13. Two Selections by Marshall McLuhan

The Galaxy Reconfigured
The Medium Is the Message

Marshall McLuhan's writings on media introduced terms and concepts that are now quite popular, recognized in so many contexts that it can be difficult to figure out exactly what they were once supposed to mean. McLuhan's exclamation that 'the medium is the message' is still repeated, often

The idea that the physical environment of mass media has changed the meaning of a message is not new. The question was novel in the 1960s—when it was a new concept (and sometimes associated assumption) in modern vision of the world and in our understanding of the media

Some of McLuhan's other striking contributions have taken the following excerpts from two of his most influential books. After describing how media entered human awareness and the human body itself, McLuhan distinguished between hot and cold media, which asserts themselves in different ways and in different sorts of engagement. McLuhan also argued that the culture was moving toward the "coastal" (because of our mass media transmission) back toward tribal configurations, as he explained in one of two illustrated collaborations with Quentin Fiore, War and Peace in the Global Village—a book whose title, one of many famous phrases

McLuhan saw for 500-page The Gutenberg Galaxy: the concluding chapter of which is presented here as an introduction to The Medium Is the Message. The book is dedicated to describe how print technology caused a shift in Western thought, as a starting point for understanding the current shift brought about by what he called "electric" or "new" media. The media considered in Understanding Media, which appeared two years later, in 1964, include television and radio as well as print and clothing—although the digital computer did not earn its own chapter.

Understanding Media brought a new interest in the role of technology in cultural and social development. Christopher Ricks, in a typical reply, wrote in McLuhan's The Medium Is the Message: "I am a convinced" and occasionally a hostile critic of Understanding Media. —in 1967, at least—was Jean Baudrillard (1912). Baudrillard began in the following decades to employ some of McLuhan's terminology and ideas in his own, critical writing.

In declaring that popular media should be studied, and on their own terms, McLuhan achieved special fame to complement his popular infamy. Along with the ill-fated show champion Charles Van Doren (whom McLuhan defended as behaving appropriately, with regard to the television medium), McLuhan was one of the first true celebrity academics. He was frequently discussed outside the academy and made a cameo appearance in Woody Allen's Annie Hall.

In the early years, McLuhan achieved special fame to complement his popular infamy. Along with the ill-fated show champion Charles Van Doren (whom McLuhan defended as behaving appropriately, with regard to the television medium), McLuhan was one of the first true celebrity academics. He was frequently discussed outside the academy and made a cameo appearance in Woody Allen's Annie Hall.

MCLUHAN'S comments are not always accurate. In chapter 11 of Understanding Media, "Number, Pattern, Measurability," he writes about the shifting and the use of numbers within language, claiming, probably enough, that "the computer is weak on culture, strong on data."
While McLuhan's theories can be applied to the computer in its manipulations of different media or in its appearance as a new medium, the shift he described from book culture to a culture of electronic media, has certainly taken place already. Looking at McLuhan's explorations, although they are directed at earlier types of "new media," is more to aid in understanding our world's future transitions from analog to digital media. Even if McLuhan's extrapolations about content complexity are not persuasive, it certainly makes sense at times to consider the medium on its own. Besides reminding us of the excitement of transitional times and providing us with useful and powerful ideas for thinking about our media environment, McLuhan also shows us, by example, another significant point: it is important to have fun and to explore new ways of thinking a bit, rather than always asserting, arguing, and situating the new into old categories—and it helps to not take yourself too seriously.

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Further Reading


The Galaxy Reconfigured or the Plight of Mass Man in an Individualist Society

Marshall McLuhan

The present volume has employed a mosaic pattern of perception and observation up till now. William Blake can provide the explanation and justification of this procedure: Jerusalem, like so much of his other poetry, is concerned with the changing patterns of human perception. Book II, chapter 34, of the poem contains the pervasive theme.

If Perception or Ours: Objects of Perception seen to vary.

If the objects or Ours: their objects to seen also.

Determined as he was to explain the causes and effects of psychic change, both personal and social, he arrived long ago at the theme of The Gutenberg Galaxy.

The Seven Virtues and before them, they became what they beheld.

Blake makes quite explicit that when change takes place, the change changes. Sense ratios change when any one sense or both perceptual functions is externalized in technological form.

The Spectre is the Reasoning Power in Man, & when separated

From Imagination and closing itself as in mind: ... .

The Of the Things of Memory, It them framework Laws &

Mundanes To destroy Imagination, the Divine Body by

Martyrdoms & Wars.
Imagination is that ratio among the perceptions and facilities which exists when they are not embedded or cluttered by material technologies. When so cluttered, each sense and faculty becomes a closed system. Prior to such cluttering there is entire interplay among experiences. This interplay or synesthesia is a kind of facility such as Blake sought in the bending line of sculptured form and in engraving.

When the perverse ingenuity of man has cluttered some part of his being in material technology, his entire sense ratio is altered. He is then unwilling to behold this fragment of himself "closing itself as in steel." In beholding this new thing, man is compelled to become it. Such was the origin of lineal, fragmentary analysis with its somnolent power of homogenization.

"The Reasoning Spirit Stands between the Vegetative Man & his Immortal Imagination." Hake's diagnosis of the problem of his age was, his poet in 1790 a direct confrontation of the forces shaping human perception. That he sought mythical form by which to render his vision was both necessary and intellectual. For myth is the mode of simultaneous awareness of a complex group of causes and effects. In an age of fragmented, local awareness, such as produced and was in turn greatly exaggerated by Gutenberg technology, mythological vision remains quite concise. The Romantic poets fell far short of Hake's mythical or unconscious vision. They were faithful to Newton's single vision and perfected the picturesque outer landscape as a mask of isolating single states of the inner life.

It is instructive for the history of human sensibility to note how the popular vogue of the Gothic romance in Blake's time later unfolded into a serious esthetic with Ruskin and the French symbolists. This Gothic taste, taste and ridiculous as it first appeared to serious people was yet a confirmation of Hake's diagnostics of the defects and needs of his age. It was itself a pre-Raphael or pre-Gutenberg quest for a unified mode of perception. In *Modern Painters* (vol. III, p. 91) Ruskin states the matter in a way which entirely dissociates Gothic medievalism from any historical concern about the Middle Ages. He states the matter in a way that won him the serious interest of Rimbaud and Pound.

A fine grotesque is the expression, in a moment, by a series of symbols thrown together in bold and fearless connection, of truths which it would have taken a long time to express in any verbal way, and of which the connection is left for the beholder to work out for himself. The gaps, left or overlapped by the haste of the imagination, forming the grotesque character.

For Ruskin, Gothic appeared as an indispensable means of breaking open the closed system of perception that Blake spent his life describing and fighting. Ruskin proceeds (p. 96) to explain Gothic grotesque as the best way of ending the regime of Renaissance perspective and single vision or realism: It is with a view (not the least important among many others bearing upon art) to the improving of this great field of human intelligence, long entangled, closed, that I am striving to introduce Gothic architecture into daily domestic use and to revive that art of illumination, properly so called, not the art of miniature painting in books, or on velum, which has ridiculously been confused with it, but of making writing, simple reading, beautiful to the eye, by investing it with the gray cloud of perfect color, blue, purple, scarlet, white, and gold, and in short, all color, permitting the continual play of the fancy of the reader in every species of grotesque imagination, carefully excluding shadow, the distinctive difference between illumination and painting proper, hence, that illumination admits no shadow, has only gradations of pure color.

The student of Rimbaud will find that it was while reading this part of Ruskin that Rimbaud found his title for *Illuminations*. The technique of vision in the illuminations or "painted slides," (as Ruskin called them, in English, on his title page) is exactly as Ruskin delineates the grotesque. But even Joyce's *Ulysses* finds anticipatory designation in the same context:

Hence it is an infinite good to mankind when there is full acceptance of the grotesque, slightly Sketchy or expressed, and to seek for such expression be forcibly granted, an enormous stream of intuitional power is turned to everlasting use, which, in the present century of ours, responses in secret sighing or vain swallowing; all the good sex and naive, existing, as daily talk, like foam on wine, which in the thirteenth and fourteenth centuries had a pernicious and useful expression in the arts of sculpture and illumination, like foam fused into chalices....

Joyce, that is to say, also accepted the grotesque as a mode of broken or syncopated manipulation to permit intuitive or simultaneous perception of a total and diversified field. Such, indeed, is symbolism by definition—a collocation, a parament of components representing insight by carefully established
typos, but without a point of view or linear connection or sequential order.

Nothing, therefore, could be more remote from Joyce’s ratiocination than the aim of pictorial realism. Indeed, he uses such realism with such Gutenberian technology as part of his symbolism. For example, in the seventh or Andalus episode of Ulysses, the technology of the newspaper is made occasion for introducing all of the nine hundred and more rhetorical figures specified by Quintilian in his Institutes of Oratory. The figures of classical rhetoric are archetypes or patterns of collective consciousness. They become the closed system of classical rhetoric at the same time that it cuts into the closed system of newspaper composition. Symbolism is a kind of witty jest, a consummation of flasquête aspiration for the grotesque that would shock him a good deal. But it proved to be the only way out of "single vision and Newtonian sleep."

Blake had the insight but not the technical resources for rendering his vision. Periodically, it was not through the book but through the development of the typeset press, especially the telegraphic press, that poets found the artistic keys to the world of simultaneity, or of modern myth. It was in the format of the daily press that Rimbaud and Mallarmé discovered the means of rendering the interplay of all the functions of what Coleridge called the "enveloping imagination." For the popular press offers an single vision, no point of view, but a mosaic, a mosaic of the postures of the collective consciousness, as Mallarmé proclaimed. Yet these modes of collective or tribal consciousness proliferating in the telegraphic (simultaneous) press, remain unconscious and open to the hookworms locked in "single vision and Newtonian sleep."

The principal ideas of the eighteenth century were so crude as to seem visible to the wit of the time. The great chain of being was in its way as comical as the chains which Rousseau proclaimed in his Social Contract. Equally inadequate as an idea of order was the merely visual notion of goodness as a plenum: "The being of all possible worlds" was merely a quantitative idea of a bag crammed to the utmost with goodies—a idea which lurked still in the incantations of D. J. Stewart. ("The world is so full of a number of things") But in J. S. Mill’s黎里 the quantitative idea of truth as an ideal container packed with every possible opinion and point of view created mental anguish. For the suppression of any possible impact of truth, any valid angle, might weaken the whole structure. In fact, the system on the abstract visual model as standards of truth the mere matching of object with object. So unconscious were people of this matching theory as being dominant, that when a Pope or a Blake pointed out that truth is a ratio between the mind and things, a ratio made by the shaping imagination, there was nobody to note or comprehend. Mechanical matching, not imaginative making, will rule in the arts and sciences, in politics and education, until our own time.

Earlier, in presenting Pope’s prophetic vision of the return of tribal or collective consciousness, the relation to Joyce’s Finnegans Wake had been indicated. Joyce had devised for Western man individual psycho keys to the collective consciousness, as he declared on the last page of the Wake. He knew that he had solved the dilemma of Western individualism faced with the collective or tribal consequences of first his Gutenberg, and next his Nietzsche, technologies. Pope had seen the tribal consciousness keys in the new mass culture of the book-trade. Language and the arts would cease to be private agents of critical perception, and become more packaging devices for releasing a spate of verbal commodities. Blake and the Romantics and the Victorians alike became obsessed with the actualization of Pope’s vision in the new organization of an industrial economy embedded in a self-regulating system of land, labor, and capital. The Newtonian laws of mechanics, later in Gutenberg typography, were translated by Adam Smith to govern the laws of production and consumption. In accordance with Pope’s prediction of anonymous trade or "robo columbia", Smith declared that the economic laws of the economy applied equally to the things of the mind. In explicit and commercial societies to think or to reason comes to be like every other employment, a particular business, which is carried on by a very few people, who furnish the public with all the thought and reasoning possessed by the vast multitude that labour.

Adam Smith is always faithful to the fixed visual point of view and its corresponding separation of breathing and functions. But in this passage Smith does not seem to sense that the new role of the intellectual is to tap the collective consciousness of "the vast multitude that labour." That is to say, the intellectual is no longer to direct individual perceptions and judgements but to explore and to communicate
13. Two by McLuhan

The mass unconsciousness of collective man. The individual is now less in the role of a primitive seer, savior, or even innocuously peddling his discoveries in a commercial market. If Adam Smith was reluctant to push his views to the point of the transpersonal imagination, Blake and the Romantics felt no qualms but turned literature over to the transpersonal arm. Hereafter, literature will be at

in itself and with the social mechanics of conscious

and instinct. For the matter of literary vision will then

and explicit, while the forms of literary

expression and communication will be individualist,

segmental, and mechanical. The vision will be tribal and

collective, the expression private and marketable. This

dilemma continues to the present to rend the individual.

Western consciousness. Western man knows that his values

and mores are the product of literature. Yet the very means of

extending those values technologically seem to deny and

rewrite them. Whereas Pope fully faced up to this dilemma in

The Dunciad, Blake and the Romantics tended to devote

themselves to one side of it, the mythic and collective; J. S.

Hill, Matthew Arnold, and a great many others denied

themselves to the other side of the dilemma. The problem of

individual culture and liberty in an age of mass culture.

but neither role has its meaning alone, nor can the causes of the

dilemma be found anywhere but in the total galaxy of events

that constitute literary and Gutenberg technology. Our

liberation from the dilemma may, as Joyce felt, come from

new electric technology, with its profound organic
dimension. For the electric puts the mythic or collective

dimension of human experience fully into the conscious

world of today. Such is the meaning of the title Pioneers

Note. While the old print cycles had been lyrically entwined in

the collective myth of the unconscious, the new print cycle

individually interdependent man must be lived in the daylight

of consciousness.

In this part, The Great Transformation by Karl Polanyi, on

“...economic and social origins of our time,” assumes

complete relevance in the context of The Gutenberg Galaxy.

Polanyi concerned with the stages by which the

neutron mechanics invades and transformed society in

the eighteenth and nineteenth centuries, only to encounter a

residual dynamic from within. His analysis of how prior to

the eighteenth century “the economic system was absorbed

in the social system” is exactly parallel to the situation of

human and the area up till that time. This was true till the

time of Dryden, Pope, and Swift, who lived to detect the

great transformation. Polanyi enables us (p. 60) to face the

familiar Gutenberg principle of practical advance and utility

by separation of forms and functions:

As a rule, the economic system was absorbed in the

social system, and whatever principle of behavior

presumably in the economy, the present of the

market pattern was found to be compatible with it. The

principle of barter or exchange, which underlies the

market, revealed no tendency to expand at the expense of the

text. Where markets were most highly developed, as in the

capitalist system, there they stood under the

control of a centralized administration which forestalled

the threat of the householders of the peasantry and in

respect to national life. Regulation and markets, in effect,

grew up together. The self-regulating market was

unknown; indeed the emergence of the idea of self-

regulation was a complete reversal of the trend of

development.

The principle of self-regulation, repeating by reverberation

from the Newtonian sphere swiftly entered all the social

spheres. It is the principle that Pope mocked in “whatever is

in sight” and that Swift ridiculed in “the mechanical

operation of the Spirit.” It derives from a merely visible image

of an uninterupted chain of Being as a visual phenomenon

of the good as “the beast of all possible worlds.” Granted the

merely visual assumptions of linear causality or of sequential

dependence, the principle of man-interference in the natural

order becomes the paradoxic conclusion of applied

knowledge.

Through the sixteenth and seventeenth centuries the

transformation of mechanization of crafts by the

application of visual method had proceeded slowly. But it

was a procedure of maximal interference with existing non-

visual modes. By the eighteenth century the process of

applied knowledge had reached such a momentum that it

became accepted as a natural process which must not be

impeached save at the peril of greater evil: “all partial evil

universally good.” Polanyi notes (p. 69) this re-adoption of

consciousness as follows:

A further group of assumptions follows in respect to the

state and its policy. Nothing must be allowed to inhibit the

formation of markets, nor must income be permitted to be

formed otherwise than through sales. Neither must there be any interference with the

enforcement of prices in changed market conditions—
whether the prices are those of goods, labor, land, or money. Hence there must not be only markets for all elements of industry, but no measure of policy must be considered which would influence the action of these markets. Neither price, nor supply, nor demand must be fixed or regulