruments of communication was implicitly revealed in Innis work. It, if it existed, would certainly increase the elegance of Innis's theory and improve its credibility by solving, for example, the mystery of why paper and papyrus when first discovered in China and Egypt supported heavily time biased societies and when

adopted by other subsequent societies saw the development of heavily space biased cultures.

The following logic of development may be revealed in his work. Man was assumed to be, by nature, an animal who desired to communicate, who was a social animal, and who was, incidentally, also a naturally monopoly seeking animal. He began to write by drawing pictures. He drew them on stone, clay, paper, papyrus, or whatever else was available. Under suitable conditions, or with luck, he developed an alphabet. When he failed to develop an alphabet his ability to develop new systems of communication stagnated and his society was condemned to stagnate indefinitely when a system of communication which could support an extremely powerful time biased monopoly emerged. Once this monopoly developed not even printing could break it, e.g. China. However, when an alphabet did develop and a suitable medium was present, printing would develop. Printing would produce a space biased society interested in speed which would lead to the development of physics and engineering. Physics and engineering in time produce radio and later television. Radio would be adopted because of the space biased nature of printing, and television would follow the adoption of the more time biased radio. Innis's system would still not, however, claim the prophetic ability trumpeted by Marx since here the ultimate form of society, if there would be one, would be determined by the ultimate unknown possibilities of communication technology; though until that state was reached

one would expect to find an alternation of time and space biased media being adopted by humanity.

I believe, however, that such a system as the one suggested above is basically against the spirit of Innis's thinking. It is extremely ethnocentric and seems to adopt a Candide's view that this is the best of all possible worlds, a view that was increasingly anti-thetical to Innis who observed in "Industrialism and Cultural Values" that "It is perhaps a unique characteristic of civilization that each civilization believes in its uniqueness and its superiority to other civilizations."¹

It is interesting that both Marx and Innis saw the West as responsible for the breaking of the long sleep of the Orient by a mighty technological blow. For Marx, capitalism and the technology which created it shattered the rural commune on which India and the East was based and prepared those regions to by-pass the ancient and feudal periods and enter capitalism directly in the same way that Marx thought Russia might be able to by-pass capitalism if the material base for communism could be created, or rather introduced from Western Europe, without the communal system in Russia breaking down in the process. For Innis, the introduction of the western newspaper and book with modern printing was responsible for the political advance of revolutionary forces in China. The historical correctness

¹Innis, Bias of Communication, p. 132.

of either view is, of course, open to dispute but it is an unusual example of Marx and Innis making a more or less parallel application of their theories to an historical problem, in this case the awakening of Asia.

Perhaps the single most famous of all Marx's statements was "The history of all hitherto-existing society is the history of class struggle."¹ It was through class struggle that he believed the dialectic based on technical advance was fought out. In the final analysis, for Marx, a class would seem to be a group of people who stood in a particular relationship to the means of production. He noted,

the owners of mere labour-power, the owners of capital, and the landlords, whose respective sources of income are wages, profit and ground rent, in other words, wage labourers, capitalists and landlords, form the three great classes of modern society resting upon the capitalist mode of production²,

but explicitly stated that it was not "the identity of their revenues and sources of revenue"³ which determined class. In addition, individuals formed a class only to the extent that they stood in opposition to another "class" or group

¹Marx and Engels, Basic Writings, p. 7.

²Marx, Capital, 3:1031.

³Ibid., 3:1032.

with a particular relationship to the means of production.¹ Marx believed that even in England, however, where modern society he thought was "indisputably developed most highly and classically in its economic structure,"² that the stratification of class did not appear in its pure form. As a result, whenever Marx was analysing any contemporary event he used the concept of class as an analytical tool with it standing for a group of individuals who had a common interest against one or more other groups in society and who probably had a particular relationship to the means of production. The strength of classes in their conflicts with each other depended, in the long run, on whether the position they were striving to maintain or obtain helped or hindered the productive forces of society. In the short run, more mundane things such as class consciousness, class organisation, and the military arts held the balance. Because their strength was ultimately determined by the technology of production in

¹In his discussion of the appearance of the proletarians as a class Marx noted that while they were divided by competition the proletarians had a common interest in maintaining their wages. Karl Marx, Poverty of Philosophy, app. by Frederick Engels (New York: International Publishers, 1963), p. 172. He continued, noting that before the class organized for political struggle, it was "already a class against capital" even though it had not become "a class for itself." Similarly when he was discussing the appearance of the bourgeoisie he emphasized that "The separate individuals form a class only in so far as they have to carry on a common battle with another class." Marx, Pre-capitalist Formations, p. 132. In this case he again noted the appearance of class conditions which seem to precede and give rise to the conscious burgher class.

