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HAROLD ADAMS INNIS AND GEOGRAPHY:

HIS WORK AND ITS POTENTIAL FOR MODERN GEOGRAPHY

R. LOUIS CHAPMAN

A Thesis presented to the
School of Graduate Studies in
partial fulfillment of the requirements
for the
Degree of Master of Arts in Geography

UNIVERSITÉ D'OTTAWA
UNIVERSITY OF OTTAWA

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I realize that it may appear somewhat unusual to include acknowledgements in a Master's Thesis, but this project would not have been started nor completed if not for the help and understanding of some people whom I would like to thank in this most imperfect way.

I would like to say thank you to Professor James Young of Concordia University, who by the simple act of saying "I don't know", awakened in me the need to know and to understand why geographers do and say the things they do.

I also owe thanks to my thesis director Professor Vincent Berdoulay. He recognized my need to explore and to understand geography's past and he allowed me to do so on my own terms. He has been a continual source of information and criticism and he has shown me what it means to pursue knowledge and what it means to be a scholar.

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INTRODUCTION

Harold Adams Innis was one of Canada's most eminent scholars. During his lifetime, Innis exercised great influence upon the neophyte Canadian scholarly community. Even now, thirty two years after his death, Innis continues to spark interest in his own work and his far ranging interests.

Harold Innis is no stranger to Canadian geographers, but over time there has been a lessening of interest in him. The purpose of this thesis is to contribute to the opening up of the work of Harold Innis to geographers. This task will focus itself on what appears to be neglected themes in Innis' career: his treatment of the natural environment - human agency controversy and the development of Innis' humanistic treatment of space and time.

In order to arrive at these ends the thesis has been broken down into four chapters. Chapter One will provide an overview of the life of Harold Innis and his involvement with geography at the University of Toronto. As well, the first chapter will suggest the variety of interpretations of Innis' thought that came out of the treatment accorded his work by others.

Chapter Two will then encompass an examination and interpretation of Innis' treatment of the environment theme. It will be shown how Innis' position on the environment - human agency controversy formed the basis of his own interpretation of the evolution of Canada. In order to do so, his views will be set against those of other significant scholars of his time, especially Griffith Taylor and W.A. Mackintosh.

Chapter Three will focus on those transition years which saw Innis shifting from economic concerns towards a more humanistic view of the evolution of society. The Great Depression and the Second World War led Innis to focus upon the role of communication in influencing the evolution of society. This chapter lays the foundation for the work found in Chapter Four.

Thus the Fourth Chapter of this thesis examines the nature of Innis' communications theme: it is shown how the geographic dimension of this theme revolved around the humanistic treatment of space and time. Recent developments in geography are called upon to suggest how the potential of Innis' message could come forward. Indeed, the uniqueness of Innis' treatment of space and time offers much of interest for the humanistic thrust of modern day geography.

Chapter One: An Overview of Harold Innis and his Career

1984 marks the 32nd anniversary of the death of Harold Adams Innis. In his lifetime he rose to a position of pre-eminence in Canadian scholarship and was one of Canada's first, if not the first, internationally recognized scholars. Yet thirty years after his death Harold Innis is a mysterious figure to Canadian university students and is remembered either as an architect of the staples approach or an economist turned communications theorist. Both conceptions are incomplete. Innis was both of these things and much more. He championed the cause of Canadian scholarship and defended it against foreign influences and shoddy practices. Harold Innis believed in the sanctity of the university and scholarship and despaired over the shift of the university and its academics towards a more active role in the public sphere. In his later years Harold Innis expressed real concern over the state of western civilization and raised questions of doubt over our ability to survive as a "balanced" entity. Yet beneath this despair lay a very real humanism that could see beyond our limitations to the frontiers of our possibilities. His faith in the human spirit, his belief in the possibility of a better world, and his own humanism are Harold Innis' most enduring legacy.

1.1 Biographical Background

Harold Adams Innis was born November 5th, 1894 on a farm near Otterville, Ontario. His early years were formative ones. His strict Baptist background,

combined with youthful curiosity and an indulgent mother, provided Innis with an exceptional desire for knowledge, a boundless source of energy, and a capacity for hard work that would serve him well in his later years. In 1913 Innis entered McMaster University, then a Baptist institution located in Toronto and graduated in 1916 with a Bachelor of Arts.

Upon graduation Innis forsook his Baptist upbringing and joined the 69th Battery R.C.A. in Toronto. Innis was wounded in action around Vimy Ridge in 1917 and while convalescing prepared for his Masters degree. Testimony to Innis' remarkable energy is the fact that Innis was repatriated in March of 1918 and received his M.A. from McMaster in April of that year.

Innis' education had been directed toward a possible career in law and he had fully intended to attend Osgoode Hall. However as an undergraduate at McMaster Innis was introduced to economics and expressed a very real interest in the subject. In the summer of 1918 he decided to go to the Summer Session at the University of Chicago. This would prove to be the biggest decision of Innis' young life as he decided to stay at Chicago, abandon law and take his doctoral degree in economics. The influences of Chicago would form a base for Innis' subsequent work.

Innis graduated from Chicago in 1920 and joined the Department of Political Economy at the University of Toronto. There he would spend the next 32 years until his death in 1952. Innis was quick to become active both within the university and the Canadian academic community. In 1930 Innis established his position within the academic community with the publication of <u>The Fur Trade in Canada: An Introduction to Canadian Economic History</u>.

In the 1930's Innis' prestige began to extend beyond the university.

In 1934 he presented a complementary report to The Report of the Royal Commission: Provincial Economic Inquiry. In 1935 Innis and Vincent Bladen resurrected The Canadian Journal of Economics and Political Science. In 1936 he was appointed professor of Political Economy and the following year he became the head of the Department of Political Economy and President of the Canadian Political Science Association. In 1938 Innis and R. G. Trotter were named to the provisional Canadian Committee on Research and through their efforts the Canadian Social Science Research Council came into being in 1940.

The 1940's saw Innis continue his leading role in Canadian scholarship and reap some of the rewards for his effort. The University of Chicago made a concerted effort to entice him to return to his almamater, on his own terms, and between 1943 and 1946 Innis was heavily pressured to consider the offer. In 1944 Innis was granted an honorary doctorate by the University of New Brunswick and in 1945 McMaster accorded him the same honour. In 1945-46 he was appointed to re-organize the School of Graduate Studies at Toronto and he subsequently headed the new school from 1947 to 1952. In 1945 Innis and two companion scholars were invited to the 220th anniversary of the Russian Academy of Sciences. He was elected President of the Royal Society of Canada in 1946 and in the same year sat on the Manitoba Royal Commission on Adult Education. In 1947 Innis received honorary doctorates from Laval and the University of Manitoba and in 1948 he delivered the Beit Lectures at Oxford, the Stamp Memorial Lecture at London, and the Cust Foundation at the University of Nottingham.

While in England Innis was granted an honorary degree by the University of Glasgow. In 1948-49 Innis accepted to serve on the Royal Commission on

Transportation headed by W. F. Turgeon. Increasingly weakened by cancer, Innis served on the commission, continued his daily lectures, and produced his last two major works: Empire and Communications in 1950 and The Bias of Communications in 1951. In 1952 the cancer claimed him and Innis died on the 8th of November.

1.2 Innis' Role in the Development of Geography at Toronto

One particular aspect of Innis' remarkable career is of some importance to Canadian geographers. In involves Innis' personal role in the formation of geography in Canada and of the Department of Geography in Toronto. Innis taught "commercial" or economic geography to commerce students for a number of years in the 1920's and was obviously aware of its importance to the social sciences. In a letter to Sir Robert Falconer, President of the University of Toronto in 1924, Innis included the study of geography as an important element in the development of the social sciences at Toronto and wanted geography to be included in the curriculum of studies.

In 1928 E. J. Urwick, Innis' department head, recommended Innis to President Falconer as Toronto's delegate to the International Geographical Union at Cambridge England. It was the same year that he had been made associate professor of geography (James Carey, 1981, p. 201). Innis was to examine continental schools of geography and possibly seek a candidate to teach geography at Toronto. In 1931 Innis corresponded with a number of geographers concerning a teaching post. The most notable was Griffith Taylor who was at Chicago and who desired to get back "amongst Britishers". Taylor told Innis that Chicago offered $7,450, twice what Toronto was offering, and Taylor would not be persuaded to leave Chicago for less. Throughout

1931 Innis communicated with several American candidates and he solicited the help of Isiah Bowman, of the American Geography Society, in determining the worth of one or two of the candidates.

Innis was very anxious to see the chair established but financial considerations precluded its formation. In 1932 President Cody of the University of Toronto told Innis that he would wait out a good man rather than offer it to a man of lesser capacities. Cody told Innis in 1933 and in 1934 that the financial situation was such that a chair of Geography was impossible. However in 1935 the money was available and Innis again sought candidates. It would seem that Innis had his heart set on Griffith Taylor and Taylor and Innis exchanged a series of correspondences. On January 28th 1935 Innis was instructed by President Cody to have Griffith Taylor meet him at the Union League Club in Chicago. It was at this meeting that Taylor was offered the post as the first head of the Department of Geography at Toronto.

Innis' involvement with geography at Toronto after this date was in the capacity of head of the Department of Political Economy, of which Geography was a part. In 1936 G. L. P. Grant-Suttie nominated Innis to the International Geographical Union Committee of Canada and Innis served on this committee for a number of years.

1.3 Innis According to his Contemporaries

Harold Innis continues to this day to be surrounded by the notion of "schizophrenia" (A. John Watson, 1977): a schizophrenia that is crudely contained in the notion of an "early" and a "later Innis."[1] Marshall McLuhan

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[1] The first appearance of the term "later Innis" appeared in "The Later Innis" written by Marshall McLuhan (1960).

did much to foster the idea of duality in Innis' career and set the tone and direction of much of the analysis that has been produced on Innis' career (Carey, 1977). It is precisely because of the individual biases of his interpreters (Melody, 1981, p. 9) that Innis has been subject to a number of interpretations that have been predicated on this crude notion of the existence of a duality in Innis' career.

If one word could sum up the relationship between Harold Innis and his contemporaries in economics it might be mis-understanding.[2] Innis had established himself as a leading figure in Canadian economics and when he began to delve deeper into the then largely unexplored world of communications he was opening up a gap between himself and his fellow economists. His critics were familiar and comfortable with his earlier works but his analysis of the role of communication in civilization seemed so distant from his political economy that many failed to see the deeper meanings of his communications studies. The reservations that surrounded the scholarly communities' acceptance of Innis' investigations in ancient civilizations seemed to lay less in their understanding of it and more in their attempts to compare it to his earlier works.

In an obituary for The Canadian Historical Review Donald Creighton (1952, p. 405) chose to present Innis' career as a succession of ten year periods starting with the publication of The Fur Trade in Canada (1930), The Cod Fisheries: The History of an International Economy (1940), and Empire and Communications (1950). Innis began as a student of Canadian

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[2]Two examples of this mis-understanding can be found in a review article of Innis' Bias of Communication written by E. R. Adair in The Canadian Historical Review Volume 33, no. 4 (1952) and J. B. Brebner's review of Innis' Changing Concepts of Time in Volume 34, no. 3 (1953) of the Canadian Historical Review.

economic history, but moved by his interest in political and cultural history, he progressed to sociology and political science and left the bonds on Canadian studies to pursue international economics and ancient civilizations. (page 405)

Creighton follows much the same line in his 1957 book Harold Adams Innis: Portrait of a scholar. The book was less of a critique and more of a sympathetic and personal biography of Innis. It placed Innis in the context of his times and provided a framework for an understanding of Innis' work.

In a recent article entitled "Harold Adams Innis: An Appraisal" (1981) Creighton's view remains largely unchanged although he did concede two points: the existence of the theme of communications and technology throughout Innis' work and the fact that Innis' communications work was different only in style and method of research. Creighton continued to stress the role of the intellectual and public community in affecting Innis and in effecting change in his work. Creighton has never entered into any of the debates over the significance of Innis' work or its underlying themes, rather he was content to present a humane and sympathetic view of his friend Innis.

John Nef (1953, page 224-225) felt that most of Innis' contemporaries were willing to recognize Innis' stature as a scholar but in their assessment of Innis' investigation of ancient civilizations they were unable to grant him much sympathy nor would they or could they understand what Innis was attempting. Nef maintains that this was a result of Innis' breaking with specialized research and taking to asking embarassing questions about the theoretical base that his contemporaries fixed their researches upon. Nef

identified the fact that Innis' communications work emerged from his concern for scholarship and his communication studies were intended to illustrate the forces that mitigated against the possibility of true, objective scholarship.

I do not wish to suggest that Innis was a complete enigma to his fellow scholars in political economy. Both Alexander Brady (1953) and William T. Easterbrook (1953) produced assessments of Innis' work that should have stood as models for all those who made it their task to look at Innis.

Brady recognized Thorstein Veblen as a major influence in Innis' development as a "liberal" economic thinker (1953, page 88). Brady felt that Innis' liberal spirit led him to grow distrustful of doctrine and dogma as it existed in scholarly circles. Innis felt ill at ease with his contemporaries and their propensity to maintain a uniformity of though around dominant forms of methodology and philosophy. It was his liberal spirit that led Innis to question the role of the university and the scholar (ibid, pp. 93-94). It was his liberal spirit that drove Innis into communication studies (ibid, p. 92). Brady felt that Innis was demonstrating to the social sciences the need to explore the theme of communications and that historians should investigate the role of institutions on the broadest possible basis (pp. 95).

Like Brady, Easterbrook commented on the influence of Veblen and the liberal spirit of Harold Innis. Easterbrook felt that Innis' discomfort with the price system and classical economic theory that supported that system stemmed from Veblen's work on technology and the free and controlled application of technology that spawned and maintained the price system (1953, p. 291). Easterbrook presented Innis' work as a focus on the antecedents, courses, and consequences of economic and cultural change in an industrialized society.

Easterbrook saw in Innis' methodology no significant break or radical departure because the methods developed in the examination of staples were more than adequate for the parallel study of pre-industrial communications. Easterbrook felt that Innis left a clear path for the future of political economy and economic history. Economic historians should concern themselves with the enunciation of obstacles (biases) (ibid, p. 302) and become "economic historians of culture" so that the economic problems of modern times could be seen in their proper context. If economists can gain an awareness of the biases of their culture and their times they can rectify the biases in modern economics (ibid, p. 304).

Brady and Easterbrook were demonstrating remarkable forsight in wanting to extend the work of Innis and in hoping that his work would form the bulk of research for future economists. However, no matter how sympathetic or far-sighted Innis' contemporaries were, neither he nor they could alter the course of scholarly evolution. Economics had undergone its own positivistic revolution during Innis's life time and as a consequence he had become alienated from his own discipline. The energy with which Political Economy burst on the scene in Canada in the 20's and developed in the 30's with a high level of scholarly activity was equalled by its' decline following the Second World War: decline suffered at the hands of a maturing scholarly community.

The decline of Political Economy in Canada reflected a larger swing in the relationship between economics and political economy. The Keynesian revolution in economics pushed political economy into the realm of economic history. Whereas political economy had functioned as the broad avenue of inspection with respect to the theoretical issues of development, it was now relegated to the role of chronicling the various phases of economic growth.

This pushing away of political economy was particularly violent in the United States. The United States' position as a world power had been secured during the war and the headiness of the times filtered into American scholarship which, by the power of its associations and control of the leading academic organs of discussion, set out to establish the supremacy of their respective views. Like the growing "Marxist" tradition, the "Liberal" tradition in political economy came under attack largely because of its "old" methodology and philosophy (Drache, 1976, p. 15-16). Political economy, which was a threat to the American status quo regardless of where it may be, was attacked and suppressed. Canada's scholarly community was too small to resist this type of pressure and the basis of investigation and interpretation that underlay much of the social sciences in Canada merely fell away.

The decline of political economy also reflected much larger and more sweeping changes which Drache (1976) has called "American cold war social sciences" and which geographers have called the "Quantitative Revolution". To gain an understanding of the controversy surrounding Political Economy during the early 1950's we need only to harken back to geography's recent past and the atmosphere surrounding the onset of the Quantitative Revolution and the battle between the positivist paradigm and the old paradigm established by Richard Hartshorne.

More than anything else it was this "new" approach to social sciences which put to rest Political Economy and Harold Innis. William Melody (1981) poignantly noted that,

> analysis in the social sciences in the last 25 years can be described as a trend to artifical division, specialization, and separation of disciplines within the social sciences, and the focus on small scale, abstract theorizing

> and very narrowly defined empirical analysis. Because of its breadth, Innis' work did not fit any single social science discipline. In an age directed to the pursuit of high theory, mathematical analysis, and narrow empirical rigor in the social sciences, Innis' examination of the detailed history of institutions, within a context of macro-social systems, was certainly not in academic fashion.

Innis, staples, and political economy had ceased to be academically fashionable. The methods they had at their disposal, i.e., a causal, inductive, historical staples approach, suddenly was not sufficient (Westfall, 1981).

Political economy in Canada ceased to be the chief organ of socio-economic interpretation. The search for our national heritage in the study of social and economic organizations gave way to an exercise in psychology. Political economy was replaced by political biography. Where once we sought our identity through staples, we now reduced the search for Canadian identity to a practice akin to lying on the psychiatrist's couch (Westfall, 1981, pp. 45-47). All of these factors served to put Innis in a position where he ceased to attract attention. The "quantitative revolution" that gripped the young social sciences in Canada tore them apart and as each of the social sciences experienced its respective paradigm shift the old ways were abandoned and, with them, so was Harold Innis, staples and political economy. The logico-positivistically based social sciences were content to ignore the "old" order and carried nothing forward. When economists looked back on Innis it was from a narrow framework of analysis that increasingly stressed the micro-view over the macroview. The limitations of economists that followed after Innis were the causes of his slipping from the mainstream of Canadian economic scholarship (Melody, page 9).

1.4 A Comparison of Marshall McLuhan to Innis

Into this void slipped a new group of scholars whose appreciation and interpretation of Harold Innis' work was based on the work of Marshall McLuhan. No one has been more closely associated with and done a greater disservice to Innis than Marshall McLuhan. McLuhan is responsible for the divorcing of Innis from political economy and presenting him as a communications theorist (Carey, 1977, p. 27).

McLuahn's pronouncements on communications were to become elements of the 1960's pop culture. McLuhan was more than an observer of media: he was a media made guru in an age that was pre-occupied with media. McLuhan's media message was a very simple one: how and what we think about is determined by the methods we use to communicate (Carey, 1967, p. 22). To understand the relationship between McLuhan and Innis we must examine their respective appreciations of the role of media in society.

Innis began his search into modern communications by searching for its antecedents in ancient empires. He recognized the existence of light media such as parchment or papyrus which facilitated the development of a spatial bias in ancient societies. Ancient societies predicated on light media demonstrated a centralized control of large areas with uniform codes of conduct and thought. In contrast ancient societies whose principal media were of durable nature, such as stone or clay tablets, exhibited a bias towards time. Temporally biased societies were less spatially diverse, more spiritually orientated and better suited to perpetuating themselves over time. The only ancient civilization to contract this order was that of the Greeks whose oral tradition allowed them to transcend the bounds of state and society usually associated with societies dependent on written media.

Like Innis, McLuhan went back to the ancients and examined the oral and written traditions of modern communications. He saw primitive man as an oral being with an acute ability to listen. The advent of the phonetic alphabet emphasised the eye and printing with orderly images allowed man to see and separate himself from his environment. The coming of the electric age and the new media of television and computers would, in McLuhan's opinion, re-establish the oral tradition of the ancients.

Both McLuhan and Innis recognized the centrality of media and communications to the history of civilizations and the role of both as determining factors in the development of our social fabric (Carey, 1967, page 5). However it would be a mistake to assume that McLuhan was continuing along the lines Innis had established. McLuhan's work compliments Innis' researches. Whereas Innis was investigating the role of media to determine its influence via the organizational framework that surrounds a dominant media form, McLuhan was investigating media influence on an individual's capacity to think and organize. Innis was attempting to understand the role of media in cultural and social organization while McLuhan was looking at media influence on an individual's sensory and though organization (Carey, 1967, page 5).

McLuhan was neither as fatalistic nor as deterministic as Innis with respect to media. He professed his faith in electronic media as a means of recapturing the oral tradition. The electronic media, specifically television, united sight with sound and an illusion of touch that extended out senses beyond our bodies and demanded of us involvement and active participation via media that recaptured the best properties of oral communication (Carey,

1967, pages 25-36). McLuhan, in professing his faith in media and denying the possibility of media being a dangerous force, was, in effect, accepting the social forms that our modern media bias would create and this ran contrary to the values that Innis regarded as sacred. Innis was alarmed at how social, political, and economic institutions were allowed to flourish under auspices of nationalism while those institutions which should have been encouraged to balance the biases of Western civilization were attacked and dismantled (Innis, 1944).

James Carey (1977, page 39) sums up the relationship of McLuhan and Innis best when he says,

> the death of values he-McLuhan-represents is not some twentieth century revolution. It is the end point of a positivistic revolution against meaning and metaphysics. And thus it is no surprise that his utopianism should be based on the sanctity of science and the fact.
>
> But let me remind you that it was precisely this revolution that Innis saw as ending the possibility of a stable civilization in the West. For Innis, the oral tradition, representative of mans concern with history and metaphisics, morals and meanings, had to be preserved if we were not to fall victim to a sacred politics and a sanctified science. It is an irony and an uncomfortable fact that the prophesy is born out by one who has identified himself as a disciple. But such is the frequent result of discipleship.

1.5 The Innisian Roots of Canadian Nationalism

To his credit, McLuhan did cause scholars to re-acquaint themselves with Harold Innis; however the new interest in Innis was focused around narrower themes contained within his investigations on communication. One of the most dominant themes was the role of media in promoting nationalism and the economic, political and social institutions associated with the

nation states. Innis' misgivings over the marriage of media to the nation-state manifested themselves in his attitude towards the United States. Innis could not help but point to the Americans as the best example of a society trapped in the biases of its own media. Innis was aware of the growing pervasiveness of the United States in Canada and was uneasy over the possible repercussions. This led him to propose that Canada assume a position of "marginality" with respect to the United States and Great Britain (Innis, 1979). What he was proposing was to keep Canada out of the sphere of influence of these two powers and to set Canada up as a countervailing force with respect to the media biases of these two nations. It was a position analogous to Innis' treatment of the university as the repository of those oral traditions that would function as a countervailing force in a spatially biased milieu.

If you add to this Innis' luke warm feelings towards the American public in general and his ferocious defense of Canada and Canadian scholarship (Creighton, 1957, p. 125) then it is not difficult to see how the notion that Innis was a Canadian nationalist was born. It must be remembered that this nation was born in an era where Canadians were very sensitive about their identity and particularly sensitive about being associated in any way with the United States or Americans.

Carl Berger (1976) accepted Innis as a nationalist on the argument that Innis held the Americans to represent all that was reprehensible with respect to the victory of the written tradition over oral tradition and of English Canada's slide into the American sphere of influence.

Daniel Drache in his 1969 article "Harold Innis: A Canadian Nationalist" saw Innis' nationalism as an expression of his liberalism. Drache felt that

Innis' contribution as a nationalist in his continuing to support a Canadian liberal tradition rooted in the history and economy of Canada (Drache, page 11).

Drache maintained that Innis' liberalism was characterized by his manner of scholarship and his defense of unbiased scholarship and the universities was an expression of his Anti-American and thus his Pro-Canadian sentiment.

Regardless of the possibility of his being regarded as a nationalist, Innis was lost in a sea of "continentalism" that washed over Canada following World War II (Drache, 1968, page 11). Drache maintained that Innis' "liberalism" led him to nationalism, but the liberal continental tradition in Canada fostered and encouraged a closer union between Canada and the United States. The uniqueness of Innis' "liberal" scholarship and nationalism was swamped by a wholesale movement of Canada and its academic community towards the American sphere of influence. The potential of Innis' nationalism was never allowed to surface. Drache (page 11) poignantly concluded:

> But the men and women who studied with Innis did not understand him as he wrote or as he thought. Their liberalism stood in opposition to his and in the years following his death the ideas and tradition which he worked to realize fell into obscurity. They associated liberalism with an admiration for everthing American and a dislike for all forms of nationalism, including Canadian nationalism. Quite early on they discarded the key to Innis' thought, empire and imperialism, because of its "unacceptable" bias. Significantly, what those in public life kept of Innis they used in defense in their political endorsement of continentalism, and those in the university to justify their supposedly value-free studies of American penetration into the Canadian economy. What they forgot about Innis was that he jealously prized his independence as the sine qua non of his crusty "intellect".

Drache's principle argument lay around Innis' defense of scholarship in the face of the spatially biased scholarship of his day. Since the United States was the most visible product of spatial biases within a society Drache took Innis' defense of unbiased scholarship as a statement of nationalist sentiment. Innis did defend Canadian nationalism (Creighton, 1957 pages 77-80) but not at the expense of scholarship.

William Christian (1977) does not deny that the case for Innis' nationalism was a strong one. The nationalist's of the scholarly community of the 1960's and early 70's were heartened by Innis' pronouncements against the United States and his attempts to advance the Canadian scholarly community during his lifetime. However, by focusing on the intense nationalistic traits of Innis' private and scholarly deeds, the nationalists avoided facing the fact that Innis was decidedly anti-nationalist. Innis' work focused on the development of monopolies of knowledge and the attendant damaging social formations and not on simplistic national sentiment.

Christian's argument is that Innis can hardly be accepted as a nationalist when his communications works were used to illuminate the problems of modern society and scholarship: problems caused by the growth of nationalism. Innis' mistrust of the United States lay in its epitomization of the most dangerous features of a nation state predicated on the biases Innis highlighted in his communications studies. Canada was willingly allowing itself to come under the sphere of American influence and Innis was trying to buttress Canada against such a movement. Christian maintained that Innis saw the emergence of Canadian nationalism as a debilitating force and a Trojan horse for American penetration in Canada and the British

Empire. Canadian nationalism was a too highly regionalized practice that promoted small groups while weakening the central government. For Innis Canadian nationalism served to profit a few while removing our long range concerns over the massive American penetration of Canada.

1.6 A Marxist interpretation of Innis

Recently Innis has enjoyed a revival at the hands of Marxist scholars. Watkins (1977) places a great deal of emphasis on the R. T. Naylor book The History of Canadian Business 1867-1914 (1975) which is a Marxian version of the Innisian interpretation of staple exploitation. Watkins maintains that the Marxist version of the staple theory is a conscious extension of Innis and Naylor towards a modern staple theory that is a theory of class formation (ibid, page 63). A Marxist staple theory will examine the creation of class structure in Canada as a result of the exploitation of staples.

While Watkins is suggesting that Innis is a valuable building block upon which a new Marxist staple theory shall be produced others have attempted to link Innis to Marx via the notion of a shared methodology revolving around the use of dialectics. Innis' sense of history and use of the dialectical method allowed him to grasp the dynamism of communications where certain groups enjoyed selected advantage over others in getting their message across (Robinson and Theal, 1977). Innis' dialectics were useful because they allowed him to draw from widely separated complexes in history and bring forth explanations on such diverse topics as empire and communications and they allowed him to see the relationship between the social, political,

technological, and conceptual forms are culturally interrelated.

James Carey (1977, page 52), while commenting on Innis' methodology, noted that Innis' dialectics was more than a method of analysis, it was an attitude. Carey (1977, page 52) goes on to state that dialectics recognizes the contradictory tendencies of phenomena, dynamics of social life, and the qualitative changes in the nature of the social process. Carey (1981, page 96) elaborated on this theme when he stated that Innis and Marx shared a materialist conception of history with an appreciation of the historical pattern of development. The important terms of discourse for Innis were discovered through opposites. Carey contends that Innis, approaching from contradictory terms, saw the antimonies of existence and contradictions in events. Systems of thought and institutions contain the contradictions that are the seeds of their own destruction. Carey maintained that Marxian dialectics held a tragic view towards the limitations and frailties of human nature, saw history as omnidirectional, and embraced singular causation. Innis, by contrast, used his dialectics to search for the boundaries of the possible, the possibilities of history and the limitations of positive human action. Innis sought the limitations of positive human action to draw attention to the directions in which the total range of free human action could be brought to the fore. Further, Carey felt that Innis' dialectics led him to express himself through balanced opposites: time and space, oral and written, and stabiltity and change.

Ian Parker (1981) also recognizes that Innis and Marx share a materialistic, dialectical, ecological, and holistic perspective. Innis and Marx based their theses on detailed historical knowledge and the historical, categorical, and empirical closure of the analysis at the

level of contradictions analyses. Innis and Marx analysed the socially mediated-origins and impact of new technologies of production and communication as a way of gaining insight into historical, political-economic transformation (ibid, pages 133-134).

Parker recognized the shared methodology of Innis and Marx but cautioned against seeing this shared methodology as sufficient grounds to associate Innis with Marxism. Parker endorses Drache's argument to the effect that Innis is complementary to Marx but not a Marxist (Drache, 1969, pages 9-10). Drache called Innis a theorist of super structure concerned with communication and culture, while Marx was a theorist of the base of society concerned with the means of production. Moreover, Drache questioned the sufficiency of implying that Innis was a Marxist merely on the basis of a shared methodology.

1.7 Recent Trends in the Treatment of Harold Innis

Throughout this chapter I have presented the persistent interpretations of Innis' communications studies. In recognizing the primacy of his communications studies these interpretations have largely ignored the fact that Innis played a pivotal role in the formation of the staples approach in Canadian economic studies. No doubt this has been a matter of uneasiness in recent years for some scholars who have searched for the possiblity of re-uniting Innis' staple and communication studies.

Parker (1981) attempts to unify the two supposed halves of Innis' career by stressing the economic implications of communications. James Carey (1977) sees the existence of common themes in staples and communications as

possible means of developing an alternative to the crude notion of two Innises. Leslie Pal (1977), Robin Neill (1972) and William Christian (1977) see the concern of Innis for scholarship as the unifying theme.

Ian Parker (1981) saw Innis as one who never lost sight on the economic implications of communications. Communications is a logical consequence of Innis' staple work with its focus on the circulation of materials, information, finances, etc. (page 134). Although the attention paid to Innis' methodology has come from an attempt to better understand his communications work, Parker sees the roots of Innis' methodology in his staples studies. Innis recognized the problems inherent in overhead costs and the historical consequences of differing time structures of capital and his staple investigations led him to see the temporal and spatial problems of excess capacity that determine rigidities and biases which weaken the price system. These rigidities and biases spawn monopolies of force and knowledge and affect the centralization and decentralization of political economic systems relative to the communication media that affect the development of these rigidities (page 135).

James Carey (1977) maintained that McLuhan had all but removed the aspect of political economy from Innis' communication studies yet Innis had always been a historian seeking historical truths. Carey, with a concern for Innis' roots in history, stressed two themes in Innis' doctoral thesis and his studies up to and including The Fur Trade in Canada that were the roots of his subsequent venture in communications. The first theme took the form of a question and asked "What facilitated the great migration of European power, people, and culture beyond the perimeter of Europe into a new world?" The second was implied in Innis' Fur Trade. It can be best

captured by the statement; communication, when considered in terms of the medium that facilitated it, might be seen as the basic staple in the growth of empire.

Graeme Patterson (1979) asserts that Innis' books on communications are closely related to his Canadian studies. Patterson makes the connection between Innis' focus on communication media and the factor of waterway transportation as a communication media in his examination of Canada's economic development (page 122). The general concensus among most economists was that transport was communications. Innis, having gone beyond this simplistic appreciation of communication, entered the field of the communication of ideas and in doing so merely carried forward a concept from his economic past. Patterson contends that most of Innis' contemporaries failed to make the same leap in definition and in doing so lost perspective with respect to Innis and his work on communications (page 122).

Leslie Pal (1977) supports Carey's contention that the political and economic elements of Innis' communications work were removed by McLuhan. Pal sees Innis less as a communications theorist and would prefer to see the latter Innis as a political theorist. In his effort to seek a common theme in the "two Innises" Pal has focused on Innis' concern for unbiased social science. Pal contends that there was a link between Innis' definition of the subject of social science and his concept of monopolies found in his communications work (page 33). Pal maintained that Innis felt that objectivity in the social sciences was being threatened by the supposed freedom of bias that the social sciences based its pronouncements on. Specialization in the social sciences led to rigidities that destroyed the possibility of real

objective social science. It was this awareness of the contamination of objectivity in the social sciences that, Pal contains, led Innis to promote the oral tradition and the university in the face of the written tradition and the biased social sciences it has produced.

Robin Neill, in his 1972 book A New Theory of Value: The Canadian Economics of H. A. Innis, saw Innis' interest in communications media as a result of his wanting to discover the technological determinants of the values relevant to the economic growth process. Innis, following from Thorstein Veblen, recognized that it was the advance of technology that fueled social advance. Innis maintained that social purpose was found in social organization and new forms of social action and organization were predicated on a societies' changing technology (Neill, page 26). For Innis each of the social sciences reflected the bias of social institutions and that these biases led each discipline of the social sciences to maintain themselves separate from one another (ibid, page 82). In this regard economics reflected the biases of the social institutions that spawned it. Innis saw biases in economic thought and was searching for the technological and institutional factors in the biases of economics (ibid, page 72). For Neill Innis' investigations into civilizations was a direct consequence of his desire to rectify the biases of economics and the economic systems of his time. Innis felt that the best way to understand the changes in economic doctrine was to understand the changing values organized into society (ibid, page 72).

Neill sees Innis' turning to the investigation of changing civilization as a move to illustrate and possibly explain how the changes in societal value brought on by changing technology, notably communication technology,

would function to produce like changes in economic doctrine and by extension, doctrine in all the social sciences. To that end the investigations of Innis into civilizations should be seen as a natural extension of economic science (ibid, page 93).

William Christian (1977) like Pal and Neill focuses on Innis' growing apprehensions about the objectivity of the social sciences. Christian felt that Innis was an unorthodox political economist who was attacking neo-classical economics and its dependence on the price system and the drift of economics to a mathematically based position (page 23). Christian added to this concern the influence of the particular state of the social sciences in Canada in the 30's. Many social scientists were becoming involved in public projects to combat the effects of the depression. Innis accepted the Julien Brenda (The Great Betrayal) notion that the scholar who became the hireling of government or industry betrayed his autonomous allegiance to the university and scholarship (page 25).

Christian felt that Innis undertook to study the stability of political organizations in the hope of drawing social science out of its present mindedness (ibid, page 30). Innis' examination of the role of communications in the process of determining cultural stability from the ancient empires to the modern day was meant to illustrate the processes that forged the philosophical and metaphysical order in western civilization. Seeing the evolution of this process could lend to an understanding of the political and cultural orders that had evolved out of this base. Innis hoped that his work led to a deeper understanding of the biases of his age even if he himself was powerless to change them (pages 38-39). The biases of our

metaphysical and philosophical order and its attendant political and social order betrayed him.

Christian)page 42) concluded by saying,

> Innis' gloom was strong but not complete. He saw the fostering of a vigorous intellectual life as the prime task of the university; and as a consequence it was on the university that he pinned his hopes for the development of a strategy of culture to offset the penetration of the price system and the narrow vision of human creative potential its proponents represented. His faith in the human spirit and in the creative and liberating power of human intelligence prevented absolute despair. As a political theorist he was a much more adept diagnostician than therapist. Nonetheless his later writings represent a heroic attempt to draw attention to the perilous decay of Western civilization and to direct its intellectual resources to a contemplation of the conditions necessary for its preservation and resuscitation.

The preceding authors hold forth the promise of new and exciting interpretations of Innis that will lay to rest the notion of two Innises.

Carey (1981, page 79) captures this new spirit when he states,

> the central terms that he (Innis) brought to the study of communications-the limitations of technology, the spatial and temporal bias inherent in technology, the monopolies of knowledge toward which they tend and which they support, the analysis of social change, selective advantage, cultural stability and collapse, legitimacy, the dialectial method-were not the terms of a verification model. They were, instead, a made in the kitchen group of concepts with which to examine the actual historical record . . . they were terms with which to examine the historical record, precisely to cut down and limit the legitimacy of formal and universal theories . . . we have not been empirical enough, have not followed out the concrete historical investigations that would, utilizing many of his concepts, set the record straight.

If we are to really know Innis then we must accept Carey's challenge to improve our scholarship and break the bonds of the bias that Innis illustrated for us. Our appreciation of Innis has been affected by our metaphysical, philosophical,

and methodological biases. Perhaps we can transcend our biases if we simply start on the advice of John Nef (1953, page 225), who states,

> I do not think that most of those who gave him this success understood what he was saying. More than ever in our age of hurried reading men and women see on the printed page less what is there than what from the title and especially of the author, they expect to find. But if and when men and women begin again to read, to digest, and to meditate, the temoignage of Innis awaits them.

This chapter cannot end without some reference to the legacy of Harold Innis to geographic study in Canada. One need only look at Donald Quayle Innis (1966), John Warkentin (1967), Andrew Clark (1968) and Louis-Emond Hamelin (1973) to see the continuance of the staple tradition as laid out by Innis and others. One need only look to the recent publications of James Gilmour (1972), Melville Watkins (1971, 1977), Crabbé and Spry (1973) and Larry McCann (1982) to see that Innis and the Innisian interpretation of staple development still incite comment in this modern day.

These books and many others stand as testimony to the endurance and relevance of the uniquely Canadian theme of staple studies in this country. It is also testimony to the importance of the work of Harold Innis and others in developing this singularly enduring line of enquiry in Canadian geography and social studies. It implied, however, an approach to the relationship between the natural environment and human agency, the significance of which has been neglected by commentators. Having now provided background information on Innis' work and its classical interpretations, we can fully focus on the analysis of Innis' approach to the theme of man - nature relationships.

Chapter Two: Innis' Treatment of the Natural Environment - Human Agency Theme

The previous chapter introduced Harold Innis and the numerous schools of interpretation that have evolved out of studies of his work. They have been many and varied.

In this chapter, Innis' treatment of the human agency - natural environment controversy is examined via his views on the role of staple goods in Canadian development. To place Innis' work within a broader context the first part of the chapter will deal with the wider range of opinion on the human agency - environmental determinism issue and the possibilist position evolving out of the work of Vidal de la Blance. After placing Innis' work in context with this wider debate, his stand will be enhanced thanks to a comparison with the position of other contemporary authors and most notably with Griffith Taylor and W.A. Mackintosh.

2.1 The Evolution of Environmental Determinism and Possibilism

In 1859 two seemingly unrelated events took place that would have a profound impact upon geography. Firstly, it was the year that Alexander von Humboldt and Carl Ritter died signaling and end to the "Classical" era in geography (Hartshorne, 1961, p. 84). During this era explanation was derived from data collected firsthand. Following their deaths a sustained interest in the contribution of geologists vaulted geomorphology to the foreground of geographic research. The new subdiscipline, based on the foundations of

the natural sciences, was to exercise great influence over the discipline of geography.

Herein lies the influence of the second event to occur that year. Charles Darwin's Origins of Species was published. Darwin's work precipitated the development of a materialistic, scientific philosophy which emphasized natural laws and causality with mechanical as opposed to teleological explanation (Holt-Jensen, 1980, p. 20). Broadly speaking, the primary research focused around discovering the laws of nature and within human geography this interest transmuted to a deterministic view of human existence in a combat of survival with nature (Holt Jensen, p. 24). Friedrich Ratzel was the chief proponent of this Spencerian concept of survival of the fittest amongst the human population and, through his disciple Ellen Churchill Semple, his work became widely known in the United States. Environmental determinism influenced geographic research well into the twentieth century. The principal argument of the environmental determinists was that humans were subject to and governed by the same natural laws as other species on the earth. Humans were struggling for survival within the parameters determined and imposed upon them by nature. Within this struggle the natural environment held sway and thus all human activity was defined by natural forces. Attempts at explaining human activity or at defining the natural laws that determined human activity, were influenced by the belief that nature was the dominant partner in the human- environment relationship.

Counter to the environmental determinists with their mechanistic and materialistic forms were the possibilists, notably the geographers of the

French school of geography. The term possibilists was derived from the work of Lucien Febvre who in 1922 stated "there are no necessities, only possibilities" (Holt-Jensen, 1980, p. 26). Possibilism, as a reaction against environmental determinism, has usually been portrayed as a movement that placed human agency above the influence of the environment.

To paint the French school of geography with such a broad possibilist brush is far too simplistic an act (Berdoulay, 1976, p. 176). The French school of geography that evolved out of the work of Vidal de la Blache had a much more highly refined view of the relationship of humans to their environment. As I will try to show, it was this more highly refined view that manifested itself in the work of Harold Innis and which sets his treatment of the role of the natural environment apart from the contributions of his Canadian contemporaries.

According to Derek Gregory (1980, p. 2) Vidal de la Blache acted as a mediator between the two extreme views of Emile Durkheim and Fredrich Ratzel. Durkheim reduced geography to social morphology and Ratzel placed human activity in a position with the environment that invited a deterministic viewpoint. Berdoulay (1976, p. 176) suggests that Vidal's early rejection of environmental determinism had roots in his milieu and his time: specifically French idealism in the form of spiritualism. French idealism stressed man's spiritual nature and de-emphasized all forms of materialistic and mechanistic determinism. It was out of this spiritualism that what Berdoulay called radical possibilism evolved (ibid, p. 176). Opposite to this radical possibilism existed the materialist, reductionist, positivist position of Emile Durkheim and others (ibid, p. 177). This position engendered causal explanations and deterministic biases.

The existence of these two extremes in French scholarship had the effect of creating two camps: one where man was passive, the other where the environment was passive or designed to accommodate human activity.

Thanks to Neo-kantian foundations, the uniqueness of Vidalian geography was its success in providing a middle ground between radical possibilism and environmental determinism (Berdoulay, 1976, 1981). Vidal de la Blache and his followers recognized the primacy of the human spirit, but did not reject the influence of the natural environment. Human activity, linked to cultural and technological development, could create any form of legitimate geographical organization, the legitimacy of the geographic form being determined solely on the basis of cultural determinants. By the same token, the number of different forms and combinations that human activity could take was founded by the finite number of combinations and forms the natural environment would tolerate. Man was free to organize his world while recognizing the bounds of the realities of the natural realm (Berdoulay, 1976, p. 178).

It is important to understand the position of Vidal de la Blache and the French possibilists because a similar balanced view would manifest itself in the work of Harold Innis.

2.2 Innis' Approach to the Environment - Human Agency Controversy

Innis' assessment of the role of environment in influencing economic development was formulated with an eye towards the debate between environmental determinism and possibilism. Innis was familiar with the works of both

Ellsworth Huntington, the "environmental determinist", and Vidal de la Blache, the "possibilist", and Innis is known to have favoured the work of the French "possibilist" geographers (Neill, 1967, p. 83).

Innis demonstrated his possibilist leanings in a number of book reviews during the 1920's. He quite often judged a works' merit according to its position vis-á-vis a possibilist interpretation of events (ibid, 1967, p. 83). One of his most revealing reviews was for Marion Newbigin's book, Canada, the Great River, the Lands and the Men. Innis lauded Newbigin, a geographer of known possibilist persuasion, for her articulation of both the geographical and cultural factors in the development of Canada. In his review, Innis quoted a particular passage of Newbigin's book where she wrote, "that while the great facts of relief cannot be changed by man's action, their significance varies with his state of development" (Innis, 1927, pp. 497-498). At the same time Innis was quick to point out the weakness of Newbigin's text. He noted Newbigin's lack of reference to Ellen Churchill Semple's American History and its Geographic Conditions. He also takes exception to Newbigin's excessive attention to the activities of individuals (ibid, p. 497) and the overemphasis on human technology (ibid, p. 498). Although Innis would support Newbigin's conclusion about the endless possibilities emerging from the relationship of "man and place together" (ibid, p. 498) he also suggests that Miss Newbigin might have found the possibilities not quite so endless had she only dedicated herself to more thorough study. It stands only as "a partially successful attempt to show the influence of the St. Lawrence on Canada's development" (ibid, p. 498).

Innis was reluctant to accept such a strongly possibilist view as that put forward by Marion Newbigin. Innis did use Newbigin's Commercial

Geography as a text in 1927-28, but he also included Ellsworth Huntington on his reading list for a class for honors economics students in 1934-35 (Tompkins 1966, pp. 174-175). It was this trait of balance that dominated Innis' work on the role of environment. As early as 1923 in his A History of the Canadian Pacific Railway he wrote that the spread of Western civilization in Canada was dependent on the geographic characteristics of the area and on the character and institutions of the people involved (Innis, 1971, p. 1). Consistent with the Vidalian approach, Innis set out to define the broad barriers of the physical environment of Canada which gave definition to the activities of our forefathers. In 1923 Innis wrote,

> The rapidity and direction of the growth of civilization were largely dominated by the physical characteristics, the geological formation, the climate, the topographical features, and the consequent flora and fauna which these conditions produced. (Innis, 1971, p. 1).

For Innis, the principal topographical features that determined the direction of subsequent Canadian development were the principal drainage basins of the Hudson Bay, the Arctic Ocean, the St. Lawrence - Great Lakes, and the territory west of the Rocky Mountains drained by the Pacific Ocean (ibid, pp. 1-2). It was the heights of land that delimited these basins which were of critical importance. Not only did they define the drainage basins, they acted as barriers to exploration and as barriers to human settlement (ibid, p. 2).

On the strength of these statements, it would be easy to dismiss Innis as a determinist. Rather, these statements serve to give definition to the realities of the environment facing those who initially came to Canada. The presence of the Canadian Pacific Railway, serving as tangible evidence of humans overcoming physical barriers (Innis, 1971, p. 2) brings

Innis' recognition of the balance between environment and humans, back to the forefront. The cultural and technological capacity of the Canadian society balanced out the natural barriers of our environment. Innis was aware of this in 1923 when he wrote his history of the C.P.R. and he presented the whole of his understanding of the balance between humans and their environment in his seminal work: The Fur Trade in Canada.

2.3 The Fur Trade in Canada: Innis' Balanced Statement

The Fur Trade in Canada was written because Innis felt that his previous book A History of the Canadian Pacific Railway, had only uncovered the tip of the true reality of Canada. The Canadian Pacific Railway was merely the extension of a much older economic order based on water and the railroad was the tangible evidence of civilization transcending the boundaries of nature (Innis, 1971, p. 2). The Fur Trade was written to discover that the true unity of Canada was based on water and fur and not on the artificial interpretation resting on Confederation and the C.P.R. (Creighton, 1957, p. 58).

The Fur Trade is Innis' seminal work. It not only established him as a scholar but it also contained his most profound statements on the balance between human activity and environment. It chronicled the relationship between the technological and cultural changes of early settlement societies in the face of certain geographic realities. In the conclusion to The Fur Trade Innis wrote,

> Fundamentally the civilization of North America is the civilization of Europe and the interest of this volume is primarily in the effects of a vast new land area on European civilization. (Innis, 1977a,p. 383)

Clearly, Innis recognized that the natural environment and civilization were equal partners. The Fur Trade was a possibilistic interpretation of the byplay between these two partners that resulted in the Nation of Canada. Innis first described the geographic features of the area dominated by the Canadian Shield and St. Lawrence Valley to give definition to the subsequent flourishment of Indian and European civilization on this continent.

For the first European settlers in Canada the transition was particularly difficult. The cultural traits of these people were so deeply embedded that the necessary cultural adaptation to a new environment was very slow. Initial European reaction was to relocate their old culture in this new land and to do so required the obtaining of a commodity which was of sufficient value and in sufficient demand to finance this transfer.

It was the existence of the beaver and of its pelts for felting that provided this commodity. But the existence of the beaver was itself only a product of this unique topographical reality of the area dominated by the Canadian Shield. The geological and climatological make-up of the area precluded the existence of an agriculturally based native culture which might otherwise compromise the particular living habit of the beaver (Innis, 1977a,p. 383).

The French, as the initial European presence in Canada, came to rely exclusively on the fur trade to maintain themselves and their culture

in Canada. As they came to rely more on beaver they became increasingly dependent on the native population and their culture which evolved in response to the natural environment. The clash of the underdeveloped native culture with the European culture saw the eventual collapse of the native culture and the adoption of their particular techniques by the French so that they could actively pursue the fur trade (Innis, 1977a, pp. 388-389). The use of the birch bark canoe by the French was a deliberate cultural adaptation to transcend the natural barriers to civilization as manifested in the heights of land between and within the drainage systems. The canoe of the native people allowed the French to extend themselves into the continent in search of new sources of furs. As the French extended their search of furs into the interior via the river systems of the Shield, the form of organization required to successfully run the trade grew increasingly monopolistic. The capital investment required to finance a trans-Atlantic voyage involving high overhead costs and sufficient quantities of trade goods necessitated the existence of a monopoly form of control. Monopolies in the fur trade were supported by the monopoly structure of Europe (Innis, 1977a,p. 390). The internal structure of the fur trade in Canada lent itself to a more competitive position and as the lines of communication became increasingly longer the nature of the trade allowed for personal competitiveness in a protected monopoly. The extension of the fur trade into the interior meant that the colony of New France was increasingly engaged in the transportation of fur and goods during the navigation season. The neglect of all other activities placed the colony in an increasingly intimate relationship with France. The colony became reliant on France for military

aid in securing the fur routes and the political control of the colony reflected the paternal attitude of Old France (Innis, 1977a,p. 391). The complete centralization of the institutions of the colony were a direct result of a complete reliance on the exploitation of furs.

The adoption of native technique to allow for the more active pursuit of the beaver precipitated a cultural re-adjustment in the French regime in Canada that facilitated the pursuit of the beaver while at the same time making it even more dependent on the mother country and on European culture.

In contrast to the French response to the pressure of environment on culture was the Hudson's Bay Company. In 1770, the Hudson's Bay Company was given a royal charter to engage in trade in any of the territories it happend to find in the search of the North-West Passage. The British presence to the north of the French colony put them in a direct position of competition with the French who were forced to go further to the interior in the search for beaver. The Hudson Bay Company solved the problem of high overhead costs by a form of rigid central control in London that established fixed prices on furs and their value in relation to trade goods and the making of each post a self-sufficient entity (Innis, 1977a,pp. 123-142). The Indian middle men penetrated the interior on behalf of the Company thus reducing the additional costs of transportation to the interior (ibid, p. 143). The centralization of the Company was nearly its undoing (ibid, p. 145). Penetration of the Canadian traders of Montreal following the conquest of New France cut across the head waters of the Hudson Bay drainage system and cut off the Company from its internal sources of furs and removed the Indian middlemen from the Company system

(Innis, 1977a, pp. 151-153). The Company was forced to completely overhaul its organizational framework and to begin to actively participate in the obtaining of furs in the interior of the country (ibid, pp. 153-159). Organizational re-adjustment was important but it was the application of new communication technology that would insure the dominance of the Hudson Bay Company.

The success of the Hudson Bay Company over the French and later English traders of the Northwest Company based at Montreal was due to the application of new techniques to industry and improved techniques in the area of communication.

The struggle between the French and English in the fur trade came down to who could develop better technique, particularly transportation technique, in response to the natural barriers to the pursuit of the trade. The traders out of Montreal enjoyed a measure of advantage in the north-west while the Hudson Bay Company re-organized. However, Canadian traders could not combat the geographical advantage the Company enjoyed. The cost of transportation of goods from England was still in the Company's favour. Hudson Bay, located in closer proximity to the source of furs, greatly reduced the costs of penetrating the interior.

The possession of Hudson Bay by virtue of its position vis-a-vis the area of marketable fur could be taken as an improvement of communication technique by the British. Ships from Britain could penetrate virtually to the heart of the continent thus greatly reducing the overhead costs of transportation and the costs of the goods they carried. The St. Lawrence

route required that the trade goods to be exchanged for the furs would have to cross more territory before they could be used. This crossing of the Shield, via the Ottawa, and later the Great Lakes to the Saskatchewan and Assiniboine River systems (Innis, 1977a, p. 109) necessitated the continual breaking down of the cargo into manageable units dictated by the river systems and the canoe as the chief form of communication technology. The Company, by virtue of the nature of the rivers draining into Hudson Bay, could avoid using canoes and apply the use of "York boats" (Innis, 1977 a, pp. 158-159 and Innis, 1979, p. 66). The Montreal traders of the North-West Company were forced to move smaller amounts of goods over longer distances because of their transport routes and technology (Innis, 1977a, p. 206, pp. 214-218). Even with the utilization of boats on the Great Lakes and roads (ibid, pp. 222-224), the system of supplies and food provisions needed further added to the costs of pursuing the fur trade (ibid). By contrast the Hudson Bay Company was a model of simplicity. It was geographically favoured by the bay and its drainage system. Considering the central importance of water transport in this period, it enjoyed the luxury of superior communication technology. Moreover, by the improvement of this technology ("York boats") the Company exhibited a marked advantage over the inferior technology of the Montreal traders. Even when these traders improved their communication technique they could not close the gap between themselves and the Hudson Bay Company.

The confrontation between European civilization and the environment of Canada was the development of a Canada that was the end product of European civilization successfully exploiting the many possibilities offered by the natural environment. The Canadian Shield, the St. Lawrence and Hudson

Bay drainage systems functioned as the milieu wherein European civilization was successfully transplanted to the North American continent. Rather than act as a barrier, the natural environment provided avenues for the full flourishing of human activity on the new continent. Innis rejected the notion that our environment dominated. Canada's existence as a nation was testimony to the capacity of human agents to take advantage of natural opportunity, according to their cultural and technological development, and to create a new geographic organization. It was this belief in the dual role of nature and human agency, that led Innis to state,

> The present Dominion emerged not in spite of geography, but because of it. (Innis, 1977a, p. 393).

In The Fur Trade in Canada Innis encapsulated his position on the inter-relatedness of human agents and their environment. This position had a clear possibilist heritage in that it recognized environmental realities, but also lay heavy emphasis upon human cultural and technological capacities to overcome natural barriers and create a new geographic image of human activity on the earth's surface. The natural environment was not an adversary nor a passive scene in Innis' work. Rather, it neared a position of equality with humans and it was the combination of these forces and the interplay between the two, that created the unique geographic entity that was and still is Canada.

2.4 Innis Expands upon the Themes of The Fur Trade

The natural environment, as provider and prohibitor, and man's ability to transcend these natural boundaries were the themes of Innis'

The Fur Trade. As base themes they took definite shape in Innis' subsequent treatment of the development of human settlement in Canada. For Innis, the will of the natural environment was manifested in the water ways of Canada and man's response was made manifest in the role of technology, principally transportation technology, as a factor in Canadian development.

Innis, in his 1931 article, "Transportation as a Factor in Canadian Economic History" (Innis, 1979, pp. 62-77), presented perhaps his best description of the relationship between the natural environment and the will of humans. The Atlantic Ocean was a barrier to westward expansion until the advent of superior sailing ships and navigational technology. The initial penetration of the North American continent was hindered by a lack of navigable rivers and the absence of an exploitable staple commodity. Eventually, the continent was penetrated by the Europeans, who were confronted by a formidable barrier, the Canadian Shield.

The Canadian Shield had the principle role in the emergence of the rivers as key determinants of human activity in Canada. The resistant Shield was left, after the retreat of ice sheets, as a fairly level surface studded with lakes and rivers. Its youthful topography offered numerous barriers and would be the occasion for portages and breaks in the water journeys. When the Shield met younger, weaker formations, two principle water courses, the St. Lawrence to the northeast and the MacKenzie to the north-west, emerged. These waterways and the areas they drained were the "expressways" of the fur trade. The Shield served to erect barriers and funnel human activity along the water routes. It also provided the necessary commodity of fur so as to allow for the successful development of human activity in Canada. The

rivers were the key that allowed European cultural and technological impetus to transcend the environment and create a new geographical reality. The Shield was an active but not a negative partner to the Europeans.

The nature of the waterways placed technique in the position of strategic importance. Transportation technique became the most important element in Canadian development. As Innis noted,

> The comparative ease in which the transport unit was borrowed and adapted or devised to meet the demands of the water routes, gave the waterways a position of dominant importance in the molding of types of economic and political structures. (Innis, 1979, p. 66)

The nature of the water routes made the use and upgrading of transportation technique paramount. The success of the Hudson Bay Company over the traders of Montreal was due to the fact that the Bay represented an improvement in transport technique by virtue of its position with respect to the source of furs. As well, the rivers flowing to the Bay could accommodate the York boat, a sizeable improvement upon the canoe which was the principal means of transport of the St. Lawrence system. Transportation technique engendered a particular form of organizational development. Innis wrote,

> The canoe as a technological unit of production engendered a certain form of organization which was in turn surpassed by a superior technique - the York boat - in Hudson Bay. In turn this technique was associated with an appropriate organizational development. (Innis, 1979, pp. 64-65)

Innis held that the natural environment, particularly the water ways, demanded a particular technological and socio-economic development. The St. Lawrence system engendered a particular technology and organization and the Hudson Bay system quite another. The emergence of the Hudson Bay

Company as the dominant fur trading system was testimony to its geographic advantage and the superior technological and organizational development that emerged as a result of its natural setting.

Even as fur declined in importance, the influence of the drainage basin was not diminished (Innis, 1979, pp. 66-71). Lumbering replaced fur in the St. Lawrence area and was even more bound to the water ways than before. Lumbering initiated the growth in population which put heavy demands in the existing transport. This was overcome by a period of canal building to traverse the heights of land between rivers and the lakes. Steam locomotion was introduced to the water transportation system. These technological improvements to the system required social re-adjustment manifested in the rise of responsible government to finance these activities. The railroad, which was the extension of the water routes, demanded in turn social re-organization in the form of Confederation to finance its expansion. The railroad, although an extension of the water ways, effectively signaled the end of the dominance of water transport and the natural barriers Innis noted as principal partners to human existence. The Innisian pattern held that the natural environment made it possible and profitable to exploit staple commodities and that staple exploitation at each successive stage of development emphasized the application of transport technology and re-adjustments in the socio-economic structures of Canada to accommodate the changes brought on by the application of new transport (Innis, 1979, pp. 73-74).

At the root of Innis' treatment of the economic history of Canada was the role of the environment. It dictated the conditions of existence and emphasized the capacity of individuals and societies to adjust to these

dictates. Innis saw that in a new territory freshly penetrated by European civilization that the natural environment would play a principal role until such time that human activity would create a new geographic pattern within that natural environment. The natural setting of Canada established certain parameters, notably, the role of the river systems in dictating human activity. However, at the same time, Innis recognized that technology developed in response to this environment allowed the Europeans to fully exploit the riches of the country.

The building of the Canadian Pacific Railroad, taken to be the manifestation of our liberation from the environment and the principal step towards nationhood, was to Innis, an extension of an older water system that was the direct consequence of certain undeniable realities. This is what prompted Innis to say we existed because of our geography and not in spite of it. Canada for Innis was the natural consequence of the meeting of the natural environment and human beings. Our history is the history of the meeting of these two forces. Both these elements had a role to play in shaping Canada and Innis presented them, not as confrontationist forces, but as equal elements, each contributing to the Canadian mosaic.

To add definition to Innis' treatment of Canadian geography the next sections will deal with Innis in comparison with Griffith Taylor and with William Mackintosh, two of Innis' contemporaries.

2.5 Harold Innis and Griffith Taylor

As was shown in Chapter One Harold Innis played an intimate role in recruiting Griffith Taylor for the chair of Geography at the University of

Toronto. From that position Taylor went on to become the "father" of academic geography in English Canada with the department he created.

There can be no doubt that Griffith Taylor came down solidly on the side of environmental determinism. Taylor's principal disagreement with the possibilist position was its search for areas where man exercised his powers over nature while tending to ignore the vastly greater importance of environmental controls on most parts of the world (Taylor, 1942, p. 2). Taylor who was principally concerned with the widespread sterile earth surfaces (ibid, p. 67) felt that deterministic viewpoints nurtured in this field reflected a longrange perspective on the environment's control of human activity. The possibilist perspective was short range and narrow in perspective (ibid, p. 2). Taylor held the notion that the natural environment determined the route of advance and humans only controlled the rate of progress (ibid, p. 4). This was the essence of Taylor's "Stop and Go Determinism". Taylor stated in 1946 (p. 358),

> Man is like the traffic controller in a large city who alters the rate but not the direction of progress. So also is man able to accelerate, slow or stop the progress of a country's development. But he should not, if he is wise, depart from the directions as indicated by the natural environment.

Armed with this deterministic mind set Griffith Taylor turned to examining the Canadian situation. Taylor produced a host of articles that followed along the same track as his earlier works on Australia. He wished to examine Canada's potential to expand its population and to explore the nation's future situation. The key to Taylor's understanding of Canada's situation was the effect of climate on human settlement. To understand this effect was to understand Canada's present and future settlement pattern

(Taylor, 1937, pp. 360-70). Taylor used homoclimes to predict Canada's future. Homoclimes involved comparing regions of like climate in Canada and elsewhere to develop models for the future of those regions in Canada.

There can be no doubt that Taylor came down clearly on the side of the determinists. Taylor made his most profound anti-possibilist statement in his 1937 book Environment, Race and Migration. He wrote,

> Canada seems to offer a good field to test the validity of the "Possibilism" theories of certain geographers. They believe that man is not controlled by his environment but that he himself decides which of possible methods of exploitation of nature he shall pursue. The writer uses the term "We-ocratic" to express this idea that many can choose his own path in life. And the term "Geographic" to indicate the philosophy of Humboldt and Ratzel (control by environment) to which he himself adheres ... But a student of hot, arid Australia or cold sterile Canada is likely to be a little more doubtful if man really has much control over nature (1937, p. 865).

Taylor placed Canada's future squarely under the control of nature and dismissed any possibilist argument to the contrary. Taylor felt that the fur trade, lumber, wheat, etc., were merely the end results of nature's bounty and the inevitable development of an expanding nation in a given environment (ibid, pp. 365-367). Taylor dismissed any possibilist contentions about human choice by advocating that choice was determined by nature. Taylor was so convinced of the primacy of nature that he stated,

> It is the special duty and privilege of the geographical workers in Canada to see that the future millions of Canada are settled where nature has furnished the best environment for them (ibid, p. 370).

Taylor attacked the "we-ocrats" or possibilists for their stance. Taylor represented that extreme of the determinist/radical possibilist spectrum which could not accept human agency as a prime mover. His

arguments against possibilism were directed towards that equally extreme possibilist position that dismissed the influence of nature. It was the middle ground that Innis occupied.

From the middle ground Innis offered an interesting contrast to Taylor. Taylor attempted to explain the Canada of his day as the product of climate, notably temperatures, while Innis saw Canada as the product of environment and human agency jointly shaping the nation. Taylor viewed the Canadian Shield as a barren area that channeled human occupancy to more amendable regions along its periphery's (1947, p. 125). Innis also recognized the Shield as a barrier but at the same time it provided avenues to cross that barrier. The natives and later the Europeans used the rivers to diminish the influence of the barrier. Their success was a direct reflection of human agency transcending natural barriers. Taylor had dismissed the Maritimes as underdeveloped in relation to the rest of the nation by virtue of its poor natural endowment (Taylor, 1947, p. 125). For Innis any failure of the Maritimes was not only a product of its natural endowment. The manner in which the area was organized and developed to take advantage of the natural endowments and the manner in which the area was exposed to changing global financial and political influences have much more strength in explaining its weak position within the continental picture (Innis, 1979, p. 42).

The contrast between Taylor's and Innis' positions is quite evident. Taylor was an environmental determinist who used his position to project Canada into a future defined by the dictates of nature. Innis chose to see Canada as a product of the joint influence of nature and humans and

any efforts at describing Canada were sure to include recognition of the influence of nature in forging, with humans, the pattern of human settlement. Innis combined an intimate awareness of history and geography and the manner in which humans and nature fused their respective influences to produce a unique entity. Innis pushed this view because he believed that any understanding of present time conditions required an understanding of the forces that shaped the development of present day phenomena.

It is eminently clear that the "possibilist" Innis would have no common ground with the "determinist" Taylor. Moreover Taylor examined the Canadian scene with an eye to predicting the future. Innis used an appreciation of geographical forces to provide a view of the forces that created Canada. Innis combined history and geography in the manner of the French school to create an understanding of modern phenomena. A more revealing picture of the uniqueness of Innis' treatment of geographic factors as created out of the comparison of his work with that of his contemporary historians and political economists.

2.6 The Environmental Theme Among Contemporary Historians and Political Economists

We have already seen that Innis had developed a unique interpretation of the role of the natural environment from his exposure to the work of Vidal de la Blache. The uniqueness of this position becomes even clearer when put up against the works of Innis' English Canadian contemporaries in history and political economy.

Early English Canadian history was dominated by sentimental ties to

Great Britain with the history of Canada recorded as the emergence of a Brittanic community in North America with a shared heritage and institutional development (Careless, 1954,pp. 2-3). This highly nationalistic school of history did much to project Canada as an independent entity from the United States. However the lack of understanding or attention to social, economic, and cultural forces by this early school gave rise to a new school of historians with a nationalism centred on the uniqueness of Canada both from the United States and Great Britain. Canadian desires for nationhood and self determination were rooted in the native North American environment "built upon the concept of frontier a la Turner whence man came into intimate contact with the environment" (Careless, 1954, p. 5).

This Canadian school saw the forces shaped by human contact with the natural environment creating a new nation and a North American society. This school of historians held that through the continuous process of adaptation to the environment an American content had steadily grown in Canada within external forms of government, society, or culture inherited from Britain or France (ibid, pp. 5-6).

The promise in this theme lay in comparing Canadian and United States history and developing the North American content of Canadian history. Careless noted that the members of this school took over the general tone and mood of Turner and his followers but did little to examine Canada from the standpoint of the precise tenets of the frontier thesis (ibid, p. 6).

The romantic excitement of Turner's hypothesis was a strong one and it was not lost on those Canadian scholars searching for an explanation of Canadian development. A.R.M. Lower, in his 1946 book Colony to Nation captured

the essence of the romanticism of the Canadian interpretation of the Turner thesis. Lower (1946, pp. 47-48) wrote,

> ... it is remarkable, and a tribute to the essential element of truth in Turner's analysis, that French life and society in America departed considerably from authoritarianism and in spirit approached English life and society in America.... Men were measured by their abilities for the task at hand... nor could pioneering skill be bought... in all pioneeragricultural society, where nature is strong and man is weak, social equality is the rule, a strong sense of personal values prevailed, an empiric rather than a traditional measurement of men's values.
>
> North American democracy was forest born.

The school saw the frontier as the impetus to break old bonds to Europe, ignoring maritime influences (Careless, 1954, p. 13) and developing a chauvinistic attitude towards the forces of the frontier. Lower commented that the staple represented the excess of metropolitan demand from Europe. The onset of responsible government in Canada put the nation on the same path as the United States; local metropolitanism and the positive effects of a continental viewpoint (Lower, 1946, pp. 198-200).

An enduring legacy of this school has been the "Canada as poor sister of the United States" viewpoint. Canada was an extension of American physiographic features and held out of their rightful place by emotion and the chance events of history (Careless, 1954, p. 13). The school took a chauvinistic attitude towards continental forces springing from the vitality of the frontier and emphasized the material environment while down playing external forces and the role of tradition, custom, and ideas (ibid, pp. 13-14).

2.7. William Mackintosh And The Frontier Thesis

As the Canadian editor of the "Canadian Frontiers of Settlement" series William A. Mackintosh influenced much of the publications that followed the environmentalist from his interpretation of Canadian history. As a Professor of Political and Economic Science at Queen's University Mackintosh developed a model of incremental growth that saw Canada move from a pioneer to an international economy upon the strength of world market staples (Drache, 1978, p. 12). Much of the ground work in Mackintosh's model was layed out in his 1923 article "Economic Factors in Canadian History".

Mackintosh (1923, p. 12) states that much of his article was inspired by the work of Frederick Jackson Turner and G. S. Callender. From Callender Mackintosh placed markets able to absorb the staple products of a colony as the principle requisite for colonial prosperity (ibid, p. 14), and from Turner Mackintosh took the concept of the success of the United States as an international economy being predicated on the strength of the frontier with its products and spirit drawing the United States towards nationhood. Mackintosh held up the United States as a successful model. The combination of marketable staples (ibid, p. 15) and the successful application of transportation technology to breech the barriers of the Appalachians (ibid, pp. 16-17) launched the United States on the road to prosperity. The steady western advance of the American West and the emergence of western forces and pioneer democracy embodied in Andrew Jackson and Lincoln opposed against the interests of the "east" (ibid, p. 21) were the positive forces that added to the movement of the nation. They were the embodiment of the positive forces

created on the frontier.

Mackintosh used the positive model of the United States as a measuring stick for the Canadian scene. Canada had the St. Lawrence valley which was a traverse across the barriers of the Appalachians (the other being the Mohawk) and Canada also had marketable staple goods for European markets (ibid, pp. 13-14). While the United States was free of natural barriers beyond the Appalachians, Canada was thwarted by a lack of a developed colony like the Atlantic States, a poor transportation network ill suited to the transport of bulky staples, and heavy competition from the routes into the interior laying in the United States. While Canada was moving into the upper St. Lawrence valley the Americans were well into the Mississippi Valley (ibid, pp. 17-18). Mackintosh concluded (and it became the central reason for Canada's late development), that Canadian development was "frustrated geographically at the north-west barrier of the Laurentian plateau" and this engendered geographic and economic frustrations in the more settled areas of the Canadian colony (ibid, p. 18).

Canada's geography became the stumbling block to her development. Canadian development suffered from poor world markets, poor transportation and American competition. The forces of the west that embodied the positive influences of the frontier were absent in Canada because "western development in Canada was doubly frustrated, at the east by the difficulties of the St. Lawrence route, and the European market for bulky stapes, and at the west by the impassable barrier of the Laurentian highlands (ibid, p. 22). Even with the emergence of wheat and new markets in Europe resulting in improved conditions in Central Canada the Laurentian barrier still cut off Canada from

its own west: the Candaian North-West (ibid, p. 23). The American west draining off much of the Canadian energy embodied in the manhood of Ontario. Canada's frontier was the American frontier. Our geography frustrated Canadian frontier expansion and only with improving European markets for wheat and the breeching of the Laurentian Plateau by the C.P.R. were these frustrations stayed (ibid, p. 24). Western wheat permitted Canadian advance and powerful western forces began to influence Canadian political and economic policy to the betterment of the Canadian nation (ibid, p. 25).

Mackintosh maintained these themes in his later work. In his 1934 book Prairie Settlement: The Geographical Setting Mackintosh layed heavy emphasis on the climatic limitations to successful human activity based on wheat economy. In his contribution to the 1939 Royal Commission Report on Dominion-Provincial Relations Mackintosh stated that the Canadian Shield deflected Canadian energy into the American frontier and denied access to the prairie (1939, p. 15). In doing so the Canadian nation could not enjoy the positive effects of the prairie which could stimulate development throughout the Dominion (ibid, pp. 21-22).

Mackintosh, following from Turner's thesis, held up the United States as a model of development. Canada had been able to develop some markets for her staples but could not enter into advanced stages of development until the Canadian Shield was traversed and the Canadian North-West developed around the exploitation of wheat for European markets. The Shield was projected as an impediment to growth until such time as transport and markets existed to turn the products of the frontier into an international staple (Mackintosh 1934, p. 44). If the frontier is the source of energy for the development of the country and the source of positive influence then any natural impediment

blocking the exploitation of the frontier is blamed for the retardation of the nation's progress. Also the breeching of these barriers and the opening of the frontier was taken to be a positive effort for the betterment of the nation. Hence the notion of defiance of geography. Lower wrote,

> The bold defiance of geography contained in the national planning which was an essential aspect of Confederation resulted in the integration of half a continent. (1946, p. xiii)

Mackintosh was led to say, in light of the role of geographic and economic factors,

> Canada is a nation created in defiance of geography... It behooves present day historians to perceive the romance of the nation in the story of the people forcing the prosaic obstacles of a colonial existence, developing national traits, and winning through to nationhood (1923, p. 25).

2.8 Innis' Counter Interpretation

J. M. Careless has credited Harold Innis in laying the groundwork for the "Laurentian School" of historical interpretation which was a qualified version and in some instances a renewal of the position of Mackintosh et al. (Careless, 1954, p. 14). Innis' counter position was centered on the existence of the St. Lawrence as an east-west axis and the role of metropolitan forces in Canadian economic development.

Mackintosh viewed the Canadian Shield as a barrier to national economic development (Mackintosh, 1939, p. 15). The Shield frustrated rail development in Canada and deflected the energy of the nation south into the United States where the rapidly moving western frontier was not frustrated by geography.

Like Mackintosh Innis recognized the Canadian Shield as a barrier (Innis, 1923, p. 1). What the Shield did was emphasize the rivers that traversed the heights of land as influential factors (ibid, 1979, pp. 62-63). The St. Lawrence, Great Lakes, Saskatchewan, Fraser, and Mackenzie rivers formed an east-west axis. The importance of the river systems placed great importance on the development of transportation technology which engendered forms of political and economic development out of response to the problems of transportation. The great river systems of Canada gave this country not only geographic unity but it also shaped the subsequent economic, political, and social development of Canada. In the conclusion to his The Fur Trade in Canada Innis wrote,

> Canada emerged as a political entity with boundaries largely determined by the fur trade. These boundaries included a vast north temperate land area extending from the Atlantic to the Pacific and dominated by the Canadian Shield. The present Dominion emerged not in spite of geography but because of it. The significance of the fur trade consisted in its determination of the geographic framework. Later economic developments in Canada were profoundly influenced by this background (1977a, p. 393).

The fur trade illustrated the east-west permanence of this nation and the antecedents of subsequent Canadian development. Innis' possibilist viewpoint placed the natural environment, not in an adversarial role, but in a symbiotic position with respect to Canadian development.

On the role of staples Mackintosh and Innis also differed. Both recognized staples as crucial elements of Canadian development. But whereas Mackintosh saw them as the engine of full nationhood Innis saw the exploitation of staples as an element of weakness. The first Europeans were heavily dependent on a staple resource to support their culture in a new land

(Innis, 1977a, pp. 382-384). From this early beginning the pattern of staple dependency was cast. As an exploiter of staples Canada was left exposed to the ebb and flow of its markets. Innis cast Canada as a marginal economy created out of the economic activities of the central economies of Europe and later the United States (ibid., pp. 385-386).

Canada had emerged on the periphery of the central economy of Great Britain who had succeeded France as Canada's landlord. Canada as a marginal economy was linked to the central economy as a source of raw materials. During periods of economic crisis the central economies were able to re-organize and move on to the next stage of development. The marginal economy could not consolidate during periods of crisis and suffered economic fragmentation and incomplete development (Drache, 1982, p. 37). This situation was aggravated by the existence of metropolitan institutions and the failure of the market institutions to correct the violent swings in an economy dominated by staples.

The failure of the market system and the persistent uneven development of marginal economies such as Canada resulted from the presence of persistent structural rigidities including inelasticities in supply and demand, diseconomies of scale in production and distribution and pressure points causing disruptions in the economic processes. The important conclusion that Innis arrived at was that these various rigidities would not dissolve as the marginal economy became more developed but would persist, either in the same or altered form as new rigidities and it was the permanence of these rigidities that would not allow the marginal economy to become a central economy. European metropolitan centres exercised great control over the Canadian economy.

This control was greatly facilitated by the east-west axis of the nation. The extension of the east-west axis of the St. Lawrence into the prairie's brought this region under these same influences. The west was opened by the application of new technology in the form of railroads and wheat was used to pay for this expansion. As long as markets existed wheat economy did fuel rapid economic change and development in the eastern areas of Canada (Innis, 1977a, pp. 398-399). This phenomenon was contingent upon the continued demand for wheat but the world depressions and subsequent declines in demand only accentuated Canada's marginal position resting on the exploration of staples.

Innis projected a geographic unity for Canada that rested upon the east-west alignment of the nation and its river systems and the organizational unity of the fur trade (Innis, 1977a, pp. 401-402). However this national unity, based on geography and fur, has been greatly eroded by forces of disunity.

These forces of disunity were born out of the changes occurring in the central economies of Europe and the introduction of new technology and capitalism (ibid, p. 402). These effects were felt in Canada. The mercantile class displaced by a capitalist class confronted with the problems of applying new technique to the old structure based on the fur trade (Innis, 1937, pp. 206-208 and Innis, 1977a, p. 402). Canada's economic history has been a record of the application of new technology in the pursuit of staple goods. European demand for western wheat declined and the Canadian economy suffered following World War One. It marked, roughly, the end of the period of expansion created upon the east-west unity of the nation and trade via the St. Lawrence with

Britain (Innis, 1979, p. 209). American economic imperialism supplanted British trade in Canada. The adoption of new American technology for the exploitation of the mineral, forest, and hydro-electric potential of the Canadian Shield gave rise to the forces of regionalism and the collapse of Canadian unity predicated upon the St. Lawrence.

2.9 Conclusions

The natural environment had a pivotal role in Innis' interpretation of Canadian development. In assessing the relationship between the natural environment and human agency Innis rejected both the determinist and radical possibilist perspective. Innis' view of this relationship was predicated on the views of Vidal de la Blache and Innis saw both the environment and human agency as symbolic partners. This view did place emphasis upon human technological and social responses to an environment to create new and unique landscapes.

Innis' position put him at odds with Griffith Taylor, his colleague at Toronto. While Taylor made no bones about his environmental determinism, his work stands in marked contrast with that of Innis. What is more significant was the manner in which Innis' treatment of Canada's geography made him unique among his colleagues.

Those of Innis' contemporaries who developed a Canadian interpretation of Turner's "frontier thesis" placed the natural environment in an adversarial role. The United States, having overcome the Appalachians, was a model of prosperity fueled by the vitality of the frontier. Canada's disjointed

economic development was occasioned by the difficulty of her hostile natural environment. The Canadian frontiers were frustrated by a hostile environment which withheld the necessary staple goods or frustrated transportation thus retarding Canadian growth. William Mackintosh saw the breeching of the Canadian Shield and the prosperity occasioned by the exploitation of western wheat and improved transportation as the catalyst for full national development.

Innis took a contrasting view. Canada was created not in defiance of her geography but because of it. Canada's east-west unity was predicated on the existence of the natural river systems traversing the barriers of the Canadian Shield and the organizational legacy of the fur trade which emerged out of the European contact with Canada.

This unity was both Canada's strength and its weakness. Canada existed because of its rich natural resources but was inexorably tied to European markets and dependent upon borrowed technique. Canada's economic, political, and social history is the history of a nation attempting to exploit its natural resources to meet the shifting demand of a central economy elsewhere and reconcile the introduction of new technology from industrialized Europe. This new machine technology and its attendant social, political, and economic change eroded the natural unity of the country. This erosion was further accelerated in this century by the forces of regionalism spawned from the demands for new sources of raw materials in the United States. An artificial north-south polarity has been imposed upon and greatly eroded the older east-west unity of Canada.

Innis had created a vision of Canada and Canadian unity based on its geographical orientation and the national unity that emerged from it. Innis'

treatment of Canadian economic development illustrated how this unity was created and then allowed to wane and perish under the impetus of forces from central economies without and Canadian attempts to reconcile these forces to the basic facts of our geographic reality.

Chapter Three: The Transition Years

The previous chapter illustrated Innis' preference for a possibilist interpretation of the relationship between the natural environment and the human world. More over he rejected the determinist position and particularly the way in which economically irrational geographic forces were used to explain the failing of the more popular Mackintosh version of staple fueled economic growth. His rejection of mainstream interpretation led him to construct his own interpretation that put him at odds with mainstream economic thought in Canada.

This chapter will examine the results of Innis' "uniqueness" with respect to his fellow scholars and to his times. Innis as a liberal in the tradition of Adam Smith, believed in the price system but was concerned with the way the price system was lending itself to the incorporation of statistics, mathematics, and an increasing preference for scientific methodology. Innis was particularly concerned with economics and the increasing public activity of economists in response to the Depression. During these transition years Innis would construct the base upon which his final years of research would rest. This chapter will deal with those root concerns and how they would lead Innis to some of his most fascinating work.

3.1 Innis' Response to the Great Depression

The 1930's would be benchmark years for Harold Innis. The first year of the decade saw him publish The Fur Trade in Canada and establish himself as a leading light in Canadian and foreign academic circles. He would become the chairman of the Department of Political Economy and exercise tremendous influence in academic affairs in Canada. He would find himself heading a department during very troubled times when academics were breaking their traditional bonds to scholarship and with the university. Social scientists were becoming active public figures and Innis would not allow himself to be affected. Innis maintained his interest in geographic affairs both publically and privately. Starting in 1934, Innis made annual contributions to the Canadian Historical Review covering publications on the Canadian Arctic and related fields. Innis' interest in matters geographic did not wane, but rather they assumed a position of lesser importance in the light of new and more urgent issues of the day. With the publication of The Cod Fisheries in 1940 Innis served notice that he was finished with purely economic studies and was embarking upon an investigation of those things that lay beneath the events of the past ten years. The Depression of the 1930's hit Canada particularly hard in light of our dependence on foreign economies. Governments sought solutions to alleviate the situation. Canada, as a marginal economy, was doubly hurt by the move of the central economies to consolidate and survive the depression. The loss of markets for Canadian raw materials left the Canadian government hamstrung with the problems of debt and the need to find some stimulus for growth.

The Canadian response to past depressions was to either accelerate the exploitation of presently available raw materials, to improve their competitive stance or to seek out and exploit new sources of raw materials or heretofore unused materials. The Canadian government had, as in the past, attached the problem by spending to expand and improve the transportation infrastructure (Innis, 1979, p. 79) but even thse measures were proving insufficient and, already burdened by debt and no sign of relief, the government was hard pressed for solutions.

In "The Canadian Economy and the Depression" (Innis, 1979, pp. 123-140) Innis examined the phenomena of world depression and how central and metropolitan economies moved to preserve their existence and in doing so how they affected marginal economies such as Canada. The inadequacy of the present response lay in the traditional belief in the tariff and an overly dependent stance with regard to borrowing money from abroad and expanding the Canadian infrastructure to better exploit natural resources. Innis has shown that past depressions had been managed by politicians using the same, traditional, approaches (1979, p. 79). The depression of 1835 was followed by the union of Upper and Lower Canada to provide the necessary financing for canals in the St. Lawrence system. The depression era of the 1840's (following the repeal of the Corn Laws) saw massive government involvement in improving transportation during a period of declining returns. The problems of government finance during this period involved the issuance of bonds, and end to reciprocity via the tariff, and a wider base for the debt which led to Confederation. The further attempts to expand transportation after 1873 again exposed the government debt to the problems

of attempting to finance heavy fixed charges of credit via fluctuating returns on raw materials. The National Policy and the Canadian Pacific Railway were responses to this problem. The 1890's depression was managed by massive immigration and more railroad construction - The Great Northern and Grand Trunk Pacific Railways. The massive debt of the post World War One period was managed by railroad amalgamation (Canadian National Railways) and continued railroad construction in the 1920's.

These responses were far too simplistic and only caused further problems. The tariff was a crude instrument that functioned well enough during a period of expansion but was a clumsy tool. A reliance on foreign sources of money to expand the infrastructure only compounded the problems of unused capacity, long range debt and a general dependency on foreign markets. The Great Depression had served to highlight these inefficiencies. Moreover the nature of technological, social and economic advance was such that more sophisticated and sensitive responses were needed. For Innis the response to the depression must have its foundation on an expanded body of information so as to throw sufficient light on the problem. The better understood the nature of the Canadian economy, its relation to mature economies, and the inter-relatedness of the whole system the better realized would be the beginning of a comprehensive response. Innis visualized a co-ordinated effort to combatting the depression that lessened the role of the federal cabinet as a planning agent (Ibid, 1979, p. 140) and which saw the introduction of co-operation between all levels of government and the public and private sector (Neill, 1972, p. 68). Specific areas of the Canadian economy would have to be dealt with accordingly and

with co-ordination between all levels of involvement.

Innis visualized a very specific role for economists. The economist could not effect change in the stystem since it was largely political and supposedly outside the realm of his work. Rather the economist should be concerned with the accumulation of information so as to facilitate the implementation of these new approaches. The economist should be concerned with isolating the causes of disturbance and in preparing himself to respond to politicians on those occasions when they dared to consult him (Innis, 1979, p. 84). This required that Canadian economists guard their objectivity and avoid partisan sentiment. This task may have been made easier if the Canadian economic community was older, better established, and sure of a consistent, indigenous view and approach to the Canadian situation. However the youth of the discipline and the presence of foreign scholars and a reliance on foreign scholarship was a major handicap to the economist attempting to address the problems of the Depression.

3.2 Innis and the "Hot Gospellers"

Notwithstanding, the Canadian economist was compelled to respond in some manner. Innis noted,

> for economists the task is most depressing. The untold misery of this slump has made sustained objective study extremely difficult and has led economists on all sides to desert the subject and flee to politics. The results are disastrous. The modern development of talk has brought the subject to a level at which it is safe to say that any economist with a large political following has almost certainly lowered his colours from the standpoint of a scientific investigation. And yet to say this is to expose oneself to the most bitter attacks on grounds of lacking sympathy with human misery. These are bad days for economists. (Innis, 1933, p. 7)

Economists becoming partisan participants was not what Innis had envisaged when he asked economists to wait upon the request of politicians. However if when called upon by politicians the economist remained a dispassionate observer he stood liable to be accured of being uncaring. The Canadian economist was very vulnerable because his craft was too young to provide the necessary infrastructure so as to protect the economist from outside pressure and from himself. The passion that the Great Depression elicited was such that many Canadian economists were drawn into the political and public ring. In doing so they abandoned what Innis took to be their rightful task which in turn compromised any attempts to understand the whole picture of the Depression and the measures necessary to combat that Depression.

Innis was very hard on his fellow economists. At a Liberal party summer school in 1933 Innis declared (1979, pp. 78-79),

> I am sufficiently humble in the face of the extreme complexity of my subject to know, first, that I am not competent to understand the problems much less to propose solution; and, second, that I am not confident that I can propose and explain solutions to you which I do not understand myself. This will be done for you by other "economists". But let me warn you that any exposition by an economist which explains the problems and their solutions with perfect clarity is certainly wrong.

Innis was leery of the involvement of economists in public activities-political or otherwise. Creighton (1957, pp. 92-94) recorded a number of incidences when Innis expressed his feelings on this matter. At the 1935 Canadian Political Science Association meetings Innis came to loggerheads with Frank A. Underhill, a member of the League of Social Reconstruction, who had denounced his fellow social scientists for not making a public statement of their faith and a denouncement of capitalism which had precipitated

the turmoil of the 30's. To this Innis replied,

> The weakness of the social sciences in Canada . . . and the aggressiveness of a new party looking about for any substance which it may devour involves the breaking down of our intellectual position . . . I cannot conceive how anyone can have solved the problem of the Canadian economy and become so convinced of his solution as to start preaching and tolerate those of us who are trying to do a decent job in our own way . . . We suffer from a plethora of preachers and a scarcity of intellectual effort . . . (Creighton, 1957, p. 93)

The pressure of the depression saw many economists becoming involved in trying to solve the riddle of the Depression. Innis saw a dangerous trend in this movement. More and more economists were abandoning scholarship to pursue answers to the problems of the day.

3.3 Science, Objectivity, and Scientific Economics

The most striking feature of the move of economists into the public realm was the growing acceptance of positivistic scientific methodology as legitimate means to approaching the subject matter of economics. Innis was growing increasingly concerned with what he perceived to be the demise of economics in the face of the growing popularity of science and scientific objectivity.

Innis arrived at these conclusions as a result of the influence of several men. Thorstein Veblen, who Innis was exposed to while a student at Chicago relentlessly attacked economics for not being scientific and for functioning as an apologizing and rationalizing discipline for the injustices wrought by the carnivorous prelates of industrialization.

Veblen attacked the hedonistic (Veblen, 1961, pp. 73-74) economics of his day on the grounds that its reasoning was teleological; running in terms of final causality (Neill, 1972, p. 110). In essence the ends justified the means. By contrast Veblen held that the natural sciences ran in terms of direct efficient cause without regard to a goal and this should be the type of economics to be used. For Veblen the key to building a scientific economics lay in elaborating the effects of the non-teleological forces of blind instinct and limitations defined by technology (Neill, p. 110). Veblen's discourses, starting with The Theory of the Leisure Class in 1899, Theory of Business Enterprise (1904) and Instinct of Workmanships and the State of Industrial Arts (1914) recognized the supremacy of instinct to produce, and the idea of values were dismissed as the vestiges of outmoded technologies and any economic constructs fabricated from these pseudo values were merely constructed to block the natural workmanship instincts of man (Neill, 1972, p. 110). Veblen removed the existence of values from the social sciences and those which we took to be values were merely a variable of technology. Any economic pronouncement would thus be invalid and merely be an extension of the technology base of a society and those who controlled that technology.

Innis accepted Veblen's contention that economics could be a hedonistic exercise. However through F. H. Knight and J. M. Clark, his teachers at Chicago, Innis could not accept the possibility of a scientific economics (Neill, 1972, p. 111). Innis felt that objectivity was not necessarily achieved only by science.

An exchange between Innis and his department head at Toronto,

E.J. Urwick, serves as an early illustration of Innis' position vis-a-vis scientific economics. Urwick published a paper, "The Role of Intelligence in the Social Sciences", in 1935 in which he felt that collective social conscience could serve to adjust political processes so as to achieve changes in the prices structure and in effecting economic and political change. Urwick could not hold with the social sciences assuming a positivistic mantle because it asked for the removal of life from society so as to put it in a static analysable form (Urwick, 1935, p. 65). Neither could Urwick hold with the three principles of positivistic science - uniformity of nature, causality, and objectivity (Ibid, p. 66). On the subject of objectivity, Urwick concluded (pp. 68-69)

> Whether you take an individual or a group, an event or a situation, an association or an institution, you will find that it presents itself, to be charged with an indelible significance which gives it its character, its being even, and without which it has no meaning in relation to the social process. And this significance is threefold: part of it resides in the inherent power of change of the person or group itself; part in its relation - a moving relation - to all the other living things around it; and part in its relation to you, the observer, to your feeling and purposes, and to the total significance for you of the whole social life to which it belongs. Neutrality and indifference are put out of court at once .... Objectivity thus becomes a joke.

Urwick rejected natural science as an appropriate model for the social sciences but was not prepared to abandon a revisionist stance for economics. Urwick's contention was that academics, in open discussion, could achieve some common consensus that could be taken to be representative of the collective social conscience. The academics could then effect change in the political process that would bring about a change in the market place and a change in the price of goods and services. This change would be taken

to be the most expedient expression of social conscience and values, both social and individual. Urwick's closing remark re-affirms his belief in discussion and introduces us to Innis' stance on this matter. Urwick concluded (p. 75),

> The place of discussion therefore, partly, assisted by intelligence in the social process is much more certain than that of intelligence itself working at its chess boards.

Innis, in "The Role of Intelligence in the Social Sciences: Some Further Notes" could not accept Urwick's contention over the plausibility of educated discussion fulfilling the role of discerning social and individual values that lay at the root of social consciences. Innis countered Urwick's argument by stating (1935, pp. 284-285):

> The fundamental limitations outlined by Professor Urwick involve the salvation and the despair of the social sciences. Habits and institutions, even stupidity, are the assets of the social scientist. Relative capacities of social scientists for observing, in contrast to being observed, extend his range. Institutions such as professional associations, office hours, and a reputation for curtness may serve as defenses in improving the position of the observer, but like all the paraphernalia and equipment of modern scholarship they have their advantages and limitations. The significance of discussion has been emphasized, but organizational discussion is a contradiction in terms and other types of discussion involve the dominance of a relatively small number . . . The decline of intelligent discussion has been indicated in its persecution on the part of interests which profit most from freedom of discussion. The news value of intelligent discussion has practically led to its suppression or to its restriction to circumstances in which the press is not admitted . . . Intelligence in the social process is, therefore, seriously confined in its attempts to predict general trends. But in so far as "the sediment of experience" becomes deeper its task becomes at once easier and more difficult. Its range may be narrowed and its data may be increased. Intelligence in the social sciences tends to be absorbed in the abstruse and abstract tasks of adjustment and to be lost in specialization, with the result that it is unable to participate in the endless and complex and possible fruitless search for trends.

Innis discounted the role of discussion as the appropriate form of initiating social change. Objectivity through positivistic science, as Urwick pointed out, was also highly suspect since it involved removing the essence of life from society. Innis saw intelligence in the social sciences lost in specialization and the only manner in which objectivity could be achieved was by the individual surrounded by all the quirks of individual work with the sentiment of experience as the basis for intelligence in the social sciences.

Both Innis and Urwick held that economics could not be scientific merely by assuming the mantle of natural science. The rhetoric and appearance of being scientific was not the key to objectivity. For Innis, the only way for economics to approach a position of objectivity was to recognize its own biases and in seeing its own weaknesses recognize that there existed a bias in the discipline and in its practitioners.

Innis held out in the hope that the social scientist beset with numerous biases could find in them his own salvation (1935, p. 28).

> Since the social scientist cannot be "scientific" or "objective" because of the contradiction in terms, he can learn of his numerous limitations. The "sediment of experience" provides the basis for scientific investigation. The never-ending shell of life suggested in the persistent character of bias provides possibilities of intensive study of the limitations of life and its probable direction.... The habits or biases of individuals which permit prediction are reinforced in the cumulative bias of institutions and constitute the chief interest of the social scientist.

The only means in which the social sciences and its practioners could approach any form of objectivity was to recognize the subjective nature of their subject and the subjectiveness of their approach to their subject. Each social scientist had to be able to see his and his subject's

biases. The climate of public and professional near hysteria that fostered a search for answers to solve the riddle of the Great Depression gripped the social scientists who sought quick fix answers through science and who increased their public profiles via science in response to public demand (Neill, 1972, p. 113). Innis felt that the increasing use of mathematics and statistics and the mantle of objectivity taken with the adoption of a positivistic position had provided economics with a false sense of power and purpose and he feared that this movement was infecting all of the social sciences. Innis saw objectivity as an impossible ideal and was inclined to support the intellectual working at his chess board of intellect with all the attendent pressures of individual, group, and social biases. In the attempt to recognize and reconcile these biases the social scientist would achieve if not a position of objectivity then at least a position where the total picture was clear to him and his work would then reflect the whole picture and thus be more objective with respect to reality. The social scientists could not achieve these ends without some aid from the university which would shelter them from outside bias (Innis, 1933, p. 280). Innis maintained that it was up to the university to provide the necessary conditions to protect the social scientist and to allow for his personal research. Within the university the social scientist could examine society, recognize society's biases as well as his own and be sheltered from these biases. The type of information thus produced would not be assumed to be a final truth as was often the opinion held of scientific research. Rather the ongoing research of social scientists seeking solutions was the only manner in which to arrive at some solutions and even these findings would be subject to ongoing research and never taken to be the truth or final answer.

The turning point in this dilemma for Innis came about as a result of the expansion of sociology in the Department of Political Economy at Toronto in the late 1930's. Innis, as head of the department, was embroiled in a controversy with the sociologists. The sociologists, to prove their legitimacy as members of the social science community, assumed the mantle of natural science and an especially deterministic interpretation of the world. The events of the Depression and the rampant political and economic nationalism engendered by the Depression left Innis very cool towards any movement which sought justification via an appeal to science. The success of scientific sociology in establishing itself at Toronto, despite his attempts to block the sociologists, brought Innis back to the position of Clark and Knight at Chicago. Innis rejected the possibility of social science being purely objective by assuming the mantle of natural science. The only form of social science that Innis would accept was individual scholarly research carried on in an atmosphere free from the pressures of the every day world. In this environment, social scientists were free to examine problems and seek solutions. Innis warned that they were compromising themselves and their work when they stepped out of their university sanctuary or assumed a particular methodological position with a false sense of objectivity and a penchant for final answers.

Innis was growing increasingly concerned about his colleagues, his craft, and the general situation facing the academic community. Innis was growing increasingly concerned by the movement towards a more scientific and supposedly more objective stance by his colleagues and the forces that were behind this movement. Two particular influences, Robert Ezra Park and Charles Cochrane would lead Innis towards uncovering the forces that were

behind those phenomena that Innis was growing increasingly pre-occupied with.

3.4 Cochrane, Park and the Emergence of Communications

Charles Cochrane was a professor of Classics at the University of Toronto. Chochrane's 1940 publication Christianity and Culture led Innis to see that the situation surrounding the social sciences in Canada in the 1930's was merely a part of an ongoing process.

Cochrance's work illustrated that the classic or Platonic mind acknowledged the claim of science to be architectonic and therefore, entitled to legislate with sovereign authority for the guidance of human life. The Augustinian perspective emphasized will, personality, and unpredictability. Classicism assumed that the unpredictable was the incalculable while in Augustinian thought unpredictablity was known through personality or individuality. A historian of the Augustinian school approached his problem from a perspective of change and progress while the classicist recognized only cyclical change and equilibrium.

Innis stated (1946, p. 97) that,

> The sweep of the Platonic state in the nineteenth and twentieth centuries and the spread of science has been followed by the horrors of the Platonic state.

These horrors were the belief in science as the most expedient form of expression and its findings the most legitimate observations of reality. Had the sweep of the Platonic state removed our ability to respect other modes of knowing? Innis recognized the effects of this sweep in the events unfolding

around him. Innis feared that 20th century social scientists could become indicted by Augustine who might have said that their cycles, theories of civilizations, and creative politics have become the new "fantastica fornicatio" (1946, p. 97). It was the Augustinian appeal to the idea of creative individualism that appealed to Innis and re-inforced his misgivings about the state of the social sciences.

Cochrane's appeal to Augustinian thought and the recognition of free will fitted well with Innis' misgivings over the state of objectivity in the social sciences. Innis recognized the role of habit, free will, and the individual behaviour as the basis for building an objective social science.

Innis recognized the sweep of Platonic thought in the 19th and 20th centuries and how this had specifically affected economics. Innis feared that the other social sciences, in their desire to gain respectability via an adoption of positivistic methodology and philosophy, would forsake the notions of free will etc., and adopt the Platonic notion that a non-measurable phenomenon was not capable of being examined via scientific methodology, would reduce the image of reality to a reality made up of only measurable phenomena.

Along with Cochrane, Robert Park must be considered as an important influence upon Innis. Park had been an eminent figure at the University of Chicago during Innis' years there and has been recognized as a leading figure in American sociology. In 1940 Robert Park contributed an article to The Canadian Journal of Economics and Political Science where he recognized the role of technology in the development of society and the relationship of science and technology to the transformation of the social web (Park, 1940). The societal web is altered because human habits have been altered by

technology of transportation and communication (ibid, p. 142). In our economic and competitive order improved technology of communication had extended the market allowing for mass production and distribution and the expansion of the price system affected world wide political structure. Park wrote (page 146),

> . . . customs, conventions, and law, by which society exercises control over the individual and itself, turn out finally to be the products of communications. . . . Communication spins a web of custom and mutual expectations which bind together social entities as diverse as the family group, a labour organization or the haggling participants in a village market. On the other hand, particularly when it takes the form of dialectical discussion, communications tend to individualize thought and bring out distinctions within the limits of a common understanding and universe of discourse. In this fashion communication tends to assume a rational rather than the intuitive form characteristics of ordinary intercourse.

Communications was a socializing process in Park's scheme. Communications channelled knowledge. Moreover Park felt that science was the form of knowledge best suited to mechanized communication in that it grew increasingly abstract and increasingly precise when transmitted (Park, 1940, p. 147). Since communications was central to societal development and science lent itself to communication then science came to occupy a central position vis-a-vis societal development. Science became a readily accepted form of explaining reality and became the font of knowledge for western societies. Innis' 1946 book Political Economy in the Modern State would appear to have drawn inspiration from Park's 1940 article. We will discuss this book in more detail in the next chapter. Suffice to say at this time it dealt with the rise of the political state and the emergence of science as a result of the advancement of communication via new technology.

Park's article re-asserted the Veblian contention that custom and technical constraint affected social action. However in Park Innis found a positive note. Park held out for the individual who could rise above these constraints by appealing to individual ability (Neill, 1972, p. 80). Park placed philosophy and religious faith before science thus reinforcing Innis' belief in the individual (ibid, p. 81).

3.5 Divergent Forces Blend Together

The 1930's were years of transformation for Innis and his community. The Canadian economic community was assuming higher public and political profile in response to the demand for solutions to the Depression. The new direction taken by this community alarmed Innis and raised the question of objectivity in the social sciences. Innis was concerned that his fellow economists were jeopardizing their position and placing in limbo the whole matter of objectivity. At the same time economic methodology and philosophy was undergoing a transformation as a result of the growing acceptance of the use of statistics, mathematics and the supposed objectivity of science. Economics was enhancing its position by producing finite observations from the mathematical manipulation of statistics which were taken to be of significance by virtue of a belief in the infallability of science. Scholarly exercises carried on in the name of science were taken to be the most appropriate and embraceable.

Veblen had illustrated the biases of economics and its lack of scientific credibility. However Innis was not sure of the supplication of the social sciences before the altar of natural science. Innis felt that more

was required of the social scientist than merely the adoption of form and style. His search, from Clark and Knight, through Urwick, to Cochrane and Park left Innis convinced that it was not sufficient merely to adopt a positivistic stance. Nonetheless, he came to see how it had risen to a point of dominance. He rejected out of hand the contention that the mantle of natural science and its hand-maiden mathematics was sufficient justification for assuming that any pronouncements from this position were worthy and were true to scholarship. Just as Veblen had become skeptical of the hedonistic economics of his day, Innis too was highly suspicious of his fellow economists and the economics they practiced. The relentless pressure of public opinion fostered by a belief in social scientists armed with a positivistic methodology, engendered the exploitation of any agent who could lay claim to the most accepted form of expression: science. The economists of Innis' day, having accepted it as a legitimate way of knowing and mathematics as a legitimate form of expression, served as examples of the degeneration of the social sciences.

The social sciences themselves had a large share of the blame for this situation. Innis pointed out that,

> ... the social sciences have created an impression of scientific finality and the use of the word sciences suggests the power of the fallacy. Large, heavy volumes of a statistical character written by committees in a mechanized style gave the appearance of finality. The intensive cultivation of mathematics has enhanced this impression (Innis, 1946, p. 124).

The social scientist had made himself eminately attractive by assuming a mantle of legitimacy through the adoption of positivistic science. At once both the economist and those who would "use" him became convinced of the worthiness of anything that the economist may care to produce. But Innis warned the economists, the social scientists, and the politicians about the fallacy of

such a belief. Quoting Frank Knight, his teacher at Chicago, Innis wrote,

> Only on the subject matter of price theory economics can it be said that any great headway towards satisfactory treatment has been made and this is but a limited aspect of the total problem of action. Without an adequate ethics and sociology in the broad sense, economics has little to say about policy. (Ibid, p. 126)

Innis' assessment ran deeper than Knight's. With regard to political economy, but with a steady eye on the whole of the social sciences, Innis felt that the advances that had been made were concentrated around mathematical analysis and the narrowing of subjects to a small number of experts at the expense of a philosophical and political background. The extension of political will into the realm of public opinion has brought the social scientist into the service of the state. The political economist stood to be used to foster state or party interests and to become a "political" economist. The consequence was that the "absorption of the social scientist in bureaucracy in the present crisis has left the community exposed to a flood of arrant nonsense" (Innis, 1946, pp. 128-129).

3.6 Innis' Counter Argument

To counter the effect of economics becoming "political" economy and producing nothing but arrant nonsense Innis felt that economic history must be given higher priority. In his essay "The Teaching of Economic History in Canada" Innis wrote,

> The central position must of course always be accorded to economic theory, but economic history is always an attempt to test the validity of principles of economic theory and to suggest necessary emendations. (Innis, 1979, p. 3)

The significance of economic history for Innis lay in its concern

for long run trends and an emphasis on the search for trends and patterns and not just the application of mathematical formulae (Innis, 1946, p. 100). The emphasis on the long run was the key to stability. In supplementing political and social history it worked to check the biases in those disciplines. Most important of all, economic history would check the specialization of the social sciences: a specialization wrought by an emphasis on mathematical systems peculiar to a monetary and machine age (ibid, p. 100). The role of economic history, for Innis, was quite clear.

> By drawing attention to the limitations of the social sciences and the price system it can show the importance of religion and of factors hampering the price system ... it draws attention to the penchant for mathematics and for other scientific tools which have warped the humanities. Economic history may provide grappling irons with which to lay hold of areas on the fringe of economics ... with which, in turn, to enrich other subjects, as well as to rescue economics from the present mindedness which pulverizes other subjects and makes a broad approach almost impossible (ibid, p. 101).

If economic history was to work its magic it would have to keep itself above the other elements of the social sciences. But how? The answer to that lay in Innis' belief in the university. It was the university as "ivory tower" that could provide the necessary conditions for economic history to work it's magic. On the role of the university Innis wrote,

> The place of the social sciences in Western civilization must be seen in relation to the role of universities. The university has played its' greatest role in servicing as a stabilizing factor... It must continue its' vital function in checking the dangerous extremes to which all institutions with power are suspect. The extreme tendencies of modern civilization shown in the rise of the modern state and in the tyranny of opinion compel universities to resist them. The trend of the social sciences in response to the demands of the new bureaucracy has been towards increasing specialization. And in this it has threatened the influence of universities. The university must deny the finality of any

> of the conclusions of the social sciences. It must steadfastly resist the tendency to acclaim any single solution of the world's problems at the risk of failing to play its' role as a balancing factor in the growth of civilization. The Marxian solution, the Keynesian solution or any solution cannot be accpeted as final if the universities and civilization survive. It is the task of the social sciences in the universities to indicate their limitations in their cultural setting. (Innis, 1946, p. 141).

The social scientist must allow himself to be protected by a renewed university which denied the finality of answers created from an obsession with science. Protected from within and without the social scientist could come to recognize the biases of his discipline, his world and himself. In the university, where full creative individuality could come to full bloom, the social scientist would be free to produce the best possible responses to his world and himself. In the university, where full creative individuality could come to full bloom the social scientist would be free to produce the best responses to his world while working at "his chess board of intellect".

Despite his most fervent wishes for the university to rise out of the ashes of its past Innis could not, in all reality, hold out much hope for the social sciences or the university. With a note of resignation Innis ended his 1946 essay "Political Economy in the Modern State" with a quote from his colleague E. J. Urwick,

> I despair of a return to the same atmosphere in which Adam Smith quite naturally combined the moral sentiments with his scientific thought about economic forces. The whole trend today is to exalt the rationalist scientific approach and to discard the philosophical. I am not thinking only of the worship of the physical and mechanical sciences, but rather of the attempt to make ethics, philosophy, sociology, etc., conform in method and language to the physical sciences - with disastrous results. Specialization runs made, and when it does so, never leads to understanding. Its natural result, is strife and violent dogmatism. I wonder whether we shall get into a saner atmosphere within the next two or three generations.

3.7 The Demise of the Political Economy of Harold Innis

The answer to Urwick's question was not long in coming and, in hindsight, it comes as no surprise. We need only look to the evolution of political economy in Canada to answer Urwick and, by extension, Innis' question. Political economy was at its zenith during Innis' years at Toronto. But the Great Depression demanded attention and the crisis between neo-classical and Keynesian economics, with the eventual victory of Keynes, would greatly affect the political economy of Harold Innis. With the succession of Keynesian economics, economic history was replaced as the core element of economics and in turn this greatly compromised political economy (Watkins, 1982, p. 15). As Innis so ably illustrated economics became obsessed with a short run analysis of phenomena concentrating on the immediate with the result that it fell pray to quantification and reification of technique (ibid, p. 15). In the United States political economy did not hold out as long as it did in Canada, but it was inevitable that Herbert Heaton's warning would bear fruit. Heaton projected that,

> the American cult of quantities is no mere turning tide. It is a tidal wave, on which Clio's little craft seems likely to be sunk by the swarm of vessels manned by statisticians, econometricians, and macro-economists. (1954, p. 475).

Good economic history in the United States took to be accpetable that technique which had been developed by economics. Quoting Paul Davenport, Melville Watkins called economic history the application of economic theory to economic history and the gap between theory and history grew progressively wider (Watkins, 1982, p. 14).

In the tradition of Harold Innis economic history had to be tied in an intimate fashion to economic theory. The close relationship between economic history and economic theory was the core of political economy. The political economy of Harold Innis was a deliberate attempt to resist the movement that Heaton had warned of. With Innis at it's head the Department of Political Economy at Toronto became the bastion for those who would resist the change in economics and all the social sciences. Unfortunately, in some measure, Innis contributed to his own demise. Certainly his growing preoccupation with the state and fate of the social sciences and his interest in communications left Innis largely outside the world of his contemporaries. More importantly the sweep of "Cliometrics", as Heaton called it, left Innis largely isolated. Certainly the new generation of economists accepted the "new" economics while the minority surrounding Innis were banished to the back waters of the academic community. The Toronto school has risen in the sterile area between Marshall and Keynes and in the relative freedom enjoyed as we moved from the British to the American sphere of influence. The inexorable weight of American influence in the social sciences could lead to only one end: the demise of Political Economy at Toronto and of Harold Innis as its chief practitioner (Watkins, 1982, p. 17). The social sciences in Canada moved to follow the lead of economics and abandoned the subtle and sophisticated position epitomized by the political economy of Innis. Economists accepted the banal and simplistic economics of Keynes and Sidney Friedman of Chicago (Ibid, p. 17). And the social sciences, each in their own time followed economics and worshipped blindly at the altar of science.

Innis and those who supported his position were relegated to a ghetto existence. They became tolerated at best and for the most part they were

largely ignored. Innis' fate, and the fate of the social sciences in Canada, lay in the attitude of mainstream orthodox thought in the social sciences. As Watkin's pointed out the changing character of economics made it more monolithic and its practitioners more arrogant with a result that any dissent was not tolerated (ibid, p. 16). This phenomena has been well documented by Thomas Kuhn and his expose of paradigms. Paradigms, practitioners, and schools can serve to suppress as well as encourage alternative points of view (Kuhn, 1970). The new orthodox economics could suppress Innis quite effectively by passing him off as a hold over from another age. Innis' rank as a scholar granted him a certain measure of freedom but it was of little use to him if he remained outside the bounds of his discipline. The movement that started so subtly in Canada in the early 1930's had become a fait accompli even before Innis' death. So Urwick and Innis had the answer to their question. The generations following them did not see a decline in the social sciences: What Innis saw as a dangerous precedent in economics, the infiltration of science and it's hand-maiden mathematics, others took to be a positive move that enhanced the discipline's prestige in the scholarly community and in the public's mind. In turn this movement affected the other social sciences: each in their turn moving along the same lines as economics had. The future generations upon whom Innis placed his hope failed him. Resigned to the eventual fate of western civilization Innis could not help but feel very pessimistic.

This chapter has shown how the 1930's would forever shape the career of Harold Innis. The severity of the Great Depression demanded action and the public, through its representatives, sought answers and actions. Innis

recognized the seriousness of this movement and was witness to its effects. The pressure of special interest groups and public opinion had been felt by economics. In response economics had been steadily evolving into a more mathematical and positivistic discipline. Economics armed with such a scientific legitimization was in a position to respond. Political economy became a pawn. More importantly the other social sciences, eager for recognition and prestige in the public and scholarly communitites' eyes, adopted a similar positivistic and mathematical mantle to exploit the growing belief in the ultimate legitimacy of a quantified methodology and a positivistic philosophy.

Innis, having given up on the possibility of a truly objective, positivistic economics opted for a position whereby the scholar, fully aware of all the biases in and around him, could still achieve some meaningful ends via the working of individual, liberated scholarly enterprise. For this to occur the university had to provide the appropriate atmosphere. Innis despaired over the universities failure to do so. Innis was thus resigned to trying to warn academics about the "rape of scholarship" and in attempting to halt it. Unfortunately, events were such that his warning went largely unheeded and by the time of his death all that he had come to forsee had come to pass.

Chapter Four: Innis' Humanistic Treatment of Space and Time

In the previous chapter several divergent interests and forces emerged that would greatly influence the later years of Harold Innis' career. Innis' concern for the universities and scholarship was heightened by the onslaught of World War Two and he strove to maintain the integrity of the university and scholarship in the face of the demands exercised by the war.

The second World War played a pivotal role in Innis' career. Not only did it heighten his awareness of the precarious position of scholarship but it brought forward the penomena of propoganda and public opinion which would bring forward Innis' concern with the role of communication. From this starting point Innis would seek the antecedents of the modern day situation and particularly the role of communication media in effecting change in societies - ancient and modern.

During the war years Innis re-affirmed his interest in matters geographic. This interest was a two-fold interest that was a part of his concern with public opinion and scholarship. The events that have gripped geography during Innis' life time and after his death will take on a different look in the light of his work. It may also prove useful to look at those voices of dissent that have emerged following the "Quantitative Revolution" to see if some parallels may be drawn between these groups and the work of Harold Innis. Innis had produced a rough conception

of the structure of the social sciences in which geography held a strategic position. It may prove useful to examine geography today in light of that scheme and more specifically the question of time and space. Time and space were two critical dimensions to Innis' model of the social sciences and deserve some attention. Innis' treatment of the space-time problem emerged as a result of phenomena related to his examination of the problems of the social sciences and communication. Innis' work in this area will help to illuminate the present day difficulties geography has in reconciling space and time.

4.1 The Emergence of the Communications Theme

1940 can be taken to be a watershed year for Harold Innis. He published his second major book The Cod Fisheries: The History of an International Economy and with its publication Innis signaled the end of his "staples" period and the beginning of his pursuit of the themes that had taken root and germinated in the 1930's. Innis found much needed encouragement from Cochrane's book and Park's article both of which appeared in 1940. Some seemingly insignificant events would prove to be of real import since they would provide the impetus for Innis to embark upon his future endeavours.

Upon publication of The Cod Fisheries Innis had intended to embark upon a study of the pulp and paper industry. In 1937 Innis contributed an article to the Canadian encyclopeadia on the pulp and paper industry, that complemented his association with A.R.M. Lower who was producing major works in this area. But as he pointed out in the introduction to Empire and

Communications Innis felt that Lower and others were competent enough to handle the history of the industry and its role in Canadian development. Innis was more concerned with the role of pulp and paper on the demand side in the form of newsprint and specifically newspapers. Innis recognized that newspapers, as organs of public opinion had been influential actors during the Depression which was a period wherein social scientists had radically altered their public position in response to public demand for action.

From his involvement with the expansion of Commerce courses at Toronto into the field of marketing in 1938 (Neill, 1967, p. 175) Innis recognized a relationship between advertising, the newspaper as an organ of opinion, and the evolution of the social sciences. Innis wrote in the Introduction to Political Economy in the Modern State (1946),

> The pressure of the production of newsprint form the Precambrian formation, and the more intense development of advertising, implies an exaggerated emphasis on the price system and a more unstable public opinion precluding a clear appreciation of our problems and in turn sustained consideration of them.

Economics' pre-occupation with the price system with an attendent pre-occupation with science and mathematics was linked to the level of public opinion which was determined by the relationship between newspapers as the principle media and the evolution of public opinion.

In "The Newspaper in Economic Development" (Innis, 1946), "The English Publishing Trade in the Eighteenth Century" and "Technology and Public Opinion in the United States" (Innis, 1977b,) Innis deals with the rise of the newspaper as a principle factor in the evolution of public opinion. As a result of the steady improvements in technology, newspapers reduced their costs, expanded their circulation to all levels of society, and improved upon their information

gathering and dissemination. At the same time newspapers increased their dependence upon advertisement and left themselves open to becoming an organ for the expression of specific view points. Those who advertised were able to influence editorial stances and the nature of information transmitted by the newspaper. As a consequence the papers became aligned with various groups as organs of opinion. Public opinion and values were reflected in the pre-eminence of newspapers. The growth of political institutions and the increasing dominance of politics in every day affairs was both the reason for and result of the growth of newspapers.

Innis recognized that media brought the public in closer contact with those traditional political, economic, and social institutions that influenced the evolution of society. More specifically the public and public institutions became increasingly concerned with all matters economic, political, social, and otherwise. Innis was concerned with the manner in which economics had been tranformed at the hand of public opinion and public demand upon those institutions which could have a hand in influencing the evolution of economic affairs. As pointed out in the previous chapter Innis felt that economics and the university had slid down in direct relation to the advancement of the influence of media and public opinion. The pre-occupation of economics with the price system and the manner in which science, mathematics, and statistics lent themselves to the manipulation of the price system in a manner that was in accordance with public opinion. The rise of the state, as a by-product of the rise of communications and public opinion, served to compromise economics in Innis' eyes by encouraging economics to avail itself of its new tools of analysis. The answers that were produced by these tools would serve to answer the needs of the state and those socio-political structures that were involved in manipulating the price system to reflect

public expectations (Innis, 1946, p. 129). Armed with this new form of analysis the economist became less of an economist in the classical mold - a true scholar - and became more of a "political" economist as he prostituted himself to the pressure of public opinion as manifested in public institutes (ibid, pp. 129-130).

4.2 Harold Innis and Classical Studies

Innis recognized that the print media was pivotal in establishing an atmosphere that had come to compromise economics. Innis was concerned over the incompatibility between public opinion and intelligent discourse and particularly over how the latter was being radically transformed to fit the image the former holds of the latter. The re-accelerated pace of this transformation in Innis' life time became the raison d'etre for his researches in his final years. The Depression and the Second World War left Innis convinced that intelligence was being beseiged by forces that would use it and transform it into a practice to meet ends contrary to what he held to be the proper end. But what were these forces? Innis found their identity through the works of two of his fellow scholars in the Department of Classics at the University of Toronto. The University of Toronto in the 1940's was the leading centre for classical studies in North America (Watson, 1977, p. 47). Moreover the classical scholars at Toronto had taken upon themselves the challenge of examining the biases of their times against a background of classical studies. Of the Toronto scholars C. N. Cochrane and E. A. Havelock deserve particular attention since they played a major role in leading Innis to his studies of ancient empires.

C. N. Cochrane emerged as an important influence at a time when Innis had come to recognize the effects of social conditions upon the social sciences (Innis, 1975, p. xiii). Cochrane's article "The Mind of Edward Gibbon" (Watson, 1977, p. 48) left its mark on Innis. First, the historian should also be a philosopher to help him perceive the importance of facts. Second, it was possible to reject the findings of experimental science, and make a start from a more adequate starting point. Cochrane's contention was that historical investigation would use all of the techniques available to collect and assemble data and would seek to present it's case according to the highest standards of logic and art. But at the presentation level historical investigation . . .

> will abandon conventional illusions of scientific objectivity and will seek, with the aid of sympathetic imagination, disciplined and controlled by the comparative studies of peoples and cultures, to enter into and recover what it can of past experience, so far as this is possible within the narrow limits of human understanding; and this experience it will seek to "represent" in such a way as to convey something, at least, of its meanings to contemporaries. In this formidable understanding the historian can ill afford to neglect any possible assistance; he will ignore at his own peril the rich resources of language and literature. (Cochrane quoted by Watson, p. 48)

Innis, in his obituary of Cochrane (Innis, 1946, p. 96) commented on Cochrane's Christianity and Classical Culture and its relevance to the crisis in the social sciences.

> The significance of the volume for social scientists is its philosophical approach. In classical civilization reason asserted its supremacy and in doing so betrayed its insecure position with disastrous results. "Such perversions of intellecutual activity", Augustine called "fantastica fornicatio the prostitution of the mind to its own fancies." Classicism was indicted "in the fact that it acknowledged the claim of science to be architectonic and therefore, entitled to legislate with sovereign authority for the guidance of human life" . . . History written from the philosophical background of classicism differs sharply

> from history written from the Augustinian point of view, with its emphasis on will, personality, and unpredictability. Paradoxically classicism assumed the unpredictable in the incalculable, in fortune or in chance, where as Augustine admitted the possibility of understanding the unpredictable by emphasizing personality or individuality. A society dominated by Augustine will produce a fundamentally different type of historian, who approaches his problem from the stand point of change and progress, from classicism with its emphasis on cyclical change and the tendency to equilibrium. The doctrine of original sin becomes the basis of a philosophy of progress in contrast with the philosophy of order of classicism.
>
> The sweep of the Platonic state in the nineteenth and twentieth centures and the spread of science have been followed by the horrors of the Platonic state. The social scientist is asked to check his course and to indicate his role in western civilization. His answer must stand the test of the philosophical approach of Cochrane.

Innis' response to the challenge of Cochrane was quite unique. The classical pole stresed balance and a tendency to equilibrium with change associated with recurrence or cycles. Unpredictable occurrences were outside of human nature and left to fortune. The Augustinian pole saw reason, not in balance, but in progress with a millenial theory of change and an apocalyptic day of judgement. Unpredictability existed in the human personality. Innis favoured the classicist position but was not willing to attack the notions of progress and personality. Rather he preferred to use them to explain the origins of Augustinian thought in Western civilization. Innis reconciled the two poles by believing that order or balance existed in the individual par excellence - the intellectual - and that progress was not a function of personality but was defined by the limits imposed through the succession of different media of communication.

Cochrane's reference to fantastica fornicatio referred to the problem of the inability to reconcile fortune with science. The classical minds attempted to understand human society from a position of scientific materialism which led to the ressurection of irrationalism. Irrationalism existed in

an intellectual world dominated by uncritical materialism. The classical mind dismissed irrationality as an element outside of the human existence. The classical mind held that that which was irrational was irrelevent. In Innis' own life time he had seen this mind set at work. Social scientists studied the human condition from a materialist's perspective and on the basis of this obervation profered opinions on appropriate social engineering practices. However the personal, irrational, human elements were removed on the basis of their illogicalness. Thus Innis' latter works were a conscious attempt to illustrate and hopefully blunt the effects of this fantastica fornicatio. To do so Innis examined the destruction and reconstruction of past monopolies of knowledge so as to shed some light upon the monopoly of knowledge he found himself in.

The second major influence from the classical scholars was A. E. Havelock (Watson, 1977, p. 50). Havelock picked up upon Innis' idea of media supression as a focus of looking at Greek literature and society. Innis' communications studies seem to focus on the notion that the greater extent to which human knowledge and power of production is pushed the greater are the horrors that come back to haunt man. Innis gleaned this idea from Havelock's translation of Prometheus Bound which he subtitled The Crucifixion of Intellectual Man (Watson, p. 50). Havelock examined the condition of modern man by a constant referal to the Greeks and mythology in the hopes of exposing the inability of modern civilization to cure its myopia. Through the legend of Prometheus, Havelock showed that the source of civilization, technological advance, was the source of its own collapse. The application of power to man's inventions signalled the launching of the modern age. This

placed technology and its mate science in a dominant position with respect to human existence. This made the scientific world view become the common sense of the times. Like Cochrane Havelock saw intelligence and the positivistic scientific view as being hostile forces. The success of the scientific view lay in its ability to become the common sense apparatus of the masses. Moreover as the common sense apparatus of the masses it lent itself as the power base of the political apparatus that was erected upon the masses. At once this put the political apparatus in conflict with intelligence. Power and force were the minions of political power. Political will had emerged as the principle pre-occupation and initiator of social change in Western civilization. Science and technology were its major tools. Havelock concluded that,

> What the masque tries to say is that the sheer will to control and order and compel is itself a historical force in human society and in the human soul, working in constant antagonism to intelligence which it distrusts and despises and crucifies. (Quoted from Watson, 1977, p. 53)

This conflict of power with knowledge was obvious to Innis in his modern predicament. Intelligence was crucified at the altar of power. Social scientists foresook intelligence by becoming social engineers. By arming themselves with positivistic science they were accepting the same mental set as the masses. Cochrane and Havelock led Innis to see the present monopoly of knowledge based on science as one that was compatible to the emergence and dominance of politics and power. Politics and power themselves could trace their beginnings to the application of energy to man's technology: specifically the application of power to printing, paper production, and newspaper production and distribution. The application of power expanded literacy and thus prepared the masses for the growth of politics and the dominance of power. Intelligence

was comprised and altered to fit the mold that power had created for it.

4.3 Innis' Examination of Ancient Empires

Innis (1975, p. 170) identified ancient empires dominated by durable media as empires pre-occupied with time and religious organization. Ancient empires dominated by light media were pre-occupied with space and political organization. The dominant media and its particular spatial or temporal bias would determine the dominant bias of the society it supported. Ancient civilizations collapsed under the burden of their bias and they were supplanted either from within or without by an alternative society based on another media. In contrast Innis gave the Greek civilization, a civilization based on oral not written communication, as a civilization that had struck a balance between time and space and knowledge and power (Innis, 1975, pp. 53-84).

Western civilization in Innis' time was dominated by a light medium - paper. Paper was introduced from China by the Mohamedans and replaced the ecclesiastically dominated organization predicated on parchment. Paper when alligned with printing, vernacular language and alphabet led to the expansion of nation states. The book and later the newspaper gave rise to literacy, advertising and trade. What emerged were large scale monopolies of communications based on paper with a decided spatial bias. Western civilization, like other ancient civilizations, because it was dominated by a light medium of communication, was pre-occupied with space and political organization.

This pre-occupation with matters political manifested itself in social, political, and economic organization. Innis was particularly concerned how scholarship was affected by the dominance of a spatial bias. Quoting

Philip Morley, Innis wrote (1946, p. 120),

> The undisputed predominance of the political spirit has a plain tendency to limit the subjects in which the men animated by it can take a real interest. All matters fall out of sight, or at least fall into a secondary place, which do not bear more or less directly and patently upon the material and structural welfare of the community. In this way members of the community miss the most bracing widening and elevating of the whole range of influences that create great characters . . . This impoverishment of aims and deprivation of principles by the triumph of the political spirit outside its proper sphere cannot unfortunately be restricted to any one set of people in the state. It is something in the very atmosphere which no sanitary cordon can limit.

What Innis was attempting to illustrate via Morley was that all other considerations that were not directly related to the bias of space and political organization were ignored or abandoned and the society became increasingly preoccupied with only those things directly related to the dominant bais.

Economics was a victim of this phenomena. Innis expounded upon the history of the social sciences in the principle essays contained in his 1946 book Political Economy in the Modern State. Innis' revelations about the history of political economy were a barometer of the overall evolution of the social sciences. Political economy emerged as a definitive exercise with the balance between state, church, and popular opinion that characterized the age of Adam Smith. This balance resulted because the dominance of the church and state was broken by Luther and Calvin. The appeal to reason, not emotion, and the emergence of free-trade doctrine led up to the circumstances that produced Adam Smith's Wealth of Nations. Innis held that political economy had reached its zenith during this period and slowly began to descend from this height. During the same period the university emerged as the new source of knowledge;

knowledge that was progressive and which aided in developing new means of conceiving and understanding the world. The increased activity of commerce and the growing importance of economic activity brought on by the spatial bias of society occasioned the need to restructure society and the need to justify this restructuration. Economics inherited the task of interpreting and justifying social, political, and economic restructuralization. At once it became inevitably attached to the status quo.

The factors that gave rise to the dominance of the political spirit were also responsible for the rise of positivistic science to a prominent position. Park had pointed out that positivistic science readily lent itself to a situation such as the one that was the result of the spatial bias of paper.

In his preface to Political Economy in the Modern State (1946), Innis comments upon the result of the marriage of science and mathematics to economics and the social sciences.

> (The) influence of a specialization in the social sciences has been evident in concentration on the problems of the price system, partly as a result of its deceptive appearance of finality which follows the possibility of the extensive use of mathematics, a decisive instrument in the natural sciences. (p. viii)

Innis was willing to concede that an emphasis upon the price system, which was the central concern of neo-classical economics, had served to fine-tune and improve the effects of industrialism. But this did not take away from Innis' insistance that any obsession with the price system and the instruments involved in its control was to be tempered with an eye to its limitations. Innis continued,

> But the effectiveness of the price system will depend upon a realization of its limitations. It has been dependent upon a wide spread diffusion of mathematics, i.e., on the ability to make change and on an intensive study of its mathematical character. (p. ix)

The ease in which mathematics lent itself to an analysis of the price system also was fraught with danger.. Innis stated,

> Its susceptibility (the price system) to mathematical research facilitates re-inforcement of the belief in the price system and contributes to the intensity of the obsession. It's dangers follow obsession and intolerance to a philosophical interest and skepticism. (p. ix)

As seen in the last chapter Innis feared that what had beset economics was a strident belief in science and mathematics and a lack of tolerance towards more philosophical and balanced approaches based on a skeptical relationship with mainstream thought in economics and individual research as the basis of objectivity.

The university had emerged to advance knowledge. Science emerged as the form of knowledge that offered the best explanation of reality. Its position was solidified by its adaptability to mechanized communication. As communication improved the spatial and political bias of paper was expaned and with it the legitimacy of science was solidified while it expanded into new areas.

During Innis' life time neo-classical economics was charged with the running and refinement of the price system which was the manifestation of the predominance of the political spirit occasioned by paper as the principle medium of communication. Science and specifically mathematics and statistics readily lent themselves to the manipulation of the price system (Innis, 1977b, pp. 190-195).

At this point it will help to piece together Innis' research. To do so it is best that his work be examined backwards chronologically. In his studies of ancient civilizations Innis found that ancient societies exhibited tendencies to be biased either temporally or spatially depending on whether

their principle medium of communication was either durable or light in character. Western civilization had moved from a temporarily and ecclesiastically biased stance dominated by parchment to a spatially and politically biased development based on the light media paper.

The bias of paper was greatly advanced by the application of technology. The printing press and the mechanizrd production of paper advanced the development of vernacular language and the emergence of the nation state. The nation state was predicated upon the proliferation of public opinion. Public opinion was created, sustained, and advanced via the newspaper and advertisement which brought the bias of the political spirit to all levels of society.

Political economy, specifically the seminal work of Adam Smith, and knowledge free from bias, as manifested in the independence of universities during this time, grew in that period where the biases of time and space were balanced while western society moved from parchment to paper. As the bias of paper transformed western society, economics became increasingly pre-occupied with the workings of the price system and to fine tuning the economic order. At the same time science, which most expediently lent itself to mechanized communication, became the accepted and revered form of knowing. Economics was becoming increasingly involved with the spatial bias of western society and eventually it solicited science and specifically mathematics and statistics to facilitate its manipulation of the price system.

Innis' concern with this phenomena was focused on the events enveloping the Canadian sholarly community during the 1930's. All of the forces, biases, and movements that Innis focused on in his communications studies were manifested on a microscopic scale earlier in his career. The pressure of public opinion

and political necessity upon the Canadian scholarly community was very great. This pressure brought forward a need to find solutions to the problems of the Depression which increased economics' reliance on positivistic science to provide answers and to manipulate the price system.

What Innis feared was a loss of balanced, objective approaches in the social sciences. In essence objectivity did not exist. Innis did not accept the scientific claim of objectivity but rather accepted that the real world as well as the observer of that world held certain biases or subjective views of that world. The best that could be hoped for was that the observer, having recognized these biases and armed with a respectful dose of criticism, could approach some representation of reality and provide not final answers but a reasonably well balanced viewpoint.

4.4 Innis and the Role of the University

From Innis' studies of ancient and western civilizations he concluded that our western civilization was spatially biased and driven by the political spirit. This bias manifested itself at the immediate level of Innis' experiences with the transformation of the Canadian scholarly community during the 1930's. The biases of our civilization were such that Innis, quoting Philip Morley again wrote (1946, p. 121),

> Practically and as a matter of history, a society is seldom at the same time successfully energetic both in temporals and spirituals, seldom prosperous alike in seeking abstract truths and nursing the political spirit. There is a decisive pre-ponderance in one direction or the other, and the equal balance between free and active thinking and coherent practical energy in a community seems too hard to sustain.

The pre-ponderance in one direction and the difficulty of maintaining an empire with this strong bias left Innis very concerned. His concern sprung from Park's 1940 article where Innis first connected science with communication. Park, discussing the phenomena of territoral order in a society wrote (1940, p. 142),

> every civilization carries the seed of its own destruction. Such seeds are likely to be the technical devices that introduce a new social order and usher out an old.

Morley stated that a society could not both be spatially and temporally balanced. Park's argument states that this imbalance will eventually lead to collapse. Western civilization flowered out of the seed of technological advance that surrounded paper. However at the same time as the seed was producing this flower it was also programming that flower's eventual death. This death was inevitable because the flower would grow with such a bias that it could not hope to sustain itself. Innis had come to this same conclusion after witnessing ancient empires collapse under the weight of their own bias only to be replaced by another. The inevitability of the eventual collapse of western society was guaranteed because communication technology insured that the spatial and political bias of paper reached every dark corner of our existence.

Innis was certainly pessimistic about the fate of western civilization. But just as he had faith in the individual scholar to counter the bias of science Innis had faith in the university to counter-act the bias of civilization. The university had functioned to counter balance the bias of paper and the product of this period of balance between the bias of time and space was the work of Adam Smith. Innis believed that the university was capable of promoting the virtues of the oral tradition of the Greeks and the concerns of time, balanced approaches, and the ivory tower against the biases of space.

Innis maintained that the redemption of economics and the social sciences in his life time lay in the resurrection of the university. The university had freed itself from the bonds of church and state by an appeal to science and reason but in doing so layed itself open to the influence of social, economic, and political institutions seeking to exploit the university. So great had been the persistent pressure of public opinion and political will that Innis felt that the university had declined to a point where it functioned as a reserve pool of labour for political parties facing crisis, which greatly compromised the prestige of learning in the social sciences. With each new crisis the appeal for learned men with prestige aggravated this situation (Innis, 1946, p.124).

Innis was appalled at the increasing biases in scholarship that had come about as the scholarly community became involved in areas outside the confines of the university. The university was meant to be the repository of unbiased opinion and an escape from pressure groups. Innis felt that the university had some how betrayed this role. He wrote of the university (1946, p. 65),

> She began to follow one fashion after another . . . Her influence was sought by business, by political parties, and by ecclesiastical organizations. She came to be known by the company she kept . . . She is beseiged on all hands by villains. She no longer represents western civilization as she did in the Middle Ages . . . The university lent her ears to those who on all sides told her they had discovered truth, and she forgot that her existence depended on the search for truth, and not on truth.

In "A Note on Universities and the Social Sciences" Innis (1935) stated that the University should have been regarded as an active centre for strengthening the position of the natural and social sciences. The social scientist was all too often involved in matters other than the search for truth and was subsequently weakened with respect to other sectors

of the university community. Social scientists had been forced to become the "opiate of the people" so as to solidify their standing within the university community. The greater the social disturbances, the greater the need for the university to protect the social scientist from himself. Scholars in universities of old tradition were thought to be worth listening to and social scientists were forced to exploit this fallacy. The university had failed to put an end to this because those who managed it had accepted this fallacy as well. Thus the whole system was jeopardized and the scholar left unprotected.

With the outbreak of the Second World War there awoke in Innis old animosities over the role of "war-workers" and the powers of the authorities. He remembered how he, as a returning soldier in 1918, felt compromised by the universities whose staff were all out winning the war (Creighton, 1957, pp. 106-108). Innis became the biggest defender of the university and all the traditions it stood for. He would ensure the university would be there for the returning soldiers and, moreover, it would be there intact. But it was not only his past that pushed Innis. Innis' defense of the university tradition was related to his despair over the state of the social sciences and western civilization. His defense of the university took the form of not defending the university as it was but as it should be. In Political Economy in the Modern State Innis wrote (p. 141),

> The place of the social sciences in Western Civilization must be seen in relation to the role of universities. The university has played its greates role in serving as a stabilizing factor. The trend of the social sciences in response to the demands of the new bureaucracy has been towards increasing specialization. And in this it has threatened the influence of universities. The university must deny the finality of any of the conclusions of

> the social sciences. It must steadfastly resist the tendency to acclaim any single solution of the world's problems at the risk of failing to play its role as a balancing factor in the growth of civilization . . . It is the task of the social sciences in the universities to indicate their limitations in their cultural setting.

In "A Plea for the University Tradition" Innis (1946, p. 65) wrote of the university,

> Her traditions and her interest demand an obsession with balance and perspective and an obsession with the Greek tradition of the humanities. The search for truth assumes a constant avoidance of extremes and extravagance. Virtue is the middle way. There are no cures. Always we are compelled to be skeptical of the proposal to cure the world's ill. We cannot tolerate the dominance of any individual or any group.

Finally Innis wrote in "The University in the Modern Crisis" (Innis, 1946, p. 73),

> The university must play its major role in the rehabilitation of civilization which we have witnessed in this century by recognizing that western civilization has collapsed . . . This university, (University of New Brunswick) which represents the greatest tradition of freedom from state control, offers a platform on which we may be able to discuss the problems of civilization. We stand on a small and dwindling island surrounded by the flood of totalitarianism.

The last quote has a particular ring of pessimism to it and is indicative of Innis' awareness that despite his most fervent wishes and deepest desires the university was failing in its duty to society and civilization.

Innis continued to defend the university tradition and to protect it as a sanctuary for objective scholarship and as a platform for the discussion of the problems of civilization. Innis' concern over the development of the social sciences was reflected in his concern for the university. Innis recognized that the developments in the social sciences were a microcosm of the problems of civilization. The university was obliged to provide the

conditions that would be conducive for the social scientist to undertake his preservation and reformation and to provide a haven for those concerned with the fate of western civilization.

4.5 Innis' View of Space and Time

Our inability to understand the significance of Innis' communications' work rises from our predisposition to see it as the staples approach "writ large" (Watson, 1977, p. 54). The staples approach was concerned with instability, dependence and economic disequilibrium. If the succession of resources was the key to understanding the existence of disequilibrium in the hinterland it must be understood that it was the source of equilibrium for a centre economy. The success of the British empire was testimony to this (Watson, 1977, p. 55). All too often the notion of equilibrium/disequilibrium which existed in Innis' staple work was taken as sufficient reason to suspect they existed in his communications work (ibid, p. 54). Certainly there were symmetrical patterns revolving around economic equilibrium and the notion of balance in communications. The consequence was a deterministic, mechanistic interpretation of Innis (ibid, p. 54). The interpretation saw a mechanical link between a dominant medium of communication and a certain type of empire which is structurally determined by the characteristics of that medium (McLuhan, 1977, p. xii).

Watson makes the assertion that "balance" is the principle concern of Innis' communication studies. It was not the "balance" that was engendered in simple economic equilibrium but balance as conceived by the classical scholars: the interplay of power and knowledge. Innis' communications

studies were written as the history of the formation, interaction and dissolution of monopolies of force and knowledge with the technology of communications acting as mediator (Watson, 1977, p. 54). Innis' treatment of media characteristics was meant to illuminate not their bias for space or time but rather their bias for power or knowledge. A spatial or power bias was set against a time or knowledge bias and the successful empire was the one that would achieve a balance between the two.

Watson rightly pointed out that the limitations of those who interpreted Innis led them to see that media characteristcs was the starting point. They assumed imperial imbalance, and thus worked back to the structure of the empire (ibid, p. 56). Innis started from the existence of an empire, assumed the existence of imperial balance and worked back to the complementary nature of media. In Empire and Communications (1975, p. 170) Innis attempted to illustrate that the existence of large scale political organizations rested upon finding a solution to the problems of space or administrative efficiency and time or continuity. The solution resulted from the introduction of a second medium to check the biases of the first thus insuring the necessary conditions for growth of an empire. The existence of this balance in an empire presupposed the proper conditions for creative thought which would function to create a balanced empire (Watson, 1977, p. 57). It is paradoxical that two mutually exclusive powers would have to co-exist for the sake of a successful empire. Innis' treatment of empires was a double dialectic where media not only complemented each other but also were linked to the political alliance of power and intelligence in society (ibid, p. 57). All too often the simple critique was to see the visual written tradition predicated on

space binding media with secular and centralized political power at the opposite extreme from the auditory and oral-time binding tradition of decentralized quasireligious organization. In fact Innis' study of ancient empires served to illustrate the dichotomy between power and knowledge, the mechanized versus the living tradition. Communications was used as the focus for analysis of this dichotomy between power and knowledge, the mechanized versus the living tradition. Communications was used as the focus for analysis of this dichotomy. Watson (page 58) points out that,

> The ear and the eye, the auditory and the visual, the oral and written tradition, decentralization and centralization, time binding and space binding media, and religious and secular organization are not necessarily opposite poles of the same basic dichotomy. Their interrelationship does not follow any rule but is radically indeterminate or, more correctly put, it depends upon the various circumstances present in a particular historical context. What is important in Innis is how each of these aspects relates to the overall dynamic of power and knowledge at any given point in time. Innis saw clearly that the outcome of this dynamic was the triumph of the mechanized tradition and organized force. This triumph encompassed both poles of the communications dialectic.

Innis' studies of ancient empires led him to conclude that the mechanistic tradition and organized force would prevail. Innis concluded that western civilization represented the victory of power over knowledge and media played a pivotal role in this victory. Later the radio made the transmission of information an almost instantaneous activity. Whereas McLuhan saw this a major weakenss in Innis' work (Innis, 1977b, p. xii) Innis was correct in seeing the radio as an extension of the newspaper. Both the radio and newspaper lent themselves to the ascendency of power over knowledge.

The mechanization of media mean an ever-increasing passive acceptance of mechanical messages (Watson, 1977, p. 59). Watson makes the point that it was not only that the messages were reaching the population in a changed sense

proportion of sight and sound but more importantly they were centrally produced and distributed (Ibid, p. 59). The newspaper and radio were controlled by vested interests through both direct and indirect manipulation. The mass audience was willing to accept the message carried by the media on the strength of the reputation of media. Innis illustrated this point in his treatment of the emancipation of the press and its rise to a position of prestige (Innis, 1975, pp. 141-170; 1977b,pp. 142-195). The media rose to a position of prominence in direct relation to the rise of power over knowledge. It was a reciprocal association which saw the media become an organ of the structures of power by which the masses were introduced to the fold. In turn this placed communications in a very sensitive position vis-a-vis the political structure and in essence both became inexorably linked to the other. For Innis the victim of this union was knowledge and those forces which existed in opposition to the biases of the dominant media and the political spirit.

This lack of balance between power and knowledge was the situation that was working to squeeze the social sciences during Innis' life time. To address this problem Innis recalled that in every successful empire there was a balance in time and space. Innis emphasized the oral tradition of the Greeks and an approach to scholarship that stressed long term trends and history while rejecting the short term mechanical character of science and mathematics. It was Park (1940) who stated that alternative forces lay in wait until an empire was about to collapse under the weight of its own bias. These alternative forces would fill the void and for a time a balance would exist which was positive for all concerned. From this balance one bias would emerge and the cycle would be repeated. From this idea Innis postulated the role of the university as a sanctuary for the forces of knowledge that would redress the bias of space in modern society. By keeping the forces of knowledge alive

Innis hoped to combat the present minded media maintained bias of his time.

By appealing to the oral tradition of the Greeks Innis was doing more than just responding to the media induced and sustained bias of his time. The vitality of the oral tradition (Innis, 1975, p. 170) was meant to combat the passivity that marked the successful manipulation of media by the power group.

Innis' communications work illustrated the success of power to polarize activity around its dictates by successfully harnessing a compatible media type. This made Innis very hostile to power. This hostility was manifested in his diatribes against the United States (Innis, 1979, p. 394). His anti-American stance was an anti-power stance. His desire to separate Canada from this source of power and media bias was intended to maintain a healthy distance from the United States and protect Canada from the bias of unbridled power.

Innis was forced into a no win situation. The scholar who addressed himself to the imbalance of power and knowledge and its manifestation in media created society faced impossible odds. Innis wrote (1977b,p. 30),

> The Industrial Revolution and mechanized knowledge have all but destroyed the scholar's influence. Force is no longer concerned with his protection and is actively engaged in schemes for his destruction: Enormous improvements in communication have made understanding more difficult. Even science, mathematics, and music as the last refuge of the Western mind have come under the spell of the mechanized vernacular.

If we combine this realization with Havelock's conclusion we begin to see the enormity of the task. Havelock commented that (Watson, 1977, p. 60)

> The intellectual must by definition be pushed to the wall, because his science cannot be competitive (with thepowers that be). To compete for power would destroy his premises and his mental processes . . .
>
> So by that virtue which is his (foresight), he is called upon to bear an emotional burden which his rival does not have to shoulder. Every time he attempts a fresh effort of foresight he risks offense to the established chain of command in society. If he extends this to the science of man, he sets up an automatic malaise in the machine of society, and provokes active distrust and

> antagonism from those who enjoy operating it. . . . This brings to intellectual man a certain loneliness.

Innis suffered these consequences. The scholar's influence had been eroded to a point where he had become an agent of the state. The tools the scholar had used to establish himself were now so eroded by mechanized communication that they served to butress those forces that were antithetical to knowledge. In the face of this opposition any scholar who attempted to articulate this situation and to attempt to work in opposition to it faced a very lonely existence outside of the status quo. Cochrane summed up this whole situation when he stated that,

> The process to which mankind is subject is therefore self-defeating; it is like the oscillation of a pendulum . . . the role of the mind in the historical process . . . is simply that of a passive spectator . . . . Self-consciousness thus resolves itself into a consciousness of impotence in the grip of material necessity . . . the acceptance of this conclusion must necessarily breed a profound and ineradicable pessimism . . . "Of all the sorrows which afflict mankind, the bitterest is this, that one should have consciousness of so much, but control over nothing." (Watson, 1977, p. 50)

It is sad to think that Innis, after having progressed to a point where he enjoyed consciousness would be reduced to despair over the lack of control over those events that were unfolding around him. But this was the sad truth of Innis' life. For all of his insight into the evolution of western civilization he came to the point where he could foresee only one possible conclusion: the end of Western civilization.

4.6 Innis Sounds a Warning to Geography

In 1942 Innis seized an opportunity to speak out against the then recent trends which worried him. The Association of American Geographers, along with

the American Historical Association were to have held a joint congress, the theme of which was "The Historical Approach to Geo-Politics". Harold Innis was to have been a principal speaker but when the meeting was cancelled he was invited to submit his opinions for publication by the editors of The Geographical Review. Innis' review of the then latest published material dealing with geo-politics brought him to a position where his review took the form of a challenge to geography. Professor J. O. M. Broek was invited to respond to Innis and the ensuing debate was published in the April 1945 edition of the Geographical Review (pp. 301-311).

Innis began by illustrating the damaging effects of nationalism upon geography. It had been evident in the work of Vidal de la Blache, Halford J. Mackinder and Thomas Mahan. During the Second World War Nazi Germany had successfully exploitedgeography and had developed geo-politics following along from the work of Haushofer. The development of geo-politics in Nazi Germany did not suprise Innis. He attributed its rise to the fact that continental economies were well suited to the development of geography by virtue of their existence on land. Maritime economies, in contrast, by virtue of their openess to others, were more sensitive to the influences of culture and cultural change which made them predisposed to the social sciences and less concerned with geography. Nazi Germany suffered from a weakened tradition of scholarship and little development in the social sciences thus geo-politics was allowed to emerge largely unchecked. The dangers of geo-politics were a warning according to Innis. It was a warning against the social sciences and geographies growing tendency to generalize. This tendency was born out of the rise of nationalism and a loss of skepticism.

Innis during this time was very sensitive to the rise of nationalism. The dominance of the political spirit contributed to the loss of a skeptical stance in the social sciences. It meant an increasing use of mathematics and the creation of broad generalizations. The result of specialization in the natural sciences had resulted in a dogmatic attitude and the development of a closed system of philosophy. The same phenomena had occured in the social sciences with the onset of specialization and acceptance of new methodology.

The war accentuated the loss of skepticism in the social sciences. The social sciences were threatened by democracy, the manifestation of political will. The extension of democracy to every level of the social order and the press' role in this matter were responsible for compromising scholarship.

Innis felt that geography had made a contribution to this phenomenon by attempting to bridge the gap between the natural and the social sciences. Geographers have been blessed by their association with the natural sciences. But in their claim as a co-ordinating subject geographers have been very lax in their appreciation of the other social sciences. The challenge for the social scientists and for geographers was to carry on unceasing research and a philosophical inquiry into the increasing trend of centralization in democratic societies. As democracy advanced unchecked, the possibility of skepticism helping to check the excesses of democracy became increasingly smaller. The absurdity of geo-politics should lead the geographer to recognize this danger and to develop their science to check this bias.

Broek's response to Innis was a highly defensive one. He admitted that the war had caused "absurdities" to occur but Broek refused to accept Innis' sweeping generalizations against geography. Broek contended that geography was

Innis' whipping boy and it served to substitute if skepticism was less evident in geography than any of the other social science. Broek wondered if it was fair to isolate the inability of German geographers to choke off geopolitics as a sign of a loss of skepticism within the whole discipline. What of the failure of other German social scientists to choke off Nazi mythology and science? Geography's unfortunate stint with geo-politics was not sufficient grounds to tag it as the handmaiden of generals or to blame it for the unfortunate events in Nazi Germany.

Innis' remarks with regard to co-ordination to offset overspecialization led Broek to suggest that Innis might have been more encouraging of geography's attempts to provide co-ordination. The favourable response to regional studies; the appreciation of interrelated phenomena in their regional framework, was evidence of geography's concern for overspecialization. Broek cautioned that training in one's chosen field should have preceded any attempt at coordination. Specialization by disciplines would have to precede coordination amongst the disciplines.

Finally on the subject of objectivity Broek questioned the assertion that the social sciences went too far in their acceptance of the methods of the natural sciences. Broek saw it as an attempt to define the relationship between social science, moral philosophy, and politics. Broek quoted Sir William Beveridge's 1937 condemnation of those social scientists who combined their teaching and research with the practice of the art of government. Beveridge's position was parallel to Innis' own opinion on the subject. Broek did not see the question as simply a choice between the forum and the ivory tower. Were it so, the choice would have been for the latter. Broek held that the space between the two extremes was sufficiently large so as to make a clear

choice a difficult one. Broek felt it was a necessity to speak up on important issues. It was especially important if the findings of their research put them, in this case geographers, in a position to make a real contribution. To do otherwise would be to compromise one's work for the sake of academic detachment. Broek's contention was that the decline of skepticism could not be fought by locking oneself up in an ivory tower. Broek accepted the existence of personal insight, wisdom, sentiment, and judgement and embraced Sir Halford Mackinder's belief that geography was an art of expression parallel and complementary to the literary arts. Geography drew its data from the geographic aspects of a number of sciences and integrated it with a human viewpoint: ranging facts along with values. Not withstanding, the question of objectivity was still a problem, but all concerned were dealing with it in the best manner possible. Political geography, the original subject area of this discussion, would continue to appear to be immoral to purists such as Innis. This immorality would last as long as distinct power groups existed in this world. Broek felt that it was possible for the scholar and the reformer to exist together and to counteract one another. The existence of both objective and subjective viewpoints could only be managed by the individual armed with a scientific conscience. The scholar must be guided by intellectual honesty and constant self-criticism.

The principle difference between Broek and Innis revolved around the question of objectivity. Geo-politics had shown itself to be a puppet of public opinion and a suspect practice at the best of times. Innis interpreted the existence of geo-politics as the consequence of the rise of democracy and the social scientist falling victim to this rise. Broek concurred that some social scientists had allowed themselves to become agents of the state. This was an unavoidable occurrence since power groups existed and social scientists,

being human, could not hope to be objective at all times. Broek did not expect objectivity but rather considered it quite acceptable to have values placed along side of facts. As long as the individual scholar was sufficiently cautious, honest, and self-critical then value and fact could co-exist in the social sciences.

Innis could not agree because he felt that social science had not been cautious enough. Like Broek, Innis placed a great deal of faith upon the scholar as an independent self-regulating intellect. But Innis' hopes were mixed with a healthy dose of pessimism. His appreciation of the prevasiveness of democracy led him to doubt if the scholar could stand alone. Innis feared that those values of a society that placed such a high regard upon the natural sciences and mathematics would compromise geography in particular, and the social sciences in general and they would be unable to resist. Innis had seen it in economics where a pre-occupation with the workings of the price system had brought about the introduction of mathematics and science into economics. Innis pushed for the ivory tower to preserve objectivity. Not the objectivity supposedly available by the acceptance of positivistic science and mathematics, but the objectivity that comes from an atmosphere that allows for the full flourishing of intellectual honesty and constant self-criticism. The sort of objectivity being pursued by the social sciences only reinforced the bias of power over knowledge. Innis could only hope that anyone purporting to have found the truth would realize he was only contributing to the end of the true democratic state.

4.7 Changes in Anglo-American Geography During Innis' Lifetime

History proved that Innis' warning to geography went largely unheeded; the quantitative revolution stands as testimony to that fact. Geography's history shows that it has always dabbled with the possibility of being more scientific. The debate between environmental determinism and possibilism was an attempt to go beyond description and to provide explanation. Determinism had its roots in Darwinism which had influenced a belief in the existence of law in nature and which fostered the emergence of a nomothetic approach (Holt-Jensen, 1980, p. 47). However determinism could not adopt the hypothetic-deductive approach of physics and chemistry since the phenomena they studied did not manifest themselves in a measurable, observable manner. Determinism attempted to proceed with the prestige of science but had to formulate generalizations and then corroborate them with selected examples of proof (ibid, p. 49). The possibilist alternative rejected determinism on the basis of free will in humans. Moreover, geographical pre-occupation with the region negated the hypothetic-deductive method and the possibilists chose not to stress method with any vigor except to stress field work. We have already seen where Innis was greatly disposed to favouring the possibilist explanation and in the light of his later work it comes as no surprise. Innis held possibilism to be more scientific precisely because it rejected the possibility of objectivity that was central to the natural sciences. The possibilists proposed a method that incorporated in depth historical and geographical analysis which automatically included an appreciation of both time and space.

In Anglo-American geography the controversy surrounding determinism and possibilism was replaced by the new paradigm of regional geography, a conservative paradigm with a view to generalization and description without the problems of explanation (Johnston, 1979, p. 33). The regional approach found it's champion in Richard Hartshorne and his 1939 publication, The Nature of Geography. According to Hartshorne, geography was meant to focus on areal differentiation and was "concerned to provide accurate, orderly, and rational description and interpretation of the variable character of the earth's surface" (Hartshorne, 1939, p. 21). The regional geography of Hartshorne was an exceptionalist stance which placed it outside of the realm of the other sciences by view of its focus on the unique phenomena: the region. Geographic method involved identifying the region, usually through map and field work interpretation, and producing a total image of the region synthesizing from the sub-division of geography. During this period the sub-divisions of geography were established and enjoyed some success, but all were still subordinate to regional studies (Johnston, 1979, pp. 34-36). The most important aspect of regional geography's concern with the unique was its acceptance of an idiographic method to describe unique phenomena in unique regions (Holt-Jensen, 1981, p. 36). The geographers looked upon their craft as art as much as science. Jan Broek in 1965 wrote,

> The humanities stress real persons and real cases rather than models, quality rather than quantity, evaluation and evocation rather than calculation, beauty and wisdom rather than information. Geography shares these attitudes to some extent. (Broek, 1965, p. 21)

This was the central paradigm of geography that Innis was addressing himself to in 1945. Although Anglo-American geographers had rejected a nomothetic methodology and had a definite predisposition to the humanities,

this was not sufficient to protect it. Geo-politics and the exploitation of political geography made Innis aware of how vulnerable the discipline was. What Innis was striving for was a recognition of the forces surrounding the political spirit and their capacity to compromise even geography's resolve to remain unique, ideographic, and aligned with the humanities. It was simply not just a matter of faith in the regional method and geography's uniqueness that was required. Broek's belief in geography's ability to synthesize and act as the clearing house of the social sciences guaranteed nothing. Innis wanted geography to see that its position could be compromised unless it consciously practiced those elements of its methodology and art that mitigated against the spatial biases of power and mechanized communication.

The regional paradigm did much to weaken geography in the face of these political forces. In Anglo-American geography that part of the discipline with a concern for time, historical geography, was relegated to the wings of the regional paradigm. Hartshorne saw synthesis as paramount and claiming to follow Kant's contention that geography was a chorological science, Hartshorne relegated historical methods of analysis to the fringe (Hartshorne, 1939 and 1959). The removal of historical geography to the fringes of the regional paradigm was the removal of that one element of geographic investigation with a concern for process and time. These concerns embodied the alternative perspective to simple, timeless space.

Innis' subsequent works on communications showed that a concern for time was the necessary balancing factor in stabilizing the imbalance of power to knowledge. Time, as a central concern of sholarship, was the essential element that could address the bias of modern societies. With the supremacy of political power and its concern for space, knowledge and scholarship were

changed. The dominance of science and mathematics reflected this change. Geography had the elements to resist this change in historical geography. Had historical geography been allowed to occupy a space at the core of the discipline, geography might have been better prepared to address itself to the problem of balance in western civilization.

The regional paradigm was coming under increasing attack. In a 1961 article, Freeman (1961, p. 141) chronicled the dissatisfaction of many geographers with the regional paradigm. The regions defined by geographers lacked character. Regional classification was showing itself to be increasingly naive and descending to the practice of producing a "weary succession" of physical and human activity "facts". More specifically, E. A. Ackerman (1945, p. 124) expressed his dismay over geography's position vis-a-vis the other social sciences. His war experience left him convinced that more attention should be directed towards strengthening the systematic concerns of geography. By extension, the regional paradigm would be strengthened.

Ackerman's article was important in setting the background for subsequent events. The Second World War brought geographers into contact with other scholars. Upon examination of their discipline against the others, geographers felt a certain wanting. Certainly when measured against economists with their mathematics and science, geography appeared to be lacking. Innis pointed out however that economics was the first discipline to succumb to the lure of mechanized communication and power, and geographers should have guarded against their willingness to fall prey to the same lure.

4.8 The Quantitative Revolution: The Bias of Space

The pervasiveness of the combination of mechanized communication with the political spirit had proven itself to be a strong lure and Innis feared that it would threaten geography. During the war years, this combination of political spirit and mass communication had become more refined and Innis feared that geography could not resist this pull.

The battle to resist this pull was captured in the debate that emerged out of the exchanges between Richard Hartshorne and Fred Schaefer. Fred Schaefer in his 1953 article "Exceptionalism in Geography" took Hartshorne and the regional paradigm to task. Schaefer dismissed it as arrogance that geography should be held as a synthesising discipline. Schaefer felt that geography had to recognize itself as a science. He stated that (1953, p. 227),

> To explain the phenomena one has described means always to recognize them as instances of laws . . . Hence geography has to be conceived as the science concerned with the formulation of the laws governing the spacial distribution of certain features on the surface of the earth.

The focus of geography should not have been on the phenomena but on their spatial distribution. Acceptance of this role would allow geography to share in the procedures that had been developed in the natural and other social sciences. Geography's reluctance to move towards such a stance resulted from its continued view of itself as a unique discipline. Here is where Schaefer takes Hartshorne to task. Both Kant's and Hettner's development of geography sprang from their cosmologies which were not rational science but only thoughtful contemplations of the universe (Schaefer, p. 332). Placing history and geography outside of science and stating that they study unique phenomena should not preclude the use of laws to unravel

reality and to explain unique phenomena in reality (Johnston, 1979, p. 44). Schaefer felt that Hartshorne's appeals to Kant and Hettner were appeals based on rather shaky ground. As a consequence Schaefer was compelled to write (p. 231),

> It is, therefore, absurd to maintain that the geographers are distinguished among the scientists through the integration of heterogeneous phenomena which they achieve. There is nothing extraordinary with geography in that respect.

By eliminating the concept of exceptionalism both history and geography could become sciences. Schaefer wanted geography to reject exceptionalism and to accept itself as the mandated science to formulate laws on the spatial distribution of phenomena. Geography could thus bring to bear on any unique situation all the relevant laws covering the variables existing in that unique situation (ibid, p. 239). More importantly geography could take its rightful place in the scientific community.

Hartshorne was quick to respond. His 1955 article "Exceptionalism in Geography Re-examined" was firm in its' argument that geography was what geographers had made it. Hartshorne felt Schaefer had limited reference, misrepresented the views of others, and drew unsupportable conclusions. Schaefer was too cavalier in his own exceptionalist argument to the effect geography could borrow and use the laws of other disciplines. Schaefer's scientific determinism was just intolerable in the light of Hartshorne's The Nature of Geography (1939).

Schaefer had struck a raw nerve in geography and he was the first to express the possibility of change. Hartshorne, as the champion of the regional paradigm was forced to respond to this ground swell of discontent. He did so in his 1959 monograph Perspective on the Nature of Geography.

Hartshorne recognized the need for geography to re-examine its raison d'etre and to recognize the need for new conceptual approaches and more effective ways of measuring the interrelationship of phenomena (Hartshorne, 1959, p. 9). Geography was the mandated study of all phenomena in reality (Johnston, 1979, p. 46). Thus geography was that discipline that sought "to describe and interpret the variable character from place to place of the earth as the world of man" (Hartshorne, 1959, p. 47).

In response to Schaefer, Hartshorne continued to see geography concerned with the unique (Johnston, 1979, p. 47). This precluded the possibility of scientific laws in geography since they required verification through a large number of cases while geography was concerned with the unique. Scientific laws were most appropriate in situations where all but a few independent variables could be eliminated. This was impossible in geography. Geographers were not capable of interpretation like those in the systematic sciences. Finally, the existence of scientific laws suggested a determinism which was inappropriate in understanding human motivation which lay at the base of landscape variation.

What Hartshorne did offer was a four step alternative to reaching the same ends that Schaefer sought. Hartshorne wrote (pp. 169-170),

> Geography seeks (1) on the basis of empirical observation as independent as possible of the person of the observer, to describe phenomena with the maximum degree of accuracy and certainty; (2) on this basis, to classify the phenomena, as far as reality permits, in terms of generic concepts or universals; (3) through rational consideration of the facts thus secured and by logical process of analysis and synthesis, including the construction and use where ever possible of general principles or laws of generic relationships of phenomena; and (4) to arrange the findings in orderly systems so that what is known leads directly to the margin of the unknown.

The debate between Hartshorne and Schaefer is significant on two accounts. First it exposes the roots of that methodological movement that became known as the Quantitative Revolution. Second the appearance of Schaefer's paper at this time is significant in light of the processes contained in Innis' communications studies.

Geography, just like economics, had become a victim of this lose of balance. The debate between environmental determinism and possibilism was not just a debate about free will and determinism. It was the first instance in geography of that struggle that was going on between power and knowledge. The determinists' desire to be as scientific as their brother scientists was a direct appeal to those forces that would support power. The possibilists, in their rejection of determinism, were aligning themselves with those forces concerned with knowledge. The prominence of history in the French school of geography and French regional studies is more than coincidental. For many, the regional paradigm only served to provide a vehicle wherein the geographer could avoid the environmental/possibilism controversy. The insularization around the concept of uniqueness only served to allow geographers to avoid the whole situation that surrounded them. One after another the social sciences were succumbing. Economics was the first to go. Geography was not far behind. The regional paradigm was unable to resist, for it had purged its one possible salvation: historical geography. Perhaps that is why Innis hoped geography would maintain its uniqueness and preserve those elements in the discipline best able to resist the bias of power. That was not the only avenue to salvation. A commitment to thorough scholarship with a genuine appreciation of time might help redress the imbalance. The Quantitative Revolution took root and flowered. This quantitative revolution had its

roots in economic geography which turned to economics as a source of theory and method. Economics had already developed theoretical approaches to the location of economic activity. Economics had already developed theoretical approaches to the location of economic activity. Both Johan Henrich von Thünen (1826) and Alfred Weber (1909) had developed location theories and they were followed by the likes of Lösch and Isard (Holt-Jensen, 1980, p. 55). The first geographic work in this area was undertaken by Walter Christaller in his book on central places in Southern Germany (1933). Christaller was inspired by economists (Holt-Jensen, p. 55). In turn, Christaller was introduced to America by Edward Ullman in his 1941 paper "A Theory of Location for Cities". American economists and urban sociologists had laready developed theoretical models of cities as central places and geography followed. As well as the three university centres mentioned, there was also a "social physics" school. It was led by John Stewart, an astronomer at Princeton and William Warntz out of Pennsylvania (Holt-Jensen, pp. 56-57). Stewart pointed out the isomorphic relationship between the empirical generalizations and Newton's law of gravitation in the sociological postulate that the movement of persons between two urban centres would be proportional to the product of the populations and inversely proportional to the square of the distance between them (Holt-Jensen, p. 56-57). This was the gravity model and Stewart introduced his ideas about isomorphic relations between social behaviour and the laws of physics to geographers in 1947. Warntz, working with Stewart, borrowed analogy models from physics in his study of population potentials.

Christaller, Lösch, and the others were introduced into Sweden by Edgar Kant following World War Two (ibid, p. 57). Kant's brilliant student Thorsten Hägerstrand's 1953 Ph.D dissertation on innovation diffusion as a spatial process introduced the Monte Carlo simulation and the creation of

stochastic models that provided for simulation to be tested later by empirical studies (ibid, p. 57). These early developments combined with Schaefer's appeal made for an easy and early acceptance of those works now taken to be the basis of the Quantitative Revolution into geography (ibid, p. 55). Ackerman's 1958 paper "Geography as a Fundamental Research Discipline" was asking for the development of theory and the application and development of quantitative method and a focus on laws and generalizations that build to further nomothetic research. Ackerman need not have worried. The revolution had already taken place. According to Ian Burton (1963) the revolution had in fact already occurred and quantification and theory building were accepted as the cornerstones of the new paradigm. So orderly and swift was the revolution that the need to justify it in print was not necessary. The major philosophical works of the new paradigm did not appear until the late 1960's. The leaders of the quantitative paradigm spent more time on perfecting methodology than they did on philosophy. In fact, Guelke in 1977 felt that the move to quantification fell within the basic framework of geography as advanced by Hartshorne and perhaps this eliminated the revolutionary zeal that might have provoked philosophical debate. In fact, Hartshorne and Garrison became required reading in geography. Schaefer ironically enough was almost universally ignored.

One of the most telling aspects of the quantitative revolution was captured by Guelke in 1978. This aspect goes farther in explaining the revolution than the differences between Hartshorne and Schaefer and the subsequent revolution. Guelke noted that public sentiment had seen the university transformed into an institution expected to produce problem

solvers or social technologists to run increasingly complex economies. This is the same sentiment that surrounded Innis and his colleagues during the 1930's when so many of his confreres became politically and socially active. Just as Innis viewed mathematics and statistics as the chief tools of economics, Guelke pointed to the geographer's acceptance of statistics and models as appropriate tools and modes of expression. The most telling point of Guelke's observations was the concern of geography for the rigors of method and the real world applicability of models and hypothesis. What was lacking was the question concerning the value of the work towards enhancing understanding and making a real contribution. From Veblen, Innis recognized the need "to check the validity of any line of approach" (Innis, 1979, p. 19).

The lack of rigor that troubled Guelke was a product of the methodology assumed by geographers. At the base of this methodology was the Vienna Circle concept that the objective world was based on an observable order which could not be contaminated by the objective observer (Johnston, 1979, p. 63). Thus if the geographer could follow a methodology that ensured his objectivity, then any product of his work was valid and deserving of the right to be entered into the body of geographic theory. An a priori model or formal representation of the image of the real world is created. The creation of this model would engender the collection of data which would not compromise this model. Moreover, we connot discount the possibility that since geography was concerned with the practical applicability of its researches, then the possibility of creating research themes consistent with public or private demand cannot be discounted. These possibilities were couched behind the mantle of objective scholarship and were not questioned. This was a

possibility that Innis recognized as a real problem. It was this possibility that left Innis no recourse except to reject the objectivity of science and to be very skeptical of his fellow economists (Innis, 1979, pp. 78-84). Objectivity was thus not a possibility unless the necessary conditions were established to balance these forces. Objectivity existed only within a system that isolated the scholar from these forces. From his position of isolation the scholar could see his own as well as the biases of his time and produce a truly objective piece of scholarship.

Robert Sack (1972) questioned the Bunge contention that geometry was the language of science. Sack maintained that space, time, and matter could not be separated by a science seeking explanation. The geographic landscape was ever changing and the processes working on that landscape to leave historical relics and create future inroads had to be taken into account. The static laws of geometry, could not manage the time element and thus were inappropriate for geographical analysis.

The debate surrounding the appropriateness of a quantitative methodology and a logical positivist philosophy for geography was a moot one. Notwithstanding the Hartshorne-Schaefer exchanges, geography quietly and inexorably crept towards the paradigm of positivism. The movement had its roots in the debate between environmental determinists and possibilists. Except for a brief interlude where regionalism prevailed, this debate had been ongoing. During Innis' life time geography gave ample proof of its acceptance of science as a methodological and philosophical base. The debate over geo-politics convinced Innis that geography had already made up its mind and its stance with respect to positivistic science and quantification was well established.

As Ian Burton (1963, p. 15) had already pointed out, the Quantitative Revolution had begun in the late 1940's and reached its peak between 1957 and 1960. The material written during and after this period evidenced an evolutionary and ongoing process.

Innis had witnessed the evolution of economics from a balanced sholarly endeavour to one with a definite bias towards science and quantification. Innis was very much afraid that the other social sciences were moving in the same direction despite his misgivings. The controversy surrounding geo-politics left Innis convinced that geography had taken the same path as economics. Innis' subsequent studies on the role of communications in the struggle between power and knowledge served to explain how geography had evolved. Burton stated that the Quantitative Revolution took off in the period immediately following the Second World War. Understanding as we do the forces surrounding the bias of space and political will and the fact that the Second World War represented the working of these forces at their highest capacity, it comes as no surprise that geography would succumb and the Quantitative Revolution would take over and grow within the discipline. The nation was supported by a propaganda machinery that represented the highest form of communications in the service of political will. No element of societal existence was left untouched. Geography was pressed into the service of the state. Prior to the war, geography had already shown itself to be susceptible to the bias of western society and in the Second Wrold War and in the years that followed, geography became wholly consumed by the political spirit. For Innis, the social sciences with geography included had abandoned those institutions and practices which may have been their salvation. In hindsight it may be said that Innis' subsequent works had proved his point on the dangers

of geo-politics. His warning went unheeded. The strength of Innis' communications studies leave one wondering if geography could have resisted the bias of space even if it had wanted to.

4.9 Humanistic Geography and the Innis Tradition of Dissent

Innis maintained a position of dissent with respect to economics and its central themes. So too did some geographers have grave misgivings about a quantified geography.

From within the dominant paradigm, dissent focused on the inadequacy of models to mirror reality, thus retarding the development of theory (Johnston, 1979, p. 112). The principal manifestation of this dissent was the behaviourist school based upon the work of Julian Wolpert (Johnston, 1979, p. 115). The behaviourists were reacting to the development of theory to explain human behaviour that was based on the notion of economic man. The behaviourists preferred to examine individual behaviour, what motivated it, and what patterns of societal location and distribution emerged (ibid, p. 116).

As an outgrowth of the behaviourist school came the work of Torsten Hagerstrand and time-space geography. Hägerstrand (1970) and (1975) rocognized that time and space were scarce resources and humans had to operate in a realm of constraints imposed by their environment. Humans performed tasks to achieve certain goals but these tasks were subject to the constraints imposed by the temporal and spatial environment. The existence of these constraints forced individuals and societies to pack projects and tasks within the limited resources of space and time. What Hagerstrand and the Lund group have attempted to produce was a time geographic model that presented a picture of the locational

and situational relations within and between societies. It was an attempt to model the paths of individuals as they operate in space and time with an overall goal of demonstrating the time consumption of moving in space. Society, as an organization demonstrated co-ordination in space time, and time-space and Hagestrand had attempted to capture it in his time-geography model (Thrift, 1977).

Space and time have always been the cornerstone of geography. We take for granted that we, and all that we do, exists in time and space. This is not to suggest that we are unconscious of the existence of time and space, but rather that time and space are such intimate elements of our daily existence that we pay them no more heed than we pay to our regularly beating heart. Yet our daily lives are a network of ties in space and time. We have an intimate relationship with our immediate surroundings as well as with other places more removed from the immediate. We also develop intimate ties with present experience as well as past experience. Our existence is inescapably attached to time and space (Chapin, 1974).

The discipline of geography has repeatedly been confronted with the notions of time and space. Even when geography was viewed as "the science of areal differentiation" (Hartshorne, 1959, p. 12) or as "the arrangement of things on the face of the earth and the association of things that give character to particular places" (James, 1954, p. 4), the need to analyze the processes that spawned these phenomena brought a concern for time. Certainly physical geography had always maintained an awareness of time inherent in the discipline's understanding of the slow but none the less changing character of the physical environment. Certainly by 1954 Preston James felt confident enough to suggest that process was an integral part of understanding our

terrestial space and the phenomena contained therein. Process implied a sense of time: both contemporary rapid change due to the advance of technology and science and change over slow geologic time. Of particular significance is James' warning against geography becoming rooted in contemporary time: the time of the present or near future. James maintained that no adequate explanation of present geography could exist without the methods of historical geography and an understanding of the evolution of past geographers into present geographies.

It should be stated that geography's concern for time and space should not be confused with Innis' treatment of time and space. Hagerstrand was attempting to illuminate the constraints an individual had to deal within his everyday existence. Innis, in contrast, used the terms time and space to loosely define the forces that surrounded knowledge and power. The inability of western society to balance time with space was a reflection of our inability to find a balance between knowledge and power.

Hagerstrand's treatment of space and time was one of the few instances where geography attempted to address itself to the phenomenon of time. By and large, time was largely an ignored element in Anglo-American geographic analysis. The one area where time had always enjoyed an equal measure of respect with space was in historical geography.

Historical geography had always been concerned with an examination of geographical phenomena over time. Historical geography enjoyed a position that was similar to that of economic history in relation to economic theory. They both served to offer valuable insights into the course of mainstream thought.

However, Thrift (1977) maintained that historical geography had, following the Quantitative Revolution, turned into a discipline with no position

other than one that accepted space and time as Cartesian absolutes and not as socially defined phenomena. As a consequence, historical geography during the post quantitative revolution period assumed a position akin to "wait and see". The temptation to apply the models of today to geographies of the past was high but it was difficult to reconcile the methodology of a highly spatial bias to a sub-discipline that has always been a temporal one (Jakle, 1971).

However some historical geographers did speak out in the defense of the sub-discipline. The investigation of the cultural geographers inspired the historical geographers. Brookfield (1964) had made a distinction between geographers with a chorographic bent and nonchorographic geographers. Geographers with a chorographic background did not seek explanation in human behaviour while non-chorographic geographers sought the processes behind the forces that shaped reality.

The inspiration of the work of cultural geographers upon historical geography was significant. Prince (1971, p. 4) recognized three worlds - the real, the abstract, and the perceived world. Historical geographers had to recognize that their interests lay outside those of positivistic geography and that the historical geographers had to develop an alternative set of approaches. Harris (1971) described the uniqueness of the historical geography position. Geography was the synthesis of the concern for the particular assemblages of phenomena and not merely the science of spatial relations. In this regard, positivistic methods were only one tool in the synthesis. As for the historical geographers, Harris saw them in an idealist light by virtue of the properties of the historical mind. In a 1978 article Harris expounded upon the properties of the historical mind. For Harris the historical mind was contextual, not law finding. The historical mind would not accept over-arching

laws and in general was want to apply laws at all. The historical mind was open, eclectic and did not accept formal procedure. It saw phenomena in context and was sensitive to motives, values, and avoided sweeping generalizations. The historical mind sought understanding not planning.

Harris' treatment of the historical mind was very close to Innis' own position. The scholar, armed with the historical mind, could resist the biases of his discipline and achieve some results that could counter the mainstream body of investigation. Harris was postulating upon the mind that Innis took to be central to the salvation of the scholar. Inherent in the historical mind was a concern for time and any method that took a deliberate track to include time was one that could serve to counter the spatial bias of modern scholarship.

Historical geography and specifically the historical mind could maintain themselves in a position not unlike that of economic history in relation to economic theory (Innis, 1979, p. 3). Innis saw this role as one wherein the historical stance served to check the work of the major body of theory. Historical geography should serve to check the principles of positivistic geography and to suggest alternatives and amendments to the major body of theory.

Ley and Samuels (1978) categorized these dissenting views as "humanistic geography" in search of alternative forms of inquiry. The strongest statement of the humanistic perspective was by the group of scholars banded around the position of phenomenology. Relph (1970) was the first direct statement of the phenomenological stance (Johnston, 1979, p. 34). Phenomenology was an attempt to construct alternative methodology to that of positivist geography. It was a methodology grounded in man's live world of experience. For the phenomen-

ologists the objective world did not exist. Rather, all knowledge proceeded from the world of experience, and for any knowledge of the real world to be valid it had to be based upon the essences that lay at the base of an entity or phenomenon. The phenomenological method occupied itself with the descritpion of these essences and their role in forming man's consciousness.

Yi Fu Tuan (1971) was a strong spokesman of the phenomenologist position. He maintained that geography was the manifestation of the essences of man and to know our world was to know ourselves. Anne Buttimer (1974) held that geography had to study the values which permeated all aspects of human existence. Rather than exercising control of man via preconceived models, the geographer had to meditate on life and in doing so would provide a better understanding of life's experiences and how they manifested themselves in the real world. King (1976) picked up on the question of values and proposed that geography had to be more sensitive to the role of values in individual and societal activity. Anne Buttimer came out in 1978 in support of the alignment of historical and geographical studies. Geography had to understand a region from within and not from without as a dispassionate observer.

Nicolas Entrikin (1976) summed up the humanist tradition as a tradition of criticism. The positivist paradigm enjoyed a majority of practitioners and a scarcity of preachers while the humanist tradition had a scarcity of practitioners and a plethora of preachers. Entrikin held that humanist geography countered the dogmatic, abstracted, and narrowly scientific approach by providing descriptions of objects as they present themselves to consciousness. Above all else the human condition was emphasized.

The final group of dissenters that will be touched upon here are the

radical geographers. Richard Peet commented on the rise of radical geography. Peet (1977, p. 242) stated,

> The starting point was the liberal political social-scientific paradigm, based on the belief that societal problems could be solved, or at least significantly ameliorated, within the context of modified capitalism. A corollary of this belief was the advocacy of pragmatism - better to be involved in partial solutions than in futile efforts at revolution. Radicalization, in the political arena involved, as its first step, rejecting the point of view, that one more policy change, one more "new face" would make any difference.

The essence of Peet's message and a principle concern of the radical geographers was the question of the relevance of geographic research to societal problems (Johnston, 1979, p. 145). David Harvey's Social Justice and the City (1973) was perhaps the best encapsulization of the radical stance. Radical geography called for both revolutionary theory and practice. Radical geography wished to eliminate those social conditions that had arisen as a direct consequence of the inadequacies of positivist theory and practice. The radicals saw a clear link between the role of geographic theory and practice and the existence of capitalism. Harvey and the radicals strove to create a new paradigm based on social geographic thought. This paradigm would stimulate a new political re-awakening with the ultimate goal of bringing about a social revolution. This placed radical geographic science in direct line with a Marxist revolution (Holt-Jensen, 1980, p. 72). The only socially relevant geographic science was one that was couched within a socialist and revolutionary political world.

A more interesting element of radical geography was the idea that a positivist based spatial science was inappropriate for the task of responding to social conditions (Johnston, 1979, p. 145). Wilbur Zelinsky was concerned

with the appropriateness of positivism and raised some doubts that reflect directly upon Innis' misgivings over the appropriateness of science. Zelinsky (1970) was disillusioned with geography's past achievement. Our world was facing acute frustration and a struggle for survival. Only the advanced nations could solve these problems and this had implications for geography. In the face of these world problems geography had three options: it could serve as a disgnostician, a prophet, or an architect of the future. Regardless of the role it assumed, geography in Zelinsky's opinion, was ill-equipped to carry on any of these chores. In his 1975 Presidential Address to the Association of American Geographers, Zelinsky equated science with modern religion. Positivistic science as the principal agent of the social sciences served to fog our perception of reality. Zelinsky defined the four principal axioms of such a science so as to illustrate their inappropriateness for the study of the human world. The principle of causality was valid for studying all phenomena. We could achieve a final state of perfect knowledge. All findings were universally valid. Total scienctific objectivity was possible. The social sciences could not hope to live up to these four axioms. Zelinsky held that the immaturity of the social sciences and the presence of mediocre personnel compromised the social sciences. More importantly, the subject matter of the social sciences made it impossible to scientifically approach the phenomena of interpersonal relationships. Moreover, the subject matter of the social sciences made it extremely difficult to exercise scientific, objective observation and experimentation. These inappropriate methods led to a situation wherein any conclusions reached by these methods were extremely difficult to initiate and carry through in the real world.

The presence of the dissident viewpoints in geography suggests that there has been, and continues to be a very real concern over the spatial bias of geography. Each in their own way, these dissident groups have attempted to redress the societal bias that has gripped the social sciences. In terms of Innis' concerns, historical geography and Wilbur Zelinsky were touching upon themes that were dear to Innis' heart. Innis questioned the appropriateness of positivistic science as a principal tool for the social sciences. Once Innis resigned himself to the omnipotence of the spatial bias he still held out hope for the individual scholar. Historical geography's acceptance of the premise of the historical mind fit very closely to the properties that Innis held to be as positive properties of the individual scholar.

The relevance of Innis' work to the body of dissident expression in geography lay in its role as a possible description and explanation of the forces that shaped the development of geography. Innis' exposé of the role of communications in the struggle between power and knowledge can serve to illuminate the situation geography finds itself in today. Moreover, the work of Innis may serve to extend our understanding of the bounds of our existence and in doing so we may find the means to probe the unknown.

Conclusions

The work of Harold Adams Innis has shown itslef to be relevant to geography. Innis took a personal interest in the development of geography in Canada and he was instrumental in the developing of the Chair of Geography at the University of Toronto in 1935.

At a less direct level Innis, in his staples work, was laying the ground work for economic geography in Canada. Innis illustrated that he had a very fine appreciation of the role of the environment in the development of Canada and the Canadian economy. The basis of the Canadian economy was the role played by the natural environment, principally the waterways, in the exploitation of the staples riches of this country. Canada was blessed with abundant, desirable natural resources that made her an attractive proposition in the eyes of the central economies of Europe and later the United States. The natural structure of the nation dictated that the exploitation of these staples would follow well defined lines. Even when the environment exercised less direct influence on this exploitation its influence continued to be felt. The infrastructure that was built up upon these original natural dictates exercised the same influence as the original natural barriers. Canada's development as an underdeveloped marginal economy was in a very large measure determined by her original natural richness and barriers to development.

The Great Depression had a profound effect upon Harold Innis. The Canadian scholarly community was compelled to answer the public and political demand for responses to this depression. Innis was concerned because, as his fellow scholars moved into the public theatre, Innis felt that they were com-

promising their art and their scholarship. Economics, whose mandate was to find solutions to these problems increasingly called upon the tools of positivistic science to help provide adequate responses. Moreover, when economists and other social scientists armed themselves with this science and entered the public arena they forsook the university and scholarship and lost the capacity for objective appraisals of the real world situation.

Innis became concerned with those forces that worked to draw the social sciences closer to the public arena. Innis suspected that communications and public opinion played a pivotal role. With the outbreak of the Second World War the full force of public opinion, propaganda, and the role of dominant media struck home to Innis.

In his investigation of the role of media Innis came to recognize that technology occupied a central place in the success of media expansion. Innis was not a stranger to technology. He had been exposed to the teachings of Thorstein Veblen and gave technology a prominent place in his economic studies of Canada. But it was Robert Park's 1940 article that connected technology to communications and that had the greatest influence on Innis and his subsequent work.

From Park's work and his own interest in the newspaper and advertising Innis was able to trace the pattern of events that saw the newspaper emerge as the principle medium of communication and how its emergence was used to advance the aims and desires of particular nation states. With the rise of the nation state and the advance of communications Innis noted that knowledge and the exercise of scholarship were altered to reflect the societal interests that surrounded them. Innis used economics' growing pre-occupation with the price

system and acceptance of a positivistic and quantified methodology as an example of the compromise of scholarship before political and public will.

Having witnessed this phenomenon in his own lifetime Innis was interested in discovering the forces that lay beneath it. He began his investigations into ancient empires and notes that ancient empires developed according to the bias of the dominant communication medium. Light media favoured a bias of space and political will while durable media favoured a bias toward time and knowledge. The only ancient civilization to avoid the bias of space or time was the Greeks with their oral tradition. By balancing these two biases the Greeks were able to harness the best of both biases and created a flourishing civilization.

Innis arrived at the conclusion that each civilization was doomed because of a preponderance towards power or knowledge without a balancing development. The seed of destruciton was the technological impetus put into establishing the dominant bias.

Innis was led to conlude that western civilization was a spatially biased one. The spatial bias was predicated upon the existence of paper as the principal medium of communication. The destruction was assured by the manner in which technology allowed the spatial bias of paper to infiltrate all levels of society, thus blocking the development of alternative forces that may have served to balance the bias of power with a stronger concern for knowledge.

Against this background Innis posted a warning to geography. The presence of geo-politics was to Innis, a signal that geography was being drawn, as economics had before, into the spatial bias of western civilization.

Innis had tried to forewarn geography but his alarm was raised too late. The movement of geography towards the societal bias, encapsulated in the rise of positivistic geography is testimony to the pervasiveness of the bias of power. So pervasive were the biases of our society that nary a voice was raised to protest or check the slide of geography into the sphere of power and away from knowledge. Those who did question the Quantitative Revolution did not question the appropriateness of this new paradigm but rather they only questioned certain aspects of the new methodological and philosophical stance.

That is not to say that some have not questioned the new paradigm. Dissent has come from within and without. On this group of dissenters those that were closest to Innis were those who supported a separate and unique historical geography and those who, like Wilbur Zelinsky, questioned the total appropriateness of science as a central pillar of the social sciences.

The fact that the spatially biased paradigm of geography has been able to accept and, in some measure, accommodate these dissidents is a testimony to the flexibility of the discipline. At the same time the central paradigm has not in any significant measure been seriously compromised. Innis, like the dissidents of geography, was tolerated and accommodated. His shift to communications studies and away from his economic interests left Innis running contrary to his contemporaries and largely misunderstood with regard to far ranging researches.

To redress the bias of space Innis could call upon only two allies. Firstly Innis held out that the university, as an ivory tower, could provide a necessary sanctuary for those attemtping to redress the imbalance between

power and knowledge. Secondly Innis purshed for the individual scholar, in the sanctity of the university, to recognize the biases of the society he inhabited and their manifestations within himself. Having recognized these biases the scholar could pursue a path of knowing that would be an attempt to redress the imbalance of his times. In our spatially biased system this meant the scholar had to pursue a more time conscious, historical, balanced form of knowledge in the hope of developing alternative viewpoints and in some way redressing the bias of space and power.

It may be suggested that Harold Innis and his work have been overwhelmed by those forces he was trying to highlight. What is known is that Innis developed, within the context of Canadian development, a truly possibilist treatment of the natural environment - human agency controversy. From this base, Innis approached the problem of the interdependency of time and space from a humanistic viewpoint. Whether in the area of environment - human agency or time - space relationships, Harold Innis has shown his work to be highly innovative and moreover his work is showing itself to contain heretofore little known potential for modern geography.

The sad irony of Harold Innis' life was that the forces that he had so successfully described had achieved such complete dominance that Innis' findings have become largely ignored. That is not to say that Innis is a forgotten figure. His name still evokes knowing looks. Rather that element of Innis' life, his work, which deserves our highest attention has become a forgotten entity. A scholar of Innis' stature deserves better treatment. Geography stands to gain a great deal from Harold Innis if we are willing to take the time to know him better. As John Nef so eloquently put it in the first chapter of this thesis: we need only to take the time to read Innis to be exposed to the temoignage of Harold Innis' work.

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