HAROLD A. INNIS AND MICHEL FOUCAULT:

A COMMUNICATIONS PERSPECTIVE ON KNOWLEDGE CONSTRUCTION

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ABSTRACT

The recent debate about the epistemology of modern social and natural science has raised questions about the way in which knowledge is constructed and validated in Western society. The works of Harold A. Innis and Michel Foucault contribute to this debate by providing complementary descriptions of how thought is directed and constrained in particular historical periods by social and cultural processes and institutions. The thesis examines major works by these authors in terms of their relevance to the debate about knowledge construction.

Innis used the term "monopolies of knowledge" to describe how knowledge is constituted and maintained by communication media in the interest of securing the political power of elites. He saw Western culture as devaluing "oral" or time-binding communication, and as emphasizing "mechanized" or space-binding communication. Foucault describes "subjugated" and "delegitimated" knowledges, emphasizing the role of social and cultural processes in shaping thought, indeed in setting limits within a culture about what it is possible to think. He traces the role of authority in defining what it is legitimate to speak about, in what context, and by whom.

In the thesis, the works by Innis and Foucault are examined in terms of their heuristic contributions to understanding how thought is constrained and knowledge produced within any culture. As well, attention is paid to their explanations of how suppressed or marginal modes of thought and knowing persist in

spite of repressive social institutions and norms. A brief effort is made to suggest the dimensions that each thinker may add, first, to contemporary epistemological self-examination in Western culture and, second, to the elaboration of a communications perspective. Finally, it is noted that it is within a climate of epistemological uncertainty that the discipline of communications studies has emerged.

It seems to me that growing up inside a mind so large
that one has no sense of claustrophobia within it is an
irreplaceable experience in humane studies.

Northrop Frye

"The Search for Acceptable Words"

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PREFACE

Perhaps the greatest difficulty involved in writing this
thesis, apart from the complexity of the material presented, has
been a matter of literary style. From the elegant, poetic,
metaphoric prose of Michel Foucault, to the awkward, coarse, yet
occasionally 'diamond in the rough' sparkle of Harold Innis,
there exists something of an aesthetic breach and yet, abundant
intuitive and cognitive bridges dot the common trail of
communication they pursue.

The difficulty has been to write in a voice that is
compatible with both these contrary styles, such that an act of
literary dissonance is not required in order to move from the
chapter on Innis to that on Foucault. At the same time, I have
tried to retain my own voice which has, admittedly, developed
considerably under the influence of these two men within whose
works I have lived for the better part of four years.

Hopefully, the chapter on Foucault will sound true to his
own voice, because it seems to me that one cannot divorce
Foucault's literary style from the substance of his work. He
illustrates beautifully, Innis' thesis that the form of
communication tempers the content of that which is conveyed.
Would it be possible for Foucault to think the way he does,
about the things he does, were it not for his fantastic literary
style--and this in the double sense of being both brilliant, and
for some no doubt, monstrous. Can we hope to follow Foucault on
the path that he is clearing unless we too allow our patterns of

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thought and our vocabulary to dance across the literature and knowledge of all disciplines, all cultures, all languages that are available and useful to us?

For myself, the answer is no. It is, I believe, a 'no' held in common by several literary figures whose ideas and grace of style (which I find to be inseparably linked), have considerably informed my intellectual development and sensitivity: Loren Eiseley, Lawrence Durrell, Jorge Luis Borges. This thesis owes a great deal to these writers, for they demonstrate the heights which contemporary social thought, particularly in the humanities, is capable of attaining, and toward which the study of communication should perhaps strive.

Their contemporaries in the field of science -- Niels Bohr, Eugene Wigner, Werner Heisenberg, Paul Dirac, Paul Feyerabend, Lewis Thomas, Karl Pribram and many more--have contributed a similar inspiration to push beyond obvious contradictions and disagreements, in the belief that integrative and synthetic thought is now crucial to the physical, ethical, and imaginative survival of homo communicans. Wise beyond his culture's age, physicist Niels Bohr grasped the significance of synthesis in human endeavour when he incorporated the Chinese yin yang symbol and the inscription Contraria sunt complementa (Opposites are complementary) into his family coat-of-arms.

The question of language, or rather, of vocabulary is especially important to this thesis. Harold Innis and Michel Foucault borrow terms and ideas quite liberally from other

disciplines, fashioning them to suit the purposes of their own context of discussion. This does not present a problem unless one approaches them too literally. While Innis' concepts of a 'monopoly of knowledge' or the 'bias' of communication media are reasonably straightforward, others, notably that of an 'oral culture' or 'empire' are intended in somewhat more of a metaphoric sense.

This quality of metaphor is even stronger in Foucault's work. Concepts such as episteme, archaeological territory, the 'gaze', and genealogy are connotative rather than denotative, they guide rather than confine thought, and illustrate perhaps, the stylistic differences between the French and English languages. The use of metaphor by both men, coupled with an impressive display of scholarly detail, suggests that erudition need not be sacrificed in order to accommodate differing patterns of thought. Indeed, Northrop Frye suggests that a creative use of language is essential in the humanities:

> Every creative person has an interconnected body of images and ideas underneath his consciousness which it is his creative work to fish up in bits and pieces. Sometimes a phrase or a word comes to him as a kind of hook or bait with which to catch something that he knows is down there.[1]

The chapter on Foucault relies extensively on this unusual lexicon he has created. In order to avoid tedium for the reader, I have chosen not to footnote every usage of a concept such as episteme or mutation, but have occaisonally relied instead on
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[1]Northrop Frye, "The Search for Acceptable Words," Daedalus 102 (1973): 11-25, p. 16.

the use of single quotation marks to indicate those phrases and concepts that are unique to Foucault's thought.

Keeping in mind the importance of style and language, some mention must be made of the specifically French orientation of Michel Foucault's work. For convenience sake, no distinction is made in this thesis between Anglo-American and French conditions in considering 'modern Western society', except where this may be necessary to clarify a point. If, as Innis suggests, we learn more from cultures other than our own, whether through first-hand experience or a study of their patterns of thought and language, then Foucault's work is especially important for Anglo-American audiences.

Innis on the other hand, presents difficulties in that he assumes that his audience has read widely as he has, in the classics and history. There is considerable detail, and yet the remarkable intuitive leaps and flashes that comprise the most daring and exciting of his 'oral' thoughts, are not commonly found in 'written' scholarship. Like most major thinkers, Innis is a ripe mind for scholars. He leaves room for interpretation, not by being ambiguous, but by conveying the complex paradoxes of history and communication in a simplified manner. He invites elaboration, and demands a great deal of his literate conversants, because of his stark, staccato style.

I. Introduction

Even the great visionary thinker never completely
escapes his own age or the limitations it imposes upon
him.

Loren Eiseley

It is depressing for every scientist and for every
person to have to conclude that his principle motive, or
that of his epoch, is not here to stay.

Eugene Wigner

Mind and Communication

This study of Harold Innis and Michel Foucault is set
against the background of a journey into the patterns and
elements that comprise the Western mind, the events and
attitudes that have tempered the manner in which adherents of
Western culture consciously and unconsciously shape their
experiences of the world. That these experiences and impressions
have been molded through the processes of communication is the
underlying theme of this thesis. In place of a history of
Western mind, select patterns in the history of Western
communication are discussed.

The Pattern in Disarray

Perhaps since the time of Descartes and Gutenberg,
epistemology in Western culture has been identified with
individual consciousness, with the effort of a solitary mind to
discover fundamental laws and truths through scientific
experimentation and observation, and to thereby increase the
store, objectivity, and utility of human knowledge. At the same
time, however, the manifest tendency in Western culture since
the dawn of the Scientific Revolution has been toward a denial
of the significance of consciousness as a participant in the
process of creating or constructing knowledge, as anything other

than a detached observer standing outside the relationship formed between our world and what we know of it.

During the past century, the enthusiasm and early brilliance of objective, non-participating, scientific consciousness has soured, becoming, as one social critic writes,

> a hostile glare, a scorching ball of fire that, as Dali tried to suggest, even melts clocks in an arid desert landscape.[1]

The call for a reconsideration of our definitions of consciousness, of mind and its role in the formation and validation of knowledge has vibrated throughout the tributaries of twentieth century social thought contributing to a rich intellectual environment whose

> most creative outposts are now self-criticisms, analyses of culture that double back on itself; quantum mechanics, surrealist art, the works of James Joyce, T. S. Eliot, and Claude Levi-Strauss.[2]

The effort of this thesis will be to address the reintroduction of consciousness into Western epistemology as it has been articulated from within a communications perspective.

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[1] Morris Berman, The Reenchantment of the World (New York: Cornell University Press, 1981; Bantam Books, 1984), p. 185.

[2] Ibid.

Bateson and the Ecology of Social Consciousness

If any one figure may be considered representative of a communications perspective, encompassing both a general social theory and an epistemological inquiry, it is Gregory Bateson. In his writings, notably, Steps to An Ecology of Mind,[3] are contained an initial blueprint not only for communication studies, but for the articulation of communicative features within anthropology, psychology, sociology, and the natural sciences. As such, Bateson's imprint continues to mold the concerns and directions which may be said to fall within the scope of communication studies.

Working from a background in anthropology and biology, Bateson, in the early 1960's, seized upon the emergent fields of systems theory, cybernetics, and information theory to fashion a view of communication that remains an intellectual tour de force. While he is perhaps best known as the co-author of the "double bind" theory, and for his research into alcoholism and schizophrenia, these efforts form part of a larger quest: the investigation of the nature of mind.

The Cartesian paradigm upon whose foundation scientific epistemology has matured, is based on the dualism of mind and body, and further, the separation of mind from that which it is supposed to know. In effect, this separation involves an

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[3]Gregory Bateson, Steps to An Ecology of Mind (New York: Chandler Publishing Company, 1972; Ballantine Books, Inc., 1974).

exclusion of mind not only from that which it seeks to know, but from the process of knowing itself. In answer to the basic epistemological question, How do we know the world? the Cartesian reply may well be, only at a distance, and only by breaking the object of knowledge down into analysable parts which may then be grasped more easily.

With Bateson, the emphasis on knowledge as a private activity, the effort of an isolated individual mind acting upon the world in linear fashion and impartially recording observations, has shifted toward an understanding of knowledge as a creation of social interaction and mind as a component in a network of relationships that encompass the individual organism, the social system, and planetary ecology. What "thinks" is the total system.[4] Mind is not limited by the boundaries of the skin,[5] nor is it an entity that is coextensive with superior "grey matter."

Rather, mind is a process, a relationship between, for example, our environment, our "selves," our epistemology, our media, history, and culture. It is the connection, the pattern of energy that integrates the individual with the social, the social with the planetary, species with species, in a series of complex interrelated living systems, that function as both independent "wholes" and interdependent "parts." Mind, therefore, permeates the relationships that constitute or define

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[4]Ibid., p. 483.

[5]Ibid., p. 454

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the context within which we live and think. Rather than a physiological or biological phenomenon, it is an ecological principle. For Bateson, and others,[6] mind is very much a part of this world, immanent in all living or open structures of sufficient complexity whether they be societies, forests, or oceans,[7] and in the relationships that connect these various structures. Mind is thus synonymous with pattern, form, or communication.

These relationships, in turn, are both hierarchical and interdependent. In contrast with Cartesian epistemology which seeks to understand wholes by means of an analysis of their constituent parts, Bateson argues that parts may only be understood in terms of the larger system or context to which they belong. Thus the individual may not properly be understood outside of the context of his society and his own network of personal relationships. Similarly, ideas may have different meanings, different patterns of existence in different contexts. It is only in context, in relation to others that ideas, people, or cultures are meaningful. Further, the mind of any individual is therefore to be seen as a subsystem of a larger Mind, that pattern of connection that underlies our existence.

> The individual mind is immanent but not only in the
> body. It is immanent also in pathways and messages

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[6]See, for example, the work of Karl Pribram and Eugene Wigner. Karl Pribram, "Interview," Omni, October 1982, p. 129; Eugene P. Wigner, Symmetries and Reflections: Scientific Essays of Eugene P. Wigner (London: Indiana University Press, 1967).

[7]Bateson, Ecology, p. 482.

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outside the body; and there is a larger Mind of which the individual mind is only a subsystem. This larger Mind is comparable to God and is perhaps what some people mean by "god," but it is still immanent in the total interconnected social system and planetary ecology.[8]

The interdependency between different systems, contexts, and minds becomes apparent when one tries to treat them separately, when, for example, mind is isolated from those structures in which it is immanent, "such as human relationship, the human society, or the ecosystem."[9]

From an evolutionary perspective the consequences of our attempts over the last several centuries to consciously control nature rather than to see nature as an integral part of ourselves, has led us toward the deterioration of our environment. Because we cannot be separated from that environment, try as we might, nor our mind from the larger Mind that sustains it as well as ourselves, we risk our own destruction:

> You forget that the eco-mental system called Lake Erie is a part of your wider eco-mental system--and that if Lake Erie is driven insane, its insanity is incorporated in the larger system of your thought and experience.[10]

No individual, no species is more important than any other, nor will they survive without consideration of the larger context within which they exist--the ecology of Mind. The same may be said of any idea if pursued to the extreme, for example, the

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[8]Ibid., p. 461.

[9]Ibid., p. 485.

[10]Ibid., p. 484.

idea of objective consciousness. Ideas, too, are meaningful only in certain contexts, and they too have their 'ecology' which Bateson terms mind.[11]

This relationship of interdependency casts further doubt on the notion of a non-participating consciousness acquiring knowledge about the world. The solitary mind of Descartes, the detached literate consciousness made possible by Gutenberg's printing press, cannot be reconciled with the communications perspective of a social mind, a mind that has no existence or meaning except in relation to other minds and particular contexts. Knowledge, then, must be seen as hermeneutic not objective, as a process of interpretation of interwoven contextual meanings rather than the measurement and observation of "neutral facts."

In this process of interpretation it is impossible, as Bateson and this century's leading physicists have argued,[12] to ignore the mind or indeed the presence of the interpreter. We have been described as nature becoming aware of itself, and in this sense we are, like Thoreau, on the trail of mind, seeking the pattern of "fossil thoughts" that have impressed themselves upon our culture, history, thought, and species.[13] When we reflect on the world we reflect on ourselves, when we seek to

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[11]Ibid., p. xv.

[12]Eugene Wigner, Werner Heisenberg, Niels Bohr.

[13]See Loren Eiseley, "Walden: Thoreau's Unfinished Business," The Star Thrower (New York: Times Books, 1978), pp. 235-50.

know the world, we seek to know ourselves. We are engaged in a continual process of metacommunication, of communication about communication, of discussion about the relationships within whose web we are embedded and through which we know the world.

In this regard, epistemological crises or periods of doubt, whether madness in social thought or the aberrations of an individual mind, are always crises in society, crises in nature, in the traditions or contexts that "create" individuals or habits of thought. Scholars have noted an increased incidence in madness, or at least a greater concern with madness in times of acute social stress.[14] Perhaps we have consoled ourselves with the idea that while man may become mad, thought cannot be insane. But if man and thought and nature cannot properly be understood in isolation, if our thought is crazy, if our reason is madness, if, as Bateson suggests, Lake Erie is driven insane, we must of necessity consider not only the ecology of mind or knowledge, but of madness.

For Bateson, madness is what happens when the possibility for metacommunication is denied or restricted. He defines metacommunication as "the ability to communicate about communication, to comment upon the meaningful actions of oneself and others,"[15] what in cybernetic and interpersonal terms is also called feedback. Metacommunicative statements allow individuals to check the accuracy of their interpretations of
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[14]Berman, Reenchantment, p. 9.

[15]Bateson, Ecology, p. 215.

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situations, and indeed, to define or frame those situations.
Examples include the statements, "This is just play," "Is that
what you meant?" and so forth. In a systemic sense,
metacommunication or feedback acts as a self-corrective
mechanism, allowing for a greater degree of structural
complexity (or subtlety in human relationships) while
simultaneously maintaining balance or stability. In an era when
so much of our communication and metacommunication is conducted
through the institutions of Media, increasing numbers of
individuals are confronted with the 'madness' that accompanies a
lack of control over our own messages, 'runaway' in the ecology
of our ideas and Mind.

Communication: Pattern and Interpretation

With Bateson, twentieth century mind describes a
relationship that integrates all living systems, thus forming
the social, biological, and intellectual contexts within which
we exist. To the extent that mind is synonymous with pattern and
form; insofar as we may know mind through its various processes,
relationships, and contexts, the study of mind may be seen as
the study of communication. Bateson suggests that knowledge (of
individuals, families, cultures, species) is a process of
interpretation, of recognizing and articulating patterns of
communication. Before him, Harold Innis had already proposed
this metaphor in an innovative series of analyses of Western

civilization. More recently, Michel Foucault has contributed to this communications perspective with his studies of formal and informal patterns of communication in modern institutions and societies.

In addition to what we might call "creating the context for life," mind or communication is a process of interpreting these creations and contexts, a hermeneutic journey into our own history, our own 'minds'. Once we begin to self-reflect, to question ourselves, our knowledge, our methods, our priorities, our sanity, our definitions of reality, there are few absolute answers or truths, only interpretations and definitions of subtle relationships, and constructions of meaning.

As we shall see, several of this century's leading physicists, linguists, and anthropologists share a similar understanding of the relationship of mind to the process of knowing, and indeed, to human ecology. It is from within this general climate of epistemological self-examination, occasioned by new ideas about the nature of mind and consciousness that the work of Harold Innis and Michel Foucault will be addressed. Like Bateson and other contemporary scholars, they offer new insights into the relations between knowledge, mind, media, and communication contributing to what might be called the 'constructionist' stance in contemporary epistemology.

Constructionism and Contemporary Epistemology

    The term 'constructionist' is intended to acknowledge the

existence of a number of theories or schools (in sociology,

interpersonal communication, artistic and literary theory, and

philosophy) concerned to explore the manner in which the

ordering of knowledge and experience lends structure to our

lives, perhaps to the point of 'creating' the very context

within which we think, act, and communicate. While this term is

certain to bring to mind the work of George Herbert Mead, Berger

and Luckmann, and the school of social interactionsm,[16] the

impetus to a constructionist approach in this thesis comes from

writers in the sciences and the philosophy of science. I refer

especially to the work of David Bohm, Werner Heisenberg, Karl

Pribram, Eugene Wigner, Kenneth Pelletier, among others.[17]

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[16]George Herbert Mead, Mind, Self, and Society: From the
Standpoint of a Social Behaviorist, ed. with an Introduction by
Charles W. Morris (Chicago: The University of Chicago Press,
1934); Peter L. Berger and Thomas Luckmann, The Social
Construction of Reality: A Treatise in the Sociology of
Knowledge (New York: Doubleday & Co., 1966; Anchor Books, 1967).

[17]David Bohm, Wholeness and the implicate order (London:
Routledge & Kegan Paul, 1981); Pribram, "Interview"; Wigner,
Symmetries; Kenneth R. Pelletier, Toward a Science of
Consciousness (New York: Dell Publishing Co., A Delta Book,
1978); of particular importance with respect to Werner
Heisenberg is his "uncertainty principle." Discussions of this
may be found in Fritjof Capra, The Tao of Physics: An
Exploration of the Parellels between Modern Physics and Eastern
Mysticism (Bungay, Suffolk: Wildwood House, 1975;
Fontana/Collins, 1976) and Heinz R. Pagels, The Cosmic Dance:
Quantum Physics as the Language of Nature (Toronto: Simon
&Schuster, 1982; Bantam Books, 1983).

These writers in the sciences and related fields (consciousness studies, neuro-psychology) have sought connections between what is 'out there' and what we perceive 'in the mind's eye', between the extrinsic properties of the physical world and intrinsic psychological processes of the brain, what in contemporary language may be called the coding of reality. Their research suggests that reality cannot be known apart from the knower, and that the information we have about reality cannot be isolated from the processing of that information in the brain and the nervous system, nor from the environmental milieu to which it refers. All communication, thought, and perception is seen to involve a coding, or what physicist David Bohm calls an "enfolding" of reality. They feel that in order to understand the construction of reality we need to be cognizant of the relation between this enfolded reality we organize symbolically in language, images, models, and concepts (the implicate order), and the concrete manifest reality within which we interact (the explicate order). The term 'constructionist' is intended then, as a heuristic device, and not as a sign of allegiance to any particular thinker or school.

In some instances, writers have explicitly used the word "construct" to describe not only human knowledge, but the perception of reality we fashion through knowledge and experience, as it is mediated through language, art, technology, and the processes of metacommunication and feedback. Physicist Eugene Wigner, writing at the same time as Harold Innis and

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anticipating many of the trends in the philosophy of the 'new physics' by suggesting that physics and psychology are "different aspects of the same thing,"[18] writes, "everything is a construct," adding the qualification that "one is led to believe that, (as explained in the text,) the word 'reality' does not have the same meaning for all of us."[19] He offers a remarkable insight into the ground upon which the natural and social sciences may intersect, an interdisciplinary nexus concerned with knowledge, mind, and ecology, that Bateson was later to identify as communication studies:

> Many feel nowadays that the life sciences and the science of the minds of both animals and men have already been neglected too long.[20]

Karl Pribram, whose interests lie in neuro-psychology and brain research, and who sees a complementary relationship between neural synapses and quantum charges, commented in a 1982 interview:

> I say "construct" because the perception of so-called hard reality isn't really as immediate and direct as it seems, but a complex coding operation.[21]

This remark in particular, capsulizes Michel Foucault's efforts to probe the social 'codes' by which we order knowledge and society, and Harold Innis' examination of how our perception of reality has been tempered by communication media.

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[18]Wigner, Symmetries, p. 218.

[19]Ibid., pp. 189, 202, ft. 6.

[20]Ibid., p. 216.

[21]Pribram, Omni, p. 135.

Innis and Foucault, by the style and thrust of their work, contribute significantly to our understanding of this communications-constructionist perspective. They emphasize that the construction of knowledge and the definition of truth are grounded in cultural and communicative processes; that knowledge does not arise in a vacuum, nor does it appear fully constituted under the objectifying eye of the scientist-observer. Rather, knowledge and indeed our perception of the world, is created according to conscious and unconscious social codes, norms, and values often borrowed from religion, myth, science, social convention, and tradition. As well, they provide strong tools for analysing the rules, discourses, and procedures that characterize institutional communications, and that allow for only certain questions to be framed, certain thoughts considered, and certain answers proposed. Further, they suggest that as our perceptions, ideas, or environmental circumstances shift, the world we believe we think and act in assumes a new organizational format.

Herein lies the strength and importance of the concept of constructionism, as it attempts to demonstrate the manner in which epistemological frameworks are socially constructed, transformed, and replaced by new constructs, as well as gauging their implications for the quality of individual and social life. That is, it addresses the question of how changes in knowledge occur on both a disciplinary and societal level. In this regard, it may be of particular significance today as we

seem to be in the midst of an epistemological resettling occasioned by complementary insights from a number of intellectual fields including communication studies.

However, a constructionist approach does more than help us to understand changes in knowledge. The writings of Bateson, Innis, Foucault, and others suggest that the epistemological discourse of our time, the predominant pattern in Western communication today is one of constructionism or metacommunication, of intense philosophical self-examination. Indeed, the emergence of communication studies may itself be seen as part of a growing dissatisfaction with the application of scientific methods to social affairs, and a recognition of the need to redefine Cartesian epistemology, perhaps in the form of a communications-constructionist epistemology.

Harold Innis and Michel Foucault have both been interested in and deeply influenced by the epistemological inquiries that have marked the twentieth century. To better understand their relation to their time, and the fundamentally communications approach to analysing their work that this thesis will take, we turn to a brief review of the main components of this epistemological debate as highlighted in the disciplines of physics, linguistics, and anthropology.

The Turn Toward Self-reflection

From the critique of science initiated in part by
developments in theoretical physics early in this century, have
emerged epistemological problems that beset the social sciences
in general, and have specific relevance for a new field like
communications. Among others, Thomas Kuhn, Niels Bohr, Werner
Heisenberg, David Bohm and Paul Feyerabend[22] have demonstrated
that as the customary foundation of physics and science slips
away, hitherto unproblematic relations between the perception
and observation of reality, and the communication of these
findings, have come to the forefront of science, creating
immense philosophical and epistemological dilemmas.

Physics and Language

As part of the internal critique of science there has grown
a realization of the difficulties involved in thinking new
thoughts, and encouraging their dissemination throughout society
from within the restrictive context of a language and perceptual
framework that was consolidated with the emergence of classical
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[22]Thomas S. Kuhn, The Structure of Scientific Revolutions,
International Encyclopedia of United Science, vol. 2 no. 2 2d
ed., enl. (Chicago: University of Chicago Press, 1970); Werner
Heisenberg, Physics and Beyond: Encounters and Conversations,
trans. Arnold J. Pomerans, World Perspectives, vol. 42 (New
York: Harper & Row, 1971); Bohm, Wholeness; Paul K. Feyerabend,
Against Method: Outline of an anarchistic theory of knowledge
(London: NLB, 1975; Verso, 1978).

scientific method. The paradox, familiar to communications, linguistics, and anthropology, that our language and concepts are intimately bound to our experience and understanding of reality, means that significant changes in our perception of this reality are difficult to grasp intellectually, and almost impossible to formulate and communicate to others in the customary language.

On the difficulty of communicating the recent discoveries of quantum physics in 'ordinary language', Werner Heisenberg writes,

> the problems of language here are really serious. We wish to speak in some way about the structure of the atoms . . . But we cannot speak about atoms in ordinary language.[23]

The problem that arises in quantum physics is the inadequacy of our language to describe events and phenomena hitherto unknown, inaccessible, or neglected by scientific discourse. Whereas classical physics presupposes a one-to-one correspondence between theory and reality, in which it is possible to predict and name individual events, quantum physics can predict only probabilities, potentialities, and tendencies, and thus it must speak in terms of interactions, the dance of energy, and the continual creation and annihilation of matter.

Our ordinary, everyday language is compatible with classical physics, with the three-dimensional world accessible to the senses. This language becomes inappropriate in quantum

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[23]Werner Heisenberg, Physics and Philosophy, cited by Fritjof Capra, Tao, p. 46.

physics where we are dealing with events that are not

perceptible to the senses, except when they are mediated through

such instruments as cloud chambers, and that do not form part of

the visible, everyday experience of life. Niels Bohr comments,

> it is one of the basic presuppositions of science that
> we speak of measurements in a language that has
> basically the same structure as the one in which we
> speak of everyday experience. We have learned that this
> language is an inadequate means of communication and
> orientation, but it is nevertheless the presupposition
> of all science.[24]

Further, he cautiously observes,

> it is wrong to think that the task of physics is to find
> out how Nature is. Physics concerns what we can say
> about Nature.[25]

Linguistics and Cognitive Form

What we can say, is perhaps limited as much by the

structure and grammar of our language, as by the extent of our

knowledge, and the conceptual (metaphor, heuristic models) and

technical tools we use to construct knowledge. Writing in 1942,

linguist Benjamin Lee Whorf suggested that the study of language

as both cultural form, and as a contributing factor in the

development of thought, may prove essential to enabling

scientists to break through the impasse reached in quantum

physics:
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[24]Niels Bohr, in conversation with Werner Heisenberg, cited by
Werner Heisenberg, _Physics and Beyond_, p. 130.

[25]Niels Bohr, cited by Heinz R. Pagels, _Cosmic_, p. 67.

Even science senses that they are somehow out of focus for observing what may be very significant aspects of reality, upon the due observation of which all further progress in understanding the universe may hinge. Thus one of the important coming steps for Western knowledge is a re-examination of the linguistic backgrounds of its thinking, and for that matter of all thinking.[26]

While Whorf did suggest that the specialization of Indo-European grammar may have coloured the development of modern science, he clearly stated that "science of course was not CAUSED by this grammar."[27] He went on to observe that modern science arose in this group of languages, Standard Average European, (SAE)

because of a train of historical events that stimulated commerce, measurement, manufacture, and technical invention in a quarter of the world where these languages were dominant.[28]

In so doing, Whorf provided a fundamental link between linguistics and the studies of culture, society, and man by emphasizing that although language in itself is a valuable field of study, we cannot ignore the embeddedness of language in all aspects of social life, including scientific discovery.

This recognition of the inseparability of language and cultural activity, of the mutual influence of language structure or 'habits' and patterns of thought and perception, has received considerable attention in the fields of linguistics and cultural

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[26]Benjamin Lee Whorf, Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf, ed. and with an Introduction by John B. Carroll, with a Foreward by Stuart Chase, The M.I.T. Paperback Series, no. 5 (Cambridge: The M.I.T. Press, 1956), p. 247.

[27]Ibid., p. 221.

[28]Ibid., p. 222.

anthropology. To date, no consensus has been reached as to how much of a cognitive determinant language is. The most well-known formulation of the relation between language and thought is perhaps the Sapir-Whorf hypothesis, which maintains that different languages predispose their speakers to view the world differently and to think in different ways, to the extent that we become the virtual prisoners of our language.

Edward Sapir wrote,

> we see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation.[29]

Whorf agreed that language is more than a vehicle for transmitting ideas:

> We are inclined to think of language simply as a technique of expression, and not to realize that language first of all is a classification and arrangement of the stream of sensory experience which results in a certain world-order, a certain segment of the world that is easily expressible by the type of symbolic means that language employs. In other words, language does in a cruder but also in a broader and more versatile way the same thing that science does.[30]

Whorf went so far as to suggest that language embodies a cultural metaphysics.[31] He demonstrated that the Hopi Indian grammar employs verb tenses very different from those of English and other SAE languages, and thus it allows for a very different orientation in time. He speculated that Hopi may be "better equipped to deal with such vibratile phenomena" as the world of

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[29]Edward Sapir, cited by Benjamin Lee Whorf, Language, p. 134.

[30]Ibid., p. 55.

[31]Ibid., p. 58.

particle physics, "than is our latest scientific terminology."[32]

The Sapir-Whorf hypothesis, however, contains several problems and enjoys varying periods of both acceptance and rejection by scholars. If taken to the extreme, it seems to preclude the possibility of cross-cultural translation and understanding. Further, it incorporates a considerable degree of cultural generalization and attributes this to language, although it is possible to cite exceptions, for example, where cultural elements such as religion may be shared by peoples with vastly different grammars. Despite these difficulties, both Sapir and Whorf have been instrumental in drawing attention to the interpenetration of language and culture, of linguistic constraints and cognitive form. Peter Farb suggests that,

> the history of language is not so much the story of
> people misled by their languages as it is the story of a
> successful struggle against the limitations built into
> all language systems.[33]

In recent decades, anthropologists have found themselves in a dilemma similar to that of quantum physicists as they study 'other worlds', and with other social scientists have repeatedly addressed the question as to how much their own cultural, intellectual, linguistic, and professional biases distort the subject of their investigations. In this discussion we focus on the form of awareness assumed in the field of anthropology.

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[32]Ibid., p. 55.

[33]Peter Farb, Word Play: What Happens When People Talk (New York: Alfred A. Knopf, 1973; Bantam Books, 1975), p. 213.

Before 1950, appeals such as Edward Sapir's 1924 "Culture Genuine and Spurious"[34] for anthropologists to give attention to their own personal values in assessing other cultures, were isolated cases. Since then, many anthropologists have admitted that the history of their discipline has been marked by an absence of concern for a critical, self-reflexive evaluation of the imposition of their own idiosyncratic, ethnocentric, often binary categories on other cultures.[35]

Malcolm Crick has recently referred to the "growing loss of epistemological innocence"[36] that has characterized anthropology in the past decade. Two factors that have occasioned this 'coming of age' have been the disappearance of primitive societies, due largely to contact with Western man, including anthropologists; and, the demand from outside the profession that anthropology become more socially relevant in a period of

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[34]Edward Sapir, "Culture, Genuine and Spurious," in Selected Writings of Edward Sapir in Language, Culture and Personality, ed. David G. Mandelbaum (Berkeley: University of California Press, 1949).

[35]Jack Goody, The Domestication of the Savage Mind, Themes in the Social Sciences, eds. Jack Goody and Geoffrey Hawthorn (Cambridge: Cambridge University Press, 1978); Bob Scholte, "Discontents in Anthropology," Social Research 38 (1972): 777-807; Malcolm Crick, Explorations in Language and Meaning: Towards a Semantic Anthropology (London: Malaby Press, 1976); Malcom Crick, "Anthropological Field Research, Meaning Creation and Knowledge Construction," in Semantic Anthropology, ed. David Parkin, Association of Social Anthropologists, no. 22 (London: Academic Press Inc., 1982): 15-37.

[36]Crick, "Anthropological Field Research," p. 15.

socio-economic and political turmoil.[37] This epistemological

awakening has been indicated by a shift in concern away from the

positivism of structural-functionalism toward an understanding

of anthropology as necessarily a semantic inquiry.

Crick has spoken of an "epistemological break" ushered in

by the attention now given to language and meaning in

anthropology.[38] While anthropology has always been concerned

with meaning, the emphasis now is on self-reflexive meaning, and

the attempt to ascertain what distortions may have occurred in

the interpretation of other cultural semantic systems and

processes. Thus, the newly coined term 'semantic anthropology'

refers less to a new branch of anthropology, than to a new

attitude on the part of anthropologists, one that emphasizes

that language is but one example of the symbolizing capacities

fundamental to all forms of human communication, including music

and the mathematics of science.

A crucial concern in semantic anthropology has been the

need for anthropology to turn its powers of reflection on its

own activities. In a 1982 monograph from the Association of

Social Anthropologists entitled Semantic Anthropology, editor

David Parkin acknowledged that at the conference from which this

book sprang, the issues of self-awareness and self-criticism in

cultural translation were of such a recurrent and fundamental

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[37]Scholte, "Discontents"; David Kaplan and Robert A. Manners,
"Anthropology: Some Old Themes and New Directions," Southwestern
Journal of Anthropology 27 (1971): 19-40.

[38]Crick, Explorations, p. 1.

nature, that the volume could easily have been titled Reflexive Anthropology or Critical Anthropology. Indeed, this point was made by Bob Scholte in the early 1970s.[39]

Among others, Stanley Diamond has suggested that anthropology has rejected the Rousseauean theme that self-knowledge is the prerequisite to an understanding of others, and that in the twentieth century, anthropological self-awareness has often been little more than a cataloguing of experiences of cultural shock.[40] Several anthropologists have noted that anthropology has often been undertaken with the explicit or implicit support of imperialist activities and institutions, and yet, little attention has been given to the implications of such a close working relationship.[41]

During the period of European colonial expansion, the emerging model of scientific reason was imposed on other cultures that viewed the world from within incommensurable cognitive and experiential frameworks, with more or less disastrous and violent results. The banishment of local practices, ceremonies, and beliefs, the destruction of indigenous languages, and the disappearance of native cultures has been well-documented in anthropological literature in recent

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[39]Parkin, Semantic Anthropology, p. xvi; Scholte, "Discontents."

[40]Stanley Diamond, "Anthropology in Question," in Reinventing Anthropology, ed. Dell Hymes (New York: Random House, 1969; Vintage Books, 1974): 401-29.

[41]Scholte, "Discontents"; Kaplan and Manners, "New Directions"; Mina Davis Caulfield, "Culture and Imperialism: Proposing a New Dialectic," in Reinventing Anthropology, pp. 182-212.

years, and lies at the heart of the current turn toward
epistemological self-examination. The suggestion that arises
from this self-criticism is that the centralization and
monopolization of 'knowledge' and 'reason' by classical science,
has rendered marginal (insufficiently scientific) entire
cultures, forms of <u>knowing</u> and bodies of <u>knowledge</u>, as well as
dimensions of experience.

Shifts in Epistemology

But the repurcussions from science go further than problems
of language alone. As noted earlier, there is increasing
discussion from within the scientific community itself, that the
Western understanding of reality based on classical science and
Cartesian epistemology, particularly physics, is undergoing a
fundamental re-evaluation and reorganization. The sensation that
the epistemological foundation of physics, and indeed of all
science has begun to shift, has received considerable attention
from the century's leading physicists. Werner Heisenberg has
written:

> The violent reaction on the recent developments of
> modern physics can only be understood when one realizes
> that here the foundations of physics have started
> moving; and that this motion has caused the feeling that
> the ground would be cut from science.

Niels Bohr noted that advances commensurate with exploration of
the atomic world had "shaken the foundation on which the
customary interpretation of observation was based." Albert

Einstein voiced similar concern and uneasiness:

> All my attempts to adapt the theoretical foundation of physics to this (new type of) knowledge failed completely. It was as if the ground had been pulled out from under one, with no firm foundation to be seen anywhere, upon which one could have built.[42]

Professor G.F. Chew, Chairman of the Physics Department at Berkeley has noted:

> Our current struggle [with current aspects of advanced physics] may thus be only a foretaste of a completely new form of human intellectual endeavour, one that will not only lie outside physics, but will not even be describable as "scientific."[43]

This struggle includes changes not only in the content of scientific knowledge but as well in the framework for communicating this knowledge to society at large. Anthropology has been undergoing a similar re-evaluation of its basic precepts, values, attitudes, and metaphors,[44] and has extended this inquiry to include a discussion of how our epistemological misunderstandings may have biased and distorted our appreciation of other cultures, in particular, their patterns of thought, processes for creating knowledge, as well as the intricacies of their metacommunication patterns.

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[42]All quotations in Capra, Tao, pp. 54-55.

[43]Gary Zukav, The Dancing Wu Li Masters: An Overview of the New Physics (New York: William Morrow & Co., 1979; Bantam Books, 1980), p. 217.

[44]An excellent discussion of this issue is presented by Anne Salmond, "Theoretical Landscapes. On a Cross-Cultural Conception of Knowledge," in Semantic Anthropology: 65-87; also, Jack Goody, Domestication.

Physics, linguistics, and anthropology provide three examples of how important the problems of language, meaning, and therefore of communication have become to Western epistemology. There has arisen the explicit appreciation that reality, however it is viewed, cannot exist independently of the processes of communication. Our world, and our understanding of it, is a composite of thought, language, experience, and communication.

The Repurcussions of Scientism

In our society, science has been identified as the premier example of a set of social, institutional, and normative factors that combine to create and legitimate certain forms of knowledge while excluding others. The past decade has produced a volume of. commentary critical of the methods and priorities of scientific research, particularly those informed by the excesses of scientism. In its most strident form, scientism assumes that science is the only method for obtaining valid knowledge, denying the existence and/or validity of forms of consciousness, knowledge, and culture beyond its purvey. In milder versions, the claim is advanced that science is the only reliable method we currently possess for gaining certain knowledge, the rest is opinion and conjecture.

The defining feature of this infatuation with science has been said to be the abandonment of self-reflection and philosophical critique, and the post-Comtean confusion of

methodology with epistemology.[45] From within and without the scientific community the suggestion increases that the 'monopoly of knowledge' assumed by science is breaking down; that the "scandal of existing knowledge - namely that men at different times and places have known differently,"[46] is *the* point of focus for contemporary social and scientific thought.