²Marx, Capital, 3:1032.

use, changes in the technology altered their strategic, if not immediately their tactical positions in society. On occasion, however, even the tactical position could be affected as happened when the bourgeoisie developed infantry and firearms which could defeat armoured cavalry.

In Innis's work one again finds conflict between different elements in society serving as the mechanism through which history evolves. The "struggle" is not, however, a class conflict in the sense that is found in Marx. It was more a struggle between parts of the economy than one between classes. At the climax of the development of a monopoly of knowledge there were two general elements in society. The first of these was comprised of "the monopoly of knowledge" and its members who might be a more or less organised group like a religious hierarchy or a secular bureaucracy or a less organised and more diffuse group like newspapers. Those not directly included in the monopoly but who suffered from the effects of the imbalance in society that it created formed the second element. In a "reaction" to their problems, the second group became open to another medium that appeared in the society whose bias was opposite to the dominant one. A new monopoly of knowledge began over time to form around the new medium and to gain influence at the expense of the old monopoly. The process would then continue until a new imbalance was created and the cycle would begin again.

Marx's process of social evolution was more explo-

sive in nature because of the difference in the conception of the conflict between the elements in society which brought about change in society. In Marx, at a certain point in the evolution of history, a suppressed class would become powerful enough, because of the growth of the forces of production, to seize power in society. It would then become politically, as well as economically dominant, and its ideas, religion, ethics, etc. would also come to the fore in society. In Innis's work, there were shifts in influence rather than dramatic transfers of power. Innis's media and the monopolies of knowledge they supported had a generally diffuse influence throughout society particularly through the encouragement the media provided for the spread of some ideas and handicaps it posed for the development and spread of others. The conflict in Innis's work more or less occurred below the level of human consciousness and the changes tended to have the nature of market or parameter shifts. In Marx's work the conflict occurred on the human level and through the build-up of socially untenable situations.

Both Marx and Innis seem to have regarded history as a laboratory where they could test the validity of the conclusions of their studies of the more recent periods. Marx "intensively" studied capitalism and the transition to this stage. It was principally on the basis of these studies that he formed his conclusions. He then applied them extensively to history, and, even at that, much of the work of applying it was left to be done or completed by

his collaborator, Engels. Innis began his research on communication in his "later period" on the evolution of printing and even the work of his "earlier period" began its concern no earlier than the early sixteenth century which falls within the time span Innis later felt was dominated by paper and the printing press. It was on the basis of his conclusions from this period that he set out to study the significance of communication to the evolution of cultural traits.

The study of history had a "political effect" on both Marx and Innis. It confirmed Marx in his belief that capitalism was bad as it existed, and that action was necessary to change it, and also in the belief that time was on his side in a virtually inevitable process. For Innis, it was during his study of history that he became more politically concerned. In the nineteen-thirties, Innis was convinced that social scientists had no business in politics except to provide opinions on areas in which they specialized should they be asked by politicians. In the late nineteen-forties and at the start of the nineteen-fifties, Innis's writings became increasingly political in nature though he himself remained an "intellectual" and not an "activist" of Marx's type. Usually this writing took the form of Innis crying "prophet-like" that "we" were not going in the right direction and if "we" were not careful then Canada, or the United States, or the Western World as a whole would end up in even worse trouble than "we" were in already.

Examples of this new Innis were "Great Britain, the United States and Canada," "Military Implications of the American Constitution," and "A Plea for Time." If Innis adopted the mantle of a prophet from time to time, it was, of course, true that it was a regular garb of Marx. Innis, however, was not precisely sure where man was going, but his suspicions alarmed him. Marx was sure he did, but he detested the amount of time man was taking to get there and the evils mankind was suffering in the process.

