MARSHALL MCLUHAN AND JAMES JOYCE: BEYOND MEDIA

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McLuhan used the works of James Joyce extensively in his own work. This article deals with the source of many of his most startling observations regarding art, society and technology—James Joyce.

Les oeuvres de James Joyce ont forts été utilizées dans les travaux de McLuhan. Cet article démontre l'influence de Joyce dans ces observations les plus brilliantes sur l'art, la société et la technologie.

"Nobody could pretend serious interest in my work who is not completely familiar with all of the works of James Joyce and the French symbolists." Marshall McLuhan

The irony of all the complex contradictions of Marshall McLuhan's variegated career apparently is that he failed to successfully communicate the insights of contemporary poetry and art to communications researchers. Whatever else McLuhan was up to in his sometimes exasperating and often enigmatic writings, he developed a theory of communication which he considered to be "applied Joyce," in the same sense that he had analyzed Joyce as developing an aesthetic which was "applied Aquinas." At one stage or another, the working title for both The Gutenberg Galaxy and Understanding Media was "The Road to Finnegans Wake". In a certain sense, this title was McLuhan's Work in Progress (Joyce's own working title for Finnegans Wake). Consequently, it has, as McLuhan himself suggests in the epigraph, been unfortunate that many of those involved in communication and cultural studies have never read his works in relation to the history of art and literature from the 1880's to the 1960's.

Two other major figures in communication theory were also profoundly affected by modern art and literature, especially the work of James Joyce and the symbolists. Umberto Eco (one of the recipients of the McLuhan Teleglobe Award) shared McLuhan's interest in the medieval world and his strong interest in Joyce and avant-garde art. Eco's published works include The Aesthetics of Chaosmos: The Middle Ages of James Joyce and The Open Work, which deals with the spectrum of avant-garde arts, while again stressing Joyce's important role. Eco, who develops a production oriented theory of semiotics and who has had extensive interest in cultural studies (critically assessing comics, films, television, popular novels, Disneyland and other related phenomena), has had a central interest in communication theory, including its relationship with systems theory and cybernetics. Roland Barthes, while less influenced by Joyce than by the French symbolists, has frequently been compared and contrasted with McLuhan in terms of his career. Radically different from McLuhan in his social critique, Barthes began his career with Mythologies, a work that looks at the same ground as McLuhan's Mechanical Bride. One of his earliest works is a treatise on rhetorical theory published in Communications (1970). McLuhan's doctoral thesis was also on the history of grammatical and rhetorical theory.

Joyce, the symbolist tradition and modern avant-garde art should share with social and critical theory a major place in discussions of communication theory, in view of the fact that many hidden assumptions derived from these sources have entered into the daily discourse of communication science, often without the awareness of its practitioners. McLuhan himself insisted that his work cannot be understood without an understanding of Joyce and the symbolists; so, in order to reassess McLuhan's contribution to communication theory it is necessary to turn to Joyce to see not only what his influence on McLuhan was, but to determine if there is a repository of important discoveries for communication studies to be found in Joyce's work and in the artistic and literary works of the Joyce era (1890-1965).

Joyce, in considering communication, which is a central issue in both his major works, had already passed beyond media, by realizing that communication is a single integrated system of signs with a variety of different material bases and that the newer technologies were rapidly tending to reinforce this integration. McLuhan's career, as he himself would gladly have acknowledged, might be regarded as a constant quest to rediscover what Joyce had already found. Therefore, in this exploration into the relationship of McLuhan and Joyce, it is essential to examine Joyce's potential contribution on certain subjects in considerable depth in order to grasp precisely what McLuhan might have meant in his continuing praise of modern art, particularly the art of James Joyce.

The prime insight of this era, which has seen the integration of information and telecommunication technology, undermines the concept with which

McLuhan's name has become most closely associated: *media*. Implicit in both Innis and McLuhan's writings is the message that the concept of media is a specific product of the mass age. McLuhan's reflection on his own most quoted epigram, "The Medium is the Massage," is a satiric observation on the uncritical public acceptance of "the medium is the message" and a conscious association of the concept of media with the "mass age" of "massage". Twenty-five years after the publication of *Understanding Media*, implicit in the tendency of technology to develop at a rapidly moving rate of change, is the deconstruction of the concept of media through the practical activities of telematic technology.

To "McLuhanize" for a moment, if we look at the present day, it is obvious that the micro is the medium and, therefore, the micro is the message. Television, as videotext, is the obvious content of the new medium. But the micro as chip and processor is the metamorphosis of media; the only factors of the world of speech that are not immediately open to development in the micro are the recreation of features of actual physical presence—touch, smell, taste—though there is no reason to believe that this capability will not emerge in the future through progress in "compunications" (a term which I prefer to telematics or informatics, since it underlines the union of the numerate and the literate aspects of the computer with the full potential range of human and electronic communication).

What such a speculative McLuhanitic flight suggests is that McLuhan himself led us "Beyond Media"—that Understanding Media ought to have been entitled undoing media. By this I mean no mere semantic game-playing. As it has been used in the Twentieth Century, there are real problems in the term media. Raymond Williams points out in Keywords (1976: 203) that there are three major senses blended in the term: its original sense, its specific technical sense (i.e, as in print medium) and an extended capitalistic sense (i.e., a magazine seen as a medium for advertising). Print and broadcasting in the specific technical sense should not be called media, but should more strictly be designated as material forms and sign systems. McLuhan has always been fully aware of this ambivalence in the term media and deliberately exploits it in his writings.³ An important and peculiar aspect of McLuhan's (and incidentally Innis') idea of media is conceiving of a medium as referring to a moment of transformation or metamorphosis. This is why for McLuhan one medium becomes the content of a succeeding one. A medium is identifiable as such, while it is a dominant factor in the sociopolitical sphere, as radio was from the sinking of the Titanic to the Second World War. He maintains that subsequently radio with film became the content of TV.