This process of contemporary epistemological self-consciousness has precipitated a re-examination of the means by which we construct knowledge and produce truth in Western society. Both Harold Innis and Michel Foucault question the rules governing what it is *possible* and *allowable* to think and to communicate, within the modern world. Both have demonstrated that these rules are not limited to those governing the grammar of various languages, but include the constraining influence of cultural norms and values, technology, and the regulations and practices of social institutions.

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[45]Johannes Fabian, "Language, History and Anthropology," *Phil. Soc. Sci.* I (1971): 19-47; Scholte, "Discontents"; Anthony Giddens, *New Rules of Sociological Method: A Positive Critique of Interpretive Sociologies* (London: Hutchinson & Co., 1976).

[46]Devereux Kennedy, "Michel Foucault: The Archaeology and Sociology of Knowledge," *Theory and Society* 8 (1979): 269-290.

Communication and Epistemological Critique

Harold Innis, a recognized communications scholar with a wide knowledge of the classics, provides fundamental insights into how socio-cultural codes, norms, and practices may either enhance or inhibit avenues of social thought. The communications approach to knowledge outlined by Innis, in turn provides a framework for appraising the contributions of Michel Foucault to the contemporary effort to penetrate the epistemological foundations of culture.

Harold Innis

Canadian economic historian and scholar Harold A. Innis died before self-examination became widespread in anthropology, yet he initiated a novel and by no means fully articulated historical tradition concerned to comprehend the relations between communication and cultural development. In assessing the conditions conducive to longevity in certain civilizations, Innis was drawn to a consideration of the cultural (social, economic, political, technological) forces that facilitate the formation and legitimation of knowledge and the consolidation of power. He felt that media of communication were perhaps the most potent of these cultural forces, and he attempted to describe the relation between a medium of communication, the type of thought that is encouraged or stifled, the character and

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patterning of social relations, and the overall quality of a
civilization.

Innis felt that communication media betray a bias toward
time or space, that in turn, facilitates a bias in cultural
development. A bias toward time favours religious knowledge, the
transference of heritage from one generation to another, and the
maintenance of an oral tradition. A bias toward space favours
secular knowledge, political organization, the extension of
territory, and an emphasis on print or mechanized communication.
Innis noted that the creation, organization, and dissemination
of knowledge will vary according to the bias of communication
media and this, in turn, will have broad social consequences. In
extreme instances, media biases facilitate the emergence of
monopolies of knowledge that threaten social stability and the
survival of empires, by restricting avenues of communication and
thus effectively stifling the creation and exchange of ideas.
Paradoxically, monopolies tend to 'invite' competition from new
communication media of a different bias, and capable of
supporting a new monopolistic configuration.

Innis saw the ongoing tension between competing biases and
monopolies as representing a major force in the dynamics of
social change. Changes in communicative biases, hastened by the
introduction of a new communication medium or by the disruptive
transition from one medium to another, allow for the emergence
of new forms of knowledge and new cultural traits. As well, in
the shift from one medium to the next, knowledge may be lost,

suppressed, or otherwise removed to the outer edges of culture
or the margins of what is considered to be legitimate knowledge.
Innis understood that a monopoly of knowledge encourages
centre-periphery tensions that characterize the pattern and
efficiency of social organization.

Further, he was aware that the process of a monopoly
allowed for creative breakthroughs on the fringes of culture,
thought, and communication. Historically, he noted that a
revival in learning often germinated at the margins of society
and then spread toward the more conservative centre. He
emphasized the importance of decentralized systems of
communication as a counter-balance to the dangers he understood
to be inherent in all forms of monopolization. In education and
scholarship, he suggested that the transcendence of cultural and
communicative limitations could often be found in those
individuals who prospered at the interface of established
disciplines, or who brought a particular intellectual training
to a new field of study, thereby opening up a series of hitherto
dormant questions.

Innis was particularly sensitive to the risks of
intellectual stagnation, both culturally and individually. He
held a bias in favour of the oral tradition, as both a cultural
form and a method of learning, because he felt it allows for
greater flexibility of thought and richer opportunities for
individual development. He equated mechanized communication with
intellectual sterility as it emphasizes the memorization of

facts at the expense of intellectual training, the hallmark of
which he saw as the ability to meet and solve urgent and complex
problems through an appreciation of the demands of time and
space.

Michel Foucault

   Michel Foucault, still writing three decades after Innis'
death, can be more explicit about the relationship of his work
to the current intellectual climate. He has remarked that
intellectuals today are confronted with a 'mutation' in history,
the result of a series of 'decenterings' that have occurred over
the past hundred years, not only in physics, linguistics, and
anthropology, but as well, in the work of Marx, Freud, and
Neitzsche. It is from within the discontinuity posed by this
epistemological rupture that Foucault conducts his discourse,
which is itself possible he suggests, because of a shift in the
Western episteme, the timbre of which remains obscure. In
discussing what makes knowledge and discourse possible, Foucault
is able to simultaneously articulate the ground upon which his
own discourse is possible.

   In a rather provocative series of historical researches,
Foucault has framed his enquiry into the conditions of
possibility of thought, truth, and power through a review of
epistemic transformations in Western society from the
mid-seventeenth century to the present day. He is concerned to

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establish how knowledge implies the exercise of power, and the manner in which power necessarily encourages the emergence of new forms of knowledge. Further, he illustrates how knowledge and power combine to affect truth, and maintains that our definitions of truth and reason are culturally and historically defined.

In seeking the conditions of knowledge Foucault rejects the anthropological theme of a humanist drama that grounds the raison d'etre of knowledge in the progress of consciousness, the teleology of reason, or the evolution of human thought. In place of an analysis that seeks to establish the historical continuity of thought--its concepts, objects, facts, and definitions--Foucault attempts to unearth the discontinuous history of thought, suggesting that history is marked by discrete periodizations, each with its own distinctive conceptual framework, which he calls the episteme.

With each historical 'fracture' there surfaces a new episteme that provides a new foundation for knowledge, new rules for conceptual formation, new forms of knowledge and new ways of knowing, as well as new forms of power, new cultural norms and social practices. Foucault does not present a theory of change (from one episteme to another) so much as a description of the transformation of relations that accompany, and perhaps nourish the reorganization of social thought and experience. These relations include those between the rules of discursive formation, communicative practices and institutions, political

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events, and cultural norms. Changes in knowledge are seen to arise not so much from material conditions, as from the operations of discourse (its rules and procedures), and the link between these and non-discursive practices, \such as those of institutions.

Foucault pursues the relation between thought and culture largely through an examination of institutions, particularly medical and carceral institutions. In particular, he demonstrates that through processes of communication (case-histories, record-keeping, regulations, and other centralizing techniques), institutions are instrumental in accumulating, validating, and transmitting knowledge, and in refining and extending the exercise of power in Western society today. Special attention is drawn to the immense network of writing and documentation that characterizes modern society, and that made possible the 'epistemological thaw' of the human sciences and clinical medicine.

Foucault's archaeology of the Western *episteme* between 1650 and 1900 stresses the importance of the birth of the human sciences, and the relations between these and medicine, to the exercise of what he calls 'power-knowledge'. With meticulous care and detail he sets out to describe the basis on which a knowledge and discourse of man became possible, and to demonstrate the manner in which we 'make' discourses function as true, through mechanisms of communication, that is, of knowledge and power. Foucault understands truth to be a *process*, a system

for producing statements, knowledge, and discourses whereby the true and the false, the scientific and the naive, the normal and the deviant are separated.

In his analysis of changes within knowledge in the past three hundred years, Foucault isolates science as the major institution or 'regime' for the production of truth in Western society. Medicine is given special consideration, as it illustrates the powerful consequences that follow from the centralization and institutionalization of scientific knowledge. Among these, is the constitution of a knowledge of man <u>as an individual</u> rather than a member of a species, which in turn facilitates an individualized exercise of power targeted at those persons whose thought, speech, or behaviour challenges the current norms and values of society.

The Method

This thesis will attempt to draw from the work of Innis and Foucault their respective views of how it is that societies construct truth, and distribute other forms of knowledge to the margins of culture. The process is twofold: 1) to describe how thought is constrained, knowledge constructed, and truth produced in particular historical periods through socio-cultural technologies, processes, and institutions; 2) to describe how 'unofficial', alternative, and marginal forms of thought and ways of knowing may also be <u>produced</u> through the exercise of

these same institutions and practices. The argument will be put forth that their divergent yet complementary insights may be accommodated within the framework of communications studies.

The method adopted in this thesis is a critical reading and assessment of the works of Harold A. Innis and Michel Foucault, as they relate to the question of how we produce, organize, and legitimize knowledge, and the consequences to culture that this entails. I have confined myself almost exclusively to primary sources; little secondary material, whether commentary or critique has been considered. Exceptions to this are James Carey's article on Innis; Marshall McLuhan's introductory remarks to Innis' texts, in addition to two of his own books, Understanding Media and The Gutenberg Galaxy; and Eric A. Havelock's Preface to Plato, which I feel is sympathetic to Innis' perspective. By and large, Foucault's work has not been extensively assessed from a communications perspective, and thus there is little commentary pertinent to this thesis. An exception to this is Alan Sheridan's general review of Foucault's work, Michel Foucault: The Will to Truth. Similarly, commentaries on Innis tend to focus less on the epistemology of communication media, and more on the political economy of media. Although important, this too is not directly relevant to the thesis.

Certain additional background material to various historical periods covered by Innis have been consulted, simply because his brief essay style and informal addresses do not

always allow for a comprehensive elaboration of the research that informs his insights and conclusions. As well, something of a conscious effort was made to not be biased by what others have found in their writings, but rather, to take their own perspectives on knowledge, culture, and historical interpretation, and turn them back on themselves in something of a double hermeneutic.

Informing this method is what I have referred to as the 'constructionist' stance in contemporary epistemology. To the extent that this thesis is concerned with communication as epistemology, it is also concerned with the method of communication studies. The questions 'How do we construct knowledge', and 'What is communication' are inseparable, and thus, the question of methodology is really the background context to the entire thesis. Insofar as our culture is currently engaged in an epistemological self-examination in which questions of method in all fields have come to the forefront of discussion, the raisons d'etre of communication studies, this thesis, as well as the work of Innis and Foucault, are, at least in part, this perplexity over method.

The contributions of Innis and Foucault to the study of communication, or to the study of civilization as it is mediated through communication, will be addressed in separate chapters. An effort is made to present their ideas in such a way that the reader gains a sense of the overall scope, coherence, and complexity of their thought, in addition to the focus on

knowledge generation. To this end, the second and third chapters are descriptive in tone and narrative in style. The reason for this is twofold: 1) to attempt to describe the broad context of each man's thought without excessive editorial interference; 2) to attempt to communicate in a clear and straightforward manner, the works of two of this century's most difficult thinkers.

With respect to the first rationale, I admit of a bias toward a generalist, contextual approach to topics. Although I recognize the value of both a particularized knowledge of problems, and a knowledge of the relations between ideas and problems and to the larger social context, my bias is with the latter. This thesis was written in the spirit of the humanities rather than the social sciences, and to that extent I admit to the drawbacks of this perspective as noted by Northrop Frye: "It is as though the humanist cannot really understand any aspect of his subject unless he studies a large configuration of it." This quest for what Frye calls "larger and more comprehensive patterns of thought" in which "things stick together, get involved with one another,"[47] presents numerous difficulties for those working within the traditionally linear framework of academia where problems are supposed to be presented one after the other in a logical chain. The problem is, Where does the chain begin? Where is the centre if everything is seen to be interrelated?

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[47]Frye, "Search," pp. 14, 15, 13.

I believe it is this problem that lends to Innis and Foucault their well-earned reputations for being exceedingly difficult to unravel, and perhaps not worth the effort. In an article on Foucault, Devereux Kennedy quotes another writer who remarked that "while it was clear that Michel Foucault had something to say, it was equally clear that he made it as difficult as possible to find out what it was."[48] The same may be said of Harold Innis, whose works have been described as "erratic and confusing," although like Foucault, original and brilliant. Commenting on Innis' approach, James Carey may have been writing about Foucault:

> In his writing Innis linked together events in history, often widely separated in space and time, and he rarely, if ever, presented staightforward narrative or summaries of logically implicated propositions.[49]

My overriding concern in the middle two chapters has been to provide for the reader who has no interest in the larger question of where Innis and Foucault lie in relation to contemporary epistemological debates, an introduction to their main ideas and concerns. In the concluding chapter I have attempted to analyze the similarities, discrepancies, and differences in their approaches to knowledge and communication, and to discuss some of the more obvious problems that arise in

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[48]Kennedy, "Foucault," p. 269.

[49]James W. Carey, "Canadian Communication Theory: Extensions and Interpretations of Harold Innis," in Studies in Canadian Communications, eds. Gertrude Joch Robinson and Donald F. Theall (Montreal: McGill Studies in Communications, 1975), pp. 27-59, p. 46.

their writings. It is my hope that this distinction between the middle and final chapters will ease some of the burden of trying to understand these difficult and complex thinkers, while also allowing for a more comprehensive analysis of their works. To conclude the thesis, the argument will be advanced that both Innis and Foucault may be understood as communications scholars.

II. Harold Innis

These are stirring times for the editors of newspapers:
History is in the making. Mankind is on the march.
The longest aqueduct in the world is already
Under construction; the Committees on Fen-Drainage
And Soil-Conservation will issue very shortly
Their Joint Report; even the problems of Trade Cycles
And Spiralling Prices are regarded by the experts
As practically solved; and the recent restrictions
Upon aliens and free-thinking Jews are beginning
To have a salutary effect upon public morale.
True, the Western seas are still infested with pirates,
And the rising power of the Barbarian in the North
Is giving some cause for uneasiness; but we are fully
Alive to these dangers; we are rapidly arming; and both
Will be taken care of in due course: then, united
In a sense of common advantage and common right,
Our great Empire shall be secure for a thousand years.

      W. H. Auden

      For The Time Being

Introduction

Harold Innis was a scholar of great scope and insight who, in his later years, turned his perceptive powers toward the relationship between communication media and epistemology, in a series of historical studies of 'empire' in Western civilization. He was particularly keen to demonstrate how knowledge and social relations may be shaped by media, and their subsequent implications to cultural stability and survival. In attempting to describe, without distortion, the communication patterns and media of earlier civilizations, Innis felt that the historian must be aware of the biases of his own culture and its major media forms. This paradox of historical interpretation became the basis of his research.

The analysis of culture in terms of its media of communication suggested to Innis two distinct communicative traditions: the oral and the written. These in turn, have significance for the character, method of storage and organization, and the survival of cultural knowledge. Media are seen to promote an emphasis on time or space, in the type of knowledge communicated, the means of its dissemination, and the consequences to cultural development.

The civilization of ancient Egypt provides a context within which to discuss the cultural and epistemological implications of a media bias toward time. Emphasis on permanence, continuity,

and an accurate reckoning of time are reflected in the stone media of pyramids, temples, and sculpture, monuments to monarchy settled in the shadow of the Nile. The introduction of the medium of papyrus released thought from the burden of stone, while encouraging the growth of a monopoly of specialized writing through which the priesthood emerged as a powerful cultural force. An inability to balance the demands of monarchy and religion in the quest for control over time encouraged invasion from Assyria, Persia, Greece, and Rome.

The civilization of Rome, in its transition from republic to empire and the subsequent conquest of the Western empire, suggests the limitations imposed by media biased toward space, in this instance papyrus. An emphasis on the extension of territory and the dissemination of knowledge over space compels the use of armed force, and a reliance upon bureaucratic political organization at the neglect of a concern for time. Inability to accommodate the demands of Eastern religions for a consideration of temporal continuity, in addition to the burden of supporting an extended spatial empire created a climate of political and religious instability in which invasion was once again encouraged.

The Egyptian and Roman models illustrate the process by which a media bias left unchecked, facilitates the emergence of a monopoly of knowledge. Monopolies, in turn, are seen to encourage the specialization of knowledge, the centralization of power and authority, and ultimately, the restriction of cultural

learning and development. In such instances, the introduction of a new medium becomes advantageous.

The introduction of a new communication medium provides a stimulus to cultural activity and a revival of learning, by releasing new forms of knowledge and cultural values shaped by the emergent medium, or by crystallizing the achievements of the declining medium in the time period between the introduction of a new medium and its widespread acceptance by society. Classical Greece and Renaissance Italy provide examples of how new media (the alphabet, the printing press) may afford opportunities for an outbreak of cultural activity within the framework of the old medium. New media may also coincide with the disappearance of knowledge linked to an earlier media form.

Innis felt that sustained periods of cultural energy are dependent upon the protection of organized force within a stable social setting. He noted that the revival of culture or escape from the constraints of a monopoly of knowledge, often occured at the margins of culture, away from central tendencies towards conservatism and conformity.

The chapter concludes where Innis feels we must now begin, with an analysis of ancient Greece and its oral media and epistemology. An attempt is made to understand poetry as the medium of an oral culture, in particular, the implications to thought of poetic technique, where saying and thinking are inseparable; and the implications to culture of poetry as social encyclopedia, and as the vehicle of paideia. The poetic

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experience as <u>mimesis</u>, is contrasted with the detachment of thought from speech, of individual from community, facilitated by the spread of writing. The balancing of oral and written media is seen as crucial to the artistic outburst of the sixth and fifth centuries BC, and serves as a reminder of the need for a similar sense of stability in our own time.

Communication <u>and</u> The <u>Study</u> <u>of</u> <u>Civilization</u>

Harold Innis began his career not as a communications scholar, but as a political economist. He studied at the University of Chicago in the 1920's at a time when Robert Park, George Herbert Mead, and Thorstein Veblen were beginning to draw in outline the future tendencies of American sociological and economic scholarship.

It may be argued that Innis was, throughout his career, a student of civilization, empire, and culture: economics and communications were tools he employed to further his understanding of social dynamics, particularly the forces that contribute to the rise and fall of successful large-scale cultural organizations or empires. Fragmentary notes, quotations, insights, and speculations that have been collated and published as <u>the</u> <u>Idea</u> <u>File</u> <u>of</u> <u>Harold</u> <u>Adams</u> <u>Innis</u>,[1] clearly demonstrate that Innis had a longstanding concern with the
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[1]Harold Innis, <u>the</u> <u>Idea</u> <u>File</u> <u>of</u> <u>Harold</u> <u>Adams</u> <u>Innis</u>, ed. and with an Introduction by William Christian (Toronto: University of Toronto Press, 1980).

relation of communication to civilization. In fact, he felt that one of the outstanding features of our civilization has been our interest in the study of civilization itself, an indication of the bias and character of our culture.

> Spengler, Toynbee, Kroeber, Sorokin, and others have produced works, designed to throw light on the causes of the rise and decline of civilizations, which have reflected an intense interest in the possible future of our own civilization[2]

Although it was not until the end of his career that Innis published his two books on communication, Empire and Communications, (1950) and The Bias of Communication (1951),[3] the significance of communication formed an implicit undercurrent in his earlier regional studies of the Canadian fur trade, cod fisheries, and pulp and paper industries. Perhaps what is most dramatic in his later 'turn toward communication' is that Innis may not have felt adequate to the task until such time as illness compelled him to present his ideas in an explicit manner. Reading Innis' somewhat inchoate texts on communication one gains the sense that he was plagued by the problems that the translation into a printed medium, of complex, interrelated, inseparable ideas, presents.

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[2]Idem, Empire and Communications, Revised by Mary Q. Innis, with a Foreward by Marshall McLuhan (Toronto: University of Toronto Press, 1950; 1972), p. 3.

[3]Idem, The Bias of Communication, with an Introduction by Marshall McLuhan (Toronto: University of Toronto Press, 1951).

The Outlines of an Approach

Once he did come to address communication in a direct
manner he adopted what Marshall McLuhan saw as a European
perspective,[4] insofar as his interest lay with larger themes
than those troubling many of his American colleagues. Left with
an enormous amount of material to study Innis remarked,

> immediately one is daunted by the vastness of the
> subject and immediately it becomes evident that we must
> select factors that will appear significant to the
> problem.[5]

He selected communication media as a focal point for his
investigations, and chose the biases of time and space as the
most representative cultural watermarks through whose imprint,
essential cultural traits and processes of change could be
discerned. This allowed him to study a range of civilizations
(Egyptian, Babylonian, Greek, Roman) in depth without losing
sight of the larger issues they held in common, or the
circumstances peculiar to each.

Innis understood that media structure the cultural
environment rather than merely adding to an already existing and
fundamentally static milieu. In this sense, he regarded media
not just as technological hardware, but as powerful cultural
forces whose diffuse and unpredictable implications penetrate to
the most profound levels of cultural and individual life,

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[4]Marshall McLuhan, Introduction to The Bias of Communication, by
Harold Innis, p. xv.

[5]Innis, Empire, p. 5.

shaping our nature, behaviour, values, perceptions, and decisions, usually well below the level of conscious awareness. Further, to paraphrase Marshall McLuhan, Innis saw cultures as systems of active processes, as dynamic social constructs and not the passive wrappings within which we package our lives.[6] Essentially, he felt that the character of communication media--their spatial or temporal bias--significantly temper the character of civilization by contributing to the emergence of cultural values, the organization of social relations (interpersonal, economic, political), and the extension or restriction of knowledge and learning.

Innis did not regard all 'improvements' in communication as necessarily beneficial to society, and he was one of the first social theorists to draw concerted attention to the cultural disturbances that "sudden extensions of communication" bring. He understood that a change in media introduced complex and paradoxical social changes, including profound cultural and psychic dislocations[7] that left a civilization susceptible to internal and external disruption. While periods of stress and

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[6]Marshall McLuhan, Understanding Media: The Extensions of Man (New York: McGraw-Hill Book Co., 1964; New American Library, Mentor Books, n.d.), p. viii.

[7]There is a substantial body of historical research to complement Innis here: Edward Sapir and Benjamin Whorf on how changes in language can transform our understanding of the world; Edmund Carpenter on the trauma and psychic disruption produced by the introduction of new communication technology; Jack Goody, on the form of cognitive activity a medium of communication permits; and Marshall McLuhan, on the alteration of sense ratios and the adjustment of perception demanded by any new technology.

imbalance such as those prior to or following a change of media can lead to crisis, Innis also saw crises as opportunities for cultural brilliance or revival. He noted that certain civilizations, notably classical Greece, were able to use the advantages afforded by a declining communicative bias or medium to produce a tremendous outpouring of intellectual and artistic wealth.

Innis argued that the constant introduction of new communication media reinforces cultural instability and increases "the difficulties of recognizing balance let alone achieving it."[8] He felt that rapid advances in communication generate confusion as people try to keep pace with new technologies, and to adjust to the social, intellectual, and moral changes they introduce. Hence, he spoke of the paradoxical relationship in which "improved communication smothers ideas and restricts concentration and development of ideas."[9]

During the past century, advances in communication media have increased geometrically as the capacity to communicate has extended spatially, insofar as the emphasis of the telegraph, telephone, satellites, and computers has been on improving communication by a telescoping of long distances and a contraction of time. Thus, McLuhan observed, "the 'message' of any medium or technology is the change of scale or pace or

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[8]Innis, Bias, p. 140.

[9]Idem, Idea File, 2/7, p. 7.

pattern that it introduces into human affairs."[10] James Carey, one of Innis' foremost commentators notes that as communication improves over distance there is a shift in perspective and concern "from local and regional units to national and international ones."[11]

At the same time, new media concerned primarily with the accelerated movement of information have made possible an avalanche of facts, figures, statistics, and documentation creating a situation in which knowledge, as information, is treated as a commodity requiring efficient transport from one location to another. In an atmosphere where communication implies little more than the 'traffic of ideas', Innis warned that the capacity to absorb and critically appraise this barrage has been neglected, and he referred to the "constant pouring out of words by printing industry and bewilderment created through inability to break through them."[12]

Cultural Values

The root of this bewilderment lies in the relation between communication media and cultural values. These Innis defined as

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[10]McLuhan, Understanding Media, p. 24.

[11]Carey, "Canadian," p. 38.

[12]Innis, Idea File, 5/12, p. 27. Here as elsewhere, Innis is concerned with print and mechanization and so the implications for new electronic technologies widely deployed after his death (early 1950's) must be inferred by the reader.

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"the way in which or the reasons why people of a culture think about themselves."[13] As such, they are not so much normative as epistemological, the basis of reflexive and reflective knowledge. Innis argued that cultural values "are part of the culture," that is, they reflect the historical conditions, including technological achievements of the society within which they arise. Thus, civilizations with different media or media biases will not encourage the same values: "The cultural values of an industrial society are not the cultural values of other societies."[14] More importantly, for Innis, the social turmoil accompanying the continual introduction of new media will be reproduced in epistemological confusion, and a sense of philosophical, if not ontological, malaise.

Because he saw that the relations between media and society were often paradoxical and contradictory, Innis resisted the temptation to offer causal or linear explanations, and avoided suggestions of temporal or technological determinism in his writings. Rather, he noted that communication media contribute, accentuate, stimulate, reinforce, favour, hasten, and facilitate the emergence of cultural traits and values.[15] That is, media may be said to release processes whose impact are felt throughout society although their origins may not be easily traceable or predictable.

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[13]Idem, <u>Bias</u>, p. 132.

[14]Ibid., p. 140.

[15]Innis, <u>Bias</u>, pp. 151, 127, 98, 24, 162, 148.

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The Bias of Interpretation

In addressing himself to the study of civilizations, Innis
was aware of the pressure of his own cultural biases that make
it difficult to unearth and evaluate earlier cultural values and
characteristics without some measure of distortion.

> We must all be aware of the extraordinary, perhaps
> insuperable, difficulty of assessing the quality of a
> culture of which we are a part or of assessing the
> quality of a culture of which we are not a part. In
> using other cultures as mirrors in which we may see our
> own culture we are affected by the astigma of our own
> eyesight and the defects of the mirror, with the result
> that we are apt to see nothing in other cultures but the
> virtues of our own.[16]

Marshall McLuhan has suggested that Innis took this
vulnerability of the scholar and made it "the prime opportunity
for research and discovery." He argued that by focussing
attention on the biases of culture and communication as revealed
through dominant technological forms such as media, Innis was
able to disclose both the character of civilization and those
blindspots of culture that elude the consciousness of its
members.[17]

For example, Innis remarked:

> We are perhaps too much a part of the civilization which
> followed the spread of the printing industry to be able
> to detect its characteristics.[18]

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[16]Ibid., p. 132.

[17]McLuhan, Introduction, _Bias_, pp. xi, xii.

[18]Innis, _Bias_, p. 139.

He maintained that although we are quick to praise the principle of freedom of the press, perhaps the hallmark of Western democracy, it is more difficult for us to recognize when that freedom becomes licence,[19] and our liberties of thought and expression are threatened or constrained by press monopolies: "Civilizations have their sacred cows." In our inability to recognize the limitations of our own civilization, including our values and habits of thought, we repeat the error of all civilizations that believe in their originality and superiority to others: "Perhaps the obsession of each culture with its uniqueness is the ultimate basis of its decline."[20]

One of the more visible arenas in which this tendency toward ethnocentric myopia is expressed, is in our attitude toward history. It seems perhaps cliche that Innis writes, "history tends to repeat itself but in the changing accents of the period in which it is written."[21] Yet, this axiom suggests the dilemmas of historical interpretation, and the role of communication media as both hermeneutic devices, and vehicles for the reconstruction of history to suit the concerns of the present.

The difficulties posed by the study of other civilizations include not only a concern for the distorting influence of media biases and cultural values, but as well, the availabilty of

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[19]Ibid., p. 157.

[20]Ibid., pp. 139,133.

[21]Ibid., p. 61.

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existing records. The very study of civilizations implies a bias in our own learning, and in our media of communication as the instrument of appraisal.

> The significance of a basic medium to its civilization is difficult to appraise since the means of appraisal are influenced by the media, and indeed the fact of appraisal appears to be peculiar to certain types of media. A change in the type of medium implies a change in the type of appraisal and hence makes it difficult for one civilization to understand another.[22]

Mechanized media of print seem particularly ill-suited to the study of an oral tradition such as classical Greece. It may be impossible for us to present more than a fragment of the Greek experience, imprisoned as it is, within the envelope of written records.

> We have no history of conversation or of the oral tradition except as they are revealed darkly through the written or the printed word.[23]

Similarly, early written records that seem quaint or archaic, may have been orally composed, and thus less suited to literate translation.

Since some media are more durable than others we necessarily have a greater and livelier record of certain civilizations than others. Innis suggests that the bias of some studies toward religion, can in part be explained by the fact that religious cultures employ media that emphasize continuity and durability, and therefore have a greater incidence of

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[22] Idem, _Empire_, p. 9.

[23] Idem, _Bias_, p. 9.

epistemological survival.[24]

> Historical writing is distorted by over-emphasizing
> periods and regions in which durable materials prevail
> and under-emphasizing periods and regions in which
> impermanent or unknown materials prevail.

Other civilizations that have valued administration or law

tended to favour media that are easily transported over long

distances, lightweight, and therefore less likely to endure the

exposure to time.

> Papyrus has practically disappeared, whereas clay and
> stone have remained largely intact, but clay and stone
> as permanent material are used for limited purposes and
> studies of the periods in which they predominate will be
> influenced by that fact.[25]

In many instances our historical understanding is severely

attenuated by the absence or disintegration of early, quite

possibly organic, media forms, or by our dismissal of possible

communication technologies. Lyall Watson in Lightning Bird,

recounts the story of Adrian Boshier, an English adventurer

living in the African bush who provided the evidence for

palaeontologist Raymond Dart's theory of osteodontokeratic, or

bone-tooth-horn culture, that he felt preceded any of the

recognized Stone Ages. The latter, Dart felt, were based less on

technical validity than administrative convenience. In tacit

support of Innis' views Watson writes:

> One of the problems is that we have become used to
> defining man as a tool-using or tool-making animal, and
> concentrating all our attention on the material remains
> of early culture. We have become obsessed in particular

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[24]Ibid., pp. 33, 34.

[25]Idem, Empire, pp. 116, 9.

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with stone tools, perhaps because of their permanence
and unquestionable status as human artifacts. And we
have ignored nonmaterial, less permanent remains that
might well have had more contemporary weight. In our
haste to collect and classify the stones, we miss the
simple things, the symbols, the evidence of behavior,
and the possession and organization of knowledge.[26]

Although many studies of civilization share these problems,
Innis felt that the study of Greek civilization presented
further difficulties simply because its influence on all
subsequent Western civilizations has been so pronounced.

In attempting to use other civilizations as mirrors by
which we may understand our own we are exposed to much
greater dangers in studying Greek culture and its
successors since our own culture has been profoundly
influenced by it.[27]

Literature, philosophy, and politics are but three facets of
Western culture that still echo the concerns and recognize the
framework laid by classical Greece.

Communication and Empire

Innis' approach to the study of civilizations emphasized
their success in two dimensions: duration and extension of
territory, or control of time and space. He proposed the term
empire to refer to those enduring and culturally rich societies
that managed to effect a balance between biases of time and
space, between oral and written modes of communication thereby
supporting opportunities for creative thought. The sporadic
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[26]Lyall Watson, Lightning Bird, (London: Coronet Books, Hodder
and Stoughton, 1982), p. 10.

[27]Idem, Bias, p. 135.

incidence of successful empires in Western history indicates the difficulties involved in reconciling antagonistic biases and limitations conducive to the growth of empire.

However, the concept of empire has further, perhaps more powerful connotations for Innis. James Carey has written of the implication in Innis' writings that cultures be seen "as forms of thought."[28] Perhaps a more accurate phrase, to borrow from Gregory Bateson, would be "ecologies of ideas," or communicative structures.

Despite the fact that he pays considerable attention to the role of political and economic factors in the process of civilization and he addresses familiar examples of empire, notably the Roman empire, for Innis, empire refers less to a socio-political organization than to a network, pattern, or configuration of communication. His use of the term is perhaps unfortunate and confusing, insofar as we are accumstomed to associate empire with a social, economic, or political entity rather than a system of communicative processes. A further difficulty is that an Innisean empire need not be circumscribed by traditional historical parameters based on socio-economic or political analyses. Thus, the 'empire' of classical Greece may extend beyond or be compressed within what are considered its usual temporal boundaries. Similarly, the time-frame of the Roman 'empire' is pushed back somewhat in order to accommodate the gradual impact of writing on the decline of the Republic and
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[28]Carey, "Canadian," p. 35.

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the emergence of the Empire.[29]

The process of empire as communication is best reflected in Innis' work through the study of major cultural media.

Media and Epistemology

Innis was intrigued by the relation of communication technology to epistemology and cultural values. That is, he sought to articulate the way in which communication media set limits on what it is possible to say and think; and the interpenetration of media and cultural values, including social definitions of reason and truth. He recognized the influence of communication media in all generative social processes, both creative surges and periods of accelerating decline. Further, he demonstrated that the exploitation of media as imperial instruments had allowed certain individuals and elites to consolidate power, to extend their borders and their prestige, and to encourage cultural activity or an interest in learning. At other periods and under different circumstances media could just as easily be used to erode or seize power, to destroy centres of learning, or to wage war.

For Innis, the form of communication technology, the design of a medium itself, was epistemologically significant. Communication media, he felt, do more than just convey and
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[29]Foucault performs similar historical readjustments in his study of certain periods such as what he calls the 'classical age'.

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disseminate information; media are most potent in their ability to mold thought to fit their demands and limitations.

> We can perhaps assume that the use of a medium of communication over a long period will to some extent determine the character of the knowledge to be communicated.[30]

In discussing the ability of media to pattern or 'construct' the cultural context Innis implicity raised the theme of individual versus social knowledge.

If, as Innis suggests, we are unable to escape the demands that communication media--which are social rather than private resources--place upon the construction of knowledge, then knowledge too must be a social activity. Indeed, both the construction and articulation of knowledge are dependent upon socially acceptable and recognizable symbols: the alphabet, ideograms, musical notation, mathematical formulae, and so forth. The image of Rodin the individual thinker, like that of Descartes the solitary mind, presents a misleading view of knowledge as a private activity. Instead, as James Carey argues,

> thought is predominantly public and social. It occurs on blackboards, in rituals and poetic readings. The capacity of private thought is a derived, secondary talent, one that appears biographically later in the person and historically later in the species.[31]

Alisdair MacIntyre, in a critique of Descartes' solution to his epistemological crises argues that the Cartesian method of doubt fails to question the capacity to use language, in this

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[30]Innis, _Bias_, p. 34.

[31]Carey, "Canadian," p. 35.

case both the French and Latin languages.

> As a consequence he does not put in doubt what he has
> inherited in and with these languages, namely, a way of
> ordering thought and the world expressed in a set of
> meanings . . . It was perhaps because the presence of
> his languages was invisible to the Descartes of the
> Discours and the Meditationes that he did not notice how
> much of what he took to be the spontaneous reflections
> of his own mind was in fact a repetition of sentences
> and phrases from his school textbooks. Even the Cogito
> is to be found in Saint Augustine.[32]

Certainly, some aspects of thought and knowledge are uniquely

individual, such as works of art and great invention, and yet,

where does one draw the line between cultural heritage and

individuality? In The Act of Creation Arthur Koestler

demonstrates that innovation, whether in art or science, is

unlikely without a background of preparation that creates a

situation that is 'ripe' for discovery.[33] Innis' effort was to

demonstrate that communication media are an integral part of the

social background in which knowledge as creative invention, as

an act rather than a commodity, is possible.

Until the advent of electricity and electronics, in the

world prior to Edison and the Silicon Valley history had been

played and recorded within two distinct media forms, the oral

and the written.[34]

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[32]Alisdair MacIntyre, "Epistemological Crises, Dramatic
Narrative and the Philosophy of Science," Monist 60 (1977):
453-72, p. 458.

[33]Arthur Koestler, The Act of Creation, (London: Hutchinson and
Co. Ltd., 1969; Picador edition, Pan Books Ltd., 1977).

[34]Much of the world is still preliterate, while other enormous
areas remain primarily within a book-culture. The difficulties
of cross-cultural understanding from a communications
perspective, are very much the dissonance between different

These in turn have stimulated two main modes of thought: acoustic poetry and visual prose, with their attendant apparatus of preservation--the epic or saga, and the book. The hinge between the two, for Western civilization, has been the alphabet.

Alphabetic Structures of Thought

The development of alphabetic writing, as McLuhan and others have shown,[35] effected an "analytic dissociation" of the senses unknown to cultures whose writing systems are more gestaltist, such as the ideogram of the Chinese. In its exclusively visual, linear orientation alphabetic writing has favoured a particular form of knowledge--sequential logic, where ideas follow one another in an orderly chain of reasoning. Whereas preliterate consciousness is inclusive, simultaneous, encompassing all the senses and faculties, writing makes possible the separation of ear and eye, of reason from emotion, imagination, and commonsense: "We have confused reason with literacy, and rationalism with a single technology."[36] In such circumstances propaganda becomes the dominant style of language
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[34](cont'd) media and cognitive worlds.

[35]See Understanding Media and The Gutenberg Galaxy: The Making of Typographic Man (Toronto: The University of Toronto Press, 1962; New American Library, Signet Books, 1969), for a discussion of McLuhan's and others' views.

[36]McLuhan, Understanding, p. 30.

as the Orwellian nightmare of 'peace through war' becomes an acceptable form of amputated logic.

The invention of moveable print introduced further nuances into Western knowledge and society. Whereas in manuscript culture books were intended for oral recitation, under the pressure of mechanized print the 'reader' gradually became drawn into a visually organized, introspective world, autistic in comparison to oral traditions. Cogito ergo sum seized Western consciousness whereas before, thinking was inextricably bound to speaking and/or reading aloud. In this century, James Joyce and e.e. cummings have forced readers to re-explore their auditory sensibilities through punctuation (or the lack thereof) that compels their works to be read aloud.[37]

Innis felt that under the pressure of mechanization language loses its vitality and flexibility, and thought becomes trapped in a cycle of endless definitions and semantic debates. He felt that one of the factors contributing to the genius of Shakespeare was the restriction on publishing in sixteenth century England that delayed the impact of mechanization, such that Shakespeare was able to capitalize on a language not yet "repressed by print."

> In Athens, tragedy flourished before writing was firmly established and in England before writing had developed its overwhelming power.[38]

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[37]See McLuhan, Gutenberg Galaxy.

[38]Innis, Empire, p. 148.