The most profound difference between Marx and Innis lay in their different choice of the most important economic element in the determination of history. Indeed, to a great extent many of their other important differences were probably also rooted in this different choice. Marx believed that in understanding production lay the understanding of society. Innis sought the answer to the rise and fall, first of industries, and then of civilizations and empires, in distribution, i.e. transportation and communication.

Speculation on the role of environment in the development of any thinker's ideas and attitudes is always dangerous. It seems, however, that there is reason to suggest that the different times and locations of Marx's and Innis's work had a considerable effect on shaping this important choice.

Marx lived and worked in Northwestern Europe, and particularly England, in the mid-nineteenth century. The single most notable phenomenon in Europe generally and in

England in particular, was the industrial revolution which was everywhere increasingly transforming the shape of society from a rural, agriculturally oriented one to an urban, industrial one. England was the country where this process was furthest advanced and where the problems were most clearly in evidence. Living in the very hub of "metropolitan" industrial England, Marx was immersed in a society concerned with the production of commodities. When there were problems in the market he saw these problems as being apparently "crises" of overproduction where, at one and the same time, machinery was unemployed, goods were available, and workers, being unemployed, were unable to obtain the barest necessities. Marx, of course, knew transportation and communication were important factors in economic life, and even in capitalist development by assisting the development of a world market, but they did not impinge as directly on his consciousness.

Innis lived and worked in Canada in the early and mid-twentieth century. When he began to study communications in history he came from many years of research on the evolution of staple industries where distance, transportation costs, and communications had been of vital importance. Innis had studied these industries because they were the dominant ones in shaping his country both economically in particular and socially in general. Even in Innis's time, the greatest fact of Canadian existence was distance and the need for a communication network. Canada was still a

marginal area dependent on its communication links to a metropolitan base, though by his day the base had shifted from Europe to the United States almost completely. This change was still recent, however, and Innis predominantly studied the period prior to the changeover when the problems of communication to the metropolitan base were even more insistent as the distance was greater. The fact of these metropolitan links also probably influenced Innis's attitude towards the means of production as well as communication. Even with the tariff, Canadian industry was less important to Canada than were the metropolitan links in determining her growth and prosperity and this was increasingly true for the earlier periods which had formed the greater part of Innis's studies. Innis was aware of the importance in history of the development of industrialism, as noted above (p. 80), but he had not worked primarily with the problems of production. He treated the production techniques in the industries he studied more or less as given which was reasonable since advances in the actual technique of trapping and fishing had generally been of small importance except when changes had produced abrupt and total collapse as in the case of fisheries. Instead Innis concentrated on the problems of transportation which were the clearest cause of the rise and fall of the large economic organisations which he studied in the staple industries.

In both the case of Marx and of Innis it would seem, therefore, that each gave the greatest weight to that ele-

ment of economics which impinged most forcefully on their concerns. In each case, it would also seem that this was the element which had most profoundly shaped the environment in which they lived.

One example of the effect that this difference of opinion had on their approach to the same historical event was provided by their comments on the relationship between the development of means of communication and the industrial revolution. Each reversed the cause and effect sequence of the other. Karl Marx was of the opinion that

the revolution in the modes of production of industry and agriculture made necessary a revolution in the general conditions of the social process of production, i.e., in the means of communication and of transport.¹

Innis, on the other hand, thought that

Printing assumed mass production or reproduction of words and once it escaped from the pattern of parchment manuscript it compelled the production of vast quantities of new material including material to meet the demands of science and technology. Improvement of communication hastened the development of markets and of industry. The industrial Revolution followed the printing industry and in turn in the nineteenth century, with the use of steam power in the manufacture of paper and of printed material, supported rapid expansion of the printing industry.²

The respective choices of production and distribution by Marx and Innis were probably responsible to a great extent for their different approaches to the history of

¹Marx, Capital, 1:419.

²Innis, Bias of Communication, pp. 138-139.

ideas and to the appearance and evolution of cultural forms during any one phase. One might explain the difference here by saying that, in Marx's view, the cultural manifestations of a society were the products of the means of production of that society while, in Innis's view, the evolution of culture took place within the limits of its dominant medium but that the medium did not "inevitably" call into existence certain forms of culture. In addition, Marx also believed that a higher level of development in the means of production would mean a higher level of culture.