Like good romantics, Innis and McLuhan were primarily interested in moments of transition or transformation. They both structured histories about such moments, while abandoning the detailed searching out of slow, gradual change and complex interaction between social, economic, political, cultural and material factors that are the goal of the academic historian. Innis saw such moments of

transition as marked by a balance between contending factors which permitted a potential for the development of democracy and of cultural diversity. He based his model on the Greek transition from speech, so-called orality, to writing, so-called literacy. For Innis, though, the appropriate terms are speech and writing, not orality and literacy, for he treats speech not as a medium but as a mode of being. While Innis would have agreed that writing may appropriately be described as a technologization of the word (or better, of speech), for that very reason speaking in terms of orality and literacy undercuts the fact that Innis is interested in unmediated as opposed to mediated communication.

McLuhan picks up on Innis' analysis, attributing to writing all of the characteristics of a Blakean vision of the original fall from grace. Humanity for McLuhan falls into writing, though naturally the fall is also the discovery of the knowledge of good and evil; for an individual who had striven to model himself on the late 18th and 19th Century version of the "man of letters," McLuhan embraced the ambiguities of literacy striving to preserve the integrity of the age of print. It is important that his book about the emergence of electric media is entitled The Gutenberg Galaxy, giving centre-stage to the nature of print culture. Ultimately, because the major concepts in Innis and McLuhan's work are ambivalent, their value must reside in their ability to bring to our attention clusters of associated communication activities, such as the effect of the melding of the physical embodiment of the oral tradition with the new authority of writing on; the composition of the later dialogues of Plato; the emergence of a complex Alexandrian tradition of interpretation, enigmatic literature, libraries, and encyclopedias; an increase in the importance of gnosticism; and the subsequent political organization of Greece. As an interactive node, a medium as a mode of producing, transmitting and/or distributing communication has its shaping power on the everyday world, but it is also shaped by the priorities of that very same everyday world. The technic (note that I have avoided saying technology) does not determine certain events, it interacts within them, opening up possibilities, amplifying programs, undermining resistance to change and itself is changed and directed in the process.

Such a way of viewing media, though, stresses that discussions of the complex interaction surrounding the introduction of new communication technology had to move beyond the concept of media. In one way, McLuhan seems always to have been moving beyond media, even while satirizing and playing with the concept; yet, in another way, in his desire to call his most recent book *The Laws of Media*, he continues the contradiction of appearing to hypostatize the concept of medium, while really speaking about all artefacts—material, aesthetic or intellectual—as signs and symbols. If we wished to be uncharitable, it could be suggested that he did not want to abandon a good thing. The media approach had impact on artists, avant-garde intellectuals, the left, business and the general public, creating a large

and enthusiastic audience. It had sales value. Moreover, McLuhan's satiric mode of presentation precluded his substituting a de-ambiguated, non-ambivalent terminology for the terminology which he was undermining, by substituting an alternate, more precise, academic terminology.

As a central concept in the study of communication, the term media has often been misleading. As Barthes or Williams would say, though with considerably different import, writing is a practice—a practice for print. Before print, it was a practice for manuscript production. In fact, writing itself becomes "ambivalent," since it is both a practice and a material form encompassing a sign system. Discussing the Greeks, Innis often telescoped these differing implications, as McLuhan does in discussing the introduction of writing into oral societies, so that McLuhan (Innis 1964, xiv) is quite justified in saying that Innis uses "word play." Preoccupation with using media as the primary concept has concealed the fundamental complexities of the unity of human communication and its dependency on a community of interacting signs where signs appealing to different senses and utilizing different modes of reproduction are orchestrated to produce actual communication events. Furthermore, media as a concept has continued to encourage the use of paired opposites which pervade Innis and McLuhan's writings-oral and written, space and time, centre and margin, hot and cool-and has subsequently characterized many other writings about communication.

What actually happens in communication is that people simultaneously use gestures, sounds, rhythms, images, demonstrations, speech, self-presentation and setting in differing mixtures to shape messages. Communication technology has tended to become more and more inclusive of all of these potentialities so that contemporary microprocessors are being designed to permit the simultaneous use of signs derived from all of the differing sensory capacities of the human person. The Aspen Movie Map produced by the MIT Media Lab is only a suggestion of what is yet to come (Brand, 1987: 141-2). At the moment, perhaps we can only sense the full potential in SF visions, such as William Gibson's Count Zero (1986) or Neuromancer (1984), which provide the folklore consumed by researchers at the Media Lab. It might be said, as McLuhan seems to say, that this inclusiveness is a return to the aural world of speech, for the body and its surround are utilized simultaneously with words and other signs in shaping communication. But then, even this is problematic, for it is logocentric, and while recognizing its importance in communication, language ought not to be endowed with a privileged role, since it, too, derives from the same potentialities as the other repertoires of signs.

McLuhan always insisted that his major insights come from symbolist and post-symbolist poetry (McLuhan, 1987: 505). Certainly with regard to the inclusiveness of the communication process and to the problem of logocentrism, modern poets and artists preceded McLuhan in realizing that a medium could only be an artefact, material or imaginary, and that communication occurred through

the operation of a community of signs. Mallarmé instructed Degas that poems are made with words not ideas, but in so doing he also declared words to be things, just like pigments. While McLuhan used this insight, there were many key insights of the artists and poets which he did not develop.

Artists or poets create new grammars and new rhetorics to cope with the changing sociopolitical and technological worlds. Mallarmé's association of the shape of the newspaper with an aleatory world envisions communication emerging from ordered randomness that McLuhan associated with the symbolist rendering of inner landscapes. Kurt Schwitters, making collages from bits and pieces to explore the fragmentation of the media world and its objects, such as newsprint, simultaneously explores the basis of a new visual repertoire of signs. Lichtenberg, playing with popular cultural images, highlights the ambivalence of the folk art of the comic book. Fellini explores a self-reflexive, critical language of film involving new repertoires of signs derived from light, sound, gesture, facial image, circus and the like, while satirically directing it at church, state, industry and artistic institutions.

Joyce, though, is the focal point, for he performed in poetics an activity analogous to Einstein's in science. His final works are a living *summa semiotica*. He consciously demolished the stability of the sign symbol and began playing with the bits and pieces of a fragmented society. He explored the gaps created by the breakdown of continuities and investigated the increased communicative potential which they would generate. Joyce, who considered himself to be a poet, is an early, active practitioner of that "wild sociology" that John O'Neill (1974: 23) describes as embracing "the common dilemma of making sense together" which "in practice ... achieves a return to things that is the direction of poetry". Vico and some of the symbolist poets are earlier practitioners of such a "wild sociology". Joyce consciously developed "wild semiology," a necessary corollary to a wild sociology, showing how the inclusiveness of semiotic communication constituted an "ecology of sense," manifesting the inter-relatedness between the biological and social ecosystems and the mental life of nature and man, a fact which McLuhan appears to have grasped only partially.

To explore this it is necessary to move beyond McLuhan and media to comprehend how much more McLuhanism might have contributed to communication studies. One of the obstacles to McLuhan's not contributing more was his failure to interest communication scholars and social theorists in the potential contributions of Joyce, symbolist poets and the avant-garde to our understanding of communication. Joyce's work, in spite of its complexity, remains as crucial now as McLuhan asserted it was in 1964. Yet a most revealing insight into McLuhan's own problems with Joyce is to be found in a letter he wrote to Felix Giovanelli:

Looking at Joyce recently. A bit startled to note that last page of Finnegan is a rendering of the last part of the Mass. Remembered that the opening of Ulysses is from first words of the Mass. The whole thing is an intellectual Black Mass. The portion which Joyce read for recording ends with an imitation of the damnation of Faust. As he reads it...it is horrible. Casual, eerie. Speaking of Existenz and the hatred of language--what about Finnegan? (McLuhan, 1987: 183).

Now admittedly, after 1950 McLuhan very frequently refers to Joyce, but he always seems more comfortable when speaking about Ezra Pound (who never recognized any value in Finnegans Wake), and Joyce's arch-critic, Wyndham Lewis, McLuhan, in fact, interprets Joyce while evading Joyce's overt commitment to socialism and anarchism, as well as his critique of the Church and the politics of contemporary Europe. McLuhan and Joyce shared roles as satirists; but McLuhan's satire is closer to Wyndham Lewis' and vitiated by extremely conservative social analysis. Having discovered the importance of Vico and Joyce and being familiar with the work of Gregory Bateson, whose Communications: The Social Matrix of Psychiatry provided one of his earliest introductions to the study of communication, McLuhan ought to have developed an "ecology of sense." He failed to do so, because he continued to evade the necessity of recognizing the genuine transformation which Joyce achieves in his approach to the relation of the sensory body and the social body in communication, McLuhan replaced the values of social communion achieving community through everyday life and secularized rituals which permeate Ulysses and Finnegans Wake, by a preoccupation with the Mystical Body and with a rejection of the necessity of value judgements in studying social phenomenon.

Joyce, modifying Vico and examining his experience as an Irishman and a citizen of Europe, envisions an evolution of a participatory democracy. Finnegans Wake moves from the paternalism of primitive man to the self-conscious, self-reflection of modern revolutionary man. Modes of communication open up the possibilities for such an evolution. In the penultimate section of the penultimate book of Finnegans Wake, Joyce's dreaming hero, imagining himself to be a figure called Yawn, is submitted to an interrogation involving a variety of modes of hermeneutics—historical understanding, psychoanalytic interpretation, modern spiritual self-reflection—before emerging as the awakened "democratic" man announced by radio broadcast at the beginning of the Fourth Book, which opens with the revolutionary outcry:

Sandhyas! Sandhyas! Sandhyas! Calling all downs. Calling all downs to dayne. Array! surrection! Eireweeker to the wohld bludy world. O rally, O rally! Phlenxty, O rally! (FW: 593.01).

Here communication technology operating in the interest of a revolution oriented towards participatory democracy is related to the liberation of Ireland from England. In the process Joyce examines the images of domination and control with which he was obsessed at the beginning of his writing career: church, state, family. In a brief article it is not possible to explore such questions as: Joyce's satire of Freud and Jung (paralleling that of Deleuze or Artaud) in the figure of Alice, who is "jung and easily freudened," to use a familiar example; nor of the nationalist entrepreneur Napoleon; nor, the cynical manipulations of the Church throughout the history of Europe; nor the "papa" figure behind the "Gestapose" (FW: 332.07), to mention only a few.

Two key theoretic conceptions developed by Joyce in his youth are central to understanding these issues: his concept of *epiphany* (a term often echoed by John O'Neill in his writings on social theory) and his concept of *vivisection* by which poetry produces a dynamic imaginary reproduction of the everyday world. It does so by playing with the signs by which the world communicates with itself. Most poetic works, in one of their aspects, present sociology in action through such a vivisective process:

—The modern spirit is vivisective. Vivisection itself is the most modern process one can conceive. The ancient spirit accepted phenomena with a bad grace....The modern method examines its territory by the light of day....All modern political and religious criticism dispenses with presumptive States, [and] presumptive Redeemers and Churches. It examines the entire community in action and reconstructs the spectacle of redemption. If you were an aesthetic philosopher you would take note of all my vagaries because here you have the spectacle of the aesthetic instinct in action (Joyce, 1955: 186).

This vivisective concept implies that the poet-artist explores communicative activity, for the community in action manifests itself in communicating. The Epiphany, a moment of intense clarity, renders forth the specific nature of a material, verbal, or imaginary artefact, whether it is an object, an event or a turn of phrase.

So Joyce, understanding the potential hegemonic power of signs, could relate them to the living society through a succession of epiphanies. He also realized the world was rapidly becoming transnational; one of the reasons he developed a language which was an interplay of many languages within the framework of an Irish dialect of English. His work also questioned the continuing primacy of the concept of the state: from his exploration of the disinheriting of Irish culture by England in the *Portrait*; through his sensitivity to the interplay of bias in the fragmentation of the multi-national city in *Ulysses* (particularly anti-Jewish prejudice and the xenophobic responses of many respected citizens of Dublin); to his exploration of "Ghazi power" in the *Wake*. Joyce, environmentally and

pacifistically committed, nevertheless probed the roots of power, reflecting the ambivalent tensions between a productive internationalism and transnational transformations of power complexes. Vico, Michelet and his early socialist interests did not allow him to follow many of his fellow symbolists in either an extremely conservative or an a-political direction, but his analyses clearly present the futility of the reactivity of nationalists. His understanding of and rejection of the history of the Church provided him with his own model of a transnational hegemony manipulated by an intellectual monopoly of power. Joyce embraced the apparent gap between these sociopolitical concerns and the potential revelations implicit in the signs which people exchange. His basic discovery about language and communication, which complements revolutionary liberation, is the centrality of gesture that relates immediately to the neural and tactile qualities of crotic bodies.

To begin then with the questions concerning the material foundation of signs: before Innis, Havelock, McLuhan or Ong and contemporaneous with Parry (1928), Joyce who began writing Finnegans Wake in 1926, explored the shift from oral speech to writing and print. Imagine him asking the question: what is the role of the book in a culture which has discovered photography, phonography, radio, film, television, telegraph, cable, and telephone and has developed newspapers, magazines, advertising, Hollywood, and sales promotion? What people read, they will now go to see in film and on television; everyday life will appear in greater detail and more up-to-date fashion in the press, on radio and in television; oral poetry will be reanimated by the potentialities of sound recording. One major "medium" that requires such detailed exploration is the book where the question of the role of writing and speaking in the actual creation of a particular book assumes a much more self-conscious character in the Twentieth Century. Following such a direction naturally leads to questions concerning the role of language itself in the changing world of communication and the role of writing in creating the concept of textuality and, therefore, of extended textuality—i.e., the viewing of any meaningful action as textual.

Joyce stressed the tension between oral and written, between writing and print, but he did it in his own practice of writing as well as writing about it. The oral and the written became both medium and message, so that quite literally in the *Wake* the medium is the message. Now Joyce's interest in all of these subjects precedes his writing *Finnegans Wake* (1939) over a twelve year period between the world Wars and it is an interest which quite naturally associates such themes with the control of communication and the monopoly of knowledge. In a far simpler work than either *Ulysses* or the *Wake*, *A Portrait of the Artist as a Young Man*, composed during the first decade of the century, he investigates the way in which the English language in its British idiolect dominates the life of Ireland and how the Jesuits and Christian Brothers as disseminators of education control the way this society

communicates. In the famous opening episode of the *Portrait* (1964: 7-8), Baby Tuckoo (which McLuhan quoted frequently to his classes at the University of Toronto), Joyce explores how Stephen's perceptions as a toddler involve the interplay of the senses, decodifying apparent nonsense and trying to understand the symbols of Irish religion and politics. Synaesthesia occupies a major role in the learning process by which smells blend with the feel of textures, sounds with the rhythmic movements of the body. Even the import of the political is first perceived in terms of symbolic colours—the green and red brushes—and words and phrases which are learned through a process of recording and remembering a repertoire of sounds and sense patterns. Baby Tuckoo first learns about power and domination through the word play associated both with pleasure and with threat: the images of father and mother and Dante's admonition that eagles will "pull out his eyes" if he doesn't apologise.

Understanding emerges from sound and gesture, so it is natural in *Finnegans Wake* that the dreamer who by dreaming is writing his dreambook declares: "In the beginning was the gest he jousstly says, for the end is with woman, fleshwithout-word," (*FW*: 468.05). Here Joyce echoes Marcel Jousse's *L'art et le geste* where Jousse quotes Udine: "Au commencement était le Geste," (McHugh, 1980: 468) playing on the theme of Christ as Word with which St. John's Gospel opens, the psycho- anthropological primacy of gesture and the role of the jest or joke as a communication with the unconscious. Joyce plays on the complexity of "gesture" in a post-print world when he explores the nature of story-telling: "Singalingalying. Storiella as she is syung. Whence followup with end-speaking nots for yestures..." (*FW*: 267.07). The interplay of end punctuation, notes in song indicating endings and gestures complementing the vocal (supersegmental) end signals in storytelling bring together the complex web of signs which permeate all communication.

Joyce plays endlessly with concepts of text, speech, writing, print, sight, sound, and so on. Like Kenneth Burke, he seeks a concept of language as gesture, for gesture, the "root language" grounded in the human person, gives birth to language. Drama and dance, which provide models for communication in the Wake, also are offspring of gesture. Therefore, in the works reflecting his most mature artistic theory, Joyce identified drama and dance as fundamental for understanding all poetic creation and all communication. From the beginning of his artistic career Joyce recognized the importance of the sensory system and the use of gesture for both the process of communication and of artistic creation. In Stephen Hero (1955), an early draft of A Portrait, his youthful artist-hero argues that rather than treating gesture as elocutionists do, a rejuvenated art of gesture should be developed as a theory of rhythm. Later in Ulysses at Bella Cohen's whore house during the climactic scene in Dublin's Nighttown where Leopold Bloom and Stephen first meet face to face, the young aspiring poet declares that gesture is the universal language:

So that gesture, not music, not odours would be a universal language, the gift of tongues rendering visible not the lay sense but the first entelechy, the structural rhythm, (*Ulysses*, 425).

Joyce's own way of developing this structural rhythm as the form-giving energy in his work is through an intense attention to the rhythms of nature and their relation to social rhythms. He achieves this by assimilating rhythms arising from movements within the body as well as rhythms involving the biosocial expression of the body in conversation and in such activities as oratory, poetry, music and dance.

Structural rhythm is an important aspect of the process by which throughout history humans have extended their capacity for expression from the initial evolution of speech and writing to the newest developments of electronic media. With the emergence of each new mode of production and/or transmission of signs there has had to be an adaptation of the technology to the structural rhythms of nature and of civilization. In the moment of transition from orality to phonetic writing, there was a need for writing to accommodate the rhythms of speech. So, following Vico (1948, II,iv, 428ff., 124-6), it can be said that the earliest forms of written expression are poetry, a means of encompassing the art of gesture and the rhythms of the body in a symbiosis with nature within the limits of writing. Later as newer media arise encouraging more complex medleys of signs, the community of signs interacts with the rhythms of the body, so retrospectively the play of words replaying the shape of these newer media can be described as a dance. For example, the telegraph interacts with the way language is perceived, for to quote Joyce's dream: "Language this allsfare for the loathe of Marses ambiviolent about it," (FW: 518 02). This continuous ongoing interaction of the material means of communication and the signs themselves results in ambivalence being an ever-present element of all communication, including language. Such interaction contributes to that violence and transgression which seem to accompany the communication of the new.

Joyce, therefore, designed *Finnegans Wake* in such a way that the reader had to both see the printed page with his eye, while simultaneously listening to it with his ear to be able to understand the workings of the language and the range of puns. This "aural reading" also provided a means for utilizing the differences between the oral and printed language to develop a poetic counterpoint by which he could generate completely new lexical items created to cope with the complexities of a contemporary world permeated by various new communication technologies. The discovery of writing had itself been a "poetic" activity which brought into play the counterpoint between writing and speech; a conflict intensified by the discovery of print, which through its bias for standardizing orthography can potentially undermine the poetic exploitation of this counterpoint:

The prouts who will invent a writing there ultimately is the poeta, still more learned, who discovered the raiding there originally. That's the point of eschatology our book of kills reaches for now in soandso many counterpoint words. What can't be coded can be decorded if an ear aye seize what no eye ere grieved for. Now the doctrine obtains, we have occasioning cause causing effects and affects occasionally recausing altereffects. Or I will take it upon myself to suggest to twist the penman's tale posterwise. The gist is the gist of Shaum but the hand is the hand of Sameas (FW: 482.31).

This complex strategy of reading ("raiding") is related to processes of coding and decoding by eye and ear, but also to processes of transformation from oral to written and from written to oral. The structure of this passage simultaneously represents the processes being discussed. At one level *Finnegans Wake* broaches a crisis of grammatology well before Derrida, who obviously is influenced by Joyce; but this comes about because the book is a symbol of even more encompassing problems of communication implicit in the activity of the writer.

The very language in the passage displays the interplay inherent in the "aural reading". Such a strategy is requisite to realizing the complex significance of "decorded," which results from the "aural reading" which brings out the counterpoint between "coded" and "decorded" to unmask the concealed, "decoded." Such polysemy occurs at the interface between speech and print and involves the complex operations of encoding, decoding, unravelling (i.e., "de-cording") and making musical sounds (chord as a symbol of musical sound). The play between eye and ear leads back to the body, for the "gist"—the core idea—rises from the gestures, the hand that writes and the hand that signs. Writing when he did, Joyce developed the "root" language of Finnegans Wake with its counterpoint and "decording" not because he had to force readers to read his book as a printed text. but because he had to make them become aware that this book also had to be pronounced, at least silently, preferably out loud and to alert them to the still greater "ambiviolence" of the modern world. This process of coding, decording, reading, listening and sensorial participating underlines the way in which a language that is "punny" itself becomes a symbol for the drama of communication.

McLuhan realized that Joyce applied these insights to the transformations occurring in the second and third decades of this century and extrapolated from that into the future. He often quoted passages such as: "Television kills telephony in brothers' broil. Our eyes demand their turn. Let them be seen!" (FW: 52.18), or "Yet on holding the verso against a lit rush this new book of Morses responded most remarkably to the silent query of our world's oldest light," (FW: 123.34), or "Roll away the reel world, the reel world," (FW: 64.25). In the Wake there is teleframing, telewishing, telesmelling, and telekinesis, all semiotic extensions on telephony and telegraphy. But McLuhan does not follow Joyce in seeking for the

basic signs made possible by light, gesture, icon, movement and the like, for he hypostatizes media, even though he constantly plays with signs.

