

Understanding Media

The Extensions of Man

Marshall McLuhan

Introduction by Lewis H. Lapham

The MIT Press
Cambridge, Massachusetts
London, England

First MIT Press edition, 1994
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This book was printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

McLuhan, Marshall, 1911–

Understanding media : the extensions of man / Marshall McLuhan. —
1st MIT Press ed.

p. cm.

Includes bibliographical references.

ISBN 0-262-63159-8

1. Mass media. 2. Communication. 3. Communication and
technology. I. Title. II. Title: Extensions of man.

P90.M26 1994

302.23—dc20

94-27722

CIP

The author wishes to thank the publishers of the *Times Literary Supplement* for granting him permission to reprint the editorial of July 19, 1963, which appears as the chapter on *The Printed Word* in this book.

Special acknowledgments are due to the National Association of Educational Broadcasters and the U.S. Office of Education, who in 1959–1960 provided liberal aid to enable the author to pursue research in the media of communication.

20 19 18 17 16 15 14 13 12 11

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**Introduction
to the
MIT Press
Edition**

The Eternal Now

Lewis H. Lapham

Thirty years ago this past summer Herbert Marshall McLuhan published *Understanding Media: The Extensions of Man*, and within a matter of months the book acquired the standing of Holy Scripture and made of its author the foremost oracle of the age. Seldom in living memory had so obscure a scholar descended so abruptly from so remote a garret into the center ring of the celebrity circus, but McLuhan accepted the transformation as if it were nothing out of the ordinary, nothing more than the inevitable and unsurprising proof of the hypothesis that he had found in the library at the University of Toronto. He was fifty-two years old at the time, Canadian by birth and a professor of English literature. As enigmatic as he was self-preoccupied, he had about him the air of a man who believed that it was the business of prophets to bring prophetic news, and if he had peered into the mist of the future and foreseen the

passing of the printed word, well, he had done no more than notice what was both obvious and certain.

His book introduced into the language our present usage of the term *media*, as well as a number of other precepts, among them “global village” and “Age of Information” that since have become commonplaces, and by the fall of 1965 *Understanding Media* had prompted the *New York Herald Tribune*, speaking on behalf of what was then the consensus of informed opinion to proclaim its author “the most important thinker since Newton, Darwin, Freud, Einstein and Pavlov. . . .” For the next four or five years McLuhan toured the television talk shows as well as the corporate lecture circuit, astonishing his audiences with a persona that joined, in Tom Wolfe’s phrase, “the charisma of a haruspex with the irresistible certitude of the monomaniac.” Woody Allen placed him on the set of *Annie Hall*, and artists as well known as Andy Warhol and Robert Rauschenberg appointed him to the office of honorary muse. In journals as unlike one another as *Newsweek* and *Partisan Review*, the resident cognoscenti found that when confronted with sets of otherwise unrelated circumstance they could resolve their confusion merely by deploying the adjective “McLuhanesque.” Although transformed into an eponym, the sage of the north retained the character of the rumpled professor, a gaunt and kindly figure, disorganized, absent-minded and quixotically dressed, always sure that the whole world could be made to fit into the trunk of his hypothesis, bestowing on audiences young and old, whether of insurance executives or guitarists on their way to Woodstock, the gifts of Delphic aphorism:

“The electric light is pure information.”

“We are moving out of the age of the visual into the age of the aural and tactile.”

“We are the television screen. . . . We wear all mankind as our skin.”

But even as McLuhan passed across the zenith of his fame, few of the people who explicated his text fully understood what it was that he was trying to say. They guessed that he had come upon something important, but for the most part they interpreted him as a dealer in communications theory and turned his prophecies to

practical uses of their own. McLuhan had classified print as a hot medium and television as a cool medium, and although not one critic in five hundred was entirely sure what he meant by the distinction, the phrases served to justify a \$40 million advertising campaign, a novel lacking both a protagonist and a plot, a collage of junked automobile tires.

The alarms and excursions associated with *Understanding Media* didn't survive McLuhan's death (on New Year's Eve 1980, at the age of sixty-nine), and as perhaps was to be expected from artisans still working in a medium that the decedent had pronounced obsolete, the obituary notices were less than worshipful. Informed opinion had moved on to other things, and McLuhan's name and reputation were sent to the attic with the rest of the sensibility (go-go boots, Sgt. Pepper, Woodstock, the Vietnam War) that embodied the failed hopes of a discredited decade.

The judgment was poorly timed. Much of what McLuhan had to say makes a good deal more sense in 1994 than it did in 1964, and even as his book was being remanded to the backlist, its more profound implications were beginning to make themselves manifest on MTV and the Internet, in Ronald Reagan's political image and the re-animation of Richard Nixon, via television shopping networks and e-mail—all of them technologies that McLuhan had presupposed but didn't live to see shaped in silicon or glass.

Despite its title, the book was never easy to understand. By turns brilliant and opaque, McLuhan's thought meets the specifications of the epistemology that he ascribes to the electronic media—non-linear, repetitive, discontinuous, intuitive, proceeding by analogy instead of sequential argument. Beginning from the premise that “we become what we behold,” that “we shape our tools, and thereafter our tools shape us,” McLuhan examines the *diktats* of two technological revolutions that overthrew a settled political and aesthetic order: first, in the mid-fifteenth century, the invention of printing with movable type, which encouraged people to think in straight lines and to arrange their perceptions of the world in forms convenient to the visual order of the printed page; second, since the late nineteenth century, the new applications of electricity (telegraph, telephone, television, computers, etc.), which taught people

to rearrange their perceptions of the world in ways convenient to the protocols of cyberspace. Content follows form, and the insurgent technologies give rise to new structures of feeling and thought.

Once having stated this proposition, McLuhan works it through a series of variations for the entire orchestra of human expression, and his chapter titles (*The Gadget Lover: Narcissus as Narcosis*; *The Typewriter: Into the Age of the Iron Whim*; *Weapons: War of the Icons*; *The Photograph: The Brothel without Walls*) bear witness both to the tone of his rhetoric and the reach of his ambition. His vocabulary takes some getting used to (writing is visual; television is aural and tactile), and quite a few of the notions to which he off-handedly refers in the early pages, as if everybody already knew what he meant, he doesn't bother to explain until the later pages, often by way of an afterthought or an aside. Not until page 305 does he suggest that the content of any medium is always another medium—"the content of the press is literary statement, as the content of the book is speech, and the content of the movie is the novel"—and it is only on page 349 that he clarifies his use of the phrase "mass media" by saying that "they are an indication, not of the size of their audiences, but of the fact that everybody becomes involved in them at the same time."

Some of his variations seem more credible than others, but I find that by making a list of the leitmotifs that wander in and out of his prose in the manner of Homeric epithets, I can formulate his dialectic as a set of antonyms. The meanings in the left-hand column McLuhan aligns with the ascendancy of the printed word during the four centuries between Johann Gutenberg's invention of printing with movable type and Thomas Edison's invention of the electric light; the meanings in the right hand column he associates with the sensibility now known as postmodern.

<i>Print</i>	<i>Electronic Media</i>
visual	tactile
mechanical	organic
sequence	simultaneity
composition	improvisation
eye	ear
active	reactive

expansion	contraction
complete	incomplete
soliloquy	chorus
classification	pattern recognition
center	margin
continuous	discontinuous
syntax	mosaic
self-expression	group therapy
Typographic man	Graphic man

Within a week of the publication of *Understanding Media*, the guardians of the established literary order in Toronto and New York read in the right-hand column the portents of their own doom, and they were quick to find fault with what the more scornful among them called McLuhan's "incantation." Speaking mostly to themselves, they dismissed with contempt McLuhan's weird and hybrid dabbling in "scientific mysticism," his superficial understanding of modern art, his naive faith in technology, and his too primitive belief in "merely physical sensation." A number of the objections were well taken, most especially the ones pertaining to McLuhan's discussion of the central nervous system (a subject in clinical neurology about which he knew almost nothing), but for the most part the dyspeptic critics contrived to miss the point, refusing to accept McLuhan's approach to his topic and reducing the sum of his hypothesis to the trivial observation that the "Ed Sullivan Show" was easier to read than the collected works of Wittgenstein and Plotinus. He was talking about the media as "make-happen agents," not as "make-aware agents," as systems similar to roads and canals, not as precious art objects or uplifting models of behavior, and he repeatedly reminds his readers that his proposition is best understood as a literary trope, not as a scientific theory. His method is that of an English professor long acquainted with libraries and familiar with the apparatus of academic scholarship. Delighting in bookish puns, he constantly cites as his authorities the idols of the Age of Print and quotes at length from the novels of James Joyce, chiefly *Finnegans Wake*, and the poems of T. S. Eliot and William Blake, the letters of John Ruskin.

As often as not he employs the quotations to make sport of the high-minded literary gentlemen who continue to believe that all would be well if only the television networks would improve and correct the vulgar tone of their programming schedules, and he likes to compare his critics to the schoolmen of the late sixteenth century who railed against Gutenberg's typefaces as the precursors of intellectual anarchy and "the end of civilization as we know it"—that is, of an oral tradition founded upon illuminated manuscripts preserved in the vaults of a few monasteries. Just as the advent of print placed the means of communication in the hands of a good many people previously presumed silent (prompting an excited rush of words from, among others, Rabelais, Cervantes, and Shakespeare) so also the broad dissemination of the electronic media invites correspondence from a good many more people presumed illiterate, and McLuhan suggests that in the twentieth century as in the sixteenth, the literary man prefers "to view with alarm to point with pride, while scrupulously ignoring what's going on." He has little sympathy or patience for people who defend positions already lost, and against the more pompous members of the literary academy (those who would restore the Republic of Letters as if it were a Colonial Williamsburg) he brings to bear a sardonic sense of humor—"for many years I've observed that the moralist typically substitutes anger for perception."

His irony speaks to the superfluousness of most of the criticism directed against the electronic media over the last thirty years, and while reading his book I was reminded of some of my own irrelevant pronouncements about the banality of network soap opera or the idiocy of the evening news. I had thought the pronouncements astute, or at least plausible, until I had occasion to write a six-hour television history of the twentieth century and discovered in the process what McLuhan meant by the phrase, "the medium is the message." Allowed 78 seconds and 43 words in which to explain the origins of World War II and provide the transition between the Munich Conference in September 1938 and Germany's invasion of Poland in September 1939, I understood that television is not narrative, that it bears more of a resemblance to symbolist poetry or the pointillist painting of Georges Seurat than it does to anything

conceived by a novelist, a historian, an essayist, or even a writer of newspaper editorials.

Understanding Media confirms my own experience on both sides of a television camera, and I think of it as the kind of book that the reader can open almost at random, taking from it what he or she has the wit to find. Some of McLuhan's observations lead nowhere; others deserve at least fifty pages of further commentary, and I'm surprised that over the last thirty years, despite the constant and obsessive muttering about the media—their ubiquitous presence and innate wickedness—so few critics have taken account of McLuhan's general theory. His prescience is extraordinary, and the events of the last thirty years have proved him more often right than wrong. His hypothesis anticipates by two decades the dissolution of international frontiers and the collapse of the Cold War. He assumes the inevitable rearrangement of university curricula under the rubrics of what we now call "multiculturalism," and he knows that as commodities come to possess "more and more the character of information," the amassment of wealth will come to depend upon the naming of the things rather than the making of things. Recognizing the weightlessness and self-referential character of the electronic media as well as the supremacy of the corporate logo or the Q rating, McLuhan describes a world in which people live most of their lives within the enclosed and mediated spaces governed by the rule of images. As is his custom, he best expresses the general point in a conversational aside, while he seems to be talking about something else:

Travel differs very little from going to a movie or turning the pages of a magazine. . . . People . . . never arrive at any new place. They can have Shanghai or Berlin or Venice in a package tour that they need never open. . . . Thus the world itself becomes a sort of museum of objects that have been encountered before in some other medium. (198)

Let technology be understood, in Max Frisch's phrase, as "the knack of so arranging the world so that we don't have to experience it," and McLuhan's point about the museum explains not only Ralph Lauren's fortune and Bill Clinton's presence in the White House, but also the state of disrepair into which the United States has let

fall its highways, its railroads, and its cities. If the media are nothing more than the means of storing and transporting information, and if by assuming the character of information commodities can be moved by fiber optics, fax machines, and ATM cards, then why bother to maintain an infrastructure geared to the purposes of medieval Europe or ancient Rome?

On almost every page of *Understanding Media* McLuhan sets in motion equally promising lines of speculation, and although I'm tempted to pursue at least five or six of them—in particular the one ascribing the existence of Nazi Germany to the match between the medium of radio and Adolf Hitler's political persona (a persona that would have failed utterly on television)—I only have space enough to take up his point about the media's preoccupation with what our more eminent critics still insist on deploring as "the bad news." Nowhere else have I come across so succinct a reply to the ceaseless lament about the viciousness of the yellow press. McLuhan notices, correctly, that it is the bad news—reports of sexual scandal, natural disaster, and violent death—that sells the good news—that is, the advertisements. The bad news is the spiel that brings the suckers into the tent. Like the illustrations in a fifth-grade reader, the sequence of scenes on CBS or CNN teaches the late-twentieth-century American catechism: first, at the top of the news, the admonitory row of body bags being loaded into ambulances in Brooklyn or south Miami; second, the inferno of tenement fires and burning warehouses; third, a sullen procession of criminals arraigned for robbery or murder and led away in chains. The text of the day's lesson having been thus established, the camera makes its happy return to the always smiling anchorwoman, and so—with her gracious permission—to the previews of heaven sponsored by Delta Airlines, Calvin Klein, and the State Farm Insurance companies. The homily is as plain as a medieval morality play or the bloodstains on Don Johnson's Armani suit—obey the law, pay your taxes, speak politely to the police officer, and you go to the Virgin Islands on the American Express card. Disobey the law, neglect your insurance payments, speak rudely to the police, and you go to Kings County Hospital in a body bag.