Marx believed that

The ideas of the ruling class are in every epoch the ruling ideas, i.e. the class which is the ruling material force of society is at the same time the ruling intellectual force. The class which has the means of material production at its disposal, has control at the same time over the means of mental production so that thereby, generally speaking, the ideas of those who lack the means of mental production are subject to it. The ruling ideas are nothing more than the ideal expression of the dominant material relationships¹

He went on to argue that there was a division of labour in the ruling class so that some were concerned with the creating and "perfecting of the illusion of the class about itself and their chief source of livelihood"² while the active rulers gave a more passive support. Obviously, however, it would seem Marx did not allow total control over thinking to the ruling class because he also said "The existence of revolutionary ideas in a particular period pre-

¹Marx and Engels, German Ideology, p. 64.

²Ibid., p. 65.

supposes the existence of a revolutionary class"¹ and in the same way noted "where ... the mastery is shared, the doctrine of the separation of powers proves to be the dominant idea and is expressed as an 'eternal law.'" Nevertheless, his one to one correlation between material relationships and ideas remained the basis of his position.

One example of the emergence of an idea in response to a need in production was provided by Engel's discussion of the emergence of the idea of human rights in his Anti-Duhring.

The demand for liberation from feudal fetters and the establishment of equality of rights . . . was bound to soon achieve wider dimensions from the moment when the economic advance of society first placed it on the order of the day. . . . And as people were no longer living in a world empire such as the Roman Empire had been, but in a system of independent states dealing with each other on an equal footing and at approximately the same degree of bourgeois development, it was a matter of course that the demand for equality should assume a general character reaching out beyond the individual state, that freedom and equality should be proclaimed as human rights.²

An illustration of Marx's second position, that a higher level of development in the means of production meant a higher level of culture, was provided by Marx's brief consideration of Greek art and Shakespeare in his "Introduction to the Critique of Political Economy."

¹Marx and Engels, German Ideology, p. 65.

²Engels, Anti-Duhring, p. 116.

Let us take for instance the relation of Greek art, and that of Shakespeare's time, to our own. . . . Greek art presupposes the existence of Greek mythology. . . . In no event could Greek art originate in a society which excludes any mythological explanation of nature, any mythological attitude towards it, or which requires of the artist an imagination free from mythology. . . .

A man cannot become a child again unless he becomes childish. But does he not enjoy the artless ways of a child, and must he not strive to reproduce its truth on a higher plane. . . . The charm of their art does not conflict with the primitive character of the social order from which it had sprung. It is rather the product of the latter and is due rather to the fact that the immature social conditions under which the art arose and under which alone it could appear can never return.¹

Because Innis did not share Marx's view of progress and because he was concerned with distribution rather than production, Innis's position was diametrically opposed to Marx's approach to ideas. He did not feel that the dominant ideas of an epoch were derived from those of the material structure of that epoch nor did he accept the proposition that these ideas were the work of the "less active" and more contemplative element of the ruling class. It was true, Innis held, that the dominant ideas of a civilization would be those suitable to the dominant medium in that society. He believed, however, this was because the ideas of culture had been shaped by the greater ease with which the medium could transmit some ideas relative to others, together with the needs of the civilization at the time the medium was

¹McLellan, Marx's Grundrisse, pp. 44-46.

adopted which had led to the adoption of that medium. Because the dominant element in society was the "monopoly of knowledge" of that society Marx's division of a ruling class into active and thinking segments had no place in Innis's system. In the same way, the appearance and rise of new ideas was not work of the thinkers of a revolutionary, rising, new class. They were the result of the change in technology which had occurred because of the general malaise afflicting the old society and they reflected the changed possibilities of transmission.

One example of the rise of a new idea was Innis's discussion of the growth of Christianity. Christianity, in his opinion, appeared as part of a reaction in Judaism against the growth of a monopoly of knowledge divorced from Israel's vernacular. Christianity was universalized by its adoption of koine, the lingua franca of Greek commerce. "Use of the parchment codex gave Christians an enormous advantage over other religions"¹ during the period of the collapse of time control in the Roman Empire when people were searching for new ways of time control. With the disappearance of papyrus in the West the Church was able, on the basis of parchment, to become the ruling cultural force in the Middle Ages until a vernacular reaction against the monopoly of knowledge led to the rise of a new media.

¹Innis, Empire and Communications, p. 107.

Innis did not believe that a civilization whose general level of technology was lower than that of another civilization would also be culturally inferior to the second civilization. On the question of Greek culture itself, far from regarding it as the limited product of a primitive age which was to be surpassed, Innis quoted Renan to the effect that "progress will eternally consist in developing what Greece conceived."¹ Greece's power of conception was not due to the effect of a mythology originating because of the backward structure of the economic base and the Greeks' poor understanding of the material world. It was due to the potential power of the oral tradition, the possibilities existing when it first encountered the written tradition, and to the presence of a number of historical accidents in Greece, i.e. the fact recurrent invasions had kept the oral tradition flexible, nomadic life had weakened the power of the priesthood, and the Greeks, being separated from their neighbors by sea, were able to borrow only those cultural elements which were of use to them. The great age of Greece coincided with the balance of the rational in Ionian philosophy and the mystic in the mystery religions and the balance of the written and oral traditions, not with the dominance of mythology.

In the way that Marx and Innis differ on ideas and art so to did they differ on the question of the state.

¹Innis, Bias of Communication, p. 4.

Marx's view of the state in precommunist societies is quite clear. "Political power, properly so called, is merely the organized power of one class for oppressing another."¹ One of the great achievements of communism was to be the "withering away of the state," an unclear phrase which is generally assumed to mean that with the existence of only one class, the proletarians, coercion would cease to be necessary and its organs would disappear. For Innis, organized force was a necessary evil. Innis was not so much interested in the provision of material goods as in the creation of ideas and, for the latter, protection was necessary. "An interest in learning assumes a stable society in which organized force is sufficiently powerful to provide sustained protection."² A concern with transportation and distribution which saw force as protection was much more favourably disposed towards it than was a concern with production which saw force as suppression. Not to be omitted from consideration either, is Innis's observation that "Canada is an island of counter-revolution in a world of revolutionary traditions."³ Innis himself was a, small "l," liberal Canadian par-excellence while Marx was not only in the revolutionary tradition but was himself in the 1840's an active revolutionary.

¹Marx and Engels, Basic Writings, p. 29.

²Innis, Bias of Communication, p. 4.

³Innis, Political Economy and the Modern State, p. 258.

Another difference between Marx and Innis is that each represented one of the two basic attitudes to history which exist among those who see history as something more than a series of random events without a pattern. These "attitudes" may be labeled "cyclical" and "evolutionary." The "cyclical" attitude in Western Civilization has descended from the Greeks though it is common in many other civilizations and cultures. It sees history as being basically repetitive in nature. A state rises, falls, and is replaced by another. A political system evolves from one form into another, and thence to a third which yields a return to the first. The second "attitude" was introduced into the mainstream of Western Civilizations by the Christian historians in the later days of the Roman Empire. For these Christians, history started with the expulsion of Adam and Eve after the Fall, progressed to the conception of Christ, and continued to evolve towards the Last Judgement. This Christian view was also, to some extent, implicit in the Jewish Old Testament and so is also of considerable antiquity. Innis's approach reflects the first attitude, the "cyclical" one and Marx reflects the second, though his history begins not with the fall of Man from "Grace" but from "primitive communism" and evolves towards "Communism" and not "Redemption."

One hesitates to speculate, but comment on Marx's emergence from an originally Jewish background and his resemblance at times to a prophet from the Old Testament is

far from new while, in Innis's case, Innis was a great partisan of the oral tradition which he felt was represented par-excellence in the Greeks. Unfortunately, counter-arguments to this suggestion lie readily to hand since, after all, Innis was the one initially educated to enter the ministry while Marx began by studying Greek Philosophy upon which he did his Ph.D. thesis.

This fundamental difference in the views of Marx and Innis on the ultimate shape of history probably was an important contributing factor in other differences between Marx and Innis. Marx, for all his railings at society, was basically an optimist. His solution to the problems of his day was to issue a call to action, a call to revolution. It is relatively easy to be an optimist when you know where history is going and you like the end result. The early Christian historians were optimists too, for, while towards the end of the world things would get worse, this temporary phase would be followed by Judgement Day and the Resurrection. Innis, quite clearly, was a pessimist. He looked at his world and feared the effect of the tremendous space bias of the communications media which he saw. Innis's ultimate solution and hope for the re-establishment of a balance seems to have been a return to religion. (Here perhaps more clearly is an effect of Innis's early moral training.) There is certainly a difference between Marx's call for revolution and Innis's for religion. It is, however, rather difficult for a cyclical historian to be an optimist. The

Greek historians were not particularly optimists either. (Incidentally, Marx's disparagement of religion was not particularly out of line with his earlier philosophic training in 18th century rationalism and in Greek materialism. This suggests at the very least that the early influences on both Marx and Innis could have had variable long-run effects.)

It is interesting that Marx began as a philosopher and became an economist and student of history while Innis, on the other hand, began as an economist and student of history and became a philosopher. It is impossible to estimate the effect of their work on creating this difference. One cannot help but remember, however, that economics was once called the dismal science and that history does not seem to indicate that man learns from his social and political mistakes, even if he becomes more adept at producing commodities and more efficient weapons of destruction. One also recalls that Marx's philosophic background before his dramatic conversion to Hegelianism (which he was later to stand on its head) was the optimistic rationalism of the later 18th century.

In conclusion, Marx and Innis were both concerned with the understanding of economic and social change, the effect of technology in bringing about this change, and the source and influence of social and economic power. Both Marx and Innis believed that social forces were dominant though individuals could contribute to history within the limits of these forces.

The models used by Marx and Innis in their studies were similar in their emphasis on technology and their concern with power. Marx's model was fundamentally one of exploitation based on production. With Innis, however, the model was more concerned with distributional linkages and the diffusion of the effects of technology throughout society. Technological change alters the power base of rival groups in society and changes the relative effectiveness of the use of various types of both intellectual and material resources. In Innis's earlier work these rival groups were industries, firms, and commercial loci. In his later work they were "monopolies of knowledge."

With Marx, the analysis of production was the key to understanding both the economy and society. He also believed that any system of production rested on material and social preconditions produced in the past. He thought that, given its preconditions, a society adopted the system of law, politics, religion, ethics, etc. that best suited the exploitation and development of the forces of production at that time. Society was a direct product of production and the wealth and power of the ruling class was based on their ability, due to their ownership of the means of production, to exploit the other classes.

For Innis, distribution held the key to understanding the shape of a culture. His concern with distribution, technology, and monopoly were leading threads throughout his work. In his later work he believed that the possibilities

of the dominant medium of communication determined, over the long run, the nature of the ideas which would become dominant in the society. Monopolies of knowledge based on the possibilities of the medium tended to appear and grow to the point where they created an imbalance in society. Innis viewed society as an organic whole shaped by the media interacting with the society's indigenous elements. The influence of the "monopolies of knowledge" was due to the monopolistic advantages they possessed for the exploitation of the medium.

Marx claimed that history was a process of evolution, from primitive communism to communism, propelled by the internal logic of the development of the technology of production brought about by exploitation by the dominant classes. With Innis, however, history was cyclical. He, apparently, did not see a logic in the development of the technology of distribution, i.e. communications and transportation, which stretched across civilisations though he did think that each civilisation's evolution followed its own logic and that space and time biased media alternately dominated society as monopoly brought forth reaction and the growth of a new monopoly.

It would seem that Marx's choice of production and Innis's choice of distribution as the dominant economic element in history was influenced by their environment. Marx lived in the heart of industrial England during the "Industrial Revolution" while Innis lived almost a century

later in Canada where transportation had always been, and still was, of clearly vital importance. Their home and educational backgrounds may also have effected their attitude toward history but here the influences are not so clear.

Both Marx and Innis believed the cause of social change was internal to societies. Marx believed a society's evolution proceeded in an explicitly dialectical manner. Innis, however, never explicitly adopted the dialectic though he may have implicitly used a dialectical approach in his later work.

Although their work had a political effect on both of them, the effect on Innis was much weaker. Marx was, and remained, throughout his life vitally concerned with politics and political power. In his vision he foresaw the end of Capitalism and the beginning of a glorious new age in Communism. Innis, although he became more politically conscious, remained predominantly interested in the evolution of culture because of his concern with economics and the evolution of economic life. His basic prediction was also much less optimistic than that of Marx. If something was not done, he felt, to counter Western civilization's space bias then the culture would either fall or blow itself apart.

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