Without our being conscious of it, Joyce has been a major contributor in shaping the ways we speak and think about communication. McLuhan borrowed, though he also changed and adapted, many of his insights from Joyce, who is far more central to McLuhan's work than Innis or Mumford. The fundamental concepts of the interplay of orality-aurality and literacy and the integrated interaction of the senses first came to McLuhan's attention through his artistic and literary studies and his media oriented approach took shape under the inspiration of Joyce, Vico and the symbolist tradition. No one before Joyce had set about to explore our universe of signs with the encyclopedic thoroughness that he did. In the 1590's, for instance, in Puttenham's Art of Poesie (1936: 93-101), the iconic function of print is fully recognized in the discussion of stanzaic patterns and "shaped poems". In the eighteenth century Pope is thoroughly conscious of issues of communication when in the Dunciad, he explores transformations in the social and material role of the book directed towards developing a new set of possibilities for mass production in print communication. While many rhetoricians, following the introduction of print, recognized the importance of "orthographical" figures and figures based on punctuation, capitalization and the like, they usually regarded them merely as aids to highlighting features of the oral language. The exercise of defining a "Gutenberg Galaxy" arises from the exploration of such issues and such texts.

In the Second Book of the *Wake* Joyce shapes a fictional action which traces the history of the development of human communication and the process of maturation of a social being. That pattern shifts from children playing in the nurseryroom to adolescents learning in the schoolroom to adults socially interacting in the carnivalesque marketplace atmosphere of the bar room of a Dublin inn, concluding with a shorter section—an epilogue consisting of tales of sexual love, death, birth and rebirth. This action involves inter-relating the action of dreaming with drama, dance and film as archetypes of the process of human communication. Communication is closely linked to education through imagining the school room as a medium through which students learn literacy and numeracy, language and logic, grammar and rhetoric. Adult social interaction is reflected by life in the pub sustained by imitation, conversation, persuasion, rumour, and storytelling and related to the ways in which radio, film and TV complement this consensus seeking ritual.

Throughout the Second book there is an intermingling of modes of communication. In the nursery, playtime is a "futurist onehorse balletbattle picture" with "shadows by the film folk, masses by the good people." It involves "promptings", "longshots", "upcloses", "jests. jokes, jigs and jorums" plus a list of film credits (FW: 221.18). Joyce's mythic conception, reduced to a child's point of view,

appears to involve the gigantism of C.B. DeMille and cinematic aspects of Eisenstein and Griffith as well as Chaplin's comedy "wordloosed over seven seas crowdblast in cellelleneteutoslavzendlatinsoundscript." (FW: 219.16) Drama for Joyce, whose Wake concludes in medieval debate and dramatic monologue, is a mixed media, a multiplexity of sensory experiences. As translated into film, it opens up a different, equally complex if not greater multiplexity.

In the pub scene, the *Wake* as a dance of meaning is described as a plenitude of artistic forms coming to life in the dreamer's imagination. Joyce's dreamer, Humphrey C. Earwicker (HCE, Here Comes Everybody), dreams of himself working in his tavern where the customers regard him as an object of material, social and spiritual communion to be consumed and eaten. Here Joyce's working class hero is presented as mechano-electric man, an image developed in medleys of media metaphors; for he dreams of himself as everyman in the role of maker, producer, transmitter and receiver of messages and as a creature enmeshed in a network of symbolic media: the maker of culture and civilization. He is metamorphosized into a telecommunications machine. Like Giedion, and unlike McLuhan, Joyce accepts the continuous development from mechanization taking command to the rise of the electric world, since the principle of discontinuity and fragmentation implicit in the former is expanded exponentially in the latter. The tavern's host, the dreamer, becomes for his patrons "the birth of an otion," an image of community, communion and industry:

...their tolvtubular high fidelity daildialler, as modern as tomorrow afternoon and in appearance up to the minute...equipped with supershielded umbrella antennas for distance getting and connected by the magnetic links of a Bellini-Tosti coupling system with a vitaltone speaker, capable of capturing skybuddies, harbour craft emittences, key clickings, vaticum cleaners....This harmonic condenser enginium (the Mole) they caused to be worked from a magazine battery ... which was tuned up by twintriodic singulvalvulous pipelines (lackslipping along as if their liffing deepunded on it) with a howdrocephalous enlargement, a gain control of circumcentric megacycles ..., (FW: 309.14-310.7).

The design of the language, in fact, parallels the phenomenon of electrification which will eventually through automation produce a super-mechanized technocratic society. Engineering images blend with images of mechanical, electrical and hydraulic power as the *Wake* recognizes the beginnings of this "taylorised world," evoking Frederick Winslow Taylor, the inventor of time-study engineering. The storyteller and the media as mediator between mechanization and human communication prefigure the fundamental social fragmentation which occurs and mirrors the way in which language itself as a tool or instrument is a machine,

Joyce anticipated this relationship in speaking of "bits" in relation to TV broadcasting in this pub scene where the customers watch a fight on TV (possibly the first fictional TV bar room scene in literary history). The TV image of the fighters, Butt and Taff, has its own metamorphic quality, closely associated through language with the newly discovered medium of television and also relating tales of some historic battles. TV is the "abnihilisation of the etym" (discussed below), which Joyce predicted would occur in the world of "verbivocovisual presentements" (TV and film):

[In the heliotropical noughttime following a fade of transformed Tuff and, pending its viseversion, a metenergic reglow of beaming Batt, the bairdboard bombardment screen, if tastefully taut guranium satin, tends to teleframe and step up the charge of a light barricade. Down the photoslope in syncopanc pulses, with the bitts bugtwug their teffs, the missledhropes, glitteraglatteraglutt, borne by their carnier walve. Spraygun rakes and splits them from a double focus: grenadite, damnymite, alextronite, nichilite: and the scanning firespot of the sgunners traverses the rutilanced illustred sunksundered lines Shlossh! A gaspel truce leaks out over the caseine coatings. Amid a fluorescence of spectracular mephiticism there coaculates through the iconoscope steadily a still,...] (FW: 349.07).

Terms associated with TV broadcasting and TV technology abound in this passage about the transformation and "viseversion" (vice versa imaging) of Tuff's image. The name of the discoverer of television, John Logie Baird (in 1925, the year before Joyce began the *Wake*), is included, since the television receiver is described as "the bairdboard bombardment screen," which receives the composite video signal "in sycnopanc pulses" (the synchronization pulses that form part of the composite video signal), coming down the "photoslope" on the "carnier walve" (i.e., the carrier wave which carries the composite video signal). The receiver is conceived as a "light barricade" against which the charge of the light brigade (the video signal) is directed. "Teleframe", "scanning", "spraygun", "caesium", and "double focus" all refer to some aspect of TV technology and their use can be similarly explained.

While bit was not used as a technical term in communication technology at the time, it was not difficult for Joyce to think of the electrons or photons as bits of information which created the mosaic TV picture. This is reinforced by the reference to "guranium," a portmanteau formation from geranium (suggesting strong to vivid red) and uranium, for this reference links the passage about the "charge of the light barricade" with another set of references to the same telecast introduced by the phrase "the abnihilisation of the etym," (FW: 353. 22)—a phrase which weaves together references to war, to the destructive transformation of the natural world and to the transmutation of language, and more particularly of writing, in our super-mechanized world. The etym, Joyce's imaginary unit for the true source of a word in historic terms, and the atom, as the basic unit of matter

until 1931 when the possibility of atom smashing arose, are based on a conception of assemblages of different bits. In the case of the atom, the discovery of the presence and significance of other bits led to its potential annihilation—smashing of the atom—a process in which uranium played a significant role. For Joyce, TV's annihilating the *etym* is also very important, for it alters the relationship of memory with the root language. Since the etym does not completely disappear, the process is an ab-nihilisation, not actually a destruction. The etym is transformed into Joyce's own root language directed at unmasking the mystification of audiovisual communication.

Joyce, in the 1930's, developed analyses of communication in relation to social contexts impressive in their technical detail and social extension. His attentiveness to popular modes of communication and the affairs of everyday life receive just as careful attention. His interest in popular modes of communication and their socio-political import date back to the retreat sermon in A Portrait of the Artist (1964: 108-35), and to the use of political rhetoric in "Ivy Day in the Committee Room" and to the parish sermon in "Grace" (Dubliners, 1962: 118-36, 150ff), revealing the link between Church and the capitalist hegemony. In *Ulysses*, such social institutions as prostitution, nationalist politics, the medical fraternity and the newspaper come under scrutiny. The Wake runs the gamut of popular expression from sermons to games to political campaigns to salesmanship and the entire range of "mass media," as well becoming an encyclopedic gathering of tribal history reflected in the playful eroticism of dance, which becomes a verbal dance through a "garden" of rhetoric. Twenty-nine flower girls (i.e, 29 leap year girls), sometimes referred to as rainbow girls and sometimes appearing in manifestations reminiscent of the newsboys of the Aeolus section of Ulysses, cavort through the hero's dream as dancing images, but also verbal images such as the "languish of flowers" (FW: 96.11) or the "flores of speech" (FW: 143.04). The newsboys of Ulysses, who appeared in the section devoted to the art of rhetoric, also are dynamic figures of speech sounding their headlines while hawking their papers, thus creating a telegraphic rhetoric for Dublin that later in the Wake is reproduced by radio.

Throughout the Wake, Joyce weaves together language, electronic media, drama, dance and the arts in a medley of forms of communication which create the shape of his fictional dream. We have moved from the basic machines of nature—creating through speech, gesture, and writing—to print, radio, telegraph and television. The production of and by these modes of communication in their mechanical, organic, and socially interactive aspects are reproduced in the movement of the book. Joyce foresees that the general trend of development in social and technological processes of communication contributes extensively to the transformation of everyday life.

In doing this he went far beyond McLuhan, Benjamin, Barthes or Derrida, He foresaw that the evolution of electric communication extends the rhetoric of the machine; thus accelerating our sense of the world as bits and pieces. As the Wake concludes, Joyce shows us a saint and sage, Patrick and the Archdruid Berkeley, debating the possible unfolding of historic future, seen as a televised recording of a debate concerning colour, light and their role in the society of man. Aesthetics and power interact. Following the debate, the Wake itself is described as a machine, a "tetradomational vicociclometer, a gazebocroticon," a four part book based on Vico and associated with motifs of light, image, memory and writing.⁶ It implies a hermeneutic method for historical study in which the book is "autokinatonetically preprovided with a clappercoupling smeltingworks exprogressive process", to "decompose" the "dialytically separated elements" for "the very petpurpose of subsequent recombination." This is equivalent to locating the Holy Spirit in the secular everyday world-for Joyce treats the Holy Ghost as inherent in the holy codes of the natural world: "the farmer, his son and their homely codes," All communication emerges from transmitting the figure of "the heroticisms, catastrophes and eccentricities" against "the ground of the ancient legacy of the past." This "history as her is harped" comes about only "type by tope, letter from litter, word at ward, with sendence of sundance" for his "scheme is like a rumba round me garden", an "allatheses" through which the excrementitious litter of letters by the use of types and topics (topos) simultaneously dramatizes and reveals how social communication occurs

Unlike McLuhan, Joyce integrates elements of communication with understanding and demystifying the body's relation to sociopolitical reality and existence in the biosphere. In *Ulysses* he quite consciously transforms the concept of *Corpus Christi* into the secular body of Dublin through the use of special symbols, colours, techniques and strategies. The City as the embodied word—the place where the populous communicate—is rendered forth through its human comedy so as to reveal the operation of prejudice, greed, propaganda, manipulation of labour, the plight of unliberated woman and man prefigured in the Lying-in Hospital and the Whore House and the respective roles of religion, economic and political power in social domination. The *Wake* extends this to the pan-historical grounding of a pan-European world (including colonialism), counterpointing the potential for enhanced human understanding through evolving internationalism against the dynamics of war and peace, reading historic movement through the everyday language of "manwomankind".

Joyce relates communication as communion—a' secular sacrament—to the integration of the mind-body of humans with the mind-body of the earth in which supernaturalism, anthropocentrism, or forms of domination have no place (Bateson, 1979 and 1987). Communication, occurring through rituals grounded in each person's everyday life, build rhizoid-like relationships (Deleuze, 1987: 3-26),

in society to produce a communicating machine. This requires some conception of communication as developing from what I call an "ecology of sense" (cf. Bateson, 1979 and 1987). This comes about through "acomedy of letters," forming rhizomes by taking advantage of gaps ("lapsus")—the "Phoenix culprit," the happy fall of the Wake—thus "entwining our arts with laughters low" which generates the "feelful thinkamalinks" of the intersensory encounter through communication. McLuhan restrained himself from fully utilizing the liberating potential of the processes of carnivalesque communication in the everyday world. This prevented him from demonstrating the complex sociohistorical understanding Joyce had developed in his comic summa semiotica of the transformative activity of the changing world of communications.

Reassessing McLuhan today requires that, in the spirit of Joyce and McLuhan himself, we "beginagain" by returning to Joyce, Vico and to contemporary artists and poets as sources and inspiration for an understanding of communication. McLuhan obscured this because he concealed his insights in deliberately cryptic satire (McLuhan 1987: 233, 448, 517), partly because he did not wish to attack conservative values or to raise questions concerning the Church. A genuinely enriched theory of the relation between communication and the knowledge revolution can be attained by going back to McLuhan's sources to question anew the poets, artists, especially Joyce, about how they conceived the socio-historical drama of changing concepts of time and space, the nature of human communication and the emergence of powerful technologies which transform-knowledge and communication.

NOTES

- Joyce used the phrase "applied Aquinas" in Stephen Hero (77) where he says
 of the aspiring young poet, Stephen: "His Esthetic was in the main applied
 Aquinas." McLuhan developed this theory in "Joyce, Aquinas and the Poetic
 Process," which appeared in Renascence in Autumn, 1951.
- 2. McLuhan began entertaining the idea of writing a book whose working title was "The Road to Finnegans Wake", which he discussed with me on various occasions in the early 1950s. He referred to it on many other occasions when we met from time to time between 1955 and 1965. The Gutenberg Galaxy involved many of the topics which were to have been covered in the "Road". The working title made allusion to Vico through the Vico Road of the Wake, but also jokingly alluded to the popular Bob Hope, Bing Crosby and Dorothy Lamour series of road movies.
- This aritcle, in a slightly different form, was first presented to a McGill University seminar in November 1988, prior to the publication of Laws of

Media: The New Science, which clearly corroborates McLuhan's knowledge of his ambivalent use of the term, media.

- 4. The phraseology is mine, selected to suggest the complex interrelationship between signs formed from differing material and intellectual sources.
- 5. My phrase is modelled on and deliverately echoes Bateson's "ecology of mind," (Bateson, 1972).
- 6. The debate is followed by a remarkable passage in which Joyce speaks of his book as a "a wholemoe, millwheeling vicociclometer, a tetradomational gazebocroticon" which "will remember itself from every sides with all gestures." Motifs of a communication machine (a construct of engineering) embracing ironically a Viconian structure of history to shape a four-part, four-demension ("tetra-") poem—a portmanteau which embraces the concept of a book, written and remembered ("-rote-", an icon (and hence iconic writing), and gesture that is a gazebo, flashing its rotating light. There follows a sensitive multi-media description of the book rising out of the bits of sense which compose it:

"autokinatonetically preprovided with a clappercoupling smeltingworks exprogressive process, (for the farmer, his son and their homely codes, known as eggburst, eggblend, eggburial and hatch-as-hatch can) receives through a portal vein the dialytically separated elements of precedent decomposition for the verypetpurpose of subsequent recombination so that the heroticisms, catastrophes and eccentricities transmitted by the ancient legacy of the past, type by tope, letter from litter, word at ward, with sendence of sundance,..." (FW 614.30)

Detailed analyses of this passage are to be found in Theall, 1971: Appendix 1; and Theall, 1986.

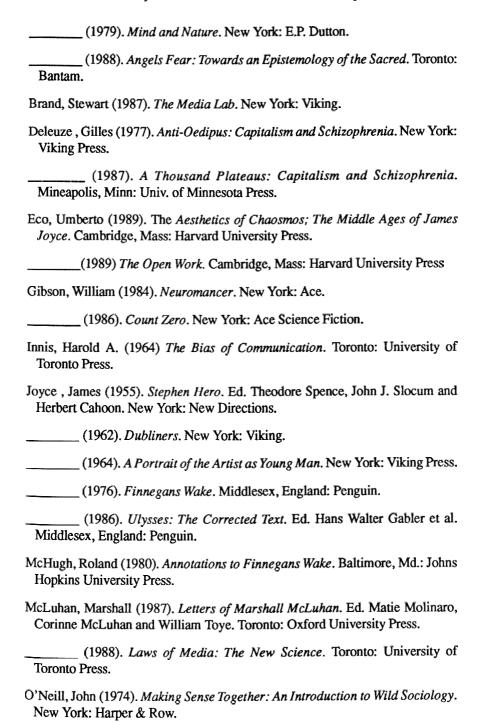
 Compare Mikhail Bakhtin (1968), a study of Rabelais, establishing his importance in using the carnivalesque as a revolutionary language to overthrow the theological and political domination of scholastics, cannon lawyers and the Church.

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