It is the business of the mass media to sell products—their own as well as those of their clients—and the critics who complain about

the ceaseless shows of violence miss the comparison to the cocaine trade. Bad news engages the viewer's participation in what McLuhan recognized as a collective surge of intense consciousness (a "process that makes the content of the item seem quite secondary") and sets him up for the good news, which is much more expensively produced. A thirty-second television commercial sells for as much as \$500,000 and can cost over \$1 million to make; in *Time* magazine, a single page of color advertising costs roughly \$125,000 (a sum equivalent to the annual salary paid to one of the magazine's better writers), and McLuhan accurately accounts for the orders of priority by saying that the historians and archeologists one day will discover that the twentieth century's commercial advertisements (like the stained-glass windows of fourteenth century cathedrals) offer the "richest and most faithful reflections that any society ever made of its entire range of activities."

McLuhan developed his dialectic during twenty years of teaching undergraduate courses in what was called "pop culture" at a succession of provincial universities in the United States and Canada, and as he learned better to understand the psychic effects of the electronic media, most notably their tendency to compress—and by so doing dissolve—the dimensions of space and time, he began to posit the existence of a world soul. In his more transcendent and optimistic moments he gives way to a utopian mysticism founded on his reading of G. K. Chesterton and his conversion, in his early twenties, to Catholicism. Believing that it was the grammar of print that divided mankind into isolated factions of selfishly defined interests, castes, nationalities, and provinces of feeling, McLuhan also believes that the unifying networks of electronic communication might restore mankind to a state of bliss not unlike the one said to have existed within the Garden of Eden. Every now and then he beholds a Biblical vision in the desert:

If the work of the city is the remaking or translating of man into a more suitable form than his nomadic ancestors achieved, then might not our eurrent translation of our entire lives into the spiritual form of information seem to make of the entire globe, and of the human family, a single consciousness? (61)

Or again, while telling the parable of the airline executive who built a little cairn of pebbles collected from all parts of the world, McLuhan makes of his text a lesson about mankind coming home at last from the exile to which it had been sentenced by Johann Gutenberg and the scholars of the Italian Renaissance:

When asked "so what?," he [the airline executive] said that in one spot one could touch every part of the world because of aviation. In effect he had hit upon the mosaic or iconic principle of simultaneous touch and interplay that is inherent in the implosive speed of the airplane. The same principle of implosive mosaic is even more characteristic of electric information movement of all kinds. (185)

It is this mystical component of McLuhan's thought that lately has revived his reputation among the more visionary promoters of "the Information Superhighway" and the Internet. Journals specific to the concerns of cyberspace (*Wired* or *The Whole Earth Review*) touch on similarly transcendent themes; the authors of the leading articles talk about the late-twentieth-century substitution of "the Icon of the Net for the Icon of the Atom," about the virtues of "the hive mind" (its sociability and lack of memory), about the connectedness of "all circuits, all intelligence, all things economic and ecological," about the revised definitions of self that take account of mankind's "distributed, headless, emergent wholeness." They echo McLuhan's dicta about the redemptive powers of art and the coming to pass of a millennium in which, "where the whole man is involved, there is no work."

The rhetoric falls into the rhythms of what I take to be a kind of utopian blank verse, and much of it seems as overblown as the bombast arriving from Washington about the beneficence of "the New World Order" and the great happiness certain to unite the industrial nations of the earth under the tent of the General Agreement on Tariffs on Trade. To my mind McLuhan is most persuasive in the secular phases of his hypothesis, when he talks about present effects instead of promised reunions. Approached as a guidebook to the artificial kingdom within the glass walls of our communications technologies, *Understanding Media* describes the world that I see and

know on CBS News, at Disneyland, in the suburban malls, on the covers of the fashion magazines—a world in which human beings become commodities (sold on T-shirts or transposed into a series of digital numbers), a world in which, as Simone Weil once noticed, “it is the thing that thinks, and the man who is reduced to the state of the thing,” a world in which children find it hard to conceive of a time future beyond the immediate and evangelical present, a world of people living in their own movies and listening to their own soundtracks, a never-never land where the historical memory counts for as little as last year’s debutante, where the crippled boy wins the lottery, the chorus girl studies ancient Greek, and the lessons of experience never contradict the miracles of paradise regained.

The world that McLuhan describes has taken shape during my own lifetime, and within the span of my own experience I can remember that as recently as 1960 it was still possible to make distinctions between the several forms of what were then known as the lively arts. The audiences recognized the differences between journalism, literature, politics, and the movies, and it was understood that the novelist wasn’t expected to double as an acrobat or a talk-show host. The distinctions blurred under the technical and epistemological pressures of the next ten years, and as the lines between fact and fiction became as irrelevant as they were difficult to distinguish, the lively arts fused into the amalgam of forms known as the media. News was entertainment, and entertainment was news, and by 1970 network television was presenting continuous performances on the stage of events with a repertory company of high-definition personalities who, like the actors in a Shakespearean play, easily and abruptly shifted their *mise-en-scènes* to Dallas, Vietnam, Chicago, Vienna, Washington, and the Afghan frontier. The special effects were astonishing, and by 1980 McLuhan’s theater of celebrity had replaced the old religious theater in which Poseidon and Zeus once staged cataclysmic floods and heavenly fires with the effortless aplomb of ABCs “Wide World of Sports.”

The postmodern imagination is a product of the mass media, but as a means of perception it is more accurately described as pre-Christian. The vocabulary is necessarily primitive, reducing argument to gossip and history to the telling of fairy tales. The average

American household now watches television roughly seven hours a day (as opposed to five-and-a-half hours a day when McLuhan published *Understanding Media*) and the soap opera stars receive thousands of letters a week in which the adoring faithful confess secrets of the heart that they dare not tell their wives, their husbands, or their mothers. Like the old pagan systems of belief, the mass media grant the primacy of the personal over the impersonal. Whether in Washington hearing rooms or Hollywood restaurants, names take precedence over things, the actor over the act. Just as the ancient Greeks assigned trace elements of the divine to trees and winds and stones (a river God sulked and the child drowned; a sky God smiled, and the corn ripened), the modern American assigns similar powers not only to whales and spotted owls but also to individuals marked by the aureoles of fame. On television commercials and subway signs, celebrities of various magnitude, like the nymphs and satyrs and fauns of ancient myth, become the familiar spirits of automobiles, cameras, computers, and brokerage firms. Athletes show up on television breathing the gift of life into whatever products can be carried into a locker room, and aging movie actresses awaken with their "personal touch" the spirit dormant in the color of a lipstick or a bottle of perfume.

The greater images of celebrity posed on the covers of our magazines impart a sense of stability and calm to a world otherwise dissolved in chaos. The newspaper headlines bring word of violent change—war in Bosnia, near anarchy in Moscow, famine in Somalia, moral collapse in Washington—but on the smooth surfaces of the magazines the faces look as vacant and imperturbable as they have looked for twenty years, as steady in their courses as the fixed stars, as serene as the bronze of Buddha in the courtyard at Kamakura. There they all are—Liz and Elvis, Madonna and the Kennedys—indifferent to the turmoil of the news, bestowing on the confusion of events the smiles of infinite bliss. Like minor deities, or a little crowd of painted idols in a roadside shrine, they ease the pain of doubt and hold at bay the fear of death.

As McLuhan noticed thirty years ago, the accelerated technologies of the electronic future carry us backward into the firelight flickering in the caves of a neolithic past. Among people who worship the objects of their own invention (whether in the shape of the

fax machine or the high-speed computer) and accept the blessing of an icon as proof of divinity (whether expressed as the Coca-Cola trademark or as the label on a dress by Donna Karan), ritual becomes a form of applied knowledge. The individual voice and singular point of view disappears into the chorus of a corporate and collective consciousness, which, in McLuhan's phrase, doesn't "postulate consciousness of anything in particular." In place of an energetic politics, we substitute a frenzied spectacle, and the media set the terms of ritual combat imposed upon the candidates who would prove themselves fit to govern the republic. Medieval chroniclers tell of princesses who send Christian knights in search of dragons, requiring them to recover bits and pieces of the true cross and to wander for many days and nights in heathen forests. Toward the end of the twentieth century, in a country that prides itself on its faith in reason, American presidents endure the trials by klieg light and wander for many days and nights in a labyrinth of Holiday Inns. The presidency undoubtedly constitutes a fearful test of a man's capacities, but his capacities for what? Even if the electorate understood or cared about something as tedious as the mechanics of government, how does it choose between the rivals for its fealty and esteem? The one attribute that can be known and seen comes to stand for all the other attributes that remain invisible, and so the test becomes one of finding out who can survive the stupidity and pitiless indifference of the television cameras.

Had McLuhan lived long enough to contemplate the media's delight in the inspection of Bill Clinton's soul, I expect that he might have suggested equipping the president with a broadsword or an old crossbow and sending him into the field against four horsemen in black armor or an infuriated bear. Assuming that the event could be properly promoted and attractively staged, I don't see why it wouldn't draw a sizable audience (at least as large as the one drummed up for Nancy Kerrigan and Tonya Harding at the Olympic games), and I can imagine Peter Jennings or Connie Chung murmuring sententious commentary about the president's prior showings against a lion, a Ninja, and a wolf.

Again as McLuhan understood, the habits of mind derived from our use of the mass media—"we become what we behold. . . . We shape our tools and afterwards our tools shape us"—deconstruct the

texts of a civilization founded on the premise of the printed page. To the extent that we abandon the visual order of print, and with it the corollary structures of feeling and thought (roads, empires, straight lines, hierarchy, classification, the novels of George Eliot or Jane Austen), we discard the idea of the townsman or the citizen and acquire the sensibilities characteristic of nomadic and pre-literate peoples. The two sets of circumstance imply different systems of meaning which, as with McLuhan's dialectic, also can be expressed as a series of antonyms. Several years ago I had occasion to compose such a series, and I'm struck by its nearly exact parallel with McLuhan's distinction between the technology of the written word and those of the electronic media. As follows:

<i>Citizen</i>	<i>Nomad</i>
build	wander
experience	innocence
authority	power
happiness	pleasure
literature	journalism
heterosexual	polymorphous
civilization	barbarism
will	wish
truth as passion	passion as truth
peace	war
achievement	celebrity
science	magic
doubt	certainty
drama	pornography
history	legend
argument	violence
wife	whore
art	dream
agriculture	banditry
politics	prophecy

The attitude of mind suggested by the words in the right-hand column is currently very much in vogue in the United States; it accounts not only for the triumph of Madonna and Rush Limbaugh

but also for the reluctance of my children to believe that I completely and truly exist unless they can see me on television. By eliminating the dimensions of space and time, the electronic forms of communication also eliminate the presumption of cause and effect. Typographic man assumed that A follows B, that people who made things—whether cities, ideas, families, or works of art—measured their victories (usually Pyrrhic) over periods of time longer than those sold to the buyers of beer commercials. Graphic man imagines himself living in the enchanted garden of the eternal now. If all the world can be seen simultaneously, and if all mankind's joy and suffering is always and everywhere present (if not on CNN or Oprah, then on the "Sunday Night Movie" or MTV), nothing necessarily follows from anything else. Sequence becomes merely additive instead of causative. Like the nomadic hordes wandering across an ancient desert in search of the soul's oasis, graphic man embraces the pleasures of barbarism and swears fealty to the sovereignty of the moment.

Part I

Introduction

James Reston wrote in *The New York Times* (July 7, 1957):

A health director . . . reported this week that a small mouse, which presumably had been watching television, attacked a little girl and her full-grown cat. . . . Both mouse and cat survived, and the incident is recorded here as a reminder that things seem to be changing.

After three thousand years of explosion, by means of fragmentary and mechanical technologies, the Western world is imploding. During the mechanical ages we had extended our bodies in space. Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned. Rapidly, we approach the final phase of the extensions of man—the technological simulation of consciousness, when the creative process
3 of knowing will be collectively and cor-

4/Understanding Media

porately extended to the whole of human society, much as we have already extended our senses and our nerves by the various media. Whether the extension of consciousness, so long sought by advertisers for specific products, will be "a good thing" is a question that admits of a wide solution. There is little possibility of answering such questions about the extensions of man without considering all of them together. Any extension, whether of skin, hand, or foot, affects the whole psychic and social complex.

Some of the principal extensions, together with some of their psychic and social consequences, are studied in this book. Just how little consideration has been given to such matters in the past can be gathered from the consternation of one of the editors of this book. He noted in dismay that "seventy-five per cent of your material is new. A successful book cannot venture to be more than ten per cent new." Such a risk seems quite worth taking at the present time when the stakes are very high, and the need to understand the effects of the extensions of man becomes more urgent by the hour.

In the mechanical age now receding, many actions could be taken without too much concern. Slow movement insured that the reactions were delayed for considerable periods of time. Today the action and the reaction occur almost at the same time. We actually live mythically and integrally, as it were, but we continue to think in the old, fragmented space and time patterns of the pre-electric age.

Western man acquired from the technology of literacy the power to act without reacting. The advantages of fragmenting himself in this way are seen in the case of the surgeon who would be quite helpless if he were to become humanly involved in his operation. We acquired the art of carrying out the most dangerous social operations with complete detachment. But our detachment was a posture of noninvolvement. In the electric age, when our central nervous system is technologically extended to involve us in the whole of mankind and to incorporate the whole of mankind in us, we necessarily participate, in depth, in the consequences of our every action. It is no longer possible to adopt the aloof and dissociated role of the literate Westerner.

The Theater of the Absurd dramatizes this recent dilemma of Western man, the man of action who appears not to be involved in the action. Such is the origin and appeal of Samuel Beckett's clowns. After three thousand years of specialist explosion and of increasing specialism and alienation in the technological extensions of our bodies, our world has become compressional by dramatic reversal. As electrically contracted, the globe is no more than a village. Electric speed in bringing all social and political functions together in a sudden implosion has heightened human awareness of responsibility to an intense degree. It is this implosive factor that alters the position of the Negro, the teen-ager, and some other groups. They can no longer be *contained*, in the political sense of limited association. They are now *involved* in our lives, as we in theirs, thanks to the electric media.

This is the Age of Anxiety for the reason of the electric implosion that compels commitment and participation, quite regardless of any "point of view." The partial and specialized character of the viewpoint, however noble, will not serve at all in the electric age. At the information level the same upset has occurred with the substitution of the inclusive image for the mere viewpoint. If the nineteenth century was the age of the editorial chair, ours is the century of the psychiatrist's couch. As extension of man the chair is a specialist ablation of the posterior, a sort of ablative absolute of backside, whereas the couch extends the integral being. The psychiatrist employs the couch, since it removes the temptation to express private points of view and obviates the need to rationalize events.

The aspiration of our time for wholeness, empathy and depth of awareness is a natural adjunct of electric technology. The age of mechanical industry that preceded us found vehement assertion of private outlook the natural mode of expression. Every culture and every age has its favorite model of perception and knowledge that it is inclined to prescribe for everybody and everything. The mark of our time is its revulsion against imposed patterns. We are suddenly eager to have things and people declare their beings totally. There is a deep faith to be found in this new attitude—a faith that concerns the ultimate harmony of all

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being. Such is the faith in which this book has been written. It explores the contours of our own extended beings in our technologies, seeking the principle of intelligibility in each of them. In the full confidence that it is possible to win an understanding of these forms that will bring them into orderly service, I have looked at them anew, accepting very little of the conventional wisdom concerning them. One can say of media as Robert Theobald has said of economic depressions: "There is one additional factor that has helped to control depressions, and that is a better understanding of their development." Examination of the origin and development of the individual extensions of man should be preceded by a look at some general aspects of the media, or extensions of man, beginning with the never-explained numbness that each extension brings about in the individual and society.

1 **The Medium Is the Message**

- In a culture like ours, long accustomed to splitting and dividing all things as a means of control, it is sometimes a bit of a shock to be reminded that, in operational and practical fact, the medium is the message. This is merely to say that the personal and social consequences of any medium—that is, of any extension of ourselves—result from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology. Thus, with automation, for example, the new patterns of human association tend to eliminate jobs, it is true. That is the negative result. Positively, automation creates roles for people, which is to say depth of involvement in their work and human association that our preceding mechanical technology had destroyed. Many people would be disposed to say that it was not the machine, but what one did with the machine, that was its meaning or message.
- 7 In terms of the ways in which the machine

altered our relations to one another and to ourselves, it mattered not in the least whether it turned out cornflakes or Cadillacs. The restructuring of human work and association was shaped by the technique of fragmentation that is the essence of machine technology. The essence of automation technology is the opposite. It is integral and decentralist in depth, just as the machine was fragmentary, centralist, and superficial in its patterning of human relationships.

The instance of the electric light may prove illuminating in this connection. The electric light is pure information. It is a medium without a message, as it were, unless it is used to spell out some verbal ad or name. This fact, characteristic of all media, means that the "content" of any medium is always another medium. The content of writing is speech, just as the written word is the content of print, and print is the content of the telegraph. If it is asked, "What is the content of speech?," it is necessary to say, "It is an actual process of thought, which is in itself nonverbal." An abstract painting represents direct manifestation of creative thought processes as they might appear in computer designs. What we are considering here, however, are the psychic and social consequences of the designs or patterns as they amplify or accelerate existing processes. For the "message" of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs. The railway did not introduce movement or transportation or wheel or road into human society, but it accelerated and enlarged the scale of previous human functions, creating totally new kinds of cities and new kinds of work and leisure. This happened whether the railway functioned in a tropical or a northern environment, and is quite independent of the freight or content of the railway medium. The airplane, on the other hand, by accelerating the rate of transportation, tends to dissolve the railway form of city, politics, and association, quite independently of what the airplane is used for.

Let us return to the electric light. Whether the light is being used for brain surgery or night baseball is a matter of indifference.

It could be argued that these activities are in some way the “content” of the electric light, since they could not exist without the electric light. This fact merely underlines the point that “the medium is the message” because it is the medium that shapes and controls the scale and form of human association and action. The content or uses of such media are as diverse as they are ineffectual in shaping the form of human association. Indeed, it is only too typical that the “content” of any medium blinds us to the character of the medium. It is only today that industries have become aware of the various kinds of business in which they are engaged. When IBM discovered that it was not in the business of making office equipment or business machines, but that it was in the business of processing information, then it began to navigate with clear vision. The General Electric Company makes a considerable portion of its profits from electric light bulbs and lighting systems. It has not yet discovered that, quite as much as A.T.& T., it is in the business of moving information.

The electric light escapes attention as a communication medium just because it has no “content.” And this makes it an invaluable instance of how people fail to study media at all. For it is not till the electric light is used to spell out some brand name that it is noticed as a medium. Then it is not the light but the “content” (or what is really another medium) that is noticed. The message of the electric light is like the message of electric power in industry, totally radical, pervasive, and decentralized. For electric light and power are separate from their uses, yet they eliminate time and space factors in human association exactly as do radio, telegraph, telephone, and TV, creating involvement in depth.

A fairly complete handbook for studying the extensions of man could be made up from selections from Shakespeare. Some might quibble about whether or not he was referring to TV in these familiar lines from *Romeo and Juliet*:

But soft! what light through yonder window breaks?
It speaks, and yet says nothing.

In *Othello*, which, as much as *King Lear*, is concerned with the torment of people transformed by illusions, there are these

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lines that bespeak Shakespeare's intuition of the transforming powers of new media:

Is there not charms
By which the property of youth and maidhood
May be abus'd? Have you not read Roderigo,
Of some such thing?

In Shakespeare's *Troilus and Cressida*, which is almost completely devoted to both a psychic and social study of communication, Shakespeare states his awareness that true social and political navigation depend upon anticipating the consequences of innovation:

The providence that's in a watchful state
Knows almost every grain of Plutus' gold,
Finds bottom in the uncomprehensive deeps,
Keeps place with thought, and almost like the gods
Does thoughts unveil in their dumb cradles.

The increasing awareness of the action of media, quite independently of their "content" or programming, was indicated in the annoyed and anonymous stanza:

In modern thought, (if not in fact)
Nothing is that doesn't act,
So that is reckoned wisdom which
Describes the scratch but not the itch.

The same kind of total, configurational awareness that reveals why the medium is socially the message has occurred in the most recent and radical medical theories. In his *Stress of Life*, Hans Selye tells of the dismay of a research colleague on hearing of Selye's theory:

When he saw me thus launched on yet another enraptured description of what I had observed in animals treated with this or that impure, toxic material, he looked at me with desperately sad eyes and said in obvious despair: "But Selye, try to realize what you are doing before it is too late! You have now decided to spend your entire life studying the pharmacology of dirt!"

(Hans Selye, *The Stress of Life*)

As Selye deals with the 'total environmental situation in his "stress" theory of disease, so the latest approach to media study considers not only the "content" but the medium and the cultural matrix within which the particular medium operates. The older unawareness of the psychic and social effects of media can be illustrated from almost any of the conventional pronouncements.

In accepting an honorary degree from the University of Notre Dame a few years ago, General David Sarnoff made this statement: "We are too prone to make technological instruments the scapegoats for the sins of those who wield them. The products of modern science are not in themselves good or bad; it is the way they are used that determines their value." That is the voice of the current somnambulism. Suppose we were to say, "Apple pie is in itself neither good nor bad; it is the way it is used that determines its value." Or, "The smallpox virus is in itself neither good nor bad; it is the way it is used that determines its value." Again, "Firearms are in themselves neither good nor bad; it is the way they are used that determines their value." That is, if the slugs reach the right people firearms are good. If the TV tube fires the right ammunition at the right people it is good. I am not being perverse. There is simply nothing in the Sarnoff statement that will bear scrutiny, for it ignores the nature of the medium, of any and all media, in the true Narcissus style of one hypnotized by the amputation and extension of his own being in a new technical form. General Sarnoff went on to explain his attitude to the technology of print, saying that it was true that print caused much trash to circulate, but it had also disseminated the Bible and the thoughts of seers and philosophers. It has never occurred to General Sarnoff that any technology could do anything but *add* itself on to what we already are.

Such economists as Robert Theobald, W. W. Rostow, and John Kenneth Galbraith have been explaining for years how it is that "classical economics" cannot explain change or growth. And the paradox of mechanization is that although it is itself the cause of maximal growth and change, the principle of mechanization excludes the very possibility of growth or the understanding of change. For mechanization is achieved by fragmentation of any

process and by putting the fragmented parts in a series. Yet, as David Hume showed in the eighteenth century, there is no principle of causality in a mere sequence. That one thing follows another accounts for nothing. Nothing follows from following, except change. So the greatest of all reversals occurred with electricity, that ended sequence by making things instant. With instant speed the causes of things began to emerge to awareness again, as they had not done with things in sequence and in concatenation accordingly. Instead of asking which came first, the chicken or the egg, it suddenly seemed that a chicken was an egg's idea for getting more eggs.

Just before an airplane breaks the sound barrier, sound waves become visible on the wings of the plane. The sudden visibility of sound just as sound ends is an apt instance of that great pattern of being that reveals new and opposite forms just as the earlier forms reach their peak performance. Mechanization was never so vividly fragmented or sequential as in the birth of the movies, the moment that translated us beyond mechanism into the world of growth and organic interrelation. The movie, by sheer speeding up the mechanical, carried us from the world of sequence and connections into the world of creative configuration and structure. The message of the movie medium is that of transition from lineal connections to configurations. It is the transition that produced the now quite correct observation: "If it works, it's obsolete." When electric speed further takes over from mechanical movie sequences, then the lines of force in structures and in media become loud and clear. We return to the inclusive form of the icon.

To a highly literate and mechanized culture the movie appeared as a world of triumphant illusions and dreams that money could buy. It was at this moment of the movie that cubism occurred, and it has been described by E. H. Gombrich (*Art and Illusion*) as "the most radical attempt to stamp out ambiguity and to enforce one reading of the picture—that of a man-made construction, a colored canvas." For cubism substitutes all facets of an object simultaneously for the "point of view" or facet of perspective illusion. Instead of the specialized illusion of the third

dimension on canvas, cubism sets up an interplay of planes and contradiction or dramatic conflict of patterns, lights, textures that "drives home the message" by involvement. This is held by many to be an exercise in painting, not in illusion.

In other words, cubism, by giving the inside and outside, the top, bottom, back, and front and the rest, in two dimensions, drops the illusion of perspective in favor of instant sensory awareness of the whole. Cubism, by seizing on instant total awareness, suddenly announced that *the medium is the message*. Is it not evident that the moment that sequence yields to the simultaneous, one is in the world of the structure and of configuration? Is that not what has happened in physics as in painting, poetry, and in communication? Specialized segments of attention have shifted to total field, and we can now say, "The medium is the message" quite naturally. Before the electric speed and total field, it was not obvious that the medium is the message. The message, it seemed, was the "content," as people used to ask what a painting was *about*. Yet they never thought to ask what a melody was about, nor what a house or a dress was about. In such matters, people retained some sense of the whole pattern, of form and function as a unity. But in the electric age this integral idea of structure and configuration has become so prevalent that educational theory has taken up the matter. Instead of working with specialized "problems" in arithmetic, the structural approach now follows the line of force in the field of number and has small children meditating about number theory and "sets."

Cardinal Newman said of Napoleon, "He understood the grammar of gunpowder." Napoleon had paid some attention to other media as well, especially the semaphore telegraph that gave him a great advantage over his enemies. He is on record for saying that "Three hostile newspapers are more to be feared than a thousand bayonets."

Alexis de Tocqueville was the first to master the grammar of print and typography. He was thus able to read off the message of coming change in France and America as if he were reading aloud from a text that had been handed to him. In fact, the nineteenth century in France and in America was just such an

open book to de Tocqueville because he had learned the grammar of print. So he, also, knew when that grammar did not apply. He was asked why he did not write a book on England, since he knew and admired England. He replied:

One would have to have an unusual degree of philosophical folly to believe oneself able to judge England in six months. A year always seemed to me too short a time in which to appreciate the United States properly, and it is much easier to acquire clear and precise notions about the American Union than about Great Britain. In America all laws derive in a sense from the same line of thought. The whole of society, so to speak, is founded upon a single fact; everything springs from a simple principle. One could compare America to a forest pierced by a multitude of straight roads all converging on the same point. One has only to find the center and everything is revealed at a glance. But in England the paths run criss-cross, and it is only by travelling down each one of them that one can build up a picture of the whole.

De Tocqueville, in earlier work on the French Revolution, had explained how it was the printed word that, achieving cultural saturation in the eighteenth century, had homogenized the French nation. Frenchmen were the same kind of people from north to south. The typographic principles of uniformity, continuity, and lineality had overlaid the complexities of ancient feudal and oral society. The Revolution was carried out by the new literati and lawyers.

In England, however, such was the power of the ancient oral traditions of common law, backed by the medieval institution of Parliament, that no uniformity or continuity of the new visual print culture could take complete hold. The result was that the most important event in English history has never taken place; namely, the English Revolution on the lines of the French Revolution. The American Revolution had no medieval legal institutions to discard or to root out, apart from monarchy. And many have held that the American Presidency has become very much more personal and monarchical than any European monarch ever could be.

De Tocqueville's contrast between England and America

is clearly based on the fact of typography and of print culture creating uniformity and continuity. England, he says, has rejected this principle and clung to the dynamic or oral common-law tradition. Hence the discontinuity and unpredictable quality of English culture. The grammar of print cannot help to construe the message of oral and nonwritten culture and institutions. The English aristocracy was properly classified as barbarian by Matthew Arnold because its power and status had nothing to do with literacy or with the cultural forms of typography. Said the Duke of Gloucester to Edward Gibbon upon the publication of his *Decline and Fall*: "Another damned fat book, eh, Mr. Gibbon? Scribble, scribble, scribble, eh, Mr. Gibbon?" De Tocqueville was a highly literate aristocrat who was quite able to be detached from the values and assumptions of typography. That is why he alone understood the grammar of typography. And it is only on those terms, standing aside from any structure or medium, that its principles and lines of force can be discerned. For any medium has the power of imposing its own assumption on the unwary. Prediction and control consist in avoiding this subliminal state of Narcissus trance. But the greatest aid to this end is simply in knowing that the spell can occur immediately upon contact, as in the first bars of a melody.

A Passage to India by E. M. Forster is a dramatic study of the inability of oral and intuitive oriental culture to meet with the rational, visual European patterns of experience. "Rational," of course, has for the West long meant "uniform and continuous and sequential." In other words, we have confused reason with literacy, and rationalism with a single technology. Thus in the electric age man seems to the conventional West to become irrational. In Forster's novel the moment of truth and dislocation from the typographic trance of the West comes in the Marabar Caves. Adela Quested's reasoning powers cannot cope with the total inclusive field of resonance that is India. After the Caves: "Life went on as usual, but had no consequences, that is to say, sounds did not echo nor thought develop. Everything seemed cut off at its root and therefore infected with illusion."

A Passage to India (the phrase is from Whitman, who saw

America headed Eastward) is a parable of Western man in the electric age, and is only incidentally related to Europe or the Orient. The ultimate conflict between sight and sound, between written and oral kinds of perception and organization of existence is upon us. Since understanding stops action, as Nietzsche observed, we can moderate the fierceness of this conflict by understanding the media that extend us and raise these wars within and without us.

Detribalization by literacy and its traumatic effects on tribal man is the theme of a book by the psychiatrist J. C. Carothers, *The African Mind in Health and Disease* (World Health Organization, Geneva, 1953). Much of his material appeared in an article in *Psychiatry* magazine, November, 1959: "The Culture, Psychiatry, and the Written Word." Again, it is electric speed that has revealed the lines of force operating from Western technology in the remotest areas of bush, savannah, and desert. One example is the Bedouin with his battery radio on board the camel. Submerging natives with floods of concepts for which nothing has prepared them is the normal action of all of our technology. But with electric media Western man himself experiences exactly the same inundation as the remote native. We are no more prepared to encounter radio and TV in our literate milieu than the native of Ghana is able to cope with the literacy that takes him out of his collective tribal world and beaches him in individual isolation. We are as numb in our new electric world as the native involved in our literate and mechanical culture.

Electric speed mingles the cultures of prehistory with the dregs of industrial marketeers, the nonliterate with the semiliterate and the postliterate. Mental breakdown of varying degrees is the very common result of uprooting and inundation with new information and endless new patterns of information. Wyndham Lewis made this a theme of his group of novels called *The Human Age*. The first of these, *The Childermass*, is concerned precisely with accelerated media change as a kind of massacre of the innocents. In our own world as we become more aware of the effects of technology on psychic formation and manifestation, we are losing all confidence in our right to assign guilt. Ancient pre-

historic societies regard violent crime as pathetic. The killer is regarded as we do a cancer victim. "How terrible it must be to feel like that," they say. J. M. Synge took up this idea very effectively in his *Playboy of the Western World*.

If the criminal appears as a nonconformist who is unable to meet the demand of technology that we behave in uniform and continuous patterns, literate man is quite inclined to see others who cannot conform as somewhat pathetic. Especially the child, the cripple, the woman, and the colored person appear in a world of visual and typographic technology as victims of injustice. On the other hand, in a culture that assigns roles instead of jobs to people—the dwarf, the skew, the child create their own spaces. They are not expected to fit into some uniform and repeatable niche that is not their size anyway. Consider the phrase "It's a man's world." As a quantitative observation endlessly repeated from within a homogenized culture, this phrase refers to the men in such a culture who have to be homogenized Dagwoods in order to belong at all. It is in our I.Q. testing that we have produced the greatest flood of misbegotten standards. Unaware of our typographic cultural bias, our testers assume that uniform and continuous habits are a sign of intelligence, thus eliminating the ear man and the tactile man.

C. P. Snow, reviewing a book of A. L. Rowse (*The New York Times Book Review*, December 24, 1961) on *Appeasement* and the road to Munich, describes the top level of British brains and experience in the 1930s. "Their I.Q.'s were much higher than usual among political bosses. Why were they such a disaster?" The view of Rowse, Snow approves: "They would not listen to warnings because they did not wish to hear." Being anti-Red made it impossible for them to read the message of Hitler. But their failure was as nothing compared to our present one. The American stake in literacy as a technology or uniformity applied to every level of education, government, industry, and social life is totally threatened by the electric technology. The threat of Stalin or Hitler was external. The electric technology is within the gates, and we are numb, deaf, blind, and mute about its encounter with the Gutenberg technology, on and through which

the American way of life was formed. It is, however, no time to suggest strategies when the threat has not even been acknowledged to exist. I am in the position of Louis Pasteur telling doctors that their greatest enemy was quite invisible, and quite unrecognized by them. Our conventional response to all media, namely that it is how they are used that counts, is the numb stance of the technological idiot. For the "content" of a medium is like the juicy piece of meat carried by the burglar to distract the watchdog of the mind. The effect of the medium is made strong and intense just because it is given another medium as "content." The content of a movie is a novel or a play or an opera. The effect of the movie form is not related to its program content. The "content" of writing or print is speech, but the reader is almost entirely unaware either of print or of speech.

Arnold Toynbee is innocent of any understanding of media as they have shaped history, but he is full of examples that the student of media can use. At one moment he can seriously suggest that adult education, such as the Workers Educational Association in Britain, is a useful counterforce to the popular press. Toynbee considers that although all of the oriental societies have in our time accepted the industrial technology and its political consequences: "On the cultural plane, however, there is no uniform corresponding tendency." (Somervell, I. 267) This is like the voice of the literate man, floundering in a milieu of ads, who boasts, "Personally, I pay no attention to ads." The spiritual and cultural reservations that the oriental peoples may have toward our technology will avail them not at all. The effects of technology do not occur at the level of opinions or concepts, but alter sense ratios or patterns of perception steadily and without any resistance. The serious artist is the only person able to encounter technology with impunity, just because he is an expert aware of the changes in sense perception.

The operation of the money medium in seventeenth-century Japan had effects not unlike the operation of typography in the West. The penetration of the money economy, wrote G. B. Sansom (in *Japan*, Cresset Press, London, 1931) "caused a slow but

irresistible revolution, culminating in the breakdown of feudal government and the resumption of intercourse with foreign countries after more than two hundred years of seclusion." Money has reorganized the sense life of peoples just because it is an *extension* of our sense lives. This change does not depend upon approval or disapproval of those living in the society.

Arnold Toynbee made one approach to the transforming power of media in his concept of "etherialization," which he holds to be the principle of progressive simplification and efficiency in any organization or technology. Typically, he is ignoring the *effect* of the challenge of these forms upon the response of our senses. He imagines that it is the response of our opinions that is relevant to the effect of media and technology in society, a "point of view" that is plainly the result of the typographic spell. For the man in a literate and homogenized society ceases to be sensitive to the diverse and discontinuous life of forms. He acquires the illusion of the third dimension and the "private point of view" as part of his Narcissus fixation, and is quite shut off from Blake's awareness or that of the Psalmist, that we become what we behold.

Today when we want to get our bearings in our own culture, and have need to stand aside from the bias and pressure exerted by any technical form of human expression, we have only to visit a society where that particular form has not been felt, or a historical period in which it was unknown. Professor Wilbur Schramm made such a tactical move in studying *Television in the Lives of Our Children*. He found areas where TV had not penetrated at all and ran some tests. Since he had made no study of the peculiar nature of the TV image, his tests were of "content" preferences, viewing time, and vocabulary counts. In a word, his approach to the problem was a literary one, albeit unconsciously so. Consequently, he had nothing to report. Had his methods been employed in 1500 A.D. to discover the effects of the printed book in the lives of children or adults, he could have found out nothing of the changes in human and social psychology resulting from typography. Print created individualism and nation-

alism in the sixteenth century. Program and "content" analysis offer no clues to the magic of these media or to their subliminal charge.

Leonard Doob, in his report *Communication in Africa*, tells of one African who took great pains to listen each evening to the BBC news, even though he could understand nothing of it. Just to be in the presence of those sounds at 7 P.M. each day was important for him. His attitude to speech was like ours to melody—the resonant intonation was meaning enough. In the seventeenth century our ancestors still shared this native's attitude to the forms of media, as is plain in the following sentiment of the Frenchman Bernard Lam expressed in *The Art of Speaking* (London, 1696):

'Tis an effect of the Wisdom of God, who created Man to be happy, that whatever is useful to his conversation (way of life) is agreeable to him . . . because all victual that conduces to nourishment is relishable, whereas other things that cannot be assimilated and be turned into our substance are insipid. A Discourse cannot be pleasant to the Hearer that is not easie to the Speaker; nor can it be easily pronounced unless it be heard with delight.

Here is an equilibrium theory of human diet and expression such as even now we are only striving to work out again for media after centuries of fragmentation and specialism.

Pope Pius XII was deeply concerned that there be serious study of the media today. On February 17, 1950, he said:

It is not an exaggeration to say that the future of modern society and the stability of its inner life depend in large part on the maintenance of an equilibrium between the strength of the techniques of communication and the capacity of the individual's own reaction.

Failure in this respect has for centuries been typical and total for mankind. Subliminal and docile acceptance of media impact has made them prisons without walls for their human users. As A. J. Liebling remarked in his book *The Press*, a man is not free if he cannot see where he is going, even if he has a gun to help him get there. For each of the media is also a powerful weapon

with which to clobber other media and other groups. The result is that the present age has been one of multiple civil wars that are not limited to the world of art and entertainment. In *War and Human Progress*, Professor J. U. Nef declared: "The total wars of our time have been the result of a series of intellectual mistakes . . ."

If the formative power in the media are the media themselves, that raises a host of large matters that can only be mentioned here, although they deserve volumes. Namely, that technological media are staples or natural resources, exactly as are coal and cotton and oil. Anybody will concede that society whose economy is dependent upon one or two major staples like cotton, or grain, or lumber, or fish, or cattle is going to have some obvious social patterns of organization as a result. Stress on a few major staples creates extreme instability in the economy but great endurance in the population. The pathos and humor of the American South are embedded in such an economy of limited staples. For a society configured by reliance on a few commodities accepts them as a social bond quite as much as the metropolis does the press. Cotton and oil, like radio and TV, become "fixed charges" on the entire psychic life of the community. And this pervasive fact creates the unique cultural flavor of any society. It pays through the nose and all its other senses for each staple that shapes its life.

That our human senses, of which all media are extensions, are also fixed charges on our personal energies, and that they also configure the awareness and experience of each one of us, may be perceived in another connection mentioned by the psychologist C. G. Jung:

Every Roman was surrounded by slaves. The slave and his psychology flooded ancient Italy, and every Roman became inwardly, and of course unwittingly, a slave. Because living constantly in the atmosphere of slaves, he became infected through the unconscious with their psychology. No one can shield himself from such an influence (*Contributions to Analytical Psychology*, London, 1928).