The flexibility of the alphabet and small number of characters made it readily adaptable to machine industry. However, the divisive influence of the alphabet was extended as printing demanded a division and specialization of labour unfamiliar to manuscript society:

> The interrelation and unity of the arts in which the production of manuscripts meant writing and painting, which in turn are influenced by sculpture and architecture, was destroyed.[39]

With the transition from a handicraft to an industrial enterprise, the pattern of linear rationality and specialization was repeated in the design of factories where manufactured goods could be assembled piece by piece as they progressed along a conveyer belt or similar device. Even time itself was broken down into units or 'phonemes' "suited to the needs of the engineer and the accountant,"[40] as coffee breaks, lunch hours, and time clocks construct a uniform routine for workers, day after day, mimicing the characteristics of uniformity and repeatability introduced by the printing press.

Innis argued that mechanized communication technologies are inherently inflexible, creating "grooves" that channel the thought of readers and writers in much the same manner as the industrial workplace channels the movements, actions, and behaviour of employees in regular patterns. He felt that this tendency toward habit-formation made mechanized media more

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[39]Idem, Bias, p. 127.

[40]Ibid., p. 140.

resistant toward change and less able to adapt to social demands for change. Thus, he commented that improved communication was often accompanied by the entrenchment of authority.[41]

The Textbook as Media

The mass production of books made possible through industrial techniques has amplified the impact of print media on Western knowledge, particularly in the field of education. The rise in importance of the textbook has discouraged the use of other communication media (debate, conversation) as educational forms.

> Dialectical discussion in class characteristic of a bookless age declined with the increasing importance of the authority of the textbook.[42]

Innis believed that large, complex ideas could only be grasped in small group discussions through the exchange of ideas with others in face-to-face interaction.[43] Books make little provision for feedback and metacommunication encouraging instead, an attitude of detached and isolated rumination. Thus, he challenged educators to provide a 'link' between the written and oral traditions by relating books to conversation and oral education.

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[41]Idem, Idea File, 2/42, p. 12.

[42]Idem, Empire, p. 138.

[43]Idem, Idea File, 5/205, pp. 59-60.

Further, textbooks often do little more than provide
simplified summaries of currently accepted knowledge. Rarely do
they explore the 'losers', the unpopular theories, the failed
ideas that are part of the background context of what we
legitimize through publication. And so, Innis argued that the
reliance upon textbooks also encourages the build-up of
monopolies of knowledge.

> There has developed a more extensive hierarchy of those
> who know more about books than others, and institutions
> to foster book knowledge and create hierarchies.[44]

Again, the emphasis is on the spatial extension of knowledge,
not over distance but in a compressed form in the collation of
information in encyclopedae, dictionaries, monographs, journals,
and textbooks.

The textbook as a symbol of print culture is immanently
suited to the classification of information and the
systematization of facts, the spatial organization of knowledge.
Innis felt that this fostered an attitude of conservatism in
education by creating an environment in which educational
institutions are more concerned with the preservation and
elaboration of already existing information, than with the
creation of new knowledge.[45] He suggested that such a tendency
could be seen in modern systems of examination that emphasize
the ability to "disseminate and receive information," rather
than the training of character or the release of intellectual

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[44]Idem, _Bias_, p. 214.

[45]Ibid., p. 204.

energy.[46]

> Education is apt to become a building up of mazes - teaching students to go through the maze and using the maze to test capacity.[47]

Throughout his work Innis noted that the decline of empire coincided with a neglect of cultural and intellectual activity, with habituation and stagnation in learning. He felt that our emphasis on technical innovation and spatial extension in which invention and innovation are subordinated to the demand to produce "more and better mousetraps,"[48] was inviting just such a decline in learning and in the position of culture.

The Bias of Media

Marshall McLuhan, famous for his aphorism 'the medium is the message', warned that by focussing our attention on media content we lose sight of the medium itself as well as its underlying assumptions.[49] Innis felt that one way of gauging media assumptions was to consider their capacity to extend or disseminate knowledge over time and space: "The concepts of time and space reflect the significance of media to civilization."[50] He reasoned that knowledge will betray a temporal or spatial

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[46]Ibid., pp. 84, 209.

[47]Idem, Idea File, 5/68, p. 36.

[48]Idem, Bias, p. 140.

[49]McLuhan Understanding, p. 24.

[50]Innis, Empire, p. 7.

bias in accordance with that of communication media, and that such knowledge, learning, skill, values, and other cultural resources will be of decisive importance to the character and quality of civilization: "The relative emphasis on time or space will imply a bias of significance to the culture in which it is imbedded."[51]

The study of history indicated to Innis that there was a correlation between time-biased media and religious or dynastic civilizations, and between space-biased media and bureaucracies of a militaristic or industrial nature.[52] If a bias toward time or space was effectively exploited, one group could gain a monopoly over knowledge, whether sacred or secular. Before considering the bias of communication media, we must be clear as to what Innis understood a medium of communication to be.

Innis understood communication media to include any form or technology for the production and reproduction of knowledge, custom, and experience from clay, stone, papyrus, and parchment, using such techniques as pictographs, epigraphs, hieroglyphs, and alphabetic writing to print, radio, television, satellites, and computers. Equally important to Innis, were oral media of communication including epic poetry, tragedy, sagas, and stories. Media therefore, refer to a broad range of communication forms that encompass the simplest and most complex symbolic and technological inventions for the extensions of

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[51] Idem, *Bias*, p. 33.

[52] Idem, *Empire*, p. 170.

culture and knowledge through time and space.

Further, Innis had the unique ability to see libraries and museums, horses, cathedrals, and sculpture as communication devices insofar as they facilitate efficient communication. Gothic architecture can be seen to have assisted in the consolidation of a religious monopoly over time by emphasizing continuity and permanence of knowledge and tradition, while a network of roads and the use of horses to maintain communication by post affords greater control over extensive political territory or space.

Time

Communication media with a bias toward time may be characterized by their durability, difficulty of transport, or reliance upon such heavy materials as stone or clay. Time-biased media emphasize knowledge felt to have enduring, perhaps eternal qualities, such as religious ethics, social laws, cultural norms, and traditional wisdom, including the wisdom of Gods and deities. Such media reflect a concern with continuity, permanence, and the attempt to gain control over time in the face of changing historical conditions. As such, they have tended to support the position of monarchies and religion. The civilization of ancient Egypt provides one example of a rivalry between monarchy and religion for control over time, that was in large part, a competition between different media of

communication.

Egypt: The Burden of Stone

The power of the Egyptian monarchy as reflected in the
architecture of the pyramids, indicates the importance of stone
as a medium of communication. Writing on stone, both difficult
and cumbersome, relied upon the use of a chisel and was
characterized by "straightness or circularity of line,
rectangularity of form, and an upright position." The dominance
of stone had implications not only for the style of writing,
hieroglyphics, but for the expression of thought in the
adornment and decoration of shrines, temples, tombs and
sculpture.

> From about 4000 BC the names of kings, wars, political
> events, and religious doctrines were written. The
> earliest documents were names and titles on sealings and
> vases, notes of accounts or inventories, and short
> records of events. Seals and wooden tablets with
> primitive script recorded the outstanding events of the
> Abydos reign.

The use of stone also "imposed enormous burdens on the
community,"[53] a tactful way of suggesting the cost in terms of
human lives, resources, and spent cultural energy that a
reliance upon stone demanded.

Although devices such as the pyramids, mummification, and
the idea of immortality--all part of an elaborate funerary

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[53]Idem, Empire, pp. 16, 14, 25.

ritual--enhanced the prestige of the monarchy (both living and dead), and secured its power from about 2895 to 2540 BC, the reliance upon a sidereal calendar, and competition from the new medium of papyrus hastened the decline of royal authority and the emergence of the priesthood as a powerful social and political force. In both instances, as in other facets of Egyptian history, the power of the Nile River looms large.

Annual flooding of the Nile has meant that the basis of power rests with those who can accurately predict the dates of floods. Although his writing is tentative in this area, and there is no documentary evidence to confirm the point, Innis suggests that the prominence of the priesthood after 2540 BC may have coincided with the discovery of a more efficient means of predicting floods according to a calendar dependent upon the sun rather than the stars.[54]

Innis notes that the shift from an absolute monarchy to a more democratic political organization involving a feudal clergy and royal officials, coincided with a shift from the communication medium of stone to that of papyrus, a native river delta product.[55] Its remarkable lightness and malleability freed the style of writing as the rush brush displaced the stone chisel, and allowed for a fresh emphasis on secular and administrative literature.

. . . Writing had been restricted to government, fiscal,
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[54]Ibid., p. 25; Bias, p. 35.

[55]Idem, Empire, p. 15.

magical, and religious purposes. With increase in use of papyrus, simplification of hieroglyphic script into hieratic characters in response to the demands of a quicker cursive hand, and growth of writing and reading, administration became more efficient.[56]

These developments led in turn to the growth of an organized civil service in which scribes held an important post as the recorders of rents and revenues.

> The scribe had the full qualifications of a special profession and was included in the upper classes of kings, priests, nobles, and generals, in contrast with peasants, fishermen, artisans, and labourers.[57]

The spread of writing on papyrus and the accompanying "democratic revolution," also led to the emergence of new religions, particularly the immortality cult of Horus and Osiris. Osiris was served by the God Thoth, sacred scribe and administrator, the inventor of letters and of magic writing. Osiris became the centre of "a popular and priestly literature to instruct people in the divine rights and duties,"[58] and in which the influence of the scribe was recognized in the significant positioning of Thoth to the other deities. Within this religious revolution the king became the incarnation of the king gods, and he in turn delegated power to professional priests.

The complex art of writing on papyrus required a long apprenticeship, while that of reading implied a similarly lengthy period of instruction. Specialization permitted a

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[56]Idem, Empire, p. 17.

[57]Ibid., p. 24.

[58]Ibid., pp. 17,18.

monopoly of knowledge under the priesthood to develop, while the importance of the scribe prevented the emergence of a system of prophets. The complexity involved in using papyrus as a communication medium, including its preparation and the elaborate system of writing developed, encouraged the growth of marginal, that is, non-monopolistic forms of knowledge at the fringes of Egyptian civilization.

> Complexity favoured increasing control under a monopoly of priests and the confinement of knowledge to special classes. Monopoly of knowledge incidental to complexity coincided with the spread of magical writings among the people.[59]

The impact of papyrus on Egypt was profound. Not only did it usher in a period of great political and religious confusion and reorganization, but it allowed Egypt to become vulnerable to attack from outsiders.[60] By a coordination of the monarchy and the priesthood, Egypt was able to expel the Semetic peoples who had ruled from 1660 to 1580 BC, and to form the basis of a successful empire that would include Syria and Palestine, extending from about 1460 to 1360 BC.[61]

Although the monopoly of papyrus allowed the Egyptians to resist Assyrian and Persian attempts to establish empires in Egypt, it also presented insuperable problems to the Egyptian

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[59]Ibid., p. 24.

[60]Ibid., p. 19.

[61]Ibid., p. 20.

empire itself.[62] Unlike the Sumerians, who developed a system of writing that included vowels and permitted of greater flexibility, the Egyptian script remained cumbersome and restricted in its development. Under the monopoly of the priesthood and scribes, a breach occurred between writing and speech that promoted a concern for style rather than content, resulting in a literature of artificiality and inflexibility. The implications of this limitation in literature and thought proved disastrous to the Egyptian effort at empire:

> A monopoly of knowledge supported by a difficult script resisted demands for change and brought the Egyptian Empire to an end.

Unable to maintain a successful fusion between monarchy and priesthood, and thus a balance between political and religious aspirations, the empire faltered:

> Monopoly over writing supported an emphasis on religion and the time concept, which defeated efforts to solve the problem of space.[63]

The extension of knowledge over time has relied extensively on heavy materials such as stone and clay. Their durability, as witnessed in the construction and decoration of sculpture and architecture, is an indication of the intransient nature of the knowledge communicated through such media, and the conservative influence of the concept of time.[64] Innis provides a considerable key to the understanding of civilizations that may

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[62] Idem, Bias, pp. 19,22; Empire, p. 20.

[63] Idem, Bias, p. 36; Empire, p. 25.

[64] Idem, Bias, p. 64.

not have left their mark in writing, but that nonetheless

communicate with us through their non-literate or non-alphabetic

media of communication:

> . . . With a restricted written tradition in the empires
> of Babylonia and Egypt emphasis was given to
> architecture and sculpture in the round, in temples,
> palaces, and pyramids. In the south Sumerian plain,
> dwellers used the column, arch, vault, and dome, and
> constructed ziggurats of solid brickwork in their
> temples.[65]

In such cases where there are few or no written records, the

medium may indeed be the only message we are left to decipher.

Manolis Korres, the 35 year old architect in charge of the

restoration of the Parthenon agrees:

> "The Parthenon is an embodiment of ideas in stone," he
> explains. "One can read the ideas by studying the
> stones. We are bonded to our own time, but this is a
> faithful approach to other ages."[66]

Throughout the history of the West, religion has struggled

to gain control over time, often in competition with monarchies,

the State, and recently, industry.

> The concern of religion for the domination of time
> evident in stories of the flood designed to show that a
> past had been wiped out and that a new era began, in the
> beginnings of Egyptian time, in the history of Greece
> and Rome continued in the Christian era.[67]

In civilizations such as Egypt and Babylonia which were

dependent upon agriculture and the demands of the Nile, Tigris,

and Euphrates rivers, the prediction of floods, the

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[65]Idem, Empire, p. 44.

[66]Tony Leighton, "Classical Revival," Equinox Sept./Oct. 1984:
66-80, p. 74.

[67]Idem, Bias, p. 70.

establishment of planting and harvest days, compelled an early

interest in the accurate accounting of time. The declaration of

festival and holy days allowed greater control over daily life,

that reached a peak perhaps in the Middle Ages:

> Spread of monasticism and the use of bells to mark the
> periods of the day and the place of religious services
> introduced regularity in the life of the West.
> Sun-dials, whose usefulness was limited in the more
> cloudy skies of the north, gave way to water clocks and
> finally to devices for measuring time with greater
> precision. The modern hour came into general use with
> the striking clock in the fourteenth century.[68]

The discovery of periodicity in the heavens strengthened

the position of religion in Babylonia,[69] although elsewhere the

implcit threat to the Church's monopoly over time from

'stargazers' has been a source of tension: "The church

recognized at an early date the threat of astronomers to the

monopoly over time and treated them accordingly."[70] Secular

attempts to control time include the system of reckoning time in

terms of the reign of kings.[71] In most civilizations secular or

religious, the calendar has been a potent communication medium.

This can be noted in the widespread practice of reforming

calendars to suit the needs of government and rulers. Recent

examples include the French Republic after the Revolution, or

the substitution of the Gregorian calendar for the Justinian in

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[68]Ibid., p. 72.

[69]Ibid., p. 99.

[70]Ibid., p. 72.

[71]Ibid., p. 65.

post-Tsarist Russia.[72]

Control over time for the purposes of calculating taxes and revenues formed an important part of the Roman Empire.[73] In the Babylonian and Sumerian empires of Mesopotamia, the demands of trade and commerce between widely scattered city-states contributed, Innis speculates, to the growth of Sumerian writing as an offshoot of mathematics.

> The earliest clay tablets include large numbers of legal contracts, deeds of sale, and land transfers, and reflect a secular and utilitarian interest.[74]

More recently, the control of time has facilitated the use of credit, and the development of insurance which presupposes the calculation of a predictable future.[75]

Space

Communication media with a bias toward space are traditionally lightweight, easily conveyed over long distances, and reliant upon somewhat fragile material such as papyrus and paper. In contrast with a concern for control over time and problems of continuity, space-binding media accentuate control over vast distances and thus anticipate a reliance upon armed force as a means of maintaining efficient administration. A

[72]Ibid., pp. 73, 71.

[73]Ibid., p. 70.

[74]Idem, Empire, p. 26.

[75]Idem, Bias, p. 72.

concern for the geography of culture, manifest perhaps in militarism, rather than history predominates. Technologies such as the stirrup, mariner's compass and lens[76] increase the possibilities for spatial organization.

Space-biased media have favoured the development of transportation networks and trade routes as in the Roman empire, and provided an impetus to commerce and industry.[77] Communication over extensive areas compels an interest in the vernacular,[78] and encourages the spread of writing. The latter, allows for an emphasis on classification and centralization of knowledge, as in the construction of libraries and a dependence on books and other written materials. Ptolemy's early cataloguing of geographical information and his cartographical maps of the earth evidence a concern with space also demonstrated in the keeping of records, the codification of laws, and the growth of bureaucratic apparatus.

Problems of time are apt to be neglected; short-term advantages in political or military activities displace a concern for tradition, religion, and continuity except insofar as they may be favourably exploited. The civilization of ancient Rome, particularly its transition from republic to empire, reflects a concern with control over space dependent upon the spread of writing, and access to the medium of papyrus.

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[76]Ibid., p. 128.

[77]Ibid., p. 126.

[78]Ibid., p. 124.

Rome: The Risks of Expansion

During the period of its most active territorial expansion
from the third and second centuries BC until the fall of the
Western empire in AD 476, Rome found itself both enriched and
thwarted by its contact with other cultures, most notably
Hellenism.

> . . . The achievements of a rich oral tradition in Greek
> civilization became the basis of Western culture. The
> power of Greek culture to awaken the special forces of
> each people by whom it was adapted and to lead them to
> develop shapes of their own has been described with
> particular reference to Rome.[79]

Innis saw the disarray of the Hellenistic kingdoms after
the military successes of Philip and Alexander, as inviting
invasion from other cultures, much as the confusion in Egypt
following the introduction of papyrus had led to foreign
occupation. Greece was vulnerable to invasion on two fronts:
from the East in the form of mystery religions and cults, and
from the West through conquest and the use of armed force.

> . . . The Olympian religion and the city-state were
> replaced by philosophy and science for the educated and
> by Eastern religions for the common man. Communication
> between those under the influence of philosophy and
> those under the influence of religions became
> increasingly difficult. Cultural divisions facilitated
> the development of a class structure. Divisions between
> Athens and Alexandria and Pergamum followed the
> increasing emphasis on the written tradition, weakened
> science and philosophy, and opened the way to religions

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[79]Idem, Empire, p. 85.

from the East and force from Rome in the West.[80]
As the heir to Hellenism, Rome itself was to inherit these
problems.

Having been more or less isolated from the splendour of
Greece in the fifth and fourth centuries BC,[81] the impact of
Greek culture on the Roman republic following the three Punic
Wars with Carthage and the conquest of Corinth in 146 BC, was
abrupt and overpowering. In capturing Greece, Rome was subject
to the invasion of Hellenic culture, especially in literature
and cultural learning. The 'confusion' of borrowing from an
earlier culture would lead Rome to rely increasingly on force as
a means of achieving political and cultural stability. Whereas
Alexander had managed a form of cosmopolis, under the influence
of Rome and the impact of writing, the political organization of
the city-state was weakened, and the ensuing gap between people
and government created a space for the emergence of absolutism.
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For Innis, the birth of Latin literature emerged with
Livius Andronicus, a Greek who migrated to Rome in 272 BC, and
subsequently provided the first Latin translation of the
Odyssey.[83] The introduction of Greek drama, comedy, and the
choral lyric throughout the third century, perhaps at the

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[80]Ibid., p. 96.

[81]Ibid., p. 86; Bias, p. 44.

[82]Idem, Empire, p. 90.

[83]Ibid., p. 96.

request of returning soldiers; the establishment of schools of

grammar; the emphasis given by Cicero to Stoicism; the

importation of libraries following the spread of writing, all

reinforced the influence of Greece on Rome: "Hellenistic

civilization warped the development of Rome toward an emphasis

on force, administration, and law."[84]

The influence of Greek learning and knowledge on the

development of Roman law, was for Innis, an outgrowth of a

flexible oral tradition suited to the demands of social change.

This became evident in

> the rise of the plebians, and in constitutional changes,
> in the activity of lawyers, and in the creation of
> machinery designed to meet the increasing demands for
> adjustment.[85]

The reforms of Draco, Solon and Cleisthenes were paralleled in

the decemivir's code or Twelve Tables of 451 and 450 BC. Here,

despite the intrusion of writing, Innis notes that

interpretation remained with the college of pontiffs, who had

maintained a monopoly of knowledge over unwritten laws.[86] Stoic

philosophy introduced the principles of natural justice and

universal citizenship,[87] and Innis speculated that this was in

fact an appeal to the oral tradition, and a testament to its

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[84]Ibid., p. 98; Idem, Bias, p. 12.

[85]Ibid., pp. 44-45.

[86]Idem, Empire, pp. 86-87.

[87]Ibid., p. 98.

indestructability.[88]

The influence of the oral tradition was most evident in the political oratory of the Republic, in the Senate, and the writings of Cicero, under whom written speech approximated oral speech allowing him to dominate "the history of belles-lettres in Europe."[89]

Most importantly perhaps, contact with the Hellenistic states afforded Rome access to Alexandria, the cultural centre of the Mediterranean, and to supplies of Egyptian papyrus. Alexandria had been built as a means of offsetting the influence of the Thebian priests.[90] Access to abundant supplies of papyrus led to an emphasis on writing evident in the construction of the Alexandrian library. As the centre of cultural activity in the Mediterranean, Alexandria allowed for the cross-fertilization of ideas from different cultures, especially given the vast territories that the conquest of Alexander brought within the Hellenic fold.

> Alexandria brought the philosophical or religious ideas
> of East and West, of India, Palestine, Persia, and
> Greece to a focus.[91]

In Alexandria Innis noted a feature common to empires: the creation and destruction of cities, notably capitals, as a means of enhancing prestige, and undermining the influence of earlier

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[88]Idem, Idea File, 7/38, p. 83.

[89]Idem, Empire, p. 97.

[90]Idem, Bias, p. 10.

[91]Idem, Empire, p. 91-92.

empires.[92] This would be of decisive importance to the latter

Roman empire with the capture of Byzantium and its re-creation

as Constantinople.

The emphasis on writing, libraries, and museums in

Alexandria led scholars to concentrate on the writings of others

rather than the development of fresh ideas.

> The scholar became concerned with the conservation and
> clarification of the treasures of a civilization which
> had passed.[93]

The specialist of 'erudition and criticism' replaced the oral

poet of Homeric and classical Greece. In importing papyrus and

writing from Egypt, Rome also imported the stagnating effects

that the transition to a literate culture may entail, especially

as this is reinforced by a strong foreign oral tradition.

The impact of writing and papyrus on Rome were evident in

the attention given to libraries, the production of books, and

the growth of a centralized bureaucratic administration. As in

the case of Pergamum,[94] where Eumenes II attempted to offset the

influence of Alexandria by developing his own library,[95] Rome

borrowed the technique of using libraries as imperial

instruments, as indicators of cultural prominence. In some

cases, libraries were seized and brought to Rome as part of the

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[92]Idem, Idea File, 7/19, p. 80

[93]Idem, Bias, p. 10.

[94]One of the four dynasties created after Alexander's death, and
the centre of Stoic philosophy.

[95]Ibid., p. 10; Empire, p. 94.

plunder of war. This practice was common in the later years of the republic:

> After the defeat of Perseus of Macedonia (168 BC), the consul Aemilius Paulus brought the library of the king to Rome. Sulla brought the library of Apollion of Teus, including works of Aristotle and Theophrastus, from Athens to Rome.

The construction of indigenous libraries began with Augustus who built two.

> Tiberuis, Vespasian, Trajan, and Hadrian continued the imperial practice. By the fourth century Rome possessed at least 28 libraries.[96]

By the first century AD private libraries flourished, an indication of "conspicuous consumption." Expansion of Rome to the western provinces and to Spain supported an important export business in Latin books. Books in turn, became the tools of imperial "propaganda".[97] Augustus, following the Ptolemies, provided patronage for Horace and Virgil. After his death and the end of the Pax Augusta, literature entered a period of decline. Emphasis was given to criticism and the literal translation of books. The declining importance of the Senate and restrictions on the oral tradition commensurate with the rise of imperial bureaucracy, destroyed the position of political oratory and strengthened the role of rhetoric: "Oratory and history were subordinated to the state, the theatre was

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[96]Idem, Empire, pp. 98,105.

[97]Ibid., pp. 105, 106.

displaced by gladiatorial games."[98]

The impact of writing on Roman law could be seen in the codification of laws, the introduction of stenographers to the Senate in 63 BC, and the appearance of an official gazette in 59 BC.[99] Innis saw publication of Senate proceedings as leading speakers to a greater consideration of the public, and encouraging a "matter-of-fact style," that virtually erased the influence of Cicero. These measures were in turn reinforced in 52 BC with the limitation of time imposed on pleas in court.[100]

Access to papyrus and the spread of writing facilitated the growth of a centralized bureaucracy crucial to the administration of Rome's expanding territory.[101] Papyrus, a product of the Nile delta, had supported an imperial bureaucracy in Egypt under the Ptolemies, and both the communication medium and its attendant form of political organization were imported to Rome.[102] Papyrus was a light, compact medium that could be easily transported. Augustus, following the Persian example established a state post using relays, something that could never have been accomplished with a medium such as stone or clay.

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[98] Idem, Idea File, 5/14, p. 27; Bias, p. 12.

[99] Idem, Empire, p. 100.

[100] Idem, Empire, pp. 100-101; Bias, p. 45.

[101] Ibid., p. 47; Empire, p. 7.

[102] Idem, Idea File, 7/19, p. 80.

Like the Nile river itself, papyrus had "centralizing
tendencies" suited to the development of Roman bureaucracy.

> The swamps of the Nile delta supplied a convenient,
> reasonably priced material for an administrative
> organization covering territory from Britain to
> Mesopotamia.[103]

The concentration of power in a bureaucracy dependent upon
papyrus and the weakened power of the Senate, contributed to the
emergence of absolutism and to the office of emperor.[104] The
rise of an absolute emperor also gained support from the
polytheistic culture in Rome.[105]

The accommodation of many gods and cults in Roman and Greek
civilization, facilitated the emergence of the "Emperor as a
God." In Rome, Innis saw that the dominance of writing and law,
and their increasing inflexibility contributed to the spread of
the oral tradition and religion, an example of how repressive
measures can release cultural forces in areas marginal to the
dominant communication apparatus.[106] Innis also noted that
religion might be indicative of a decadent political structure,
[107] or of the shift from a political structure dependent upon
one medium of communication to that biased in favour of a
different medium: "The spread of writing contributed to the

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[103]Idem, Empire, pp. 108,103.

[104]Ibid., p. 103.

[105]Idem, Bias, p. 13.

[106]Idem, Idea File, 29/44, p. 263; 6/34, p. 72.

[107]Ibid., 5/52, p. 34.

downfall of the Republic and the emergence of the empire.[108]

In those eastern countries with whom Rome came into contact (Syria, Asia Minor, Egypt, and Greece) people were encouraged to deify their rulers, and the practice of emperor worship spread to Rome. Pompey had been greeted as a God, and Julius Caesar was deified after his death, on January 1, 42 BC. Octavian, who defeated Antony and Cleopatra (the last living representative of divine monarchy in Egypt) at Actium in 31 BC, assumed the name of Augustus and named himself emperor in 27 BC. As successor to the Ptolemies,

> he himself necessarily became a God and by 9 BC was worshipped in the East as a saviour. The cult of the living ruler spread rapidly in the provinces after the long and prosperous rule of Augustus, and Caligula (AD 37-41) was probably declared a god before the Senate.[109]

The expansion of Roman territory to the East 'compelled' an interest in the problems of earlier empires, notably control over religion and organized time.[110] Deification of Roman rules, in particular the Caesars, was intended to provide a sense of continuity and legitimacy.[111] Yet, the demands of bureaucracy, and a large empire that faced increasing numbers of invasions from the east and west in the third century, created a greater dependence upon war and organized force, thus strengthening the position of the army, encouraging the rise of ambitious

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[108]Idem, Empire, p. 100.

[109]Ibid., p. 102.

[110]Idem, Bias, p. 114.

[111]Idem, Empire, p. 102.

generals, and reinforcing a sense of discontinuity.[112] Between AD 235 and 284 there were no less than twenty one Roman emperors.

Military campaigns in the east, the extension of trade routes, and the use of an eastern model in imperial political organization, "opened the way to the penetration of Eastern religions" that were 'mobilized' and "exploited" in the interest of the empire. Mithraism, the third century successor to the cult of Isis, spread rapidly through the armed forces.[113] while Christianity was largely a religion of the city proletariat. Christianity gained strength from its association with Greece; the New Testament was written in colloquial Greek, and until the second century AD Christianity was a Greek movement.[114]

The division of the empire into Latin West and Greek East with the establishment of Constantinople, indicated not only the demands of Roman bureaucracy, but reflected the growing importance of Christianity over other pagan cults. In the Council of Niceae (AD 325) Constantine recognized Christianity as the official religion of Constantinople, and exposure to the newer, more durable medium of parchment enhanced its prestige at the expense of other religions. Geographical separation of the empire reinforced problems of administration and differences in religion. Pagan temples were closed in AD 392, involving the

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[112]Idem, Bias, p. 113.

[113]Ibid., pp. 13, 114, 47.

[114]Idem, Empire, p. 110.

closure of pagan libraries; in AD 396 pagan worship was prohibited, and pagan festivals and their calendar were replaced by those of Christianity.[115]

The burden of trying to hold the empire together in the face of divisive religious conflict and the growing threat of invasion, allowed a weakening of force in the west, and led to the fall of Rome in AD 476, and the incorporation of the eastern empire into Byzantium. The limitations of the Roman empire were in large part, Innis maintains, the limitations of papyrus as a medium of communication and administration. Although papyrus was sufficiently powerful enough to facilitate the emergence of the empire, it could not satisfy the demands--institutional, military, economic, and religious--that such an extended territory required. The system of transportation and communication that enabled the coordination of the empire through the use of force, also provided an inroad for eastern religions, political systems, and cultural elements eventually destructive to the Roman attempt at empire.

The fragility of papyrus, limited to a life of three generations and a delicate technique,[116] as well as the inconveniences of the papyrus roll, invited competition from the newer medium of parchment. The deterioration of papyrus weakened

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[115]Idem, _Empire_, p. 113.

[116]Idem, _Bias_, p. 116.

authority,[117] and the monopoly of knowledge supported by papyrus as well as its attendant structure of political organization, were superceded by a monopoly of knowledge based on parchment and exploited by Christianity.

Media and Monopolization

In his discussion of media biases Innis illustrates how communication media may shape or restrict thought, reinforce or undermine cultural values, enhance or inhibit the consolidation of power, and encourage certain forms of political organization at the exclusion of others. Within this concern for the social implication of communication media or technologies, Innis emphasizes the importance of understanding the processes and conditions that may lead from a media bias toward what he calls a 'monopoly of knowledge'.

In the two examples discussed above, the Egyptian and Roman empires, Innis noted that the collapse of empire coincided with the emergence of a monopoly of the dominant communication medium, and the unsettling of culture that ensued. As we have said, 'empire' was the term Innis used to describe a civilization that had managed to balance competing, often contradictory communication forces. He noted that empires collapsed or degenerated when that balance was offset by the monopolization of one media form.

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[117]Idem, Idea File, 5/55, p. 34.

Innis felt that a monopoly of knowledge arose where there
was a failure to check the bias of one medium of communication
with that of another. Through the manipulation and exploitation
of a given media form, for example the retention of a highly
complex script and resistance toward simplification, certain
peoples have been able to control the type of knowledge
communicated as well as the means of its dissemination.

Structural, Physical, and Cultural Processes

In a commentary on Innis, James Carey emphasizes three
aspects of the monopolization of knowledge that demonstrate the
extent of Innis' use of the term.[118] Structural monopolization
refers to the capacity of media for information storage and
retrieval. Here, the distribution of knowledge is linked to
those mechanisms of control that either enhance or diminish the
opportunities for access to stored data, by emphasizing
alternatively, the decentralization or centralization of
knowledge. In a structural sense, knowledge may either be
readily available to a large number of people, or sequestered in
computer banks, research institutes, government files, or the
memories of a select group of individuals. That the term
'classified information' also connotes secrecy, indicates that
the position of knowledge within an information system is

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[118]Carey, "Canadian."

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crucial. Similarly, the position of mediator (the scribe in a semi-literate society) involves considerable influence.

Physical monopolization addresses the dissemination of knowledge, and in that sense is closely linked to structural controls. Control of the means of distribution of knowledge allows for the exclusion of certain peoples and knowledges, and thus incorporates a normative dimension. Physically, the speed of movement of information may be of importance. The decisive advantage gained by those with advance warning of events or prices, has been evident from the early days of the telegraph in its relation to the stock market and news services, to the present world of computers and satellites.

Cultural monopolization concerns the control of conceptual systems or 'paradigms', and the relation of these to the form of communication through which they are articulated, in other words, the relation between media and epistemology. In examples ranging from the Medieval church to modern governmental and scientific institutions, Innis examined the efforts of groups to control the thought, knowledge, and behaviour of an entire society. A cultural monopoly of knowledge is essentially an exclusive control of the mechanisms for knowledge validation and socio-political organization.

Of interest in a cultural monopoly are the procedures for determining what constitutes truth, what qualifies as a valid fact, and who shall have access to these decision-making processes. Equally potent is the concommitant power to decide

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what is not valid, who will be denied access, and so forth.
Perhaps most potent, for Innis, are the monopolies that arise in
universities and intellectual circles and that define the norms
of academic research, the topics and themes worth pursuing, and
acceptable methodologies.

> Schools would grow up around a Freud or Keynes or around
> a paradigm like behaviorism that effectively monopolized
> a department or university or culture and cut off
> communication.[119]

A cultural monopoly of knowledge is thus directly linked to the
processes by which certain forms of knowledge and certain
peoples may be excluded from the larger cultural community. As
we shall see later, Innis argued that the rise in importance of
prose in ancient Greece contributed to a redefinition of the
oral tradition as pathological, and of poets as enemies of the
State.

Together, structural, physical, and cultural monopolies of
knowledge form what we might call monopolies of communication, a
term intended as a reminder that at all times we must regard
knowledge in relation to the larger social context. Monopoly by
definition, implies centralized control, whether of foodstuffs,
armaments, or information. In this senses, knowledge becomes a
commodity like any other. Monopolization is accompanied by
continual centre-margin tensions as peripheral peoples become
increasingly dependent upon external sources of 'supply' of both
information and media.

[119]Carey, "Canadian," p. 45. See also Thomas Kuhn, The Structure
of Scientific Revolutions.

Further, monopolization relies upon specialization of both communication skills and the knowledge conveyed through media. The specialization of knowledge into disciplines, its compartmentalization into books, journals, institutions, laboratories, and 'think tanks' encourages the spatialization (classification) of knowledge and the rise of expertise. Specialized institutions and personages (the doctor, the lawyer, the scientist) sever certain forms of knowledge from the broader cultural context, and invest them with considerable power. Innis warned that such division and fragmentation of knowledge made it "apparently hopeless to expect a common point of view," particularly with respect to social policy.[120]

In a monopoly situation, then, the power to decide what constitutes valid knowledge or urgent social priorities is taken away from the individual and the public sphere, and invested in a fraternity of surrogate citizenry--experts, specialists, and professionals. Carey comments,

> in extreme form we come to speak of a knowledge
> industry, and meanings are not dignified as knowledge
> until they are processed through that industry or
> certified by designated or self-designating occupations,
> classes, organizations, or even countries.[121]

When a medium of communication becomes the dominion of one group so that, as Carey notes, this group begins to identify its interests with the capacity or bias of that particular media

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[120]Innis, _Bias_, p. 190.

[121]Carey, "Canadian," p. 40.

form, biases harden into monopolies.[122]

Except for the oral tradition of Greece (in its pre-alphabetic and immediately post-alphabetic phase) the cultures and civilizations studied by Innis were written, or more recently, print cultures. Innis felt that written or printed traditions of communication were more susceptible to monopolization than oral traditions. Significantly, and paradoxically, the alphabet--that homogenizer of culture and thought--is the foundation for both printed and written communications that have historically tended toward specialization and monopolization.[123]

Monopoly and Cultural Boredom

The indications that a media bias has crystallized into a monopoly of communication and that the medium has outlived its usefulness may often be found when learning, knowledge, and cultural activity degenerate. Rigidity and restriction of media forms, knowledge, and political organization are signs of a declining medium of communication. The breakdown of a medium may be hastened by the pressure of external technological advances such as improved military or communicative capacity, or by internal deterioration such as the failure to accommodate

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[122]Ibid., p. 39.

[123]See, McLuhan, Understanding, pp. 84-90; Idem, Gutenberg.

competing cultural elements. The ensuing social instability creates conditions favourable to invasions of force or culture (language, knowledge, skills, customs), and the emergence of a new media form.

The entrenchment of media under monopolization leads to an entrenchment or restriction of knowledge and thought, and to social stasis. Innis saw that perhaps the greatest risk that a civilization faces, the nemesis of empire, arises from the stagnation of culture through boredom in knowledge and learning, what Nietzsche referred to as "declining strength, approaching senility, somatic exhaustion."[124] Innis speculated that cultural change could be seen in part as a reflection of boredom,[125] such as when the opportunities afforded by a communication·medium begin to erode and learning ceases to reflect originality.

Pushed to the extreme, any media form collapses and the effects reverberate throughout society, back to the core of knowledge it supported, creating an epistemological unsettling and confusion. Literacy pushed to the extreme brought specialization and the exclusion of the non-specialist, that in turn, invited competition from radio which transcends the problem of both literacy (the 'tyranny of erudition') and illiteracy.

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[124]Freidrich Nietzsche, "A Critical Backward Glance," in The Birth of Tragedy and the Genealogy of Morals, trans. Francis Golffing (New York: Doubleday & Co., Anchor Books, 1956), p. 9.

[125]Innis, Idea File, 3/1, p. 14.

Innis therefore, understood media to be 'eventually' inflexible,[126] and by virtue of their rigidity, capable of creating an environment--the emergence of a monopoly--in which the introduction of a new communication medium becomes advantageous. In this sense, he felt that monopolies, and therefore media themselves, "fall of their own weight,"[127] that is, they collapse under the burden of their own limitations. He felt that written media are inherently less flexible than oral media, and thus there is a greater need for revolution and drastic social change to unsettle a monopoly of writing or print.[128]

The consequence to culture of a change in media biases, is often a re-alignment of social relations and the creation of new forms of knowledge. New media allow for what Foucault calls an 'epistemological thaw', a melting down of frozen structures and habits of thought; a re-examination of the conditions and contents of truth, reason, and cultural values. The clash or possible hybridization of media forms in a society experiencing epistemological and technological confusion, may allow for a release of cultural energy in either the new or old media channels.

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[126]Idem, Bias, p. 34.

[127]Idem, Idea File, 27/130, p. 231.

[128]Idem, Bias, p. 7. Again, see Kuhn.

Media and Cultural Activity

Among the staggered and paradoxical effects of introducing
a new communication medium are a persistence of older patterns
of thought and cultural organization, and a delay or time-lag
between the introduction of a medium and its incorporation into
or restructuring of, cultural life.

As channels of communication (including institutions)
become increasingly restrictive or are threatened by new media,
those civilizations we acknowledge as great have used the
opportunities that a bias will for a time provide, to produce an
enormous residue of cultural brilliance in literature, the arts,
or sciences in something of a frantic race against the
approaching demise of time. Following the lead of Hume, Hegel,
and Nietzsche Innis saw examples scattered throughout the
history of the West of the "crystallization of culture" that
periodically occurs during the moments of a civilization's
decline, and the subsequent "fatigue" that follows a flurry of
cultural activity.[129]

The Paradox of Cultural Revival

Perhaps the greatest example Western history has recorded
of the 'flowering' of culture before its collapse, is the

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[129]Ibid., pp. 3, 133.

tremendous outpouring of Greek culture in the sixth and fifth

centuries BC, prior to the weakening of the oral tradition

hastened by the spread of writing and the availability of

papyrus from Egypt.[130] Nietzsche asked,

> Socratic ethics, dialectics, the temperance and
> cheerfulness of the pure scholar -- couldn't these,
> rather than their opposites, be viewed as symptoms of
> decline, fatigue, distemper, of instincts caught in
> anarchic dissolution? Or the "Greek serenity" of the
> later period as, simply, the glow of a sun about to set?
> [131]

Although Egyptian ports were opened to Greece in about 670 BC,

difficulties in obtaining papyrus which was produced under State

control and the strength of the oral tradition delayed the

encroachment of writing on Greek thought:

> With the spread of writing the oral tradition developed
> fresh powers of resistance evident in the flowering of
> Greek culture in the sixth and fifth centuries.[132]

The phonetic alphabet which the Greeks adapted from

Phoenician and Semitic-Sumerian alphabets, had been introduced

sometime before 700 BC, yet its impact was not felt until the

Hellenistic age, that is, after the period of Athen's great

cultural achievements. In his excellent study of the oral

foundation of classical Greece, Preface to Plato, Eric Havelock

remarks on the advantages that the delayed introduction of the

alphabet had for classical experience:

> Their supposed disadvantage in the competition for

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[130]Ibid., p. 43.

[131]Nietzsche, "A Critical Backward Glance," p. 4.

[132]Innis, Bias, p. 136.

culture, namely their non-literacy, was in fact their prime advantage.[133]

Innis suggests that because of its flexibility and easy adaptation to languages, the alphabet allowed for an efficient representation of sounds, subtle distinctions, and connotations that temporarily united sound and sight, thus reinforcing the oral tradition.[134] The ability of the phonetic alphabet to translate any language into "one and the same visual code"[135] emphasized the vernacular, and encouraged the preservation of regional knowledges and languages, as well as the writing down of myths.[136]

As writing spread with the Alexandrian conquests, the consequences to culture of the alphabet slowly emerged. Emphasis on writing led to the separation of speech and thought, the rise of monopolies incidental to writing, and ultimately encouraged invasion. With its tendency toward cultural translation, the alphabet remained closely tied to commerce and trade, and facilitated the expansion of political organizations over space, most notably in the Roman empire.[137]

The time-lag between the introduction of the alphabet and its full implications for classical thought and culture,

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[133]Eric A. Havelock, Preface to Plato (Cambridge, Mass: The Belknap Press of Harvard University Press, 1963), p. 128.

[134]Innis, Bias, p. 7.

[135]McLuhan, Understanding Media, p. 89.

[136]Innis, Empire, p. 43.

[137]Ibid., pp. 54-55.

suggests that among the 'advantages' a new medium affords is the opportunity for a revival or strengthening of cultural values and the social basis of civilization, for as long as the new medium (the alphabet, writing, papyrus) can be held at bay.

Elsewhere, Innis notes the impact of an infant printing industry on writing, painting, sculpture, and architecture in the Italian Renaissance of the fourteenth and fifteenth centuries:

> The perfection of the sculpture of Michelangelo supported by the wealth of Italian cities and the papacy and combining Christian and pagan traditions was the last gesture of a society destined to fall with the Italian city states, following the French invasions and the influence of the book . . . The painting of the Last Judgement reflected the doom of a culture based on stone, parchment, and painting.

The Middle Ages had expressed the scriptures through sculpture and architecture, however the expansion of printing "with its emphasis on the scriptures" meant that print could "overwhelm sculpture and architecture as interpreters of the scriptures."[138] An emphasis on the vernacular further helped print to destroy the monopoly of the church supported by the use of Latin. Innis notes with irony that Michelangelo designed the Vatican Library.

The spread of print and the technique of paper-making to Italy enabled Florence to blossom as,

> a second Athens in its concern for letters and the arts. Learning had been banked down in the Byzantine empire and broke out into new flames in the Italian

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[138]Idem, *Bias*, pp. 127, 128.

Renaissance.[139]

Classical Greece and Renaissance Italy shared the political organization of the city-state. Innis saw the independent Italian city republics, notably Florence, Genoa, Pisa and Venice as a revival of the Greek polis and evidence of the enduring influence of the oral tradition in Western history.[140] The revival of interest in the classics as noted in the writings of Petrarch and Boccaccio reinforced the influence of the oral tradition, and gradually weakened the monopoly of knowledge based on parchment and held by the Church.

Armed Force and the 'Encouragement' of Culture

Perhaps the most important factor in encouraging cultural activity has been the presence of organized force. While Innis felt that the oral tradition was best suited to "the discovery of new truth," a sustained interest in learning can only be undertaken in a society where organized force is "sufficiently powerful" to ensure ongoing protection to scholars.

> The capacity to concentrate on intense cultural activity during a short period of time and to mobilize intellectual resources over a vast territory assumes to an important extent the development of armed force to a high state of efficiency.[141]

He noted that with a weakening of protective force, scholars

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[139]Ibid., p. 22.

[140]Ibid., p. 138.

[141]ibid., pp. 191, 4, 133.

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"put forward greater effort" and flowering develops at the point

before the collapse of culture.[142]

The disintegration of protective force, symptomatic of a

failure to balance social, political, and media demands creates

a situation in which learning may relocate in centres where

protection can be relied upon.[143]

> In the regions to which Minerva's owl takes flights the
> success of organized force may permit a new enthusiasm
> and an intense flowering of culture incidental to the
> migration of scholars engaged in Herculean efforts in a
> declining civilization to a new area with possibilities
> of protection.[144]

Ionian scholars fleeing Miletus (Thales, Anaximander,

Anaximenes) had given a great impetus to philosophy in fifth

century Athens. When Justinian closed the schools in Athens in

AD 529, scholars migrated to Persia.

> From this background of learning Baghdad became a centre
> for translators of Greek, Syriac, and Persian works into
> Arabic.[145]

With the spread of Mohammedanism to the 'eastern' Roman empire,

the technique of paper production had been introduced from China

to the West. The establishment of capitals in Baghdad (763) and

Cordova, coupled with access to paper and security provided "the

basis for an intense interest in learning,"[146] that would reach

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[142]Idem, Idea File, 3/13, p. 16.

[143]Ibid., 3/7, p. 15.

[144]Idem, Bias, p. 5.

[145]Ibid., p. 51.

[146]Ibid.

its peak in the literary splendour of Haroun al Raschid's reign (787-809). The prohibition on images in the Mohammedan religion provided a further stimulus to learning and the revival of Greek literature. As a repository of Greek philosophy, Persia was essential to the survival of the classics.[147]

Innis lamented that whereas earlier empires had often employed armed force to offer protection to scholars and artists, therefore keeping alive a cultural interest in learning, the impact of the Industrial Revolution and consequent mechanization of knowledge have created a situation in which force is "actively engaged in schemes" for the destruction of scholars. Force on the defensive has eroded as technological 'improvements' permit of more efficient use of force on the offensive.[148] In his poem "For the Time Being" W. H. Auden wrote,

> Civilization must be saved even if this means sending for the military, as I suppose it does. How dreary. Why is it that in the end civilization always has to call in these professional tidiers to whom it is all one whether it be Pythagoras or a homicidal lunatic that they are instructed to exterminate?[149]

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[147]Idem, Empire, p. 126.

[148]Idem, Bias, pp. 31-32.

[149]W. H. Auden, "For the Time Being," Collected Longer Poems (New York: Random House, 1934), p. 459.

Innis also understood that apart from encouraging cultural activity, the transition from one medium of communication to another could include the loss or suppression of learning associated with an earlier communication form. With the decline of a medium the knowledge it reinforced may also become marginal or merely erased. Clearly, this is more easily effected with written communications.

When the Mohammedans restricted supplies of papyrus from Egypt, the West substituted with the parchment codex. In the transference of knowledge from papyrus to parchment a considerable portion of pagan writing and literature vanished. It was never recopied while Christian literature was given special consideration: "An extensive censorship emerged in which material suited to religion and law was given enormous emphasis."[150] With religious or ethical knowledge in particular, it is difficult to say that newer ideas are better than the old, yet they may certainly be incompatible with earlier thought.

One of the paradoxes of a 'loss of learning' is that it may allow for a burst of cultural activity that otherwise would have been thwarted by comparison with earlier classics: "The decisive moment of bloom, which never returns in its full prime, would

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[150]Innis, Empire, p. 117.

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have been irretrievably past."[151] Similarly, one of the
paradoxes of a monopoly of knowledge is that is encourages or
invites potentially fatal creative breakthroughs (such as the
introduction of a new medium or the rise of knowledge) at the
margins of society, where mechanisms of control and restraint
are less developed. Innis noted

> the tendency of each new medium of communication to
> create monopolies of knowledge to the point that the
> human spirit breaks through at new levels of society and
> on the outer fringes.[152]

Escape from the priestly monopoly of knowledge of the Assyrian
empire, supported by complex cuneiform and hieroglyphic script,
came from the "fringes of Babylonian and Egyptian civilization,"
in which there arose new simplified writing to offset the
complexity of the Assyrian script.[153]

Parchment allowed for a monopoly of knowledge favouring
monasticism to spread throughout Western Europe. An interest in
classical studies was discouraged, and concentration was instead
given to the scriptures. The revival of classical learning in
Europe came from the fringes of European culture, in Ireland:

> The blotting-out of the learning of Spain by the
> Mohammedans and restricted interest in learning in
> Europe means that the most distant area of Europe,
> namely Ireland, alone remained enthusiastic for
> knowledge and from here an interest in learning spread
> backwards to Scotland and England and to Europe.[154]

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[151]Idem, Bias, p. 5.

[152]Idem, Empire, p. 117.

[153]Idem, Bias, p. 38.

[154]Ibid., p. 17.

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As well, in the thirteenth and fourteenth centuries the monastic monopoly of knowledge was gradually superceded by the monopoly of the copyist guilds in larger European cities, notably Paris, where there were an estimated 10,000 copyists by the mid-fifteenth century.[155] To offset the high price for books produced by the copyists, the attempt to mechanically reproduce books eventually encouraged the invention of printing, or moveable print. Significantly, this occurred in Germany, an area marginal to the territory dominated by the copyists.[156]

Parchment, that contributed to an ecclesiastical monopoly of knowledge in Western Europe, encouraged competition from a new medium which appeared on the fringes of Western culture, namely paper from China. Its bias toward space had been evident in the growth of Chinese bureaucracy,[157] and proved adaptable to the development of political bureaucracy in the West to offset the power of monasticism.[158] The fall of Baghdad led to the spread of paper-making in the West, in Italy, France, and Flanders.[159] The use of linen rags in paper production compelled concentration of manufacturing in cities, where access to supplies of water, power, and rags as well as a large market for paper were assured. Increasing production of paper paralleled

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[155]Idem, Empire , p. 38.

[156]Idem, Bias, p. 53.

[157]Idem, Empire, pp. 124,139.

[158]Ibid., p. 140.

[159]Ibid., p. 129.

the commercial revolution beginning about 1275. The monopoly of knowledge held by rural monasteries and based on parchment, was weakened by the growth of cities, and the use of paper in cathedrals and universities.[160]

Cultural Balance and the Growth of Empire

Innis then, felt that the introduction of a second medium would check the bias of the first and could establish conditions "favourable to an interest in cultural activity,"[161] and thus suited to the growth of empire.[162] In Greece he noted that the balancing of a "political empire concept with its emphasis on space and the ecclesiastical empire concept with its emphasis on time," made possible by a flexible oral tradition, favoured the emergence of the city-state.[163] By widening the gap between city-states, the spread of writing was able to hasten the collapse of Greek civilization by making them vulnerable to invasion.[164]

Within the Athenian polis, a balance of Apollonian and Dionysian forces allowed for the emergence of Attic tragedy,

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[160]Ibid., pp. 129, 137; Bias, p. 52.

[161]Idem, Bias, p. 90.

[162]Idem, Empire, p. 170.

[163]Idem, Empire, p. 84; Bias, p. 68.

[164]Idem, Empire, p. 83.

arguably the artistic hallmark of classical Greece. The strength of this stability could also be seen in the defeat of the Persians.[165] Plato, Innis suggests, was able to dominate the history of the West through a compromise between the oral and written traditions.[166]

The Byzantine empire managed to offset a bureaucracy founded upon papyrus and the alphabet, with a hierarchy supported by the use of parchment.[167] This was further enhanced by the fact that the emperor occupied the central position in both religion and politics.[168] As a result, the Byzantine empire enjoyed a period of unusual duration (476-1453), its continuity a "reflection of the success with which the concept of empire had been grasped."[169]

In his essay "Culture, Genuine and Spurious," Edward Sapir anticipates some of Innis' most fundamental concerns regarding the success of empires, in particular, the sense of balance, community, and the interrelatedness of cultural life.

> The genuine culture is not of necessity either high or low; it is merely inherently harmonious, balanced, self-satisfactory. It is the expression of a richly varied and yet somehow unified and consistent attitude toward life, an attitude which sees the significance of any one element of civilization in its relation to all

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[165]Idem, Bias, p. 68.

[166]Ibid., p. 10.

[167]Ibid., p. 177.

[168]Ibid., p. 118.

[169]Idem, Empire, p. 115.

others.[170]

Sapir contrasts the notion of 'genuine culture', what Innis would call a balanced empire, with that of 'spurious culture' in which culture "becomes a manner rather than a way of life." Like Innis, Sapir looked to Greece for an example of a culture in balance:

> But the great cultures, those that we instinctively feel to have been healthy spiritual organisms, such as the Athenian culture of the Age of Pericles and, to a lesser extent perhaps, the English culture of Elizabethan days, have tended to such harmony.[171]

Such examples of cultural balance and stability have been notoriously rare in the history of the West. Particularly since the fall of the Byzantine empire, and the discovery of printing in the mid-fifteenth century, instances of outstanding cultural energy have been extremely short-lived and sporadic:

> Since its flight from Constantinople Minerva's Owl has found a resting-place only a brief intervals in the West. It has flown from Italy to France, the Netherlands, Germany and after the French Revolution back to France and England and finally to the United States. These hurried and uncertain flights have left it little energy and have left it open to attack from numerous enemies.[172]

Innis linked an interest in cultural activity, supported by social, political, and communicative stability with the very survival of civilizations. He felt that our excessive industrial society stifles creative activity through mechanization and an

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[170]Edward Sapir, Selected Writings of Edward Sapir in Language, Culture and Personality, ed. David G. Mandelbaum (Berkeley: University of California Press, 1968), pp. 314-315.

[171]Ibid., pp. 321, 315.

[172]Innis, Bias, p. 30.

overemphasis on problems of space. In so doing we invite the

problems to empire and cultural activity of instability,

particularly that hastened by an imbalance of media biases.

> Stability which characterized certain periods in earlier
> civilizations is not the obvious objective of this
> civilization. Each civilization has its own methods of
> suicide.[173]

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[173]Ibid., p. 141.

For twelve winters I have trained in the disciplines of
prosody. I know by heart the three hundred and sixty
legends that form the basis of true poetry. The cycles
of Ulster and Munster are in the strings of my harp. The
laws authorize me to be lavish in using the oldest words
of our tongue and the most complex metaphors. I have
mastered the secret of writing, which protects our art
from the undiscerning eyes of the common herd. I can
celebrate loves, cattle thieves, voyages, and wars. I
know all the royal houses of Ireland. I possess a
knowledge of judicial astrology, mathematics, canon law,
and the powers of plants. I have defeated my rivals in
public contest. I have made myself skilled in satire,
which causes infirmities of the skin, including leprosy.

Jorge Luis Borges

"The Mirror and the Mask"

Greece: The Return to Oral Epistemology

Like other scholars in different ages who have felt their
society to be on the verge of crisis, Innis turned toward the
study of oral traditions of communication for suggestions as to
how Western civilization might re-establish an interest in
cultural activity and learning, thereby enhancing its chances
for survival. Innis clearly stated that his bias lay with the
oral tradition in Greece, first because it has so profoundly
influenced the history of the West; second, because our
civilization, having forgotten or neglected the values and
knowledge upon which Greece flourished, might benefit from a
re-introduction to the spirit of the oral tradition.[174]

> The power of the oral tradition·as reflected in the
> culture of Greece has continued throughout the history
> of the West, particularly at periods when the dead hand
> of the written tradition threatened to destroy the
> spirit of Western man.[175]

Throughout his work, Innis juxtaposes the vitality,
freshness, and flexibility of the oral tradition with images of
death, decline, and rigidity hastened by the mechanization of
knowledge, culture, and social affairs. For Innis, the oral
tradition was primarily a concept of value rather than of
description, and thus it emerges as somewhat of an ideal type.
The oral tradition, in its Innisean context, stands as a

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[174]Idem, Bias, p. 190.

[175]Idem, Empire, p. 57.

metaphor for that which is lacking in our civilization. The use of such a device arises from Innis' belief that civilizations or empires, if they are to survive, must effect a balance between opposing cultural tendencies such as those perpetuated by the oral and mechanized traditions of communication. Our civilization, which Innis saw to be highly mechanized, is in dire need of a critical appraisal mediated through the questions posed by a civilization that has become so distant and foreign to our own.

"The ancient world troubled about sounds."[176] If instead of seeing the world, one hears the world spoken, what does it sound like, what does it say? What is this reality that talks to men, provoking poetic and musical replies from within the twin realms of dream and intoxication?[177] We tend to equate perception with sight, but what of oral perception?

> In oral intercourse the eye, ear, and brain, the senses
> and the faculties acted together in busy co-operation
> and rivalry each eliciting, stimulating, and
> supplementing the other.[178]

In contrast to this simultaneous integration of the senses, a cultural kaleidescope of impressions, written communication is reliant upon one faculty, the eye, which focuses, pinpoints, isolates, and separates out objects whether knowledge or the

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[176]Ibid., p. 53.

[177]The realms of Apollonian and Dionysian inspiration.

[178]Idem, Bias, p. 105.

individual, from an all-inclusive background.[179]

In an oral culture, to speak is to order acoustically, the
tangle of reality. It is to enter that reservoir of knowledge
and tradition resonant with cultural memory; to be bound to the
community and its values, to be infused with the collective
spirit; to participate in the ordering of experience. An oral
tradition presupposes a concern with time as continuity; with
religion, poetry, and myth as collective memory, a storehouse of
custom, ritual, and ceremony all of which serve as mechanisms
linking the individual to the community and re-creating the past
in the present. Within the shared context of an oral culture,
dreams and myths speak the speech of Gods and fantastic
creatures rooted in the mysteries of nature and the cosmos:

> It was in a dream, according to Lucretius, that the
> marvelous gods and goddesses first presented themselves
> to the minds of men.[180]

The oral tradition implies a synchronization, an active
network of relationships, a culture that dances and sings with
knowledge, and in which speaking and thinking are inseparable.
What is the nature of oral epistemology? In what language and
form does it speak?

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[179]See, Edmund Carptenter, Oh, What a Blow·That Phantom Gave Me!
(Toronto: Holt, Rinehart and Winston, 1972, 1973; Bantam Books,
1974), p. 30. Also, McLuhan, Understanding Media, and The
Gutenberg Galaxy.

[180]Nietzsche, "The Birth of Tragedy from the Spirit of Music,"
in The Birth of Tragedy, p. 19.

The Poetic Context

For Plato, as for later commentators, poetry is the medium
par excellence of an oral culture. It is difficult for us to
understand the significance of poetry as 'an overall cultural
condition', given our literate bias toward poetry as an art
form, or a rather minor medium of communication. We tend to
underestimate the importance of poetic technique as an
epistemological necessity, while the 'curious emotionalism' of
the poetic experience appears somewhat contrived in the context
of our detached, literate intellectualism. Although Innis
warned, "the task of understanding a culture built on the oral
tradition is impossible to students steeped in the written
tradition," he nonetheless felt the effort to be inherently
valuable.[181]

Eric Havelock argues that Plato, in The Republic, found
little essential difference between Homer, Hesiod, and the
tragedians insofar as the background to epic poetry and Attic
tragedy remains the oral tradition and its unique media and
experiences of communication. Tragedy reflected a changed
historical setting, the transition from tyranny to democracy,
and so differed from the epic poetry of Homer, whose fons et
origo probably extends well back to Mycenaen civilization. It
was however, largely a difference of material adapted to the
needs of social change, facilitated by alterations to the

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[181]Innis, Empire, p. 55.

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character of preserved communication.

> It is a matter of the expanding technology of the shaped and preserved utterance, whether recited and mimed by an epic rhapsodist who himself 'does' all the characters, or split up into parts done by different reciters who become actors.[182]

The Attic tragedy of classical Greece reached heights equal to epic poetry in its complexity, coherence, and unity. It represents the final burst of an oral culture whose basic epistemological and educational structure remained intact until several centuries after the introduction of the phonetic alphabet and the spread of writing. What did the power of the oral tradition, its strength, consist of? What was the position of poetry, including tragedy, in the context of an oral culture?

Poetry as Social Communication

Essentially, poetry acts as a memoranda of culture, a "social encyclopedia" of knowledge, skills, technology, norms, customs, history, and social relationships contained within a framework of heroic legend or myth. Poetry, in ancient Greece is not 'literature', a term that betrays the bias of its literate origins. Rather, poetry, as the essential record of culture upon whose survival civilization depends, is primarily part of the educational apparatus concerned to preserve and transmit the vital communications of social life: "It follows that the

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[182]Havelock, _Preface_, p. 48.

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history of Greek poetry is also the history of early Greek paideia.[183]

The Iliad and the Odyssey are for us, great works of literature. They constitute the beginnings of Western literature. Yet, in their original context they provide a compendium of cultural learning in the absence of any other means of preserving knowledge. Poetry, as the vehicle for paideia--what we subsume under education, literature, culture, and more--is the epistemological basis of Greece. To a considerable extent the poet controls culture insofar as he controls the language, structure, and technique of the cultural communications apparatus. Homer is not so much original, as following in an extremely rich oral tradition.

> The Homeric poems were the work of generations of reciters and minstrels and reflected the demands of generations of audiences to whom they were recited.[184]

The Poetic Experience: Participatory Knowledge

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[183]Ibid., pp. 107, 147. In his study of the Greek philosophy of education, PAIDEIA: the Ideals of Greek Culture, author Werner Jaeger demonstrates the inseparability of education, literature, culture, and civilization in the Greek concept of paideia. He notes that because of our own specialization of thought and language we no longer have a word that corresponds to the richness and unity of paideia. Werner Jaeger, PAIDEIA: the Ideals of Greek Culture, vol 1: Archaic Greece: The Mind of Athens, 2d. ed., translated from the Second Edition by Gilbert Highet (New York: Oxford University Press, 1945).

[184]Innis, Bias, p. 40.

The record of culture as poetry, its epistemological survival, is linked to the formulas and techniques for ensuring the imprint of poetry on memory, both cultural and individual. Therefore, what it is possible to say in an oral culture is dependent upon what it is possible to say within the poetic framework with its devices of metre, rhythm, and repetition.

> There are a million things you cannot say at all in metrical speech and it will follow that you will not think them either.[185]

Similarly, what can be remembered and passed on orally through the medium of poetry will be woven into the epistemological tapestry of culture.

It follows that in an oral culture knowledge of skills, laws, and events are as consistent, detailed, accurate, and selective as human memory. The cultivation and training of memory is of the utmost importance for cultural survival, and it is no surprise that the demands of an oral epistemology require all manner of mnemonic devices and aids in order to assist memorization. In Greece these included the use of lyre, rhythm, dance, and melody not as entertainment or art form, but as instruments of recollection designed to engage not only the memory or the ear, but the entire nervous system in the task of memorization, such that knowledge becomes a visceral, sensual, almost erotic experience.[186]

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[185]Havelock, Preface, p. 149.

[186]Ibid., p. 151.

The structure of epic poetry as narrative, as a story or connected series of stories allows for the transference of cultural knowledge within a framework that is more readily recalled than an event-less, classified catalogue of information.

> These narratives enabled useful experience to be remembered in the form of vivid events arranged in paratactic sequence, while the compendious plot served as an overall reference frame.[187]

By drawing upon the common reserve of heroic legend epic poetry can introduce and preserve knowledge, skills, and norms within a structure and language familiar to the general populace. This shared background and continuity made possible by the oral tradition and the repetition of key stories, reinforces the collectivism needed to keep the oral tradition alive.

> The community has to enter into an unconscious conspiracy with itself to keep the tradition alive, to reinforce it in the collective memory of a society where collective memory is only the sum of individual's memories, and these have continually to be recharged at all age levels.[188]

With the spread of writing a shared context grows increasingly foreign and elusive, and allows for the withdrawal of the individual from the community and from the cultural apparatus of paideia.

The community involvement demanded by an oral epistemology appeared in a number of forms in Greece. In festivals and competitions such as the Olympics, the Panathenaia, and the City

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[187]Ibid., p. 291.

[188]Ibid., p. 44.

Dionysia, the Panhellenic consciousness and spirit were forged and reinforced through the celebration of what was essentially the Greek paideia and the numerous patron deities.

A further form of involvement concerned the personal, individual, emotional identification, not only with the substance of poetry, its 'educational content', but with the actual experience of the poetic performance itself. Havelock gives special emphasis to the fact that Plato, in his critique of poetry and the Greek paideia, is unable to discuss poetry without also discussing the conditions under which it is performed, or the nature of the performance. At the heart of his critique is the concept of mimesis.

Mimesis, as Havelock understands the term, concerns the psychology of the poetic experience for both artist and audience. In the performance of an epic poem, both artist and audience are drawn into the narrative through mnemonic techniques and musical aids, to the extent that the poem becomes a lived experience.

> What you 'did' were the thousand acts and thoughts, battles, speeches, journeys, lives, and deaths that you were reciting in rhythmic verse, or hearing, or repeating.[189]

In this act of emotional identification of artist with story and of audience with artist, of "submission to the spell" of poetry, the individual as such does not exist, except insofar as he becomes part of the magic, of the "drug that hypnotises," by his

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[189]Ibid., p. 159.

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complete participation in the process of knowledge. Without the audience and the artist there is no poem for it exists only in the act of recitation.

> Once I end my absorption in the poem, I have ended the poem too. Its structure must change and become a re-arrangement of language suitable to express not a performance or a re-enactment but something that coolly and calmly and reflectively is 'known'.[190]

Poetry as Pathology: Communication and Cultural Madness

Havelock argues that whereas Homer invokes the Muse unquestioningly, Hesiod inquires as to the identity of the Muse, asking, "what precisely does she do, and how does she do it? which means, What am I doing, and how do I do it?" In reflecting on the role of the poet and his function in society, Hesiod has taken a step beyond the unconscious acceptance of the epic structure and its role as the vehicle of paideia. He has, in effect, removed himself from the poetic experience just enough to question what it means and how it works.

Homer, fully immersed in the traditions of the oral culture, belongs to the human age we call pre-history. History as we know it, implies the psychic ability to separate oneself out from the cultural poem, to reflect on its meaning, structure, importance, or danger to civilization. It is the ability to step outside the confines of one's own cultural framework, its paideia. Havelock suggests that although Plato

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[190]Ibid., p. 217.

was able to do just this, the idea of a different form of paideia, of a cultural medium other than poetry, of a relationship to knowledge that was not centred on mimesis had already been present on the horizon of Greek thought at least from the time of Hesiod, and in the works of the pre-Socratic philosophers.[191]

The movement beginning with Hesiod and culminating in Plato's Republic, is a gradual separation of the spoken and the thought; what it is possible to think may not be restricted to what it is possible to say within the framework of poetry or tragedy. In contrast with opinion, doxa, which is the basis of the uncritical poetic mind, Plato sought a new foundation for thought grounded in a new medium, that of prose.

> Plato attacked the pedagogical value of poetry and of Homer by pointing to the contrast between philosophy and poetry, truth and sham, and expelled poets from the state. The medium of prose was developed in defense of a new culture.[192]

Plato is in some senses, the hinge between oral and written thought, a position which Innis saw as the key to his domination of the history of the West.[193] In adapting prose to the conversations of Socrates--"the last great product and exponent of the oral tradition"--Plato effected a compromise between the spoken word and the written page. By the time of Aristotle, the spoken word had become "a source of confusion," and the poetic

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[191]Ibid., p. 289.

[192]Innis, Empire, p. 57.

[193]Idem, Bias, p. 10.

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experience one of pathological communication.[194]

Innis would say that epistemology as prose, written thought, was the medium of discontent with the oral tradition, the emergent communication form that sparked the oral tradition to new heights in the sixth and fifth centuries BC. The decline of the oral tradition coincided with the increasing spread of writing evident in the second half of the fifth century; a rise in literacy and in the number of libraries; a shift away from tragedy and toward the popular assembly as the "organ of public opinion";[195] and the outbreak of the Peleponnesian War.

By the time Euripides dominated Greek tragedy plays were widely read after the festival performance, the reading public had increased dramatically in Athens, and Euripides himself purportedly owned the first Greek library.[196] The collectivism of Aeschylus, in which the power of the oral tradition was at its height,[197] was displaced by the new cultural value of individualism. The power of tragedy as the communicative form of Athenian democracy, and with it the oral tradition, began to wane. It was no longer appropriate to ask with Havelock, "In what sense was the average Greek mind a theatrical mind?"[198]

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[194]Idem, Empire, pp. 56-57.

[195]Ibid., p. 80.

[196]Ibid., p. 81.

[197]Ibid., p. 79.

[198]Havelock, Preface, p. 243.

The encroachment of writing was held off by a strong and
tenacious cultural tradition and epistemology centred around the
spoken word. The flexibility of the oral tradition to absorb and
adapt the influences of writing and of literate thought, as well
as political change,[199] was a key to its survival and to the
emergence of high cultural activity in Attic tragedy. This
quality of flexibility shone in,

> the position of the assembly, the rise of democracy, the
> drama, the dialogues of Plato, and the speeches
> including the funeral speech of Pericles in the writings
> of Thucydides.[200]

Democracy in turn, brought the comedy of Aristophanes, and the
encouragement of new cultural forms.

> Plato and Aristotle wrote in a period after the great
> tragedy of the oral tradition had been witnessed in the
> fall of Athens and the execution of Socrates. These were
> symptoms of the collapse of a culture and of the
> necessity of starting from a new base that emphasized a
> medium other than poetry.[201]

The originality of Greek civilization, nurtured by the oral
tradition and its unique epistemology and media of
communication, has been a source of renewal for Western
civilization down to the present day: "Individuals in different
ages and nations have looked into the pool of classical

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[199]See, Innis, Empire, pp. 60-63., on the shift from epic to
Homeric poetry, elegaic and iambic poetry, the choral lyric of
Pindar, and the tragedies of Aeschylus, Sophocles, and Euripides
as reflecting the needs of social change. The transition from
Monarchy, to Aristocracy, to tyranny, to Athenian democracy, was
mirrored in the "fresh responses" of Greek 'literature' to
political and social change.

[200]Idem, Bias, p. 9.

[201]Idem, Empire, p. 58.

civilization and seen precise reproductions of themselves."[202]
For Innis, classical Greece was a paradigm in which were etched
the achievements and failures, the lessons and limitations of
subsequent Western civilizations. As at other times of crisis
when Western civilizations have returned to their origins for
guidance, Innis felt the need for a return to the spirit of
Greece to offset the materialism and "cruelty of mechanized
communication" that he felt permeates modern Western culture.[203]

Summary

Whereas Foucault tends to dissolve, if not the individual,
then his importance in the creation and transmission of
knowledge, Innis allows for greater individual participation in
the epistemological processes of culture. In his return to the
lessons of Greece there is an implicit plea for what might be
called the emergence of a new Plato, a visionary who is able to
recognize the implications of our communication media and
indicate the nature of our epistemological, historical, and
normative biases. For, as we have seen, Innis regarded
communication media as the basis of cultural experience and
epistemology. He was only too well aware of the dangers and
missed opportunities that our lack of insight into media
processes encouraged.

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[202]Ibid., p. 55.

[203]Idem, Bias, p. 191.

By actively pursuing intellectual and historical paradoxes, Innis sought to enhance his own potential to step outside the frameworks and structures within which we think, speak, and act. For Innis, the 'cultural poem' of modern society was mechanically biased and he continually probed the implications of mechanization, particularly insofar as they minimize or exclude the possibility for metacommunication. Innis, like Bateson, understood the relation of communication to madness, of metacommunication to sanity, in particular, the need for individuals or cultures, to be able to question their knowledge, norms, definitions, biases, priorities, and so forth. Without sufficient channels for metacommunication, for feedback and self-correction, systems of great complexity such as 'empires', will collapse.

Innis held a great sympathy for those individuals who mark the hinge between one epistemological form and another, between one medium of communication--with respect to the type of thought that it allows--and another. Pivotal figures such as Plato, Galileo, and Einstein act as epistemological fulcrums that appear on the margins of knowledge indicating the direction in which society will eventually proceed. For the length of time that they stand alone--without society's consent or understanding--they will be hailed as geniuses or madmen, as non-conformists unable to adapt to habitual cultural patterns reinforced by the limitations and demands of communication media.

Until that point in a civilization's history when cultural knowledge catches up with individual creativity or the potential of communication media, such pivotal thinkers will always be considered pathological within the established framework of thought. Like Michel Foucault and Thomas Kuhn, Innis aptly demonstrates that resistance to the harbingers of epistemological change can be both violent and irrational. And since civilization is an ongoing process, upheavals in media and epistemology, instances of cultural madness, can never be permanently contained. Madness as a form of communication in which the familiar is no longer acceptable, is an opportunity for civilizations to renew themselves epistemologically. The failure to attend to madness is therefore culturally suicidal.

Leaving for the moment, the clay deposits of Mesopotamia and the papyrus delta of the Nile, we venture with Michel Foucault to the darkened corridors of eighteenth and nineteenth century clinics and asylums. Like Innis, Foucault describes the relation of communication to the emergence or 'thaw' of certain forms of knowledge. More explicitly than Innis, he addresses the question of <u>power</u> in its relation to the formation of <u>truth</u>, giving less emphasis to the technology or media of communication and more to the communicative rules and procedures that govern the legitimacy and uses of knowledge in large social institutions.

III. Michel Foucault

I have suspected that history, real history, is more
modest and that its essential dates may be, for a long
time, secret. A Chinese prose writer has observed that
the unicorn, because of its own anomaly, will pass
unnoticed. Our eyes see what they are accustomed to
seeing.

Jorge Luis Borges

"The Modesty of History"

Introduction

It is particularly difficult, when dealing with a writer of
such scope as Michel Foucault, to isolate and extract only a
portion of his thought for analysis. Such a procedure merely
accentuates the confusion that arises when knowledge is removed
from its surrounding context. On the other hand, Foucault's work
unlocks a space of knowledge so unique, that the potential for
extrapolation, commentary, and sheer intellectual abandon
assumes the proportions of Borge's fabled Map of the Empire,
"which had the size of the Empire itself and coincided with it
point by point."[1] The danger exists that one's commentary on
Foucault shall assume similar dimensions, overlapping point by
point, his articulations, and thereby becoming, like the
"Widespread Map" of the "Colleges of Cartographers," useless,
and abandoned finally to "the Inclemencies of the Sun and of the
Winters" of our thought.

The territory that Foucault's map covers may be described
as the history of discourse although he prefers the title,
history of systems of thought.[2] This emphasizes the importance

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[1] Jorge Luis Borges, "On Rigor in Science," Dreamtigers,
translated from El Hacedor by Mildred Boyer and Harold Morland,
Preface by Victor Lange, with an Introduction by Miguel
Enguidanos (Austin: University of Texas Press, 1964; E. P.
Dutton & Co., 1970). p. 90.

[2] Foucault held the chair of History of Systems of Thought at the
College de France in Paris.

for Foucault, of non-discursive elements in the production and constraint of thought, and the embeddedness of knowledge in cultural practices and activities. In order to disentangle his analysis from both the history of ideas and the history of science, he chooses to call his approach an 'archaeology of knowledge', although there is little question as to the historical character of all his researches.

Foucault addresses the question of how knowledge arises, through an analysis of the social and cultural forces that both shape thought, and set limits on what it is possible to think. Four general levels of concern are considered in this chapter: (1) the cultural, in which one attempts to understand the thoughts, norms, or 'codes' of a people or a specific time period, by asking, 'What makes it possible to think certain thoughts and not others'? Here, Foucault is concerned to demonstrate the differences that separate his work from that of the traditional history of science, and the history of ideas. In the first instance, the distinction between two types of knowledge, savoir and connaissance is discussed. Fundamental changes in cultural perception and thought are seen to accompany a modification of the rules, values, or interests governing savoir. In the second, the problem of discontinuity arises in concert with a new appreciation of the power of social documentation.

(2) At the discursive level, the rules of thought are sought in the practice of discourse itself, and here one

interrogates 'what it is possible to say', by a review of the questions that have been posed, and by whom, in select discursive practices. In attempting to chart the relation of the individual to cultural and institutional discourses, the notion of an enunciative function is substituted for that of a constituent consciousness. These two levels, the cultural and the discursive, form the point of application for Foucault's archaeological method.

(3) At the institutional level, one witnesses the "constant articulation of power and knowledge," in the pursuit of 'what is to be considered true.' Here the focus broadens to accommodate a discussion of the function of institutions, communication mechanisms, techniques, and media that together form the basis of what he calls the "will to truth." Particular attention is given by Foucault to medicine, as both an institution and a discourse, and to the human sciences as examples of how we "make discourses function as true," through techniques of knowledge and mechanisms of power

This shift toward a concern for relations both internal and external to discourse, marks the introduction of Foucault's 'genealogy of power'. In conjunction with the archaeological method, the focus is on power as a component in the systems that produce knowledge and shape thought. Foucault coins the term 'power-knowledge' to refer to the reciprocal and inseparable relationship between power and knowledge in modern society. At base, power is seen to be normative, and the knowledge that

informs it is organized in such a manner that individual

comparisons against a societal norm--whether of thought or

behaviour--may be effected. Medicine is seen to be a mediating

force between these institutions and the discourses of the human

sciences.

The analysis of power-knowledge is also concerned with

constraints or limitations placed upon the production and

circulation of thought. (4) At this fourth level, the marginal,

Foucault replaces analyses that concentrate on the 'lack' of

power or its 'absence', with one that studies the 'process' of

power--the coercions, prohibitions, exclusions, and mechanisms

that effectively block or silence certain forms of knowledge,

behaviour, and power. A 'history of madness' provides the

setting for a discussion of the emergence and transformation of

such cultural values and definitions as reason and truth,

particularly as these have been mediated in modern society

through scientific and medical practices, discourses, and

institutions.

In opposition to the 'tyranny' of science, its practices

and forms of organizing knowledge, Foucault calls for a

reconsideration of alternative, marginal forms of knowledge, of

people banished to the edges of cultural tolerance and power.

Like Innis, Foucault suggests that 'what is considered

acceptable in society' is the outcome of the interplay of a

myriad of social relations of power and knowledge.

While by no means exhaustive, this chapter will attempt to present a comprehensive account of Foucault's discussion of how knowledge is produced (the archaeology of knowledge), and how marginal modes of thought persist and question our very definitions of our thought, values, culture, ourselves (the genealogy of power).

CULTURAL ANALYSIS: 'what it is possible to think'

Michel Foucault has brought a welcome curiosity to the study of culture and communication. Although he is considerably more flamboyant than Harold Innis, Foucault shares an interest in establishing what constitute the cultural and historical (pre-) conditions of knowledge, and consequently, the epistemological foundations of culture. These include both material and procedural conditions, more or less conscious rules for the development and use of knowledge, as well as those unconscious norms, predispositions, "fundamental codes" that people of a culture share:

> Those governing its language, its schemas of perception, its exchanges, its techniques, its values, the hierarchy of its practices".[3]

Foucault's task is to trace both the manifest content of our knowledge, and to attempt to penetrate its deepest strata--those layers where assumptions and rules remain out of

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[3]Michel Foucault, The Order of Things: An Archaeology of the Human Sciences, A Translation of Les Mots et les choses (New York: Random House, 1970; Vintage Books, 1973), p. xx.

sight yet powerful, like half-submerged memories. This 'archaeological' exercise is a prelude to the question, How do we, as a culture, construct and order our knowledge and experience, and thereby produce truth?

Discontinuity and the episteme

Foucault regards history through a discontinuous filter as a series of discrete periods, a sandwiching of time. For Foucault, each strata of history possesses its own distinctive episteme that characterizes for a society, the form of its knowledge, social practices, norms, institutional arrangements, and modes of power. Each episteme can best be understood within the context of its own grammar, and in relation to contemporaneous phenomena.

> The history of knowledge can be written only on the
> basis of what was contemporaneous with it, and certainly
> not in terms of reciprocal influence, but in terms of
> conditions and a prioris established in time.[4]

The limits, boundaries and thresholds within which we define our thought, cultural values, institutions, our episteme, are, however, clearly demonstrated by comparison with another culture. Whether it is the culture of a geographically distant people, or the exotica of our predecessors, the transition from one episteme, one conceptual framework to another, is abrupt. We do not seem to share the same categories "that make it possible
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[4]Ibid., p. 208.

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for us to name, speak, and think."[5]

Foucault's historical excavations have unearthed two great divides in Western thought during the past three hundred years: the 'classical age' dating roughly from 1650 to 1800, and the modern era initiated toward the beginning of the nineteenth century. The shift from one episteme to another entails 'ruptures' in thought, 'mutations' in discourse, the realignment of social relations, and the reconceptualization of techniques. Epistemic transformations affect not only the surface order of knowledge, they penetrate to the underlying core of assumptions that shape our knowledge to the point where we can ask, "what does it mean, no longer being able to think a certain thought?"[6]

There is strong evidence that Foucault considers our time to be a period of transition and discontinuity, of epistemological uncertainty and upheaval that may lead to the abandonment of our most prominent assumptions and forms of knowledge, in a movement similar to the collapse of the Medieval and classical epistemes. For Foucault, the prescient signals of a shift in the Western episteme may be seen in the discipline of history, although the implications extend to all historical analysis--to the history of ideas no less than the history of science.[7] In reponse to this epistemological drift, Foucault has

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[5]Ibid., p. xix.

[6]Ibid., p. 50.

[7]Michel Foucault, The Archaeology of Knowledge, trans. A. M. Sheridan Smith (New York: Harper Torchbooks, 1972), p. 21.

initiated a re-evaluation of the methods and subject matter of
those fields currently addressed as the history of ideas or of
science. In its place, he has proposed his 'archaeological'
method.

We begin with Foucault's criticisms of the history of
science, for the distinctions that he draws here are critical to
an understanding of what he calls the 'fundamental codes of a
culture'.

Archaeology and the history of science

Knowledge: savoir and connaissance

In attempting to differentiate the archaeology of knowledge
from the history of science, Foucault compares the two forms of
knowledge recognized within the grammar of the French language.
Savoir describes a level of knowledge that constitutes the
underlying, necessary conditions that define and make possible
certain forms or objects of knowledge. Connaissance refers to a
particular discipline or science, and to the conscious rules men
recognize as operating within that specific field. In The
Archaeology of Knowledge, a translation of L'archeologie du
savoir Foucault writes,

> By connaissance I mean the relation of the subject to
> the object and the formal rules that govern it. Savoir
> refers to the conditions that are necessary in a
> particular period for this or that enunciation to be

formulated.[8]

One area in which Foucault distinguishes between knowledge (savoir) and science (connaissance), is at the level of discursive formations, where neither the scope of discursive formations, nor the knowledge each forms, is identical with that of scientific disciplines.

As an example of the relative scope of savoir and connaissance, Foucault cites the emergence of psychiatric science at the beginning of the nineteenth century. This science had neither the same content, internal organization, practical function, nor methods as eighteenth century treatises on 'diseases of the head' or 'nervous diseases'.[9] Despite the absence of a psychiatric discipline in the eighteenth century, it is still possible to identify a discursive formation whose existence "was mapped by the psychiatric discipline" but was not co-extensive with it. The emergence of psychiatry was made possible by a transformation of the relations (between hospitalization, internment, procedures of social exclusion, norms of industrial labour) necessary to form statements in the eighteenth century discourses.

Nor are discursive formations scientific 'proto-types', loosely formed figures that in retrospect, reveal the shadowy birth of a future science. In Natural History for example, one finds that it includes some features of what would become

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[8]Ibid., pp. 15, ft. 2; also, p. 183.

[9]Ibid., p. 179.

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biology, but that it ignores others that date from the same period.[10] Similarly, General Grammar does not include everything that could be said about language in the Classical age.

Finally, the description of discursive formations need not exclude any degree of scientificity. Clinical medicine which was not itself a science, nonetheless had, during the nineteenth century, established relations with physiology and chemistry and in fact, gave rise to the discourse of morbid anatomy.[11]

Foucault suggests that since discursive formations do not envelop the same terrain as scientific disciplines, the knowledge they create must not be confused with scientific scholarship, nor subject to scientific criteria of validity. Foucault is concerned with knowledge as 'that which can be spoken of in a discourse', and that is therefore subject to the rules of discursive formation, regardless of whether it receives scientific sanction or not.

> Historians want to write histories of biology in the eighteenth century; but they do not realize that biology did not exist then, and that the pattern of knowledge that has been familiar to us for a hundred and fifty years is not valid for a previous period.[12]

Just as a discursive formation may extend well beyond the limits of a scientific discipline, the knowledge it forms is not confined to that which is inscribed in scientific texts. Literary and philosophical works also form part of the territory

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[10]Ibid., p. 180.

[11]Ibid., p. 181.

[12]Idem, Order, p. 127.

of archaeology:

> Knowledge is to be found not only in demonstrations, it
> can also be found in fiction, reflexion, narrative
> accounts, institutional regulations, and political
> decisions.[13]

Nor is knowledge merely "an epistemological site that
disappears in the science that supercedes it." Rather, within
the larger domain of knowledge (_savoir_), science (_connaissance_)
occupies a specific location, and assumes a variety of roles
depending upon the discursive formation to which it is related.
For example, in the Classical knowledge (_savoir_) of madness, the
medical knowledge (_connaissance_) of 'diseases of the mind'
played a different, less important role than that of the medical
knowledge of mental diseases offered through psychopathology in
the nineteenth century.[14]

In another example, Foucault addresses the relation between
savoir and _connaissance_ in an instance of discursive 'mutation',
a discontinuity that marked the birth of anatomo-clinical
medicine, the insertion of pathological anatomy into the domain
of a newly redefined clinic. The articulation of medicine _as a_
clinical _science_, is made possible on the basis of historical
conditions that define a new domain of medical experience, as
well as a new structure of rationality.[15] This example will be

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[13]Idem, _Archaeology_, pp. 183-84.

[14]Ibid., p. 184.

[15]Idem, _The Birth of the Clinic: An Archaeology of Medical_
Perception, trans. A. M. Sheridan Smith (London: Tavistock
Publications, 1973; Vintage Books, 1975), p. xv.

discussed in some detail as it provides the background context

to a later discussion of medicine in section three.

Signs, Symptoms, and Anatomo-clinical Medicine

Eighteenth century medicine was organized according to a

classifactory model: the nosological table. Diseases were

designated by their position within a hierarchy of "families,

genera, and species," rather than their location within the

density of the human frame. Disease was characterized by a free

spatialization: it could move from one point on the body's

surface to another, without in any way altering its nature.

Rather than specifying the organ that was afflicted, the point

of localization of diseases, it was necessary to decipher the

quality of disease:

> How can one distinguish, beneath the same fever, the
> same coughing, the same tiredness, pleurisy of the
> phthisis, if one does not recognize here a dry
> inflammation of the lungs, and there a serous discharge?
> How can one distinguish, if not by their quality, the
> convulsions of an epileptic suffering from cerebral
> inflammation, and those of a hypochondriac suffering
> from congestion of the viscera?[16]

In this schema, the individual was regarded as "a negative

element, the accident of the disease," an external fact. In

order to reveal the pure 'essence' of the disease, the doctor

had to "abstract" the patient and his peculiar qualities: age,

disposition, temperment, and so on. Further, the doctor himself

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[16]Ibid., pp. 10-14 passim.

was seen as an impediment to the decipherment of illness, a variable whose intervention could upset the natural course of the disease. Doctor and patient were "tolerated as disturbances that can hardly be avoided."[17]

The reorganization of the clinic in accordance with pathological anatomy marked the decline of a medicine of symptoms and signs with its "qualitative gaze" and its "hermeneutics of the pathological fact," and the emergence of a "positive" medicine of organs, sites, and causes.[18] The notion of seat replaced that of class as the doctor no longer asked, 'What is the matter with you', but rather, 'Where does it hurt'?[19]

Anatomo-clinical medicine introduced a break with previous "ways of speaking and seeing,"[20] and in terms of the doctor's experience, "a new outline of the perceptable and stateable." This was not merely a pyschological event in which doctors suddenly opened their eyes to the light of truth. Rather, the codes governing what could be seen gained a new foundation as the site of medicine assumed a new location.

> Not only the names of diseases, not only the grouping of
> symptoms were not the same; but the fundamental

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[17]Ibid., pp. 14, 8, 9.

[18]Ibid., pp. 14, 122.

[19]Ibid., p. xviii.

[20]Idem, Power/Knowledge: Selected Interviews and Other Writings 1972-1977, ed. Colin Gordon, trans, Colin Gordon, Leo Marshall, John Mepham, Kate Soper (New York: Pantheon Books, 1980), p. 112.

perceptual codes that were applied to patient's bodies, the field of objects to which observation addressed itself, the surfaces and depths traversed by the doctor's gaze, the whole system of orientation of this gaze also varied.[21]

The discourse of nineteenth century medicine was no longer situated in the lecture hall, where the doctor transmitted his knowledge to students in a setting removed from the actual experience and practice of medicine. Rather, it was a discourse located in the hospital, or more precisely, at the patient's bedside. This culminated in a redefinition of the relationship between doctor and patient (le couple medecin-malade), and a rearticulation of the order of knowledge produced by their meeting.

When it became possible for the patient's bed to become "a field of scientific investigation and discourse,"[22] the study of man was no longer that of a species situated within the classified table of nature. Rather, it was a study of the concrete individual, as a living, diseased body as it is offered up to a gaze that will "project upon the living body a whole network of anatomo-pathological mappings," one that will "draw the dotted outline of the future autopsy."[23]

Once disease could be perceived as "an autopsy in the darkness of the body, dissection alive," and as a "pathological form of life," death became "embodied in the living bodies of

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[21]Idem, Clinic, pp. xviii, 54.

[22]Ibid., p. xv.

[23]Ibid., p. 162 .

individuals." The integration of death into medical thought
introduced the possibility for disease to be both "spatialized
and individualized," as it revealed, in the depth of the
individual patient, "the order of the surface of things." In so
doing, it gave birth to a medicine that was "a science of the
individual,"[24] a 'positive' discourse about death, disease, and
life, rather than a fantastic commentary spoken in the language
of qualities, signs, and symptoms.

> It will no doubt remain a decisive fact about our
> culture that its first scientific discourse concerning
> the individual had to pass through this stage of death.
> [25]

The reorganization of knowledge allowed for new forms of
reflection as well. The individual, as a unique organic entity,
now became both the subject and object of his own knowledge,
available for the first time to the language of rationality[26] as
it is structured within the clinic.

> The clinic is both a new 'carving up' of things and the
> principle of their verbalization in a form which we have
> been accustomed to recognize as the language of a
> 'positive science'.[27]

What occured was more than a surface relocation, whereby medical
knowledge (connaissance) was formed according to the same rules,
but within the context of a restructured clinic. Instead, what
happened was a fundamental reorganization at the level of

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[24]Ibid., p. 197.

[25]Ibid.

[26]Ibid., p. xv.

[27]Ibid., p. xviii.

epistemic knowledge (<u>savoir</u>), a change in the conditions and
rules that made medical knowledge and a discourse about disease,
possible.

> What is modified in giving place to anatomo-clinical
> medicine . . . was the result of a recasting at the
> level of epistemic knowledge (<u>savoir</u>) itself, and not at
> the level of accumulated, refined, deepened, adjusted
> knowledge (<u>connaissances</u>).[28]

<u>Archaeology</u> <u>and</u> <u>the</u> <u>history</u> <u>of</u> <u>ideas</u>

The levels of <u>savoir</u> and <u>connaissance</u> were not discovered
by Foucault. Rather, they were chosen by him as a point from
which to (re-)construct a history of Western knowledge. Foucault
is aware that his attempt to formulate a new historical method
may accomplish nothing more than the history of ideas spoken in
a novel, perhaps not appropriate language; or conversely, that
as a result of his analysis, "everything that was thought to be
proper to the history of ideas may disappear from view."
Nonetheless he writes,

> I cannot be satisfied until I have cut myself off from
> 'the history of ideas', until I have shown in what way
> archaeological analysis differs from the descriptions of
> 'the history of ideas'.[29]

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[28]Ibid., p. 137.

[29]Idem, <u>Archaeology</u>,p. 136.

Consciousness and the discontinuous

Foremost among the changes that Foucault notes within historical disciplines, and consequently, historical methodology, has been a turn toward the establishment of continuities and broad "rhythms" of coherent historical pattern in history proper, and the shift toward a proliferation of discontinuities in the history of ideas. The latter is of the utmost importance in understanding Foucault's work, for these discontinuities and irruptions have made it possible, he argues, to question the notion of history as, "the progress of consciousness, or the teleology of reason, or the evolution of human thought.[30]

This is one of the key themes in all of Foucault's work: that we must reach beyond the notion of individual consciousness as an explanation of human knowledge or history. In particular, Foucault rejects the themes of continuity and origin, especially insofar as they promote a model of history as an unfolding, progressive consciousness, an unbroken continuum, and insofar as they regard knowledge as increasingly rational, truthful, and legitimate.

Beneath the calm surface of historical thought, Foucault finds profound interruptions that displace the notion of a continuous "chronology of reason," or the evolution of a human project devoid of disruption. Key among these interruptions are

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[30]Ibid, p. 8.

the 'decenterings' effected by Marx, Nietzsche, Freudian

psychoanalysis, linguistics, and ethnology.

In the aftermath of these disturbances and their attempted

deflection, the concept of discontinuity has become a working

concept, an instrument of historical research as well as an

object of its analysis. Discontinuity must no longer be regarded

as an obstacle that the historian must endeavour to reduce in

order to reveal an underlying chain of causality or rationality.

Foucault suggests that it is on the basis of this new

appreciation of the discontinuous that the historian is able to

conduct a discourse that has his own history as its object. It

is from within a discontinuity, Foucault argues, that we speak

today. Perhaps the key aspect of this mutation in history is the

fact that it is from within a fissure that we speak, and yet,

> it has been neither registered nor reflected upon, while
> other, more recent transformations - those of
> linguistics, for example - have been.[31]

In fact, he argues, all efforts have been made to direct

attention away from the 'decentering' effects of this

transformation, particularly as they impinge on the sacred

notions of a transcendental subject and his synthetic

consciousness, and of history as a coherent, uninterrupted

chronology of events. However, it is precisely this model of

history and consciousness that emerged in the nineteenth century

in response to the work of Marx, Nietzsche, and Freud.

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[31]Ibid., p. 12.

If we are now able to articulate the discourses of these three men, it is because these discursive formations to which they contributed, are beginning to break up, along with the episteme to which they belonged. If, as Foucault writes, the ground or episteme "is once more stirring under our feet,"[32] the theme of continuity and of a constituent consciousness can now be critiqued and known. In fact, Foucault argues, it is imperative that this be done.

Although the notion of discontinuity has not been easily adopted in any field, it has proven particularly difficult to formulate a theory of discontinuity in those histories in which men "retrace their own ideas and their own knowledge," as if to do so would be the worst possible admittance--"to conceive of the Other in the time of our own thought."[33] For if continuity is the familiar, the Same, the secure, discontinuity represents difference, the Other, the dangerous.

This emphasis on differences and discontinuities, Foucault is anxious to point out, should not be mistaken for the attempt to create new differences as a result of a particular analytical bias:

> Those who say that archaeology invents differences in an arbitrary way can never have opened La Nosographie philosophique and the Traite des membranes. Archaeology is simply trying to take such differences seriously.[34]

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[32]Idem, Order, p.xxiv.

[33]Idem, Archaeology p. 12.

[34]Ibid., p. 170.

Archaeology attempts to describe those differences that exist
between, for example, Pomme's treatment of hysteria in the
mid-eighteenth century, and Bayle's observations less than a
century later; or between Pinel's Nosographie (Year VI) and
Bichat's Traite (1827).[35] In so doing, it does not regard the
incidence of discontinuity and rupture as an outbreak of
irrationality upon the continuous horizon of knowledge.

> The cry goes up that one is murdering history whenever,
> in a historical analysis - and especially if it is
> concerned with thought, ideas, or knowledge - one is
> seen to be using in too obvious a way the categories of
> discontinuity and difference.[36]

What, Foucault asks, is this history that one is accused of
betraying? It is, in fact, one that offers a "last
resting-place" for anthropological thought,[37] for the need to
refer to a subject, the processes of his consciousness, or a
supportive teleology in order to 'explain' thought. Above all,
it is a continuous history that provides a "privileged shelter"
for the sovereign subject.

The problem of 'from whence knowledge arises' is therefore
not subordinated to the quest to establish a calendar of
"founding saints,"[38] nor to the attempt to trace the mysterious
and omnipresent workings of a transcendental consciousness that

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[35]See, Foucault, Clinic. Especially, "Signs and Cases" and "Open
Up a Few Corpses."

[36]Idem, Archaeology, p. 14.

[37]Ibid.

[38]Ibid., p. 144.

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slowly reveals its purpose against the passing of time. For these, and far too many other reasons than could possibly be encompassed within this thesis, Foucault sees his methodology and field of study to be distinct from those of the history of ideas.

Nor does Foucault, of necessity, resort to a narrowly Marxist account of the ground upon which knowledge is possible, seeking the cause of knowledge in the mode of production, or other non-discursive practices of which it is merely the expression. At the same time, Foucault writes,

> it is impossible at the present time to write history without using a whole range of concepts directly or indirectly linked to Marx's thought and situating oneself within a horizon of thought which has been defined and described by Marx. One might even wonder what difference there could ultimately be between being a historian and being a Marxist.[39]

Further, as Devereux Kennedy suggests, Foucault has distanced himself from the traditional perspectives of the sociology of knowledge, where epistemological conditions are more or less synonymous with social and economic determinants. While social or economic factors may prove decisive in terms of where one stands in a particular dispute, the conditions enabling that controversy to exist are not to be found within that group itself.[40]

> Though membership of a social group can always explain why such and such a person chose one system of thought rather than another, the conditions enabling that system

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[39]Idem, Power/Knowledge, p. 53.

[40]Kennedy, "Foucault," p. 271.

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to be thought never resides in the existence of the group.[41]

Foucault also attempts to avoid association with structuralism, as in his rewriting of parts of The Birth of the Clinic, although quite naturally, his work has been informed by this school.[42]

Constructionism and the document

Although the implications to the history of ideas that Foucault's discussion of consciousness and discontinuity raises are interesting in themselves, they are even more powerful when considered within the context of what might be called cultural epistemology. If we may be seen to think within certain culturally and historically defined patterns, frameworks, structures, and paradigms within whose contours we organize our knowledge and experience and thus lend our lives a sense of meaning and coherence, what happens when these structures are called into question? Where do we turn when the very foundations of our thought are seen to be inherently faulty or limited? Indeed, what are the shadowy foundations of our thought?

In a manner broadly similar to that of Harold Innis, Foucault suggests that we search for clues in the social processes by which we construct knowledge, and the cultural and

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[41]Foucault, Order, p. 200.

[42]See, Archaeology, pp. 202-4; Order, p. xiv.

historical <u>contexts</u> within which knowledge is formed. In so
doing, he attributes greater importance to <u>social</u> rather than
material or technological conditions. Perhaps, for Foucault,
mind does not permeate the social context, but knowledge, its
preconditions, and certainly its repurcussions do. As we shall
see in the later discussion of 'power-knowledge', Foucault sees
knowledge as a creation of social interaction, of communicative
practices. Knowledge cannot be divorced from the larger cultural
experience, from the dynamic network of social traditions and
personal relationships.

As an extension of social relations, knowledge is not
merely added on to the cultural environment as a sort of
intellectual adornment. Rather, its contribution lies in shaping
or molding the very context within which we exist. Thus, while
some of the conditions or 'codes' of knowledge (<u>savoir</u>) may
remain submerged and supposedly latent, knowledge itself is
<u>active</u>.

> Thought is no longer theoretical. As soon as it
> functions it offends or reconciles, attracts or repels,
> breaks, dissociates, unites or reunites; it cannot help
> but liberate and enslave. Even before prescribing,
> suggesting a future, saying what must be done, even
> before exhorting or merely sounding an alarm, thought,
> at the level of its existence, in its very dawning, is
> in itself an action--a perilous act.[43]

We spoke in the introduction of the concept of
constructionism--the means by which we construct knowledge, both
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[43]Idem, frontispiece, <u>Language</u>, <u>Counter-Memory</u>, <u>Practice:</u>
<u>Selected</u> <u>Essays</u> <u>and</u> <u>Interviews</u>, ed. and with an Introduction by
Donald F. Bouchard, trans. Donald F. Bouchard and Sherry Simon
(Ithaca, New York: Cornell University Press, 1977).

individually and culturally. As we have seen, Foucault is not concerned with individual construction, except insofar as a Cuvier or a Bichat reflects the _episteme_ of his day, both its liberties and its limitations. Whereas Innis attributes considerable constructive force to communication media, Foucault emphasizes the role, within modern society, of institutions and their discursive rules, interests, and procedures in the construction of knowledge. Within this context he suggests that the modern institutional method of construction is closely allied to the technique of _documentation_.

The notion of the 'document' penetrates to the core of the displacement Foucault has identified as operating within history:

> Now, through a mutation that is not of very recent
> origin, but which has still not come to an end, history
> has altered its position in relation to the document.[44]

History is no longer to be seen as "an age-old collective consciousness" that makes use of material documentation "to refresh its memory." The document no longer functions as "an inert material" through which history (as collective consciousness) tries to reassemble the remaining traces of what men have said or done.

Instead, Foucault argues, history must be regarded in an active sense, as the "material documentation" unique to any society and manifest in its "books, texts, accounts, registrars, acts, buildings, institutions, laws, techniques, objects,

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[44]Idem, _Archaeology_, p. 4.

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customs." Through these tools and procedures of documentation, history exists not as memory, as the past, but as "one way in which a socety recognizes and develops a mass of documentation with which it is inextricably linked."[45] That is, through the process of documentation a culture not only constructs its knowledge and values, it defines itself.

Similarly, the historian helps to define his episteme, the underlying sub-text of his own thought, through his interpretation of past knowledges and events. The manner in which he reconstructs knowledge and reorganizes documents is a guide to the form of philosophical and epistemological reflection 'favoured' by his episteme. The countless number of ways in which these documents may be combined and juxtaposed, the levels or perspectives from which they may be approached, underscores the possibility of constructing many different histories.

In attempting to elucidate the epistemological space within which a given culture formulates and articulates its knowledge, Foucault leaves room for the occurrence of conflicting, even contradictory knowledges rather than trying to force all knowledge into the same mold. Thus, in analyzing Western knowledge during the past century, he would be interested in those conditions that allow for both positivism and historicism. It is this level that he has variously called savoir or episteme.
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[45]Ibid., p. 7.

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Although we may discern differences--between cultures, or

from one age to another--in the way people think, the codes

governing 'what it is possible to think', cannot, Foucault

argues, be unearthed according to an analysis that would seek to

reconstruct human consciousness, a _weltanschauung_, or "a new

cultural theme."[46] Instead, Foucault proposes something more

concrete: an analysis of the _rules_ _of_ _discourse_ that define, not

the consciousness of a knowing subject, but the operations of a

discursive practice.

DISCURSIVE ANALYSIS: 'what it is possible to say'

If, as Foucault contends, his aim is to renounce all

anthropological and psychological referents in the formation of

knowledge, what space does the subject occupy in relation to the

thoughts he articulates? Is it possible to establish some form

of relation between thoughts that is not an affirmation of a

thinking, knowing, speaking subject? Can we discern a different

format for the organization of things that men have said? Must

the discursive field follow a temporal model of consciousness,

of intention, or of thought? By what rules, and in accordance

with what codes has Western civilization constructed its

discursive traditions?

In his effort to comprehend the construction, organization,

and utilization of Western knowledge, Foucault does not deny the

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[46]See, _The_ _Order_ _of_ _Things_, p. 238.

subject, but rather, those <u>definitions</u> of the subject that tend to equate the psychological component or consciousness with knowledge or thought. Indeed, it is within this definition only that Foucault may be said to have 'killed man'. Certainly, Foucault does downplay the subject, as he has been formulated within anthropological and historical thought in the past century. But in so doing, he has attempted to articulate a new understanding of the "subject" of knowledge, of the relation of the individual to social, cultural, and institutional traditions of knowledge.

Foucault's examination of the discursive field commences with a critical review of the categories within which Western knowledge has been organized--the accepted 'unities' into which we have traditionally divided up the field of thought. Familiar groupings such as science, philosophy, history, literature, and religion are neither universally valid categories, nor immediately self-evident. Rather, they reflect upon the classifactory principles, normative rules, values, organizational criteria, and interests of the groups that effect them, as well as the tenor of the historical <u>episteme</u>. It is only through the 'inertia of time' that such relative cultural constructions assume the status of universal categories organized around timeless laws. Furthermore, these 'unities' are not static groupings, but subject to change and abrupt dissolution. The thrust of Foucault's work on madness, medicine, and the human sciences is that knowledge, as well as its

ordering principles are historically sensitive.

Discursive unities, particularly the book and the oeuvre, provide two examples of the disturbances that lie in wait beneath the placid surface of our knowledge. For example, what is the relation of the material unity of the book to the discursive unity that it supports? What system of demarcation demonstrates the frontiers of a book, locates its position in a network of references that include other books, texts, commentaries, and that varies in the case of a mathematical treatise, historical narrative, and literary text? At what level does the distinctive character of the oeuvre emerge: that of the author's experience, imagination, unconscious processes, influence by historical determinations? Are the criteria that distinguish the oeuvre of Borges, the same as those that form Einstein's oeuvre, and if not, in what sense can we use the term oeuvre?

Taking this a step further, how does one establish the unity of a discourse such as natural history or clinical medicine? What criteria enable us to say that two statements belong to the same discursive unity? Foucault's early inquiries into madness, medicine, and the human sciences had uncovered discursive groupings for which the term 'unity' was misleading. Rather than forming a more or less 'uninterrupted text', a coherent conceptual architecture, Foucault found statements so heterogeneous as to be irreducible to a single figure or weltanschauung:

> What appeared to me were rather series full of gaps,
> intertwined with one another, interplays of differences,
> distances, substitutions, transformations.[47]

What, then, are the rules that tie these constructions together?

The Analysis of Statements and the Enunciative Function

Foucault argues that before the imposition of a familiar unity such as the book or the _oeuvre_, one is dealing with "a population of events in the space of discourse in general."[48] The rules governing thought, those that limit 'what it is possible to say', may be found in a description of statements and their dispersal in the field of discourse. Where one is able to identify 1) a system of dispersion of statements; 2) a regularity in the relations between statements; 3) a single system of formation for statements, there exists what Foucault calls a 'discursive formation'. The method for analyzing such a formation does not involve a theory of the knowing subject, but rather, a theory of discursive practices.

In the analysis of statements what is important is not what was 'really meant' by a particular statement, its silent, unspoken content. Rather, one questions the fact of its appearance--what it means for _that_ statement, and not another, to have broken the surface of discourse. Foucault argues that there is always a 'deficit' of statements, and therefore those

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[47]Ibid., p. 37.

[48]Ibid., p. 27.

that do emerge possess a certain value and are the target of appropriation. A statement is thus a scarce resource, one that poses the question of power and political struggle by the sheer fact of its historical appearance.

Herein lies perhaps the key differentiation between a sentence, a proposition, and a statement. The statement is an 'event', whose occurrence is not reducible to the laws of grammar or logic:

> The question posed by language analysis of some
> discursive fact or other is always: according to what
> rules could other similar statements be made? The
> description of the events of discourse poses a quite
> different question: how is it that one particular
> statement appeared rather than another?[49]

This eventful irruption of discourse means that we must be prepared to treat discourse "as and when it occurs,"[50] although this is not always possible: "We have employed a wide range of categories - truth, man, culture, writing, etc. - to dispel the shock of daily occurrences, to dissolve the event."[51]

Within the theory of discursive practices, Foucault suggests that the subject be considered in terms of the various functions he performs, primarily that of enunciation, the act of producing statements. The relation of the subject to the statement is that of a function that is both neutral and variable. It is neutral or 'empty' insofar as this position can

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[49]Ibid.

[50]Ibid., p. 25.

[51]Idem, Language, p. 220.

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be occupied by virtually anyone (given the requisite

qualifications). It is variable,

> in so far as one and the same individual may occupy in
> turn, in the same series of statements, different
> positions, and assume the role of different subjects.[52]

This relation of subject to statement is not the same as

that which exists between an author and a formulation, either in

the sense of being "the cause, origin, or starting-point" of a

written or spoken sentence, nor in the sense of what the author

says, or intends to say. Instead, it consists of determining

what <u>position</u> must be occupied in order that an individual may

be the subject of that statement.[53]

Above all, Foucault is interested in the rules and

conditions that govern the process (construction) of discourses,

those necessary to constitute discursive objects; to decide who

has the right to speak or intervene in a given discourse, and

what may be spoken of; and to determine what language or

concepts may be used.

The Rules of Discourse and the History of Questions

Here, as elsewhere, Foucault's questions disturb the calm

film of truth that has been laid out by the questions of others,

by that which has already been said. In a sense, Foucault seeks

to discover not the evolution, progress, or refinement of an

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[52]Idem, <u>Archaeology</u>, pp. 93-94.

[53]Ibid., p. 96.

idea, but the perpetuation of a line of questioning; not the history of ideas, but the history of questions:

> In the sense that there is a history of madness, I mean of madness as a question, posed in terms of truth, within a discourse in which human madness is held to signify something about the truth of what man, the subject, or reason is.[54]

In particular, he wants to know what questions people (especially doctors, psychologists and scientists) have imposed on subjects such as sexuality, criminality, and insanity; what methods of classification and differentiation have been employed to form the distinct realms of reason and insanity, normalcy and deviance; what the criteria and norms of a true discourse are, and who is given the authority to decide.

In Foucault's analysis of discursive practices, the answers to these questions reside within discourse itself, in the rules of discursive formation that must be followed by anyone endeavouring to speak in a given discourse. These rules govern the emergence and transformation of discursive objects, the organization and modification of discursive concepts, the enunciative forms or styles a discourse may take, and the strategies or ways of 'practicing the possibilities of discourse' that may be chosen.

While these rules are seldom articulated by those who employ them, they are nonetheless adhered to in much the same manner as the grammatical complexities of language. The rules of discourse constitute the grammar that defines what it is

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[54] Idem, Power/Knowledge, p. 213.

possible to say in a discourse, and operate at a level that

"eludes the consciousness (of the scientist) and yet is part of

(scientific) discourse." It is at this level that,

> unknown to themselves, the naturalists, economists, and
> grammarians employed the same rules to define the
> objects proper to their own study, to form their
> concepts, to build their theories.[55]

Further, the rules of discursive formation operate, "according

to a sort of uniform anonymity, on all individuals who undertake

to speak in this discursive field."[56]

In the case of discursive _objects_, the rules of formation

establish the conditions necessary to form objects, to deal

with, name, or classify them as belonging to a particular

discourse. Foucault cites the example of psychopathology and its

development from the nineteenth century onwards. He finds that

at this juncture, a host of new objects appeared:

> Minor behavioural disorders, sexual aberrations, and
> disturbances, the phenomena of suggestion and hypnosis,
> lesions of the central nervous system, deficiencies of
> intellectual or motor adaptations, criminality.[57]

Discursive objects emerge through a system of relations

between 'surfaces of emergence' (fields of differentiation in

which a discourse limits its domain, such as the family, the

workplace); 'authorities of delimitation' (the law, religion,

the police, institutions); and 'grids of specification'

(according to which things are classified, contrasted, and

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[55]Idem, _Order_, p. xi.

[56]Idem, _Archaeology_, p. 63.

[57]Ibid., p. 40.

differentiated from one another as objects of the same discourse).

The rules governing the formation of <u>enunciative modalities</u> apply to the various statuses, sites, and positions one can occupy or be given when conducting a discourse. Here it is important to establish whether one has the qualifications and authority to speak in a given discourse; the institutional sites (hospital, laboratory, library) from which one can conduct a discourse; and the situations one can occupy in relation to various domains or groups (for example, as a perceiving, teaching, or observing subject), as well as one's position in relation to various information networks (systems of oral history, case-studies, statistical data).[58] What emerges are the <u>variety</u> of enunciative modalities from which a discourse can be made, the dispersion of the enunciative subject himself.

The rules of formation of <u>concepts</u> refer to the forms of co-existence that may be established between statements, to a system of conceptual formation. The schemata according to which statements may be linked to one another in a discourse describes,

> not the laws of the internal construction of concepts, not their progressive and individual genesis in the mind of man - but their anonymous dispersion through texts, books, and <u>oeuvres</u>.

This matrix of 'dispersion' that characterizes a discourse, establishes the field in which concepts can co-exist, as well as

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[58]Ibid., p. 60.

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"the rules to which this field is subjected." Anyone wishing to speak in a field is bound to these rules. Therefore, they display a certain anonymity.[59]

Finally, there are the rules that govern the formation of strategies. Each discourse, in giving rise to certain concepts, objects, and types of enunciation, forms themes or strategies, such as the eighteenth century theme of an original or 'adamic' language from which all others derive. Rather than chronicling the permanence of theories, themes, or opinions, the problem arises as to how to account for their distribution in history. Are they linked through necessity; through coincidences that may be arranged into a whole; or through a regularity that defines their system of formation? Unlike the other formative rules, these have not been given a full analysis by Foucault and await a "later study," although the directions that such a study might take can at least be indicated.

One such direction would concern the "field of strategic possibilities" made possible in discourse through the distribution of objects, enunciations, and concepts. In this 'dispersion of choices' left open by discourse, one would examine the possibilities for

> reanimating already existing themes, of arousing opposed
> strategies, of giving way to irreconcilable interests,
> of making it possible, with a particular set of
> concepts, to play different games.[60]

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[59]Ibid., pp. 60, 63.

[60]Ibid., pp. 36-37.

Each distribution opens a field of possible options that allows

for a variety of mutually exclusive 'architectures' to appear.

In order for there to exist a choice between strategies it must

be possible to form divergent theories according to one and the

same set of rules:

> A discursive formation will be individualized if one can
> define the system of formation of the different
> strategies that are deployed in it . . . For example,
> the Analysis of Wealth in the seventeenth and eighteenth
> centuries is characterized by the system that could form
> both Colbert's mercantilism and Cantillon's
> 'neo-mercantilism'; Law's strategy and that of
> Paris-Duverney; the Physiocratic option and the
> Utilitarist option.[61]

In order to account for the choices or 'architectures'

selected from this field, one must be able to pinpoint the

authorities guiding one's choice, the relations within discourse

that form a principle of permission or exclusion. A discursive

formation is always able to reveal new possibilities, not

because of an implicit, silent content that eventually emerges,

but because of a modification in the principle of exclusion, a

change in what allowed to be included in a discourse. In this

sense, a discursive formation is "essentially incomplete;" it

does not occupy "all the possible volume" that is made available

by the formation and arrangement of its objects, enunciations,

and concepts.[62]

A further authority concerns the function that discourse

plays in a field of non-discursive practices, such as political

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[61]Ibid., pp. 68-69.

[62]Ibid., p. 67.

and economic decisions, and institutional regulations. This
authority involves "rules and processes of appropriation of
discourse" in which the right to speak, the ability to
understand, and access to information is limited to a particular
segment of society.

> We know perfectly well that we are not free to say just
> anything, that we cannot simply speak of anything, when
> we like or where we like; not just anyone, finally, may
> speak of just anything.[63]

Strategies are not choices that reside in some fundamental form
anterior to discourse, nor the expression of a world-view, nor
the translation of an interest, the play of opinions, or the sum
of various options, but rather, "they are regulated ways (and
describable as such) of practising the possibilities of
discourse."[64]

The rules of discourse are important not only in terms of
the internal construction of a discourse, but also with respect
to their relations to phenomena external to discourse. When any
of these relations are modified for whatever reason, there may
be concurrent adjustments throughout a discursive practice. For
example, changes may occur in the rules authorizing who may
speak, or those governing the insertion of discourse into
institutional matrices.

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[63]Ibid., pp. 68, 216.

[64]Ibid., p. 70.

INSTITUTIONAL ANALYSIS: 'what is considered true'

Whereas The Order of Things and The Archaeology of
Knowledge are almost exclusively discursive analyses, in Madness
and Civilization, The Birth of the Clinic, Discipline and
Punish, and the collection Power-Knowledge, Foucault is
preoccupied with the relation between discourses and
institutions (of containment, treatment, or observation) in the
formation of knowledge. He argues that the prison, the clinic,
and the asylum share similar features and functions, such as
their capacity to centralize knowledge and to disseminate power,
and above all, to 'make discourses function as true'. He
suggests that the mutual interaction of knowledge and power
combine to effect truth, and that truth, in turn, is a process
of differentiation and definition whose implications extend
throughout epistemology and social existence.

In Foucault's study of medicine--as both a discourse and an
institution--we see the coagulation of a number of key themes in
his analysis of modern society: the inseparability of knowledge,
power, and truth; the definitional process of truth as
normalization, and the practices that both stem from and make
possible our articulation of truth; and the epistemic function
of science as the leading institutional system for constructing
knowledge, producing truth, and organizing behaviour in the
Western world. Foucault's unique perspective allows us to see
the contemporaneous emergence of the 'sciences of the

individual' (the human sciences), and the formation of the
individual fact in clinical medicine as a momentous event in
Western epistemology.

In the fourth and final section of this chapter, we will
consider Foucault's study of madness, which may be said to lead
in the opposite direction: away from the sterile, clinical
dissection of man as a medical object, toward the darkened
recesses of the human psyche where truth lies folded in upon
itself, hidden amongst the labyrinthine contours of the human
frame. Foucault's argument here is that that which does not meet
scientific standards of truth, whether people, thought, or
behaviour, is considered marginal, that is, invalid or
unscientific. If science is reason and truth, that which it is
not legitimate to think, believe, or say, is madness. Whereas
truth is a process of definition, madness is a process of
exclusion from those definitions.

Power-Knowledge

Despite the obvious attention given by Foucault to the
analysis of discourse, the question of power has never been far
from the surface of discussion, particularly in those studies
that deal explicitly with institutions. In a 1977 interview
Foucault stated, perhaps for the first time in so succinct a
manner, "When I think back now, I ask myself what else it was
that I was talking about, in Madness and Civilization or The

<u>Birth</u> <u>of</u> <u>the</u> <u>Clinic</u>, but power?"[65] Perhaps what made it

difficult to perceive the presence of power in Foucault's early

work, was the fact that he was struggling with a new

conceptualization of power, one dealing with its relations to

knowledge, although in a form not yet fully articulated.

While it may be said that the discussion of power and

knowledge did not originate with Michel Foucault, it is equally

true that he has brought a fresh approach to this problematic.

Foucault's model of 'power-knowledge' (<u>pouvoir-savoir</u>) is based

upon a re-formulation of the theory of power, and an attempt to

demonstrate "the relations that are possible between power and

knowledge,"[66] particularly as these are mediated through modern

institutions.

Foucault sees power and knowledge as existing in an

interdependent, reciprocal, inseparable relationship, a state of

"constant articulation" upon one another: "The exercise of power

perpetually creates knowledge and, conversely, knowledge

constantly induces effects of power."[67] He chastizes what he

calls the 'humanist tradition'[68] for its naive assumption that

one day knowledge will cease to depend upon power, that it is

possible for knowledge to exist apart from the influence and

exercise of power, and therefore that power need not rely upon

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[65]Idem, <u>Power/Knowledge</u> p. 115.

[66]Ibid., p. 69.

[67]Ibid., pp. 51, 52.

[68]See, Idem, <u>Language</u>, p. 221.

knowledge in order to function:

> Knowledge and power are integrated with one another, and
> there is no point in dreaming of a time when knowledge
> will cease to depend on power; this is just a way of
> reviving humanism in a utopian guise. It is not possible
> for power to be exercised without knowledge, it is
> impossible for knowledge not to engender power.[69]

The Analytics of Power

What Foucault attempts to construct is not so much a _theory_
of power, as an _analytics_ of power. For Foucault, a 'theory of
power relies upon references to a subject, (principally the
sovereign) or a dominant class as the source, possessor, and
wielder of power. The history of the theory of power, therefore,
recounts its genesis, its evolution, in terms of the mind of a
subject. Further, this implies a sense of continuity, where
power is a property handed down by right of birth or social
standing. Power in this sense, is most clearly expressed as a
manifestation of "the physical existence of a sovereign."[70]

'Analytics' on the other hand, is intended to disclose the
exercise of power, not in the vocabulary of sovereignty,
legitimacy, and right, but that of strategies, mechanisms, and
techniques within a larger framework of "struggle, conflict and

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[69]Idem, _Power/Knowledge_, p. 52.

[70]Ibid., p. 104.

war."[71] Foucault chooses not to concentrate on the laws in which

power is coded, or the official 'legal' bodies concerned with

its jurisdiction (such as the state).

> One impoverishes the question of power if one poses it
> solely in terms of legislation and constitution, in
> terms solely of the state and the state apparatus.[72]

Instead, he has studied power "at its extremities, in its

ultimate destinations," those points where it is always "less

legal in character."[73] Foucault has concentrated on those points

> where power surmounts the rules of right which organise
> and delimit it and extends itself beyond them, invests
> itself in institutions, becomes embodied in techniques,
> and equips itself with instruments and eventually even
> violent means of material intervention.[74]

Attention is thus drawn away from more general forms of

power, couched in legal terms and emanating from a central

point, and directed instead toward "infintesimal mechanisms" or

"micro-relations" of power, that is, toward the process of power

rather than the contents of the law. Foucault refers to the

emergence in the seventeenth and eighteenth centuries, at the

close of the classical age, of new technologies of power that

become increasingly specific and permit access to, "the bodies

of individuals, to their acts, attitudes and modes of everyday

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[71]Ibid., p. 90.

[72]Ibid., p. 158.

[73]ibid., p. 97.

[74]Ibid., p. 96.

behaviour."[75] In turn, it is the emergence of the human sciences at this same time that provides a knowledge of individuals, toward which this power may be directed.

In Foucault's judgement, these new technologies of power that mark the transition to the modern age were

> probably even more important than the constitutional reforms and new forms of government established at the end of the eighteenth century.[76]

They amounted to a 'reform' of the exercise of power, a series of inventions, instrumental 'mutations', and the renovation of previous techniques. Foucault regards the form of power that has emerged as technical in nature, not juridical. It is an exercise, a process, that "only exists in action," and not the 'projection' of the sovereign and his absolute power of right.[77]

Foucault also feels that we must rid ourselves of the notion that power is held by some and denied to others. It is not external and additional, but rather, internal and contemporaneous. Power is exercised "within the social body, rather than from above it."[78] Power is not so much a thing, 'le pouvoir', as a set of relationships, linkages, connections, a pattern of communication that individuals themselves transmit throughout society, sometimes via institutions such as the Media, and sometimes in the course of everyday human
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[75]Ibid., p. 125.

[76]Ibid., p. 124.

[77]Ibid., p. 89.

[78]Ibid., p. 39.

relationships.

Power can best be understood as a network of relations, as "something which circulates." These relations are not separate from other relations (economic, sexual), but are instead, immanent in them. Power, like knowledge, finds its conditions of possibility in social relations. Nor are power relations predetermined, so that an economic discourse will always produce the same effects of power. Differing strategies bring different power relations into play. Within this network, the individual plays the unique role of both the 'target' and the 'articulator' of power's exercise, as he is always in the position of simultaneously undergoing and exercising this power power.[79]

The 'Positive' Economy of Power

Foucault takes particular issue with the idea that power operates solely in a negative, restrictive, prohibitive manner. He suggests that power is a productive force, able to create effects of truth, form knowledge, and even constitute man himself in terms of the knowledge we may gain of him and the power that may be invested in him. Power functions in a <u>positive</u> manner:

> We must cease once and for all to describe the effects
> of power in negative terms: it 'excludes', it
> 'represses', it 'censors', it 'abstracts', it 'masks',
> it 'conceals'. In fact, power produces: it produces

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[79]Ibid., p. 98.

reality; it produces domains of objects and rituals of truth.[80]

Foucault emphasizes that rather than merely denying, excluding, or negating knowledge, "power produces it."[81] While it is true that 'we are not free to say just anything', we can approach this problem from other than a largely psychoanalytic theory of repression. There are other strategies for silencing knowledge. By choosing between different options that power allows--if power is understood to be a system of relations that produces, circulates, and therefore legitimizes at a specific time, particular types of knowledge--one can give voice to certain knowledges and not others.

Power exists in a particular field, the social body. Strategies of power imply corresponding strategies in the discursive field. Thus, Foucault's studies of medicine, madness, and penology are largely concerned with strategies, both discursive and institutional, that permit the accumulation and exclusion of specific knowledges, and the extension and refinement of power, and that concommitantly make it possible to endorse or reject the claims to attention of select social groups. In a 1976 interview conducted under the auspices of the geography journal, "Herodote," Foucault was questioned as to the links between his work and the specific concerns of geography. Towards the end he admits,

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[80]Idem, Discipline and Punish: The Birth of the Prison, trans. Alan Sheridan (New York: Random House, 1977; Vintage Books, 1979), p. 194.

[81]Idem, Power/Knowledge, p. 59.

the longer I continue, the more it seems that the
formation of discourses and the genealogy of knowledge
need to be analysed, not in terms of ideology, but in
terms of tactics and strategies of power.[82]

Power is one of the conditions of knowledge (<u>savoir</u>), as

knowledge is a necessary constituent of power. It is knowledge

that determines and reveals the points of application of power,

providing a discursive map for the articulation and intervention

of power, and the accumulation of further knowledge.

These effects of power that discourse engenders are not

imposed from outside; they circulate within discourse itself,

constituting an "internal regime of power." That is, the rules

governing the formation of statements, when organized and

employed according to a particular strategy, produce effects of

power, both in terms of 'what is considered true', and in terms

of what this truth means.

In the end, we are judged, condemned, classified,
determined in our undertakings, destined to a certain
mode of living or dying, as a function of the true
discourses which are the bearers of the specific effects
of power.[83]

Truth: The Process of Definition

Foucault is less concerned with truth, an interest he sees

as typically Anglo-American,[84] than with the <u>effects</u> of truth,

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[82]Ibid., p. 77.

[83]Ibid.,pp. 112, 94.

[84]See, Otto, Friedrich, "France's Philosopher of Power," <u>Time</u>,
November 16, 1981, pp. 147-148.

and of power, especially those produced in discursive practices

and given institutional support. Just as power and knowledge are

difficult to disentangle, so too are power and truth:

> We are subjected to the production of truth through
> power and we cannot exercise power except through the
> production of truth.

Truth is something sought after--it does not imprint itself upon

the mind like a watermark on stationary:

> Power never ceases its interrogation, its inquisition,
> its registration of truth: it institutionalises,
> professionalises and rewards its pursuit.[85]

Truth and power are linked in a circular, almost ecological

relation, that Foucault calls a 'regime of truth'. Each society

has its own regime of truth, characterized by

> the types of discourse which it accepts and makes
> function as true; the mechanisms and instances which
> enable one to distinguish true and false statements, the
> means by which each is sanctioned; the techniques and
> procedures accorded value in the acquisition of truth;
> the status of those who are charged with saying what
> counts as true.

Thus, Foucault is keenly interested to disclose the type of

power that accompanies and induces a clinical discourse on man

as convict, insane, or diseased, and further, to see "how

effects of truth are produced within discourses which in

themselves are neither true nor false."[86]

Not surprisingly, Foucault is more interested in the rules

and procedures by which a society or fraternity decides upon the

truth, the norms of the decision-making process itself, than in

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[85]Foucault, Power/Knowledge, p. 93.

[86]Ibid., pp. 131, 118.

the actual contents of that decision. Truth is not the sum of true statements or facts, but the rules that must be followed, the conditions that must be fulfilled:

> By truth I do not mean "the ensemble of truths which are to be discovered and accepted," but rather "the ensemble of rules according to which the true and the false are separated and specific effects of power attached to the true.[87]

Thus, when Foucault notes, 'there is a battle for the truth', or at least 'around the truth', we must consider the institutions, procedures, practices, social and economic processes, rules of discursive formation, and other conditions for the possibility of emergence of knowledge, that combine to effect truth, and not just the contents or ideas we have decided are 'within the true' (dans le vrai).

In this sense, the problem of truth is not a matter of changing people's consciousness, or the thoughts they carry in their heads, but of attempting to constitute a new "regime for the production of truth." It is not a matter of liberating truth from power,

> but of detaching the power of truth from the forms of hegemony, social, economic and cultural, within which it operates at the present time.[88]

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[87]Ibid., p. 132.

[88]Ibid., p. 133.

The Will to Truth

Throughout his work, but particularly in the studies of the
asylum and the prison, Foucault refuses to situate himself in a
position of historical privilege, so that a history of reason
becomes a glorification of the present perspective on truth.
Instead he is led to ask,

> what is the hazardous career that Truth has followed?. .
> . What is the history of this 'will to truth'? What are
> its effects? How is all this interwoven with relations
> of power?[89]

The difficulties such questioning raises have been Foucault's
concern in both lectures and essays. He comments:

> We are faced with the unavoidable fact that the tools
> that permit the analysis of the will to knowledge must
> be constructed and defined as we proceed, according to
> the needs and possibilities that arise from a series of
> concrete studies.[90]

A prominent and necessary reference point was supplied by
Nietzsche, particularly in those works that deal with the
genealogy of morals, and the history of that which "we tend to
feel is without history – in sentiments, love, conscience,
instincts."[91] If the different forms of knowledge (science,
literature, philosophy) have a history, so too must the will to
knowledge, for these forms, including forms of consciousness
(ie. scientific), reveal different aspects of the will to

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[89]Ibid., p. 66.

[90]Idem, Language, p. 201.

[91]Ibid., pp. 139-40.

knowledge: "Instict, passion, the inquisitor's devotion, cruel subtlety, and malice."[92] The will to knowledge is therefore not a calm progress toward the unfolding of a universal truth. Each era or episteme has its own will to truth:

> In the nineteenth century there was undoubtedly a will
> to truth having nothing to do . . . with the will to
> knowledge which characterized classical culture.

An everpresent danger inherent in any will to truth is that we fail to recognize within the process of truth, the influence of will, desire, or passion. These become masked in our attempts to provide for ourselves, those origins in whose light we prefer to see ourselves.[93] Foucault suggests that psychiatry provides a case in point:

> Is it (not rather) that psychiatry is not on good terms
> with its own history, the result of a certain inability
> on the part of psychiatry, given what it is, to accept
> its own history?[94]

Today, the production of official, legitimate knowledges such as scientific medicine, reveal through the exclusion of alternative discourses (holistic therapies), a will that is to a certain extent, normative and judgemental. However, more than the play of instincts or passions is at work in the "prodigious machinery of the will to truth."[95] Strategies of power are also

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[92]Ibid., p. 162.

[93]Idem, Archaeology, p. 218; Language, p. 164.

[94]Idem, Power/Knowledge p. 192.

[95]Idem, Archaeology, p. 220.

immanent in the will to knowledge;[96] more or less 'official' strategies that manouvre the doctor or the psychiatrist into a position of authority in discourses and institutions;[97] even the strategy of 'reverse discourses' such as those of homosexuals, patients, or prisoners, that challenge the institutions and denounce the very divisions that designate and exclude them.[98]

In modern society, the will to truth and its strategies, is reliant upon considerable institutional support:

> . . . It is both reinforced and accompanied by whole strata of practices such as pedagogy - naturally - the book-system, publishing, libraries, such as the learned societies in the past, and laboratories today.[99]

Included among these supports, as Innis so clearly saw, are the media of communication, including those 'minor technologies' of classification (tables, lists, graphs, charts) Foucault demonstrates as essential to the prison, the asylum, and the hospital. Of course, the 'larger' communication media familiar to us all, are equally important in supporting a specific will to knowledge:

> The full range of hidden mechanisms through which a socety conveys its knowledge and ensures its survival under the mask of knowledge: newspapers, television, technical schools, and the lycee (even more than the

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[96]Michel Foucault, The History of Sexuality, vol. 1: An Introduction, trans. Robert Hurley (New York: Random House, 1978; Vintage Books, 1980), p. 73.

[97]Idem, Power/Knowledge, p. 206.

[98]Idem, Language, pp. 209, 230.

[99]Idem, Archaeology, p. 219.

university).[100]

If we recall Innis' claim that the _form_ of communication
media influences the form and style of knowledge produced and
conveyed, this would appear sympathetic to Foucault's claim that
forms of knowledge (or, if one prefers, forms of consciousness)
reveal the different forms or aspects of the will that produces
them, including in this 'will', the media of communication.

Foucault feels that since the Middle Ages, the will to
truth has manifest itself most forcefully in Western society, in
the pursuits of science. That is, "the great mutations of
science" may be seen as new forms of the will to truth.[101] It is
through science that we construct knowledge and define what it
is legitimate to think, acceptable to believe, and normal to do,
that is, the rules and norms of scientific practice enable us to
define the truth.

Therefore, we might ask ourselves, what does science mean?
What powers accompany a scientific discourse, and why do we
desire it so? What does the history of this desire, this science
or truth, tell us? What values does science require in order to
function?

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[100]Idem, _Language_, p. 225.

[101]Idem, _Archaeology_, p. 218.

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Science and the Definition of Man: Medicine

In the clinic, the prison, and the asylum, Foucault
outlines several 'objects' of knowledge that reason and truth,
as science have, for the past century and a half, constituted:
disease, crime, madness. These 'objects' demonstrate a
particular will to knowledge, one that values, above all else,
the practice and norms of scientific medicine. Medicine may
speak the truth of man, but 'scientific medicine' is the truth
of reason, of truth itself.

For Foucault, medicine is a major epistemological and
phenomenological force in the Western world. It is a theatre, a
stage upon which the drama of our existence unfolds admist the
comic and tragic scenery of our knowledge, our behaviours and
attitudes. It is through medicine that we recognize both how and
what we think of ourselves, for it is here that we display in
sharp relief, the manner in which we treat and care for
ourselves and others. We are, as it were, a medical animal, one
whose nature may be defined in the language and practice of our
most intimate science.

From an epistemic perspective (savoir), medicine in modern
society has the authority to constitute as objects of knowledge,
madness, disease, perversity; to constitute as objects of
madness, particular individuals and forms of behaviour; to
implement the "compulsory insertion" of a patient into an
institution and into a 'network of writing'; to assist in the

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conviction and sentencing of individuals; to decide upon a method of rehabilitation, and to judge when the infirm, the mad, and the deviant have crossed the threshold into health, sanity, reason, and normalcy.

Medicine, therefore, is concerned in a very real way, with the "construction" of modern man in terms of the knowledge we may gain of him--those secret truths revealed through surgery, autopsy, or psychoanalysis that concern man's nature, his potential, his value, his life.

> What is unspoken in the world, in our gestures, in the whole enigmatic heraldry of our behaviour, our dreams, our sicknesses - does all that speak, and if so in what language and in obedience to what grammar? Is everything significant, and, if not, what is, and for whom, and in accordance with what rules?[102]

However, medical discourse and knowledge reveal perhaps their most extraordinary powers of definition not in medical practices per se, but in those extra-medical discourses and practices upon which medical knowledge has been articulated, primarily the human sciences. It is in the extension and intervention of medicine into non-medical areas of life--those that concern our classification (knowledge) and control (power) by external agencies--that the real power of medicine in our society may be said to reside.

Through the prestige of the doctor and his discourse, medicine has been able to intervene in all matters pertaining to the secret truths of man: in those discourses that purport to

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[102]Idem, Order, p. 306.

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locate the truth of the individual within madness, sexuality, normality, health (physical, psychological, moral), disease or death; in those institutions concerned with the evaluation, classification, and segregation of individuals (the asylum, the clinic, the prison, even in factories and schools); in those procedures of assessment that declare an individual to be ill, insane, criminal, perverse; in those mechanisms for prescribing a "cure," a therapy, a training, a correction; in the recruitment of parole officers, social workers, health care officials, and guidance counsellors, whose role is to supervise and oversee.

Out of this general 'medicalization' of behaviours, conducts, and discourses has been born the modern individual, as he may be utilized and known. A series of 'careers' in the human sciences was launched by this medical differentiation of individuals.

The emergence of the human sciences in the nineteenth century provided for a knowledge and discourse of man as an individual. This coincides roughly with the birth of the individual fact in anatomo-clinical medicine, as well as the establishment of carceral institutions designed to isolate and segregate deviant individuals. However, the role of medicine with respect to this newly constituted individual is not simply to provide a new 'reading' of the relation between an individual and his disease. Gradually, medicine was to assume the role of a 'common denominator' between the human sciences (psychology,

sociology, psychiatry), and in their institutional extensions
(the asylum, the prison, the clinic).

The importance of medicine within the overall
'architecture' of the human sciences--in its role as an
institution, a form of experience, a corpus of knowledge, and an
element in the exercise of power--is, for Foucault, difficult to
overestimate.

> The importance of Bichat, Jackson, and Freud in European
> culture does not prove that they were philosophers as
> well as doctors, but that, in this culture, medical
> thought is fully engaged in the philosophical status of
> man.[103]

What can we make of this 'immense appetite for medicine' that
touches most everyday aspects of our lives?

Let us consider the reorganization of medicine at the turn
of the nineteenth century, into something more closely
resembling the 'science' of today. The 'birth of the clinic'
disturbed the order of knowledge that medical discourse
produced, the practice of medicine, and the status of its
enunciator (the doctor) in relation to society, its norms and
institutional complexes. The first two repercussions have been
briefly introduced already. The third is especially crucial.

The doctor performs a function as the enunciator of a very
special discourse. In addition to this functional, somewhat
technical role, the doctor in modern society, has been elevated
to the status of a God--in the eyes of men confronting their own
unique individuality, the facts of their existence, ('as if')
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[103]Idem, Clinic, p. 198.

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for the first time, and largely <u>because</u> of his discourse and the

knowledge it sets loose. This mercurial ascent of the doctor has

its beginning in the transition from classical nosology to the

modern individualization and institutionalization of medicine,

death, and life.

The Emergence of the Modern Doctor

In <u>The</u> <u>Birth</u> <u>of</u> <u>the</u> <u>Clinic</u>, Foucault examines changes in

the rules governing the enunciation of medical discourse, and

the impact of this on medical perception.

> New objects were to present themselves to the medical
> gaze in the sense that, and at the same time as, the
> knowing subject reorganizes himself, changes himself,
> and begins to function in a new way.[104]

In these twenty-five years, between 1790 and 1815, doctors

literally see and know different things; they see familiar

objects with a new 'gaze', and they remove hitherto accepted

knowledge from medical discussion. This transformation in

medical perception, born of anatomo-clinical medicine, coincides

with a number of external events: political, economic, normative

and institutional.

Essentially, what was altered was "the status, the

institutional siting, the situation, and the modes of insertion

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[104]Idem, <u>Clinic</u>, p. 90.

used by the discoursing subject."[105] At the end of the

eighteenth century, the status of the doctor in 'Western

civilization' assumed a new importance.[106] This status is

interwoven with a series of relations, for example, those

between the hospital and the clinic, the doctor and the patient,

clinical medicine and pathological anatomy. Of these, all but

the first have been mentioned.

During the 'old age of the clinic', those 'poor

unfortunates' with no family to care for them, were treated in

hospitals as part of a program of 'assistance' provided largely

through charity, lay ,and religious organizations. Poverty was a

generalized, undifferentiated category:

> Sickness is only one among a range of factors, including
> infirmity, old age, inability to find work and
> destitution, which compose the figure of the
> 'necessitious pauper' who deserves hospitalization.[107]

Doctors were trained and received their education largely in the

clinical environment. At the end of the eighteenth century, the

clinic underwent a "sudden radical restructuring," that led

eventually, to its becoming synonomous with "the whole of

medical experience."[108]

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[105]Idem, Archaeology, p. 65.

[106]Not only in the hospital, but the asylum and the prison as
well. In the modern asylum a similar apotheosis of the doctor
occurred, but for reasons explicitly normative, rather than
medical, technical, or 'positive'.

[107]Idem, Power/Knowledge, pp. 168-69.

[108]Idem, Clinic, p. 62.

Economic imperatives, together with the need to both train doctors, and to define the standards of medical competency in the aftermath of a wave of incompetent, uncontrolled, military doctors who had set up practices after the Revolution, demanded a reassessment of the relations between sickness and assistance. Finer distinctions "between the different categories of unfortunates to which charity confusedly addresses itself," were introduced. The category of the 'poor' was now divided according to a scale of 'idleness', as the treatment of the poor became engulfed by "the imperatives of labour" and "the needs of production."[109]

This coincides with the emergence of a new societal objective, whereby the health and physical well-being of the general public was to become one of the "economic norms required by industrial society."[110] Medicine was now informed not only by a set of techniques and a body of pathological or surgical knowledge, but by a knowledge of comparison and judgement based upon "a knowledge of healthy man, that is, a study of non-sick man and a definition of the model man."[111] As medicine became a "general technique of health" rather than "a service to the sick

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[109]Idem, Power/Knowledge, p. 169.

[110]Idem, Archaeology, p. 51.

[111]Idem, Clinic, p. 34.

or an art of cures," the rich and the poor made a secret pact.[112]

The cost of health care is not a new issue, nor is it ever a purely technical, economic problem. Foucault notes that during the French Revolution, that period of post-Enlightenment fervour,

> there were over 60,000 paupers in Paris in the Year II and their number was increasing; popular movements were too feared, and too much suspicion surrounded the political use to which individual assistance might be put, to allow the whole system of assistance to be left to them. A structure had to be found, for the preservation of both the hospitals and the privileges of medicine, that was compatible with the principles of liberalism and the need for social protection - the latter understood somewhat ambiguously as the protection of the poor by the rich and the protection of the rich against the poor.[113]

The newly revamped clinic seemed to provide an answer. It allowed for the integration of a hospital system organized to provide assistance to the poor, and a clinical structure that demanded an object of study and practice. It was important that the interests of knowledge in no way endangered the patient, and a balance had to be found between comforting a sick body and displaying it. Yet, at the same time, the sick man too owed a debt to society. By the very fact of his being sick, he could provide a lesson, an experience to benefit society at large. Thus,

> there emerges for the rich man the utility of offerifg help to the hospitalized poor: by paying for them to be

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[112]Idem, _Power/Knowledge_, p. 176.

[113]Idem, _Clinic_, p. 82.

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treated, he is, by the same token, making possibly a greater knowledge of the illnesses with which he himself may be affected; what is benevolence towards the poor is transformed into knowledge that is applicable to the rich.[114]

The newly structured clinic became increasingly organized as a social space, an institutionalization of knowledge, techniques, and power. This contrasted with the natural space of disease as it was treated in the comfort of the family. At this moment of the "institutional spatialization" of disease, medical knowledge and experience, the status of the doctor became firmly secured. His enunciations were no longer those of just a doctor, but of a doctor, "supported and justified by an institution, that of a doctor endowed with the power of decision and intervention."[115] As the spokesman of clinical experience the doctor became "not only the privileged, but also virtually the exclusive, enunciator" of medical discourse in its entirety.[116]

Further, as spokesmen for the nation's hygiene, doctors became concerned with the organization of space in towns and dwellings, ostensibly to monitor disease, epidemics, and contagions, but also Foucault argues, as a means of surveillance. The problem of using space for political and economic ends arose in the architecture of hospitals, prisons, asylums, and could even be seen in the increasing differentiation of space within the home (kitchen, bedroom,

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[114]Ibid., p. 84.

[115]Ibid., p. 89.

[116]Idem, Archaeology, p. 164.

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common area).[117] In Military Schools Foucault noted, "the very walls speak the struggle against homosexuality and masturbation."[118] Foucault suggests that in this differentiation and use of <u>collective space</u>, are to be found the outlines of a future sociology, one that is certainly more relevant to his understanding of modern society than the writings of Montesquieu or Comte.[119]

In addition to the hospital/clinic, the nineteenth century doctor established relations with other institutional sites, including private practice, the laboratory (newly integrated into daily medical practice), and "the library or documentary field." The latter bound the doctor to an accumulating volume of books, treatises, clinical observations, case-histories, and statistical documentation of the general public made available by "public bodies, by other doctors, by sociologists."[120] The document and case-history as techniques of knowledge have continued, Foucault argues, to increase in importance, providing the informational basis for a comparative knowledge of individuals, based upon the distinction between the healthy and the sick, the normal and pathological.[121] The establishment of new systems of registration, notation, description, and

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[117]Idem, <u>Power/Knowledge</u>, p. 148-49.

[118]Ibid., p. 150.

[119]Ibid., p. 151.

[120]Idem, <u>Archaeology</u>, p. 52.

[121]Ibid.

classification, have institutionalized medical perception and allowed for a new-found vigilance with respect to the individual.

The nineteenth century doctor, by virtue of his new status as the custodian of public health and morality, and his situation within a complex documentary field, had access to all manner of knowledge concerning society's members. By virtue of this knowledge, and in order to compile more, medicine gradually began to infiltrate all aspects of social life.

> It was in the name of medicine both that people came to inspect the layout of houses, and equally that they classified individuals as insane, criminal, or sick.[122]

Medicine, as a social concern, became inextricably bound to those other discourses of man, the human sciences, at the moment at which it crossed the boundaries of medicine per se, and inserted itself into non-medical practices and institutions.

The modern episteme, for our purposes, can be characterized by this threefold emergence of the human sciences, of carceral institutions, and of a transformed medical practice. In addition, there emerged a new mode of power (discipline), and a new form of knowledge culminating in the technique of the examination. Both discipline and the examination are directed toward a new object: 'knowable man', man as an individual. Together as power-knowledge, Foucault argues that discipline and the examination have been instrumental in constituting a society of normalization, in which individual differences and deviances

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[122]Idem, Power/Knowledge, p. 62.

from 'the norm' are paramount.

The Human Sciences and the Reconstruction of Man

If the human sciences may be seen to provide a knowledge of
man as he might be--a model of man as healthy, normal, freed
from desires (other than the will to more objective truth), and
irrational fears--what is needed is a concommitant exercise of
power whereby it is possible to mold and shape man in accordance
with this ideal vision. Thus, the theoretical goal of the human
sciences to redefine human nature and reconstruct man himself,
only became possible through an intense effort in normalization
and discipline. Foucault's study of delinquency and the birth of
the prison, Discipline and Punish, ends with a sentence which,
even for Foucault is ominous, although it indicates how
important the concept of normalization is to his understanding
of the process of knowledge formation in the human sciences:

> At this point I end a book that must serve as a
> historical background to various studies of the power of
> normalization and the formation of knowledge in modern
> society.[123]

Normalization and the Formation of Knowledge

Discipline is a technique of correction, part of the new
'economy' in the exercise of power established in the eighteenth
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[123]Op. cit., p. 308.

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and nineteenth centuries. Its chief function is to 'train' individual bodies, to render them socially useful. By exploring, breaking down, and rearranging the body's forces, its most detailed gestures, movements, and behaviours--made visible through the human sciences--one should be able to form a productive, docile individual adaptable to the industrial apparatus, in the same way that we can 'create' an efficient soldier or an obedient, model student.

This power of normalization, enfused with medical knowledge and social norms, is, Foucault suggests, an individualizing power aimed in part at the efficient reconstruction of society, the rational coordination of its forces. Of The Birth of the Prison Foucault writes,

> my hypothesis is that the prison was linked from its beginning to a project for the transformation of individuals . . . The prison was meant to be an instrument comparable with - and no less perfect than - the school, the barracks, or the hospital, acting with precision upon its individual subjects.[124]

Foucault suggests that the success of disciplinary or normalizing power derives from its use of 'simple instruments' such as surveillance and the process of examination.

Surveillance

Discipline makes use of constant observation as a means of

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[124]Idem, Power/Knowledge, pp. 39-40.

coercion.[125] Only the visible object is important as it is this alone that can be classified, organized, and known. The exercise of the 'gaze' is itself, invisible, pervasive, and anonymous. The prison, the hospital, and the asylum all function as apparatuses of observation in which the patient or prisoner is rendered perpetually visible and therefore accessible to the agents of the human sciences--statisticians, sociologists, psychiatrists, social workers, parole officers--and their discourses. It is this visibility that assures the efficient exercise of power. As in medicine, there is a fundamental connection between seeing and saying at work in disciplinary mechanisms and institutions. The better the observation, the better the calibration of treatment and punishment meted out.

This surveillance is essential to maintaining a social 'accountancy' of individual files based upon the distinction between normal and pathological, Same and Other, and to maintaining--through coercion, chemical intervention, confinement, or the pressure of the group to conform--the values that invest Reason and knowledge in modern society.

The Examination

The superimposition of relations of power and knowledge as normalization, is perhaps best demonstrated in a communications

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[125]Idem, Discipline, p. 170.

technique, the examination. The examination, Foucault argues, is essential to the functioning of power and the formation of knowledge in our society as it places the individual in a field of surveillance, as well as a network of writing. It is the examination that makes possible a knowledge of the individual upon the basis of which he will be diagnosed, judged, and treated. This knowledge derives, in part, from the function of the prison and the asylum, no less than the hospital, as sites for the formation of clinical knowledge,[126] about convicts (as degenerates) and the insane (as mentally ill).

> One of the essential conditions for the epistemological 'thaw' of medicine at the end of the eighteenth century was the organization of the hospital as an 'examining' apparatus.[127]

For Foucault, the individual and the knowledge one may gain of him, are the products of disciplinary power, and techniques such as the examination:

> It is as a convict, as a point of application for punitive mechanisms, that the offender is constituted himself as the object of possible knowledge.[128]

Documentation, case-histories, and similar innovations in disciplinary writing allow for the accumulation of specialized, individualized knowledge, that make it possible to classify, compare, form categories, determine averages, fix norms.

> These small techniques of notation, of registration, of constituting files, of arranging facts in columns and

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[126]Ibid., p. 249.

[127]Ibid., p. 185

[128]Ibid., p. 251.

tables that are so familiar to us now, were of decisive
importance in the epistemological 'thaw' of the sciences
of the individual.

These procedures make of each individual a 'case' to be

"described, measured, compared with others." However, the

case-history is not intended for the annals of future memory,

but as a document to be used in the contemporary exercise of

power: "In this slender technique are to be found a whole domain

of knowledge, a whole type of power."[129] Not just the hospital

or the prison, but charity organizations, religious groups, and

the police all contribute to the documentation of society.

The child, the patient, the madman, the prisoner, all

represent such cases of enforced individualization. By 'turning

real lives into writing', one can attempt to create exemplary

individuals on the basis of fictitious models, and to discipline

those who do not measure up. It is at this point of

individualization, where there is so much to say and to see, so

much to know and to be done, that Foucault locates the emergence

and the 'careers' of the human sciences.[130]

In all societies, it would appear that there exists a

"margin of illegality" that is considered tolerable. At the

birth of the modern period, this margin of tolerability was

caught up in a new institutional framework that included the

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[129]Ibid., pp. 190-91, 185, 212-14 passim.

[130]Ibid., p. 193.

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communication systems and disciplinary mechanisms of the prison, asylum, and hospital; a new _episteme_ of individualized, medicalized knowledge; an 'economy' in the power to punish; and a new _'will to knowledge'_.

MARGINAL ANALYSIS: 'what it is acceptable to think and say'

It is clear that, like Innis, although in a more blatant manner, Foucault is drawn to the margins of society, to that form of experience and knowledge, that group of individuals that constitute the Other. In his study of the silencing of unreason by the 'tyranny of reason', _Madness and Civilization_, Foucault begins with a narrative of Renaissance Europe's marginal men, the precious cargo of the 'Ship of Fools' that traversed the waterways, and invaded the psyche of Europe with its babel of madmen. In _Discipline and Punish_, the suppressed counter-discourse of the prisoners is noticably absent from the medico-philosophical theory _about_ prisoners that emanates from humanitarian doctors, prison officials, and government 'reformers'. In _The Order of Things_, the poet and the madman are emphasized as sharing the outer edge of our culture, occupying a marginal position, and casting a "profoundly archaic silhouette."[131]

Particularly in his work on institutions, it is obvious that the question of marginality is inseparable from the

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[131]Idem, _Order_, p. 50.

exercise of power-knowledge. Not the romantic marginality of the outlaw, rather that deviance born of "ever more closely placed insertions" in the catalogue of social documentation, of the exercise of a scientific 'will to truth' that excludes and disqualifies alternative knowledges, and disciplines non-conforming individuals.[132]

Throughout his work, Foucault has tugged at the loose threads of Western thought, slowly unravelling the historical tapestry that has woven together reason, truth, and science in what we took to be a seamless narrative of progress. In his studies of madness, medicine, and crime he demonstrates that our relation to truth and reason is not on the order of an increase in objectivity, a fulfillment of the promise of a science that is a disinterested search for knowledge. Nor is it in the movement of a humanitarian sensibility that the order of things steadily reveals its truth.

Whereas we have come to identify truth with that which can be formulated, verified, or falsified scientifically, Foucault studies knowledge that has not yet passed the threshold of scientificity, that whose 'epistemological profile' is low, whose status as a science is 'dubious'.[133] Circumventing what he calls "noble sciences, rigorous sciences, sciences of the

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[132]Idem, Discipline, p. 301.

[133]Idem, Power/Knowledge, p. 109.

necessary,"[134] Foucault indicates that truth is neither obvious
nor neutral, and that, as a scientific endeavour, truth is
linked to such questionable events as the birth of the asylum.

Genealogy: Subjugated and Alternative Knowledges

Therefore, rather than recounting the tranquil history of
ideas in their growing perfection, Foucault recalls the hostile
encounters between reason, science and those discourses,
attitudes, and behaviours that deviate from the norm, that
constitute the discontinuous, the Other: "that which, for a
given culture, is at once interior and foreign," but whose
silencing betrays the fear of conceiving of the Other "in the
time of our own thought."[135] To the continuity of 'official'
communications, Foucault presents the fragmentary and
discontinuous dispatches of other, illegitimate traditions of
knowledge, whose existence have been subterranean but not
dormant. These include both the disqualified discourses of the
mad or imprisoned, and those 'erudite' social criticisms of the
past twenty years, aimed at the centralization of power and the
institutionalization of knowledge produced through scientific
procedures, and extended through scientific and
'extra'-scientific institutions and discourses.

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[134]Idem, Order, p. ix.

[135]Idem, Archaeology, p. 12.

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This latter criticism, including Foucault's own work, reflects a particular concern with the functioning and rationale of our most visible forms of knowledge (science); our institutions (government, universities, prisons); and our exercise of power (through the police, medicine). Foucault suggests that two features distinguish these critical discourses. The first is their local, particular, or regional character that have made possible a new analysis of power and knowledge in modern society. Indeed, Foucault argues, it is through specific studies or "genealogies" like those of the prison and the asylum, that he has been able to illustrate that power is more than repression.[136] The efficacy of such local struggles as anti-psychiatric discourses and the 'counter-discourses' of prisoners, homosexuals, and women derives, Foucault argues, from their criticism not of power per se, but of the particularized power directed against them.[137]

It is through actual historical struggles and the particular knowledge they inspire that criticisms of prisons, asylums, medical establishments, or universities are possible, and not because of a unifying sociology of the prison, the asylum, the clinic, or the educational system. Criticism that addresses the actual fact of power and struggle within the prison arises when prisoners themselves begin to speak, and it is found that they possess "an individual theory of prisons, the

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[136]Idem, Power/Knowledge, p. 92.

[137]Idem, Language,p. 216.

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penal system, and justice," incompatible with official versions.
[138] Yet, it is precisely this type of knowledge, the knowledge
of conflict and struggle, that is removed or disguised through
the major knowledge-producing institutions in society, for
example, the school system, where "you are asked to learn
certain things and to ignore others," and the Media, who decide
which themes or issues merit social attention and discussion.

> Both the nature of events and the fact of power are
> invariably excluded from knowledge as presently
> constituted in our culture.[139]

The second distinguishing feature of this criticism is that
it operates through a 'return' of both subjugated
knowledges--those erudite, meticulous, exact historical
knowledges whose contents have been buried or whose presence has
been disguised through the ordering imposed by what Foucault
calls systematizing thought, or the attempt to think in terms of
a totality; and those knowledges considered insufficiently
scientific, and so, disqualified from the hierarchy of truth as
naive or marginal:

> That of the psychiatric patient, of the ill person, of
> the nurse, of the doctor-parallel and marginal as they
> are to the knowledge of medicine-that of the delinquent
> etc.[140]

It is through the union of erudite and disqualified knowledges
that the critical discourses of the past two decades have

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[138]Ibid., p. 209.

[139]Ibid., pp. 220-21.

[140]Idem, Power/Knowledge, p. 82.

operated and discovered their force.

Both the erudite and the disqualified contain an 'historical knowledge of struggles' opposed to the centralized, institutionalized powers of scientific discourse. Indeed, Foucault demands:

> What types of knowledge do you want to disqualify in the very instant of your demand: 'Is it a science'? Which speaking, discoursing subjects which subjects of experience and knowledge - do you then want to 'diminish' when you say: 'I who conduct this discourse am conducting a scientific discourse, and I am a scientist'? Which theoretical-political avant garde do you want to enthrone in order to isolate it from all the discontinuous forms of knowledge that circulate about it?[141]

Foucault thus feels it necessary to question ourselves as to our "aspirations to the kind of power that is presumed to accompany" a science, particularly in the case of such 'dubious' sciences as the human sciences.[142]

What does it mean when we invest the psychiatrist, the counsellor, the psychologist, the doctor, with the powers of scientific reason--the powers to speak, to know, to classify, to judge, to disqualify. In praising science, who do we thereby silence, disqualify, or marginalize for their failure or refusal to conform to scientific norms and values. What becomes of knowledges or experiences that cannot be expressed scientifically?

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[141]Ibid., p. 85.

[142]Ibid., p. 84.

These knowledges, the erudite and the disqualified, seethe with the 'rude memory' of conflict and 'hostile encounters', of the struggle to attain non-scientific legitimacy. Only by their removal to the margins of knowledge, of social tolerance, and acceptabilty are they disarmed. Foucault proposes the term 'genealogy' to describe

> the union of erudite knowledge and local memories which allows us to establish a historical knowledge of struggles and to make use of this knowledge tactically today.[143]

Genealogies, therefore, operate as "anti-sciences" concerned to 'entertain the claims to attention' of local, disqualified, illegitimate knowledges, and to emancipate them from their subjection and ordering in the name of science or 'true knowledge'. It is not the contents, methods, or concepts of science that genealogies oppose, but rather,

> the effects of the centralising powers which are linked to the institution and functioning of an organised scientific discourse within a society such as ours.[144]

Further, genealogy is concerned to use these 'reactivated' knowledges as a means of opposition against the very knowledge and powers of scientific discourse that condemn them as marginal in the first place.

Among Foucault's own genealogies have been his studies of prisons, psychiatry, and sexuality. It is as genealogies that we can consider the local, fragmentary, and marginal nature of his

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[143]Ibid., p. 83.

[144]Ibid., p. 84.

criticisms to date, as well as the virulent form of their attack upon conventional systems of knowledge and power. The coherence of Foucault's own work, and its place in contemporary criticism can now begin to emerge.

> If we were to characterize it in two terms, then 'archaeology' would be the appropriate methodology of this analysis of local discursivities, and 'genealogy' would be the tactics whereby, on the basis of the descriptions of these local discursivities, the subjugated knowledges which were thus released would be brought into play.[145]

The Specific and the Universal Intellectual

In the aftermath of the events of May, 1968, Foucault sees the role of intellectuals, including himself, as two-fold: (1) the continued construction of local and particular studies, of autonomous discourses independent of 'established regimes of thought'; (2) and the compiling of 'a little strategic knowledge' (savoir) capable of opposing the coercion of scientific totalization, through the union of marginal and disqualified knowledges. On this basis, Foucault is able to distinguish between two types of intellectuals, the 'specific' and the 'universal'. The former has become much more actively involved in everyday struggles in a variety of settings (the hospital, prison, factory), and is therefore in a position to establish 'strategic' or "lateral connections across different

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[145]Ibid., p. 85.

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forms of knowledge and from one focus of politicisation to another."[146]

The 'universal' intellectual, according to Foucault, is still occupied with the task of constructing a "global systematic theory which holds everything in place."[147] For example, rather than analyzing specific mechanisms of power, the points where power operates and may be observed in minute detail--its connections and extensions--the universal intellectual attempts to ascertain the overall project that presides over all these particular, discontinuous developments. The specific intellectual, on the other hand, attempts to discover how, in terms of strategy, the different pieces and mechanisms of power are set in place.[148]

In this sense, then, the specific intellectual is interested in the 'reverse' or 'counter' discourses of the prisoner or the insane, because these represent instances when the 'power to speak' on prison or asylum conditions, on the fact of power, has been momentarily confiscated from the agents of official knowledge--prison administrators or government reformers. The struggles of the marginal are waged not against the unconscious, but rather, the secretive. In this case, the effort to

force the institutionalized networks of information to

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[146]Idem, Power/Knowledge, p. 127.

[147]Ibid., p. 145.

[148]Ibid., p. 62.

listen, to produce names, to point the finger of
accusation, to find targets, is the first step in the
reversal of power and the initiation of new struggles
against existing forms of power.[149]

Since the events of May, 1968, it is also evident to
Foucault, that the intellectual is no longer needed by the
masses in order to gain knowledge:

> . . . They know perfectly well, without illusion; they
> know far better than he and they are certainly capable
> of expressing themselves.

In fact, the intellectual acts as part of a system designed to
invalidate the knowledge of the 'masses', a system that contains
both the Media and the university.

> There exists a system of power which blocks, prohibits,
> and invalidates this discourse and this knowledge, a
> power not only found in the manifest authority of
> censorship, but one that profoundly and subtly
> penetrates an entire societal network.[150]

The role of the intellectual today is therefore not to 'awaken
consciousness', but "to sap power, to take power," and to assist
in the construction of new forms of thought, power, and
ultimately, truth.[151]

> The political question, to sum up, is not error,
> illusion, alienated consciousness or ideology; it is
> truth itself. Hence the importance of Nietzsche.[152]

To the extent that the intellectual can abandon his role as
'advisor' and sets about instead to provide instruments of
analysis, theory can become practically effective. This 'theory

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[149]Idem, Language, p. 214.

[150]Ibid., p. 207.

[151]Ibid., p. 208.

[152]Idem, Power/Knowledge, p. 133.

of the marginal' gains its efficacy, its coherence, from the highly integrated system it opposes, and therefore it requires an equally diversified system of attack:

> . . . We can't defeat the system through isolated actions; we must engage it on all fronts - the university, the prisons, and the domain of psychiatry - one after another since our forces are not strong enough for a simultaneous attack.[153]

It is not that the Media 'dupes' us, or that 'the masses' are generally unintelligent or uniformed. Rather, media and institutions channel our thought in certain directions; certain forms of thought are tolerated in our culture, as in any other, and others are not. This toleration, at times, takes the form of punishment, through mechanisms of exclusion and choice.[154] This point is perhaps most forcefully addressed in Foucault's history of madness.

Reason, Truth, and Madness

Foucault's first book, Madness and Civilization, is in many ways his last in that his later work is both an extension of and a return to the themes and issues raised by this profound discussion of reason, truth, and madness. The strength of Foucault's interrogation of truth lies in his demonstration that truth is an historical notion, and this in the double sense of being culturally defined, as well as a concept with a history.
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[153]Language, p. 230.

[154]Ibid., p. 199.

Society defines truth, in part, by the _values_ it espouses and

enforces, and those it excludes or suppresses. Since the

classical age, Western society has regarded Reason as the apex

of truth. In _Madness_ _and_ _Civilization_, Foucault attempts to

catalogue the different values within which we have defined our

relation to reason. Included are those values we have attached

to madness, for truth _as_ _reason_, can be distinguished from

unreason or madness. That is, in defining unreason, as Western

culture since the Renaissance has attempted to do, reason

paradoxically, defines itself.

Rather than studying the history and pre-history of

psychology, whose definition of madness _as_ _a_ _mental_ _disease_, is

couched in the language of _medicine_, Foucault presents a history

of madness, of the experience of unreason before and after its

'discovery' by medical science. Foucault returns to the point

before the division between reason and unreason was effected:

> What is constitutive is the action that divides madness,
> and not the science elaborated once this division is
> made and calm restored.[155]

The result of his archaeology is to emphasize the common origin

shared by reason (and by extension, modern science) and madness;

to realize that reason contains within itself, within the

density of its history, a core of unreason; and to reveal the

'madness' that attends the human sciences, medicine, and their

institutional extensions through the disciplines of
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[155]Idem, _Madness_ _and_ _Civilization: A History_ _of_ _Insanity_ _in_ _the_
Age _of_ _Reason_, trans. Richard Howard (New York: Random House,
1965; Vintage Books, 1973), p. ix.

normalization.

This historical inquest into the pathology of reason stretches from the medieval mixture of reason and unreason, through the Renaissance coupling of madness with folly, and the classical link between madness and morality (social norms of production), to the modern seizure and distortion of the experience of madness within the discourse of mental illness. What becomes apparent from this archaeology are both the limitations of thought, and the threshold of cultural tolerance.

In a gentle display of literary and artistic scholarship, bringing to life the names of Hieronymus Bosch, Pieter Breughel the Elder, Sebastian Brant, Erasmus, Albrecht Durer, Cervantes and Shakespeare, Foucault recreates the experience of reason and its twin shadow, as it may have seemed to people caught in the twilight between the close of the Medieval world and the irruption of the Renaissance.

At the end of the Middle Ages leprosy disappeared from Western Europe. The gruesome structure of the lazar house, situated symbolically, if not physically, at the margins of European culture, was to lie in wait--never vanishing though its raison d'etre might--until the seventeenth century, when it would clamour once more in the psyche of Europe. The age of reason and its 'will to truth', would exclude through confinement, in fortresses, chateaux, and sometimes in the abandoned leprosariums themselves: "Poor vagabonds, criminals,

and 'deranged minds' would take the part played by the

leper."[156]

Renaissance Artistry

The transference of images and meanings from the Medieval
leper to the madman of classicism, had to pass through the
fascination with madness, its celebration and ultimate
domestication, that was the Renaissance. Madness participated in
all the experiences of the Renaissance; it was a period that
allowed "the forms of unreason to come out into the light of
day."[157] This engraving of madness upon the cultural landscape,
was symbollized in the Ship of Fools, the "drunken boat," both
fictional and real, that journeyed along the Rhineland rivers
and Flemish canals.[158] Stultifera navis existed most furtively
in the imagination, its legacy a literary and artistic outburst
that displayed a phenomenon disproportionate to its actual
presence.

> Why does the figure of the Ship of Fools and its insane
> crew all at once invade the most familiar landscapes?
> Why, from the old union of water and madness, was this
> ship born one day, and on just that day?[159]

Possibly the answer lay in the force of its symbolic content:
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[156]Ibid., p. 7.

[157]Ibid., p. 66.

[158]Ibid., p. 7.

[159]Ibid., p. 13.

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"cargoes of madmen in search of their reason."[160] However, there were other prisons and houses of detention where the insane were locked up as part of a heterogenous melange; the 'ship of fools' was an epiphenomenon.

The preoccupation with this metaphor, Foucault suggests, was part of a larger stirring and unrest, a "great disquiet" on the surface of early Renaissance experience, one in which madness assumed a predominant role. Why was it that the Renaissance surrounded itself with images, paintings, woodcuts, engravings, festivals, dances, and theatrical performances of madness? Although both painting and literature exuded madness, they expressed different values and thoughts about unreason.

In painting, the fear that the Renaissance felt in the presence of madness, was linked to the image of a world gone mad, a "dizzying unreason of the world," where dangers lurked in subterranean recesses and terrible secrets lay hidden in the bowels of the earth. Familiar landscapes reel with strange figures. The images of Bosch and Breughel show man in a dramatic confrontation with madness, with "the secret powers of the world."[161]

In literature, folly, just one figure in the Medieval hierarchy of vices, emerged as a form of criticism with a human face, far removed from the madness waiting to envelope man at the darkest reaches of the earth. In satires, farces, and
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[160]Ibid., p. 9.

[161]Ibid., pp. 13, xii.

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'follies', of which Erasmus' The Praise of Folly is the most
familiar, literature bound together madness and man through his
weaknesses, dreams, and illusions rather than through his
greatest fears.[162] With a sense of comic irony, the Simpleton,
the Fool, confronted the madness within himself, the illusions
and errors he entertained through self-attachment. In this "calm
world" madness was disarmed and distanced through the laughter
of the wise.[163]

These two forms, the tragic experience of Bosch and the
critical consciousness of Erasmus, capture for Foucault, the
experience of madness in the early Renaissance. By the
mid-seventeenth century, mythological fantasia, caught in a
general "mobility of reason" had receded, tamed by a reason that
incorporated madness into itself: "Madness is deprived of its
dramatic seriousness; it is punishment or despair only in the
dimension of error." Caught in a web of illusion and error, the
madman began, in spite of himself, to speak the truth, to reveal
beneath error, "the secret enterprise of truth."[164]

Classical Confinement

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[162]Idem, Madness, p. 26.

[163]Ibid., p. 28.

[164]Ibid., pp. 32-33.

The classical Age of Reason now loomed on the European horizon. Madness was no longer symbolized as a voyage to another world: "Behold it moored now, made fast among things and men. Retained and maintained. No longer a ship but a hospital."[165] The classical experience of reason no longer attempted any communication with unreason, there was no effort to understand madness except insofar as it could be classified, ordered, and increasingly, judged: "All this world of disorder, in perfect order, pronounces, each in his turn, the Praise of Reason."[166]

In a pan-European phenomenon, institutions of confinement, houses of detention, and hopitaux generaux crowded the classical landscape, extracting from the population an odd assortment of internees: the unemployed, the idle, vagabonds, prostitutes, spendthrift fathers, homosexuals, libertines. By what common meaning was their kinship, their proximity to one another established?

Foucault argues that in its origin, the practice of classical confinement provided one answer to an economic crisis sweeping the entire Western world.[167] In England, institutions of confinement appeared first in the most industrialized areas, and at a time of economic recession.[168] Confinement, in times of recession, absorbed those elements of the population-indigents,

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[165]Ibid., p. 35.

[166]Ibid., p. 36.

[167]Ibid., p. 49.

[168]Ibid., p. 52.

beggars, idlers, vagrants prone to social agitation--and enveloped them in 'cities' where labour was seen as an exercise in moral reform.

Within a universal ethic of labour deemed essential to the new economic developments of industrialism, madness reared its head as idleness, as sloth. Within the morality of classicism, the madman did not arrive as it were, from another world, rather he crossed into that world at the point he overstepped the frontiers of bourgeois order. At the moment he placed himself outside its ethical structure he was caught up in the great confinement of poverty and unemployment through which classicism "sketched the profile of its own experience of unreason."[169]

Outside the periods of economic crisis, confinement was justified as helping to control production costs, although the result of competition from prison workhouses more often led to unemployment in nearby towns and manufactories. The uninterrupted use of confinement even in periods of economic stability betrayed a moral imperative in which the idle would be forced to work, without profit or purpose, as a means of enforcing and maintaining the normative order of industrialism.

> Between labor and idleness in the classical world ran a
> line of demarcation that replaced the exclusion of
> leprosy. The asylum was substituted for the lazar house,
> in the geography of haunted places as in the landscape
> of the moral universe.[170]

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[169]Ibid., p. 65.

[170]Ibid., p. 57.

The coherence of classical confinement, Foucault suggests, was to be found in a growing belief, throughout the eighteenth century, in the power of reason, particularly as this distinguished between men and animals. Whereas unreason was caught up in an attitude of immorality and willful transgression, manifest in the behaviour of debauchery and libertinage, madness, slowly detaching itself from unreason and preparing a space for the appreciation of its individuality, was seen as a dangerous liberty "raging in the monstrous forms of animality." It was a liberty that demanded to be caged in the 'menagerie' of confinement.[171]

It was this animality that enabled the madman to endure the extremes of hunger, pain, cold, heat, and the most brutal treatments--irons, dungeons, chains, and other 'therapeutics'. In this sense, madness protected the mad from disease, thus precluding the possibility of a medical diagnosis of the madman as a sick man.

> This is why, at this extreme point, madness was less than ever linked to medicine; nor could it be linked to the domain of correction. Unchained animality could be mastered only by discipline and brutalizing.[172]

If the classical age, in its practices of confinement and discipline, was able to effect a cure, it did so by a recourse to animality, to that point that was both the truth and the cure of madness.

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[171]Idem,Madness, pp. 83, 72.

[172]Ibid., p. 75.

The late eighteenth century marked a reversal of values.
Madness was now seen in _historical_ terms, as a consequence of
the progress of _civilization_, not as a relapse into _bestiality_.
Theatre, novels, those aspects of social life that excite the
imagination and the passions, that provoke delirious illusions,
removed man from his natural existence placing him in an
artificial milieu. This insertion of madness into civilized
society coincided with a turn about in the cultural appreciation
of poverty.

Unemployment, "freed from the old moral confusions" that
regarded poverty as a transgression of _mores_, was now understood
as an _economic_ phenomenon concurrent with the emerging
industrial bourgeois order. Within the nascent industrial world,
the notion of _population_, as a social force and as an element in
the creation of wealth, was freed from that of _poverty_,
understood as a scarcity of commodities and money, and tied to
the health of commerce, agriculture and industry.[173] The
population was now seen as a necessary component in an
industrial world dependent upon a vast reservoir of manpower.
Once wealth was linked to the actual _labour_ of men, the direct
contribution of the population itself became an element in the
wealth of the nation. Confinement had merely removed a valuable
source of manpower from the circuits of production.

> To utilize the poor, vagabonds, exiles, and _emigres_ of
> all kinds, was one of the secrets of wealth, in the

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[173]Ibid., p. 231.

competition among nations.[174]

Once idleness ceased to be the _raison d'etre_ of confinement, the process of detaching madness from the larger experience of unreason, a process crucial to the development of modern psychiatry, was accelerated.

By civilizing animal madness, and with a new understanding of the nature of poverty, the link between madness and morality, _as the exercise of individual will_, was broken. Madness now appeared to have its source in factors _external_ to the individual. The _fear_ of madness arose once again, as if the classical age, in confining madness, had also confined the dreaded images and monsters of Renaissance paintings.[175] In panic, in "the reawakening of the fantastic," there appeared once again on the cultural horizon, an underlying realm of frenzy threatening to engulf man, and to endanger his reason.

The fear of madness was now formulated in pseudo-medical terms. Epidemics and mysterious diseases were attributed to 'prison fevers', rotten vapours, and corrupted airs escaping from the great fortresses of confinement, as if those tenants inherited from the Medieval lepers, their contagion.[176] In 1780, an epidemic in Paris was attributed to the _Hopital General_. To allay public terror, the doctor, as the _guardian_ of public safety and health, entered the domain of the asylum.

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[174]Ibid., p. 232.

[175]Ibid., p. 209.

[176]Ibid., p. 202.

What is traditionally called "progress" toward madness's
attaining a medical status was in fact made possible
only by a strange regression. In the inextricable
mixture of moral and physical contagions, and by virtue
of that symbolism of Impurity so familiar to the
eighteenth century, very early images rose again to the
surface of human memory. And it was as a result of this
reactivation of images, more than by an improvement of
knowledge, that unreason was eventually confronted by
medical thought.[177]

The development of numerous 'reform' movements in the late

eighteenth century functioned as a means of cultural

purification and social protection, more than as a humanitarian

regard for the treatment of the mad. What was disappearing was

not the inhumane treatment, but the very necessity of

confinement. Increasingly, toward the end of the eighteenth

century, the 'general confinement' of the poor, the unemployed,

and the libertine was dismantled, leaving only the

'imprisonment' of the mad and the criminal.[178]

The Modern Asylum

Beneath the myth of humanitarian gestures and 'liberations'

of the insane in the early nineteenth century, a series of

operations, "silently organized the world of the asylum, the

methods of cure, and at the same time the concrete experience of

madness." These operations were to constitute an environment of

morality based in the case of Tuke on religious principles, and

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[177]Idem, Madness, p. 206.

[178]Ibid., p. 235.

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in that of Pinel, on the structure of the famiily."The asylum

is a religious domain without religion, a domain of pure

morality, of ethical uniformity."[179] Former 'therapeutics' and

'cures' practised under general confinement were retained, but

as techniques of punishment. Fear now reigned within the asylum

as the anguish of responsibility and conscience, and as the

exercise of a social will that was no longer repression, but

authority.[180]

    This authority, with which the doctor entered the asylum,

did not initially derive from his skill as a physician, but

rather his prestige as a representative of social morality. As

such, Foucault sees the early medical dimension of the asylum as

"only a part of an enormous moral task that must be accomplished

at the asylum, and which alone can ensure the cure of the

insane."[181]

    The classical age, so enamored with Reason, indicates its

limits of tolerance, and "establishes its range by its own

derangement." In the very act that banished the experience of

unreason through confinement, and that silenced the language

with which it expressed itself, the modern definition of reason

was adumbrated. The classical definition, 'tinged' as it had

always been with unreason, with madness, turned its back on

madness. In so doing, reason itself became mad by its own

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[179]Ibid., pp. 243, 257.

[180]Ibid., pp. 247,251.

[181]Ibid., p. 270.

'incompleteness'. This 'madness' was one in which men ". . . in an act of sovereign reason, confine their neighbors, and communicate and recognize each other through the merciless language of non-madness."[182]

What appeared in classical confinement to be a silencing of madness, was not entirely successful:

> Confinement, prisons, dungeons, even tortures, engaged
> in a mute dialogue between reason and unreason - the
> dialogue of struggle.[183]

However, even this mute dialogue of "stammered, imperfect words without fixed syntax in which the exchange between madness and reason was made," has been effaced, Foucault argues, by the imposition of a 'positive' discourse of psychiatric reason over the experience of madness.[184] How can one struggle against the truth, against reason? What remains for the madman is a 'psychological trial' in which he is handed over to his own conscience, to his own guilt, and as a consequence of which he must be regulated, punished, and made to conform: "It was no longer the presence of the truth that determined the cure, but a functional norm."[185]

Medicine entered the asylum in a moral guise, as a representation of the normative power to punish, to discipline. The doctor appeared, not as an agent of science, but as a

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[182]Ibid., pp. xi, ix.

[183]Ibid., p. 262.

[184]Ibid., p. x.

[185]Ibid., p. 177.

prestigious member of bourgeois society. He represented not so much the man of scientific objectivity, as the messenger of social norms, incorporating into his personality the figures of Father and Judge, safeguarding the social values of Family, Law, and Authority.[186]

With the arrival of the doctor to the asylum, the modern definition of madness as a mental illness, as disease, was possible. The doctor, who played no role in general confinement, became "the essential figure of the asylum." The asylum was converted into a <u>medical space</u> at the moment when the doctor was charged with overseeing the procedures of entry. A medical space that was in fact, "a kind of microcosm in which were symbolized the massive structures of bourgeois society and its values."[187]

Ever since madness was delegated to physicians and locked away in asylums, our relation to madness can be conducted only through "the abstract universality of disease." Further, the mad have been able to communicate with society only through an

> abstract reason which is order, physical and moral
> constraint, the anonymous pressure of the group, the
> requirements of conformity.[188]

Having been denied the right to constructive metacommunication, reason and madness 'communicate' with each other only through silence: "The language of psychiatry, which is a monologue of reason <u>about</u> madness, has been established only on the basis of

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[186]Ibid., p. 272.

[187]Ibid., pp. 270, 274.

[188]Ibid., p. x.

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such a silence."[189]

For Foucault, the 'apotheosis' of the doctor, and the conversion of madness into a medical and moral object as mental illness, as something that must be observed, classified, and punished, betrays the rich experience of unreason as a partner in man's dialogue with his external and internal world. It leaves behind only the impoverished figure of scientific madness, making it impossible for madness to be completely or contextually understood: "It is a figure made unbalanced by all that is lacking in it, by all that it conceals."[190] What does this failure to listen to madness, this 'attentive' silence on the part of reason say?

We no longer understand unreason of which madness forms just a part. In our misunderstanding, we conceal, through the 'myths of positivism', an essentially moral punishment of madness, of that incomplete figure that can no longer represent man in all his experiences, and so represents only that which is misunderstood, foreign, that is, the Other. No longer a part of ourselves, but apart from ourselves. In the Preface to The Order of Things Foucault writes, "in the history of madness I was investigating the way in which a culture can determine in a

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[189]Ibid., pp. x-xi.

[190]Michel Foucault, Folie et deraison, Histoire de la folie a l'age classique (Paris: Plon, 1961), cited by Alan Sheridan, Michel Foucault: The Will to Truth (New York: Metheun, 1980), p. 23.

massive, general form the difference that limits it."[191]

Summary

Foucault's archaeology of madness and reason discloses that reason has a history that is not a celebration of its growing perfection, but rather, a pageant of differing meanings and values. That our definitions of truth and reason--what for over three hundred years has been gauged according to the criteria of scientific rationality--are now being called into question is an event with significant implications for Western epistemology, consciousness, and culture as a whole. If what we took to be truth is undergoing a change of definition, then so too must that which is not truth--madness--be in the process of reformulation and rearticulation, for as Foucault demonstrates, truth and madness have been the siamese twins of Western knowledge since at least the Renaissance.

That which it is currently not legitimate to say, believe, or do, what is mad and not to be spoken about, may well take a new form in the future, and other experiences and knowledges will arise to challenge the order of our understanding, forcing other people to speak from without the cultural framework, thus risking the definition of madness, but at the same time, providing a necessary barometer of cultural values, norms, and the order of knowledge.

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[191]_Order_, p. xxiv.

The mad, like the imprisoned, are tolerated in our culture--they only exist, through the will to knowledge and the exercise of power as objects of our culture--not only through a normalizing confinement, or as marginal figures on the fringes of knowledge, but insofar as their transgressions of speech and behaviour, their pathologies, demonstrate the values of normalcy, reason, truth, the Same, in modern Western society.

IV. Conclusion

For a parellel to the lesson of atomic theory...[we must turn] to those kinds of epistemological problems with which already thinkers like the Buddha and Lao Tzu have been confronted, when trying to harmonize our position as spectators and actors in the great drama of existence.

Niels Bohr

It may be useful to give the reason for the increased interest of the contemporary physicist in problems of epistemology and ontology. The reason is, in a nutshell, that physicists have found it impossible to give a satisfactory description of atomic phenomenon without reference to the consciousness.

Eugene Wigner

As I suggested in the Introduction, twentieth century
epistemology has been marked by a critical, self-reflexive,
interpretive attitude in which questions about the societal
construction of knowledge, truth, and therefore of power have
been recurrent. We have, of course, always had philosophical
discourses critical of epistemological and methodological
dimensions of human thought and endeavour. What distinguishes
the contemporary criticism is perhaps its pan-disciplinary
nature; its sophisticated and frequent manifestation on all
levels of social discourse; the ontological urgency of the
political and scientific landscape.

Since philosopher of science Thomas S. Kuhn brought the
discussion of change in science to the forefront, discussions of
change, not just in science but in all branches of human
knowledge, have reflected a concern with discrete transitions
and abrupt 'revolutions' marking the divide between one form of
thought and another. In biology, theories of 'punctuated
evolution' such as the work of Stephen Jay Gould,[1] have been
given wide credence by the scientific community. In
anthropology, even a cursory review of textbooks and collections
of essays published in the past two decades indicates the extent
to which concepts such as 'paradigm', philosophical
'revolution', 'epistemic break', and 'rupture' have permeated
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[1]See, Stephen Jay Gould, Ever Since Darwin: Reflections in
Natural History (New York: W. W. Norton & Co., 1977), and The
Panda's Thumb: More Reflections in Natural History (New York: W.
W. Norton & Co., 1980) for his discussion of punctuated
equilibria.

anthropological discourse.[2]

These recent developments toward a 'punctuated' theory of change in human knowledge have opened the way for a discussion of meta-epistemological change, that is, they have allowed us to consider how a new form of knowledge may emerge from the turmoil of the contemporary episteme. And quite possibly a central issue is, as Eugene Wigner noted, the re-emergence of consciousness studies and the integration of brain research, cybernetics, computer sciences, and similar studies in contemporary epistemology, in a metacommunicative process that lends our thought the appearance of a set of mirrors constantly reflecting upon itself.

I believe that what lends Innis and Foucault such power in their writings is the fact that they are superb commentators on, and contributors to the current concern with critical self-examination. They reflect the questioning temper of our time, have been inspired by it, and seek to understand it in the context of a history of Western mind, or as I think can be shown, in a context that is also that of a history of Western communication. In any case, as Alan Sheridan has remarked of Foucault the work of both men is an 'invitation to discussion'.

I would like to begin with a discussion of general parallels and divergences in their work, and then proceed to a more detailed appraisal of select aspects of their approaches as

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[2] See, for example, Reinventing Anthropology, ed. Dell Hymes (New York: Random House, 1969; Vintage Books, 1974); Malcolm Crick, Explorations, 1976.

these pertain to the relation of communication to knowledge

construction, validation, and change. These will include a

discussion of the relation of communication media and techniques

to what it is possible to think and say; the reciprocal

relationship between power and truth; and, historical change as

a discontinuous event. In the final section of this chapter I

will argue that because of their emphases on context and process

in historical interpretation, Innis and Foucault may be

considered as communication scholars. Following this, brief

consideration is given to the recent emergence of communication

studies in Western knowledge.

Themes and Tendencies

᠌ Innis and Foucault have framed their discussions in

remarkably similar fashion, despite what appear to be

irreconcilable differences. To begin with, the time period and

location of their thought seems at odds. Harold Innis ranges

across five thousand years of Western history, from the Near

Eastern sands of ancient Sumer, Mesopotamia, and Babylonia; to

the Mediterranean basin of classical Greece, Alexandria, and the

Roman empire; emerging in the Renaissance capitals of Europe,

and again in the centres of early industrialism; settling

finally, in the universities, parliaments, and communications

industries of twentieth-century North America and Europe. Innis

manages to consider most of the major periods in Western

civilization, as well as prominent attempts at Western 'empire' within a framework that is remarkably coherent.

Michel Foucault's work, on the other hand, is almost exclusively French in orientation. Some consideration is given however, to phenomena (works of art, methods of incarceration, architecture, economic circumstances) in other European countries, as well as in America. For the most part, Foucault restricts his research to the period between 1650 and the present day, although he does delve into medieval and early Renaissance history.

As a consequence of different temporal and geographic parameters, Innis is engaged in the study of both oral and written traditions of communication, while Foucault is fully immersed in the habits and patterns of literate culture. Yet, given a common grounding in communication, and a similar format for historical analysis, their work is more complementary than contradictory.

Both Innis and Foucault have compiled what amounts to a series of historical case-studies that allow for different aspects of the relations between knowledge, truth, and power to be highlighted, and that further allow for comparisons between historical periods or locales to be drawn. Thus, for Innis, the example of the Egyptian empire sets the context for a discussion of a media bias toward time, and its implications for epistemological and cultural development. The Roman empire permits an analysis of media biased toward space, particularly

in terms of their consequences for political organization (in this case bureaucracy), and the structure of social knowledge. Classical Greece and Renaissance Italy provide a framework within which it is possible to assess the social and epistemological consequences of the introduction of new communication media.

For Foucault, a 'history of madness' from the close of the Middle Ages to the dawn of the twentieth century, establishes a context within which it is possible to question not only the functioning and rationale of the asylum, but our very definitions of truth, reason, and madness. A 'history of the prison' within roughly the same temporal limits opens the way for a discussion of the meticulous, calculated, 'economic' exercise of power and the obsessive accumulation of comparative, individualized knowledge that characterizes the relationship between the human sciences and disciplinary mechanisms and institutions in modern society. A further 'history of the clinic' furnishes a context in which it is possible to question the status, institutional support, and authority of professional experts such as doctors, and the role of experts and institutions as components in social systems that produce knowledge, define truth, and exercise power.

Within this common format of a series of historical researches, a different effort on the part of the reader is called for when addressing the writings of each man. Given the enormous range and rather small output of Innis' work on

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communication, a considerable amount of extrapolation is required. However, there is no lack of depth in Innis' thought, and the exercise of drawing out his implications allows for a difficult trip through an immensely rich mind, at the core of which are ideas as elaborate as any in recent social thought.

Taking the concept of a 'monopoly of knowledge' as an example, Innis more or less assumes that given a number of historical examples (rather than an explicit definition), his audience will be able to disentangle the intricate relationship between knowledge, power, and truth that he sees embedded in it. It is tempting to suggest that Foucault is more aware of the questions of power and truth simply because he provides a much more detailed and explicit analysis, and yet it is difficult to argue that Foucault's understanding of these problems is in any way more comprehensive than Innis'.

When Innis writes that the Roman empire exploited eastern religions in its own interest, gradually closing pagan temples and libraries and substituting the Christian calendar, scriptures, and festivals he includes in capsule form, a history of Roman power and its effort to define a unitary truth through force. When he suggests that the oral tradition is suited to the discovery of new truth, the implication is that the written tradition is suited to the entrenchment of old truth. When he refers to the 'burden' of the Egyptian empire with its basis in the medium of stone, he alludes not only to the limitations of a communication medium, but to the form of knowledge and the

version of truth (as the eternal glory of the monarchy, living and dead) that medium supported. When he remarks that the introduction of the printing press "reflected the doom of a culture based on stone, parchment, and painting,"[3] he presents an elegant eulogy for the influence of the Church in Western Europe and its interpretation of truth as reflected in Gothic cathedrals, frescoes, statues, and illuminated manuscripts.

In a sense, Innis presents the background context to a history of Western communication in which several prominent episodes may be said to point the way to further research. The beauty of his work is that while impressive, it is not so overwhelming, so comprehensive that one finds it impossible to garner any new insights. On the matter of Innis' condensed style and the opportunities it presents to the reader Marshall McLuhan has written,

> each sentence is a compressed monograph. He includes a small library on each page, and often incorporates a small library of references on the same page in addition.[4]

If Innis may be said to provide an initial map to communications, Foucault presents a detailed guidebook to some of the major attractions. Foucault's work is almost obsessively detailed and in some cases, more explicit than Innis'. Rather than extrapolation, it demands a distillation of essential elements such that a rather fine elixir may be extracted from an

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[3]Innis, Bias, p. 127.

[4]Marshall McLuhan, Introduction to The Bias of Communication, p. ix.

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overabundance of facts and details. In part, Foucault is more
detailed because he is attempting to show how his work diverges
from that of other historians and other schools, primarily the
histories of ideas and of science, and French structuralism. In
other instances, for example, the birth of anatomo-clinical
medicine or the history of disciplinary power, Foucault has
managed to unearth documents that are themselves extraordinarily
detailed, and seem therefore, to require equally elaborate
interpretation.

More to the point perhaps, is the intricate nature of the
themes and questions he pursues: a history of the modern society
of normalization, its techniques of knowledge and mechanisms of
power; a history of Western madness as a critique of changing
values and definitions of truth and reason; a discussion of the
epistemological unsettling of medicine with the birth of
anatomo-clinical medicine, and the consequences to knowledge
(the emergence of the human sciences), to the status and
functioning of the doctor, and to the position of medicine in
the philosophical and social organization of Western culture
that ensued.

Certainly these are enormous topics for which the type of
detail furnished by Foucault is of the essence. Yet, Innis'
topics are no less complex and intricate, and he certainly
provides ample detail and a store of further references. I would
suggest that whereas Innis has fashioned a very small number of
interpretive devices for analyzing history--specifically, the

temporal and spatial biases of communication media--that act as something of a magnifying glass, Foucault is doomed to the task of polishing an endless supply of finely ground lenses which, in elaborate combinations, may afford the clarity of vision that Innis has managed with far simpler tools.

Innis is content to prepare a simple palette, selecting two or three fine brushes with which to colour his broad canvas in bold shades that hint of pastel subtleties. In this he resembles the artisan or master craftsman. Foucault can be seen as mixing and trying all manner of various colours and strokes, crowding successive sections of the canvas with complex patterns and designs. He appears, at first, to resemble the student or technician.

Yet, Innis does not lack detail, nor does Foucault fail to grasp 'the larger picture'. Purely in terms of literary style, Foucault is the master artist. One of the great paradoxes involved in a discussion of Harold Innis and Michel Foucault is thus on the order of a rather worn cliche: the more different they appear, the more similar they become. In any case, the attempt to compare and contrast these two thinkers is not nearly as fruitful as the effort to suggest areas in which they may supplement or complement each other by virtue of their divergent approaches.

The Role of the Cultural Historian

Despite differences in their material and approach, Innis
and Foucault hold a common view of the cultural historian's
vocation. For Foucault as for Innis, understanding the present
is the _raison d'etre_ of the historian's dusty rumblings in the
bookshelves, the motive behind his forays into the alcoves of
recorded thought. A commitment to present challenges such as
those posed by the unique interrelation between communication,
power, and knowledge in modern Western society--rather than to
the windmills of the past--gives the historian a validity and
goal beyond that of erudition.

> But to seek in the great accumulation of the
> already-said the text that resembles 'in advance' a
> later text, to ransack history in order to rediscover
> the play of anticipations or echoes, to go right back to
> the first seeds or to go forward to the last traces, to
> reveal in a work its fidelity to tradition, or its
> irreducible uniqueness, to raise or lower its stock of
> originality, to say that the Port-Royal grammarians
> invented nothing, or to discover that Cuvier had more
> predecessors than one thought, these are harmless enough
> amusements for historians who refuse to grow up.[5]

Of course, most scholars would claim they are concerned
with the present but Foucault takes the trouble to define the
differences in context which their 'present' concerns may have.
In an article published in _Time_ magazine in November 1981,
Foucault noted:

> But historians always take their problems from the
> present. If it is not from the immediacy of their
> personal lives, or the political and social life of

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[5]Foucault, _Archaeology_, p. 144.

their country, it is simply from their university environment.[6]

Foucault makes it clear that the context of his work is not some contemporary academic debate but social and political conflict:

> If I do the analyses I do, it's not because of some polemic I want to arbitrate but because I have been involved in certain conflicts regarding medicine, psychiatry and the penal system.[7]

Innis too was deeply influenced by concerns beyond the halls and pages of academe. During the social and political turmoil of the thirties, he took the position that academics should not themselves become political activists. But by that he did not means that their observations, studies, and writings should be divorced from practical considerations. His never were.

Innis' Idea File is filled with insights and impressions gained during extensive travels in North America and Europe, and they point to a sensitivity and awareness that come from immersion in a problem, in its practical as well as intellectual facets. Before writing any of his early works on the fur trade, the cod fisheries, the pulp and paper industries, Innis spent months on the 'margins' of Canada, living in the woods, following by canoe the routes of early traders, and generally gaining a sense, beyond books, of the heart of his subject matter. In addition, Innis' membership on the Manitoba Royal Commission on Adult Education helped to bring into focus the

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[6]Otto Friedrich, "France's Philosopher of Power," Time, November 16, 1981, pp. 147-48.

[7]Foucault, Power/Knowledge, p. 65.

relations between communications, culture, and learning that were the cornerstone of his historical studies, and that allowed him to speculate that communication would be the crucial issue of this century.

This common concern for practical historical processes enlivens their writings to the point where we feel ourselves to be with Innis in the Theatre of Dionysus, or with Foucault on the Renaissance 'ship of fools'. The final remark on this matter of history as the chasing of footnotes, as the scramble to accumulate more facts at the expense of being able to grasp the overall context in which they make sense, belongs to Innis, who in the Idea File acidly writes of the

> danger of history of ideas and concern with furniture
> apt to distract attention from basic problem of
> inadequacy to meet problem of lack of contact between
> abstract ideas and technological development. Concern
> with minutiae of research.[8]

Finally, some mention must be made of the themes of time and space. Virtually all of Innis' work is framed within a multi-dimensional grid of temporal and spatial boundaries and limitations. The warning that echoes throughout his work is that the neglect of either dimension entails cultural suicide. Innis saw modern Western society as overextending itself spatially, and thus he called for a reconsideraion of temporal concerns such as those he found to be present in the oral tradition of classical Greece. Foucault's thought, with its critique of temporal models of consciousness and thought, and its abundance

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[8]Innis, the Idea File, 5/168, p. 57.

of spatial metaphors--in terms of both the "epistemological space" of a culture, and the deployment of its relations of power--suggests a vindication of Innis' views on the increasing spatialization of modern society. But each man uses these concepts differently within his own context and it seems not too fruitful to look for parallels based on the use of specific terms rather than on the general thrust of their thought. I will concern myself rather with parallels and differences in their works as they address the themes of the construction and emergence of knowledge and truth, thus contributing to the epistemological discourse of our time.

Communication and Knowledge Construction

Media and Episteme

The thrust of Innis' work on communication has been a concern with the role of communication media in shaping and organizing knowledge, indeed in making knowledge possible and in tempering our knowledge of ourselves. Whether he was considering such basic technologies as clay, stone, or papyrus; cultural devices such as museums, cathedrals, and libraries; or the institutional complexes commonly referred to as 'the Media', Innis drew attention to the epistemological significance of media. He felt that media structure the cultural environment by establishing a framework within which it is possible to think

and speak, and by either stimulating or restricting the emergence of knowledge and learning.

The key to understanding the cultural implications of a medium, may be found in its bias toward time or space. A bias toward time emphasizes durability, continuity, and the attempt to control history as reflected in religious forms of knowledge. Media biased toward space facilitate the dissemination of knowledge, emphasizing the control of geography through political or military organization.

Innis regarded the media of an oral tradition of communication as inherently flexible, conducive to change, and therefore better able to release new forms of knowledge than print or mechanized media. These he felt were biased toward specialization in knowledge, toward the organization of 'facts' rather than the creation of 'ideas'. Innis argued that the exploitation of any medium by one group, served to restrict knowledge and entrench certain forms of truth through a process of monopolization. He viewed the introduction of new media as essential to the processes of cultural revival and cultural change, although he warned that changes in media could entail the suppression and removal of certain knowledges to the periphery of cultural truth.

Foucault is also interested in communication media, both the institutional bases of what he calls the 'will to truth' (television, newspapers, the educational system), and the simple, 'petty' techniques of communication peculiar to the

functioning of modern institutions and written culture
(classifactory tables, statistical lists, comparative
case-histories, and other tools of social documentation). Rather
like Innis, who is fascinated by the implications of the most
ordinary and common-place cultural phenomena, Foucault devotes
his attention to simple communicative techniques, largely
leaving aside the issue of communication 'Media'.

Nonetheless, I think he has provided ample guidelines for
anyone wishing to adapt his analyses of discourse and
institutions to the study of contemporary Media. To begin with,
Foucault, like Innis, allows us to consider media not as static
technologies but as complex institutional systems or
'ecologies', as 'constructive' discursive practices that to a
large extent, create and shape reality for the Western consumer
of information. Newspaper headlines, television images, film
genres, and advertising layouts define for us what it is
acceptable, allowable, and fashionable to think, say, and wear.
Pornography, sexual abuse, violence, and war might appear to the
alien visitor, to be in vogue today.

And of course, Media are exceptionally adept at exploiting
the concept of marginality, either by its incorporation into
society at large as in fashion trends, or the threat of
exclusion--will your child be left behind without a computer in
the home? Perhaps the most important questions raised by
Foucault and applicable to Western Media, concern the rules and
values that dictate why certain statements, themes, and issues

arise and others do not. Whether the topic be the drought in Africa or the resistance fighters in Afghanistan, the Media set the discursive agenda for a majority of Westerners, and we can and do forget the plight of three-quarters of the world's population each time the Media 'lose interest' for any length of time.

Innis provided fundamental insights into the relations of power that written communications, particularly in the Roman empire, were seen to facilitate and support. He drew connections between the medium of papyrus, the growth of bureaucracy, and the extension of empire. Similarly, Foucault offers a detailed description of how the immense system of written documentaton that characterizes modern society in its bureaucratic extensions, has made possible forms of knowledge such as the human sciences, and given impetus to fields of inquiry, for example, anatomo-clinical medicine. He speaks of the "epistemological thaw" that these techniques encourage, a point very much in sympathy with Innis' own analyses.

Like Innis, who was able to see libraries, cathedrals, and universities as communications institutions, Foucault highlights the communicative functions of such institutions as hospitals, asylums, and prisons. Whereas Innis focusses on the bias of media that support such institutions, Foucault probes the rules and procedures that characterize particular institutional discourses and practices, and that allow for certain questions to be posed and specific issues to be raised. Foucault is

interested in two sets of rules: (1) those that determine the subject and object of a specific discourse, and that govern such things as who is <u>allowed</u> to speak and what may be spoken of; (2) those cultural conditions that set the limits and boundaries within which it is <u>possible</u> to think.

The first, which he terms the 'rules of discursive formation', must be followed by anyone wishing to speak in a given discourse. Addressing this matter in <u>The Order of Things</u> Foucault writes:

> In short, I tried to explore scientific discourse not from the point of view of the individuals who are speaking, nor from the point of view of the formal structures of what they are saying, but from the point of view of the rules that come into play in the very existence of such discourse: what conditions did Linnaeus (or Petty, or Arnauld) have to fulfill, not to make his discourse coherent and true in general, but to give it, at the time when it was written and accepted, value and practical application as scientific discourse-or, more exactly, as naturalist, economic, or grammatical discourse?[9]

Whereas these rules are conscious, explicit, and easily manipulated in the interest of a select fraternity or community, the rules governing what it is culturally possible to think, are not.

Here, the concern is not with the rules of discourse, of a specific body of knowledge (<u>connaissance</u>), but with the conditions that make all knowledge possible (<u>savoir</u>). Again, in <u>The Order of Things</u> Foucault writes,

> what I am attempting to bring to light is the epistemological field, the <u>episteme</u> in which knowledge,

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[9]Foucault, <u>Order</u>, p. xiv.

> envisaged apart from all criteria having reference to
> its rational value or to its objective forms, grounds
> its positivity and thereby manifests a history which is
> not that of its growing perfection, but rather that of
> its conditions of possibility.[10]

Connaissance refers to knowledge that has been 'refined' and subject to the rules of discursive formation. Savoir addresses the very possibility of knowledge itself, not in terms of mental activity, but in terms of social, cultural (technological), and historical conditions. Thus an institution, for example a clinic, may function as an element of savoir, of disease, while the knowledge of pathological anatomy (connaissance) is but one form of knowledge made possible.

Innis' concept of the oral tradition describes a set of cultural conditions not unlike that of savoir, and with a similar set of relations not to an episteme, but to cultural values described as "the way in which or reasons why people of a culture think about themselves." Cultural values, Innis felt, are historically determined and subject to change such that we do not have thoughts identical to the classical Greeks or Renaissance Italians. Innis saw communication media as having particular significance for cultural values, and thus for the character and emergence of knowledge, in the same way that Foucault understood institutions and communicative techniques as allowing for the epistemological 'thaw' of certain forms of knowledge.

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[10]Ibid., p. xxii.

Innis shares many of Foucault's concerns about the uses to which written communications may be put. Foucault argues that the discourses of the human sciences, made possible largely by communication techniques and procedures (comparison against a statistical norm), support carceral and medical institutions that permit of a finely-tuned classification and control of individuals. Innis not only questions the intellectual and social consequences of written communications, particularly as these become mechanized, but he is able to demonstrate how writing facilitates the growth of empire and the extension of territory.

Innis notes that cultural activity is only possible where there is sufficient armed force to ensure protection to scholars and artists. Foucault adds that the exercise of power itself creates knowledge, much as the invasion of a culture affords access to its supply of knowledge. In the case of both media biases and institutional or discursive rules, Innis and Foucault illustrate that their exploitation, whether by monarchy, priesthood, or medical fraternity facilitates the exercise of power and the accumulation of knowledge that is considered 'true' by these social elites.

Monopolies of Knowledge and Regimes of Truth

In addition to releasing forms of knowledge, Innis and Foucault see power as a mold within which truth is formed. For

Innis, the relations between knowledge, power, and truth are framed within the concept of a monopoly of knowledge. The authority to decide what is knowledge, what is truth, and what form it will assume is linked to control of the dominant medium of communication, and relies upon specialized skills, knowledges, peoples, and institutions. Monopolistic control may be exercised from within religious, political, or publishing institutions and powers of decision may be granted to the priesthood, bureaucrats, or editors.

Innis was concerned with the question of how a culture learns; how it keeps alive its store of knowledge, recharges its memory, and revises its definitions of truth. The cornerstone of culture, he felt, was its educational apparatus. He warned that modern education had become distorted under the pressures of institutionalization, and the influence of science and technology that emphasize the entrenchment of dogma in textbooks, the organization of already existing knowledge, rather than the creation of new truths through critical discussion. Monopoly leads to conservatism and rigidity in knowledge, eventually occasioning the collapse of culture.

Foucault addresses the relation between power-knowledge and truth, isolating science as the regime or set of rules and procedures by which truth is decided upon. He focusses on medicine as an example of a scientific institution, a body of knowledge, and a set of practices endowed with powers of definition and intervention that exceed the boundaries of

medicine per se.

Medicine is seen to be crucial to our cultural definitions of truth, reason, madness, deviance, and normalcy. Backed by the powers of medical institutions, doctors are afforded access to decision-making procedures by which individuals are assessed, categorized, segregated, incarcerated, and perhaps 'cured'. The 'medicalization of society' relies extensively upon a network of documentation and a schedule of normative 'truths' against which individuals may be judged, classified, and excluded. In this way, social order and the 'order of knowledge' coincide:

> Order is, . . . also that which has no existence except in the grid created by a glance, an examination, a language; and it is only in the blank spaces of this grid that order manifests itself in depth as though already there, waiting in silence for the moment of its expression.[11]

Both Innis and Foucault understand truth to be the product of a complex system of relations between communication media or techniques, discursive and institutional procedures, cultural norms and values, political and economic factors. That is, truth is a _process_ of defining and dividing, and not a body of statements, facts, or knowledge. For Foucault, the process of truth discloses a particular 'will to knowledge'. For Innis, the monopolization of knowledge reveals the exploitation of a specific media bias. In each instance, 'monopolization' encourages the centralization of power and the institutionalization of knowledge.

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[11]Foucault, _Order_, p. xx.

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Marginality

The exercise of power also incorporates mechanisms of exclusion and disqualification, whereby peoples and knowledges may be destroyed or simply removed to the margins of thought, culture, and power. Both Innis and Foucault emphasize that the same procedures that allow for centralization and monopolization also create marginal cultural elements. Innis notes that when cultural activity and learning stagnate through the restrictive influence of a monopolization of communication media, creative breakthroughs occur on the fringes of culture at a remove from the conservative effects of monopolization. In this sense, monopolization insofar as it negatively encourages a revival or renewal of cultural activity, is essential to the survival of civilization, although this may demand a relocation of knowledge and power to another centre.

Foucault suggests a similar scenario in assessing the recent emergence of erudite and disqualified knowledges that have provided an impetus to the critique of modern society and its procedures of knowledge validation. These knowledges include the discourses of such traditionally disenfranchised individuals as prisoners, homosexuals, and women and by and large they reveal a common theme: a knowledge of conflict, of the struggle for power. Through the manipulation of discursive rules and cultural norms these knowledges have been excluded from the

educational system, from government debates and policies, and trivialized by the 'sensational' demands of Media.

That is, they have been subject to cultural and institutional constraints concerning what one is <u>allowed</u> to speak about, and who may speak. Nevertheless, in defiance of these limitations, people do indeed continue to speak outside official channels, in the interstices of accepted thought. Out of the whole realm of the possible, <u>savoir</u>, only a portion of thought is sanctioned, and yet, deviant and alternative strands continue to appear on the surface of knowledge.

In this sense, Foucault's subjugated knowledges evoke echoes of Innis' oral tradition, which, despite the influence of print and mechanization has never been destroyed. The powerful oral residue of Hellenic culture has resounded at salient intervals throughout the Mediterranean basin, in the flowering of the Renaissance, in Shakespeare, and in the critical climate of select parliaments and university seminars.

The oral and the subjugated are marginal because they refuse to conform to the demand to think only within established guidelines, and not because of faulty reasoning. Against the hegemony of our current scientific reason, Innis and Foucault champion the remaining traces of alternative traditions of knowledge, which, across time and space, have bound together an interest in extending the limits of what it is possible to know, and in relaxing the restrictions on what it is allowable to think and say.

Foucault takes the issue of marginality further by arguing that the cultural production of marginal knowledges and peoples (the insane, the criminal, the ill) is essential to the functioning of what he calls the modern society of normalization. The marginal, the Other, indicate the limits of cultural tolerance, the thoughts and behaviours that must be avoided. Through its definitions of insanity, illness, and deviance society concommitantly establishes its definitions of reason, truth, the Same.

One of the most important insights that Innis and Foucault offer is the reminder that the history and construction of our knowledge is normative. What we include or exclude from our knowledge, even the design of our institutions and the rationale given for our practices, indicate our values, interests, our criteria as to what constitutes truth and falsehood. It is not so much what the world reveals to us, but what we choose to reveal and what we are able to reveal about the world and ourselves, given our presuppositions, methods, and priorities. We betray the motives of our thought, the temper of our 'will to truth' by the questions we pose, whether as historians or scientists and by the interest or lack thereof that we display toward an "epistemological space" or historical period other than our own. Both Innis and Foucault warn of the dangers, the "convenience of terminal truths,"[12] that accompany a sense of cultural or historical superiority, particularly as this effects

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[12]Foucault, Madness, p. ix.

the structure of social knowledge.

Change: Transition or Rupture

Innis and Foucault tend to regard history through a somewhat discontinuous filter, as a series of discrete epochs. Innis retains traditional historical designations--the classical period in Greece, the Dark Ages, the Renaissance. Foucault on the other hand, creates new historical periods such as the 'classical age' in Europe from 1650 to 1800, confusing some but underscoring his point that terms such as 'the Renaissance' are the creations of historical interpretation and were not divinely engraved upon the cultural horizon.

For Innis, historical periods are differentiated by unique cultural values, systems of knowledge, and socio-political organization, and are propelled by the transition, sometimes abrupt, from one medium of communication to another. The bias of media toward time or space will tend to shape the knowledge and communications of a culture, and thus one attempts to assess the differences in what can be said, thought, perceived, and communicated between, for example, a culture based on stone and one based on papyrus.

Changes in material conditions (communication media) are at the core of Innis' understanding of changes in society and knowledge, although he never reduces the discussion of change to mere technological determinism. Although at the time Innis was

writing (1950) his description of change may have seemed <u>avant garde</u>, the notion of 'punctuated' or discrete change in the sciences and particularly biology (evolution), is now rather fashionable or chic.

For Foucault, each historical layer possesses its own distinctive <u>episteme</u> that characterizes forms of knowledge, social practices, norms, institutional arrangements, and modes of power. Foucault does not attempt a theory of social change, but remains content to describe the abrupt conceptual divide that marks the rupture between historical periods, for example, between the medicine of symptoms and signs, and the medicine of sites and organs.

Unlike Innis, Foucault has no clear-cut mechanism for explaining how or why the change from one <u>episteme</u> to another occurs:

> What event, what law do they obey, these mutations that suddenly decide that things are no longer perceived, describes, (sic) expressed, characterized, classified, and known in the same way . . . For an archaeology of knowledge, this profound breach in the expanse of continuities, though it must be analysed, and minutely so, cannot be 'explained' or even summed up in a single word.[13]

It is tempting to suggest that Innis accomplished just this with a single word: media.

Further, it is not always clear what the extent or duration of an <u>episteme</u> is. Does it affect all knowledge or just a select number of discourses, and if so, which ones? Similar questions

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[13]Foucault, <u>Order</u>, p. 217.

can of course be asked of Innis: for how long can the oral tradition be said to constitute the dominant means of communication in ancient Greece? At what point does a civilization's communications become written or mechanized?

Both men share a concern for the broader consequences to culture of communicative processes and media, particularly as these follow 'improvements' in communication or 'refinements' in technology. Innis noted that continual advances in communication technologies have emphasized confusion and complexity, paradoxically making communication more difficult. Foucault argues that improvements in procedures of observation (surveillance) and documentation have allowed for a more detailed, 'economical', and accurate exercise of power. The possibility of mechanized communication, while facilitating an increase in the accumulation and dissemination of knowledge, has encouraged specialization and fragmentation, the narrowing of thought and intellect, and the deterioration of education and culture.

The Communications Approach: Context and Process

From this review of some of the more salient aspects of Innis and Foucault's work, two outstanding themes emerge. The first is the matter of context, and this may be understood in a double sense: (1) the extent to which both are able to establish a framework for interpreting epistemological, cultural, and

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historical processes; (2) the relation of their work to the period in which we live. The second theme is that of process, in terms of both historical patterns and dynamics, and the practice of interpretation itself.

In the Introduction, the work of Gregory Bateson was discussed for his insight that the context of culture is the relationship between mind, media, environment, and epistemology. In Innis' terms, empire is a pattern of communication. Therefore, the context of historical interpretation is the communication between these cultural elements. Like many topics broached by Innis and Foucault, context and process, interpretation and relationship are interrelated--each implies and reinforces the other in a complex pattern of reciprocal influence. The significance of communication here is twofold: 1) as a 'constructive' cultural force; 2) as a hermeneutic approach.

Context

Perhaps the first instance in which context may be seen as a prominent feature of their analyses, is what I have called their 'case-history' approach. This format of selecting a particular era, incident, or civilization within which to probe the interrelations of epistemology, communication, and history provides a framework in which it is possible to discuss specifics, draw comparisons, or to reveal what might be called

fundamental truths applicable to other historical and cultural settings. Thus, Innis' discussion of the oral tradition in Greece as it encounters the technique and epistemology of written communications, provides insights into the tensions between oral and written forms, between the biases of time and space, between contrary structures of thought and knowledge that are of relevance to all historical periods, particularly those experiencing a change of communication media.

Innis and Foucault both adopt a somewhat synchronic approach to history insofar as they describe the internal relations that characterize a given epistemological space or historical slice, those that operate between knowledge (discourse), communication media and practices, economic and political events, and cultural values and norms. This enables them to draw connections, to juxtapose events, and to synthesize seemingly unrelated phenomena, thereby generating new insights and revealing different levels of meaning and interpretation, as well as new contexts for discussion.

One such context is that of communication media and institutions which may be said to structure the cultural environment, encouraging the release of knowledge, the exercise of power, and the production of truth. Media biases and institutional rules provide a framework within which it is possible to discuss the interrelation of communication technologies, epistemology, and cultural development. In turn, media and institutions may be seen as part of a larger cultural

context. The concepts of cultural values, _episteme_, and _savoir_ are directed toward an understanding of the mutual interaction of cultural factors, the epistemological and social circumstances, or 'conditions of possibility' that make knowledge, discourse, or historical change possible.

Finally, there is the question of their own work and its placement within the context of contemporary epistemology. Although this will also be considered in the closing remarks to this chapter, I would mention here that Innis saw our time as a period of crisis in which the lessons of earlier civilizations regarding survival through sustained cultural activity and learning, were of particular importance. In turn, Foucault has made explicit reference to this point in history as a period of change and transition, of the shifting of the modern _episteme_, and of his own work as an attempt to grasp the dynamics of such a change.

What enables Harold Innis to cover a broad spectrum of human knowledge and activity with a substantial degree of coherence, is his focus on communication. Communication provides a context, it acts as something of a lodestar by which to navigate the wilds of human intellectual and practical endeavour. It is in this sense that one may also address the work of Michel Foucault for its detailed attention to communication practices and techniques.

In place of a well-defined method, Innis and Foucault provide a general orientation, a context within which

penetrating questions may be posed. For them, communication is like a prism through which it is possible to view the relations between knowledge, power, culture, and history. A slight shift in emphasis brings another aspect of the problem into focus, and it is only by trying to keep all aspects in perspective that one can grasp the overall context.

Rather than clear-cut rules, they prefer to offer concepts, images, and metaphors that may or may not be useful guidelines for others, thereby suggesting that understanding is a process of interpretation rather than faithful adherence to formulas. Carey has described Innis' approach in the following manner: "He presented no more than a series of tendencies he saw in history, a set of values with which to make judgements, and a set of concepts to provide a beginning for analysis."[14]

This concern with contextualization is closely related to the study of processes, relationships, and interactions evident in each man's work. Three areas in which the analysis of process stands out are: (1) the study of media and institutions; (2) the analysis of truth and its formation; (3) the study of culture or civilization.

Process

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[14]Carey, "Canadian," p. 46.

A concern for process and mutual interaction allows, as I
have suggested, for an emphasis on juxtaposition, synthesis, and
consequently, paradox. Innis provides an elegant discussion of
the paradoxical manner in which institutions that are created to
preserve cultural values and knowledge, fail to recognize their
own limitations, and consequently subvert the values on which
they were founded, thus restricting rather than enlarging the
avenues of social thought and development. Foucault draws what
appears to be an outrageous connection between the disappearance
of leprosy and a new social awareness of madness, but it is a
juxtaposition that Innis would have appreciated.

The practice that both men employ of bouncing events and
ideas off one another, may be understood as an attempt to grasp
the dynamics of intricate systems, whether social or
epistemological, without having to resort to a linear
explanation of change or a uni-directional sequence of cause and
effect. As Marshall McLuhan remarked, such mechanical models
merely highlight effects which have been "reduced to something
less than the processes they actually illustrate."[15] Instead,
Innis and Foucault adopt what McLuhan called a "mosaic" or
interactive approach, in which obvious effects are given less
attention than subtle patterns of mutual interaction. Innis
commented on his own work: "At least they are an attempt to
enhance an awareness of the disaster which may follow a belief

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[15]McLuhan, Introduction to Empire and Communications, p. xi.

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in the obvious."[16]

McLuhan appreciated this relational perspective that demonstrates a participative involvement in historical processes, rather than an 'objective' account from a particular viewpoint in which one tries to distance oneself from one's material. Innis and Foucault display just such a sense of involvement as may be seen in their attempts to understand culture or systems of knowledge from the inside, to reveal their internal dynamics, their multiple connections to contemporaneous phenomena. This sense of participation downplays the importance of offering historical judgements or explanations, although it does provide the opportunity to probe and perhaps unravel the intricacies of culture and knowledge.

It also explains why both men seem to overwhelm the reader with insights and details beyond what is needed to present an argument. Instead, what they present is a culture or a discursive formation as seen in all its complexity and confusion, from the inside. McLuhan remarked of Innis, and the same may be said of Foucault, "he presents his finds in a pattern of insights that are not packaged for the consumer palate."[17] In so doing, Innis and Foucault demand from their readers as much participation as they themselves display.

I noted in the chapter on Innis that he preferred the use of such terms as 'hasten', 'facilitate', and 'stimulate' rather

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[16]Innis, <u>Bias</u>, p. xviii.

[17]McLuhan, Introduction to <u>Bias</u>, p. vii.

than suggesting that one cultural factor may have <u>caused</u>

another. James Carey takes this a step further noting that

Innis' relational approach makes prediction, whether retroactive

or future, virtually impossible.

> With his analysis you cannot predict what will happen
> when new forms of communication are innovated, how
> precisely they will bias space or time, or what
> monopolies of knowledge will be created. History was too
> open a system for that, too full of surprises,
> contradictions and antimonies.[18]

Foucault is similarly wary of linear explanations,

particularly with respect to epistemological and historical

change in the transition from one <u>episteme</u> to another. Again,

these changes in thought, values, and power relations are not

incremental, but abrupt, discrete, and violent transformations

and reorganizations. Although he has difficulty explaining why

these breaks occur, Foucault is quick to acknowledge this

limitation in his work and he suggests that for now, a

description of <u>what</u> an epistemic break entails will have to

suffice. In the Foreward to the English edition of <u>The Order of</u>

<u>Things</u> Foucault writes:

> It seemed to me that it would not be prudent for the
> moment to force a solution I felt incapable, I admit, of
> offering: the traditional explanations-spirit of the
> time, technological or social changes, influences of
> various kinds-struck me for the most part as being more
> magical than effective. In this work then, I left the
> problem of causes to one side; I chose instead to
> confine myself to describing the transformations
> themselves, thinking that this would be an indispensable
> step if, one day, a theory of scientific change and

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[18]Carey, "Canadian," p. 46.

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epistemological causality was to be constructed.[19]

Generally speaking, a concern with processes may be seen as an attempt to describe more than one facet of a situation at the same time by focussing on the connections and linkages between a number of interrelated factors rather than, for example, their succession over time. The action of waves breaking on a beach, or the process of juggling are examples in which the interaction of discrete events produces continuity that is neither progressive nor successive. In their work, Innis and Foucault emphasize that communication media and institutions, as well as empires and civilizations, should be regarded as dynamic and interrelated systems, as Batesonian ecologies rather than as hierarchical structures or static forms.

Foucault draws attention to the strategies, rules, and mechanisms that allow for the 'thaw' of knowledge and the exercise of power. He demonstrates the reciprocal influences, the process of continual feedback that characterizes the relationship between knowledge and power. He describes how changes in knowledge or in the use of power will occasion further changes, not only within institutions themselves, but in their relations to society at large in something of a ripple effect. Thus, changes in the knowledge of madness or the practice of confinement will have repurcussions far beyond the walls of the asylum or the prison.

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[19]Foucault, Order, p. xiii.

Likewise, Innis studies media not as entities or 'things', but as intricate complexes or networks of cultural forces that generate knowledge, define truth, and organize societal relations. Rather than focussing solely on the technical form of media, Innis describes how different media are seen to pattern culture and history, to shape knowledge through a ceaseless interplay between oral and written forms, between temporal and spatial biases. Thus, rather than suggesting that a particular medium caused a certain form of knowledge to emerge, Innis demonstrates that media release cultural energies whose reverberations as knowledge or power may be felt throughout the social field in countless numbers of combinations and patterns. This can be seen quite effectively in his discussion of the clash of oral traditions of communication with spatial social and institutional structures.

In a similar vein, Innis and Foucault describe the role of media, experts, and institutions as components in social systems that produce knowledge and construct truth. Foucault encourages us to look beyond the contents or categories of truth, to the processes of definition and division, the mechanisms of exclusion that sanction certain forms of knowledge and suppress others. This implies that we question the values or 'will' that informs our knowledge and practices, that we recognize that knowledge and truth are not objectively perceived, but rather constructed according to explicit or implicit social rules, codes, and biases.

Innis understands knowledge and truth to be the product, as we saw, of what he calls 'monopolies of knowledge' built upon the advantages afforded by the spatial or temporal biases of media and exploited by certain social groups or elites. He sees monopolization as a process that leads to the restriction of certain forms of knowledge and the entrenchment of truth or dogma, but also as a process that will eventually stimulate creative outbursts on the margins of culture.

Finally, both Innis and Foucault are concerned to reveal the dynamic forces that pattern culture and history. Innis emphasizes that civilization involves a balancing of conflicting, often contradictory forces, tensions, and biases. Further, he points out that cultural stability is rarely achieved, that at a given time there will be an overemphasis on time or space, on oral or written forms of communication, on cultural activity or armed force. Innis felt that by focussing on the temporal or spatial limitations of culture, it was possible to discern the essential tendencies informing cultural development. He expressed amazement at the inability of cultures to recognize their own limitations and to resist the undertow of cultural decline. McLuhan writes,

> he came to see historical Fate as the motivated refusal
> to recognize the patterns growing from patterns of
> culture already within the various cultures.[20]

Foucault sees the mutual interaction between knowledge and power, particularly in their ability to effect truth, as the

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[20]McLuhan, Introduction to _Empire_, p. vi.

main force shaping culture. He stresses the role that different values attributed to truth and reason have played in organizing culture, and in setting limits to what may be said and thought within a given geographic or historical setting. Through the interplay of power and knowledge he feels it is possible to uncover the systems of motives and desires that have characterized and differentiated various episodes in Western history.

Innis demonstrates that the process of defining truth may be controlled by religious or political systems; however both Innis and Foucault isolate science as the premier system for producing truth in modern society. The strength of their critique of science lies in their ability to demonstrate that science is not just a body of knowledge, but a complex set of relations between communicative practices, institutional rules, procedures, strategies, and methodologies, cultural and professional norms and values, and professional experts.

Communication as episteme

To the extent that knowledge, institutions, and culture may be understood in terms of patterns, processes, and media of communication it becomes clear that communication, like culture, not only has a history, it is history. Here, history is meant to include both human activity and human inquiry--historia in the Greek sense. It is in this double sense that we may consider the

contributions of Harold Innis and Michel Foucault, two historians, to communication studies. In addition to their contributions to the discussion of knowledge generation and validation (activity), they provide some guidelines as to the type of concerns a communications perspective (inquiry) may include, specifically a study of processes and relationships, and an emphasis on contextual interpretation.

Indeed, it is this emphasis on process, relationship, interaction, and context that enables Innis to analyze empires and media in a coherent fashion that is remarkably similar to Foucault's analysis of medical and carceral institutions. I would argue that the same emphasis on relationship, interaction, and context (meaning) is in evidence in contemporary studies in physics, linguistics, and anthropology as suggested in the Introduction. The study of communication is the study of relationship and context, and to the extent that a significant number of disciplines and discourses have begun to explore these themes, we might perhaps suggest that the twentieth century episteme is one of communication.

At its best, communication studies is both an interdisciplinary and an intermediary program. It lies at the crossroads of established schools of thought and recognized university departments, encouraging the synthesis of such fields as cultural studies, literary criticism, anthropology, psychology, media research, critical theory, history, and the philosophy of science. The richly integrative nature of both

Innis and Foucault's work serves as an example of the depth and coherence possible in interdisciplinary research.

In this sense, Innis and Foucault, in addition to being the subject of this thesis, also underscore the very possibility of such a study insofar as it is concerned with the process of constructing knowledge, interpreting culture and history, and assessing these concerns as the study of communication, within the context of contemporary epistemology.

Innis and Foucault pose a series of questions concerning the relation of communication to knowledge construction and social organization, but perhaps the most intriguing question that arises from their work concerns the emergence of communication studies itself, at this point in Western history.

A Final Word

Communication has perhaps become a point of focus in contemporary knowledge because it addresses what may be the problem facing modern science, a problem that concerns epistemological change in general, and the reordering of the social construct through which we create knowledge, construct truth, and view reality. The 'foundation' of science that is seen to be resettling, is one embedded in communication, as all forms of knowledge ultimately are. The picture of reality that is shifting, is one that has been constructed through communication. Further, that eminent physicists and philosophers

have recognized problems of language and communication as crucial to science,[21] suggests the possibility that communication studies has arisen out of the epistemological crises of science and the confused socio-historical context of current knowledge.

Michel Foucault has suggested that science is an historical 'mutation' that has emerged on the surface of Western knowledge in the past three centuries. He speaks of the sensation, the intuition that Western knowledge may soon assume a new form:

> In attempting to uncover the deepest strata of Western culture, I am restoring to our silent and apparently immobile soil its rifts, its instability, its flaws; and it is the same ground that is once more stirring under our feet.[22]

One assumption of classical physics that has been revised as a result of atomic experiments, is that of direct cause and effect between isolated, discrete physical particles or 'building blocks'. In place of this linear model of change, physicists, biologists, and chemists have begun to speak of interactions, of open systems in which changes in one area occasion changes in the entire structure. It is possible that the order of contemporary Western knowledge arose from a linear orientation facilitated by the predominance of written or print communication media and their epistemological consequences. That we have sought to challenge this linear bias may be the outcome

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[21]In the sense of communication amongst themselves, with the general public, and in terms of their capacity for feedback from society at large.

[22]Foucault, Order, p. xxiv.

of the instantaneous simultaneity of electronic communication
media, as well as the 'dance' of particle matter. That is, if
both the _form_ and the _content_ of knowledge are shaped by our
media of communication, then the emergence of communication
studies may be seen as the necessary consequence of a changing
social and historical context in which problems of
epistemological self-reflection are now of concern to all
branches of human inquiry.

If the questions raised by language, by communication, by
epistemology are now seen to be of vital importance to such
diverse fields as history, anthropology, philosophy, psychology,
and physics might we not suggest that, at the very least,
communication studies must transcend disciplinary boundaries in
order to realize its potential; and that, at the very most,
communication may develop into a kind of 'unified field theory'
or _scientia_ capable of providing an underlying foundation and
sense of coherence to Western epistemology?

Questions concerning the prominence of communication
thought today and its future as a discipline, will perhaps
remain unanswerable for some time. Nevertheless, we may still
pose a number of intriguing questions: Is this turn toward
communication representative of a major epistemological shift in
Western thought? To what extent can it be seen as an extension
or broadening of the limits of Western thought and rationality,
and an incorporation of the knowledge of other cultures, and
other times? Does this turn represent a significantly new

wrinkle in epistemology, or is it rather, one of a series of aftershocks motivated by the articulation of relativity theory, and which may or may not coalesce into a coherent whole? Is it more than an expression of the 'revolution' in electronic communications? Is communication one of Innis' oral strands, or perhaps one of Foucault's subjugated knowledges?

I noted in the Introduction, the difficulty encountered by physicists attempting to articulate the changes in perception and knowledge ushered in by discoveries and speculations in quantum physics. A similar sense of bewilderment, of the inappropriateness of language and words, may have troubled the early prose writers of classical Greece as they tried to step outside the framework of poetic thought, knowledge, and reason in order to comprehend and articulate a new means of organizing knowledge, a new way of thinking. I am suggesting that this sense of epistemological uncertainty has become widespread in social thought once again, and that wherever its movement may be felt, in anthropology, physics, or elsewhere the difficulty of thinking new thoughts within the framework of the old, of constructing and communicating new forms of knowledge, provides a considerable sense of uneasiness. Perhaps, as Alisdair MacIntyre suggests, "discomfort at this point is a sign of philosophical progress."[23]

It is questionable whether at any time in history we have the epistemological capacity to penetrate the present. Beyond
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[23]Alisdair MacIntyre, "Crises," p. 470.

the poorly understood spark of creative genius, we find it most difficult to escape cultural codes, rules, and norms, or the 'reason' of our practices and motives, such that we might be able to think that which is currently unthinkable, to extend the edges of the 'known'. Like the classical Greeks and the contemporary physicists, Harold Innis and Michel Foucault have asked how it is possible within established patterns of thought to formulate new ideas, to enlarge the surface and depth of social discourse, to reexamine the conditions of truth and reason.

Their answers to these questions have been posed within the context of a communications perspective, in which the relation of communication to cultural history and epistemology is accentuated. Harold Innis provides a fundamental insight into communication as the basis of knowledge and power in any society, and Michel Foucault offers a sympathetic analysis of the configuration of knowledge and power in our own modern world.

Like the transitional figures they study, Innis and Foucault have written and thought on the fringes of Western knowledge, within the folds of a somewhat misunderstood and marginal discourse, communication studies. By and large, their views on epistemology have served as intellectual appetizers considered appealing by a few, but not yet incorporated into the cultural _episteme_. Similar to the century's leading scientists and intellectual critics--such as those discussed earlier--their

ideas have been stimulating and challenging, but to date, they have failed to effect a change in the thinking of those who inhabit and direct the Media, universities, government, and other major cultural institutions.

It is not enough for an idea to be forceful or appealing for it to be widely accepted, and pivotal thinkers are perhaps those we discover only in retrospect. However, there is one thing about which we may be more certain: the intellectual space within which Innis and Foucault have spoken, has expanded considerably in this century due to the unceasing contributions of thinkers similarly critical of scientific epistemology and mindful of the significance of communication studies. Perhaps in fifty years these intellectual curiosities will represent the typical epistemological orientation of Western man. Then again, their ideas may fall unheard into the cracks created by the very social and intellectual changes they have argued are already underway.

The wallpaper with which men of science have covered the
world of reality is falling to tatters.

                    Henry Miller

There were a few canvases that left me uneasy.
I won't say that they were blank, but they were nearly
so.
"They're painted in colors that your eyes of the past
can't see," he said.
A moment later, when his delicate hands plucked the
strings of the harp, I barely caught an occasional
sound.

                    Jorge Luis Borges

                    "Utopia of a Tired Man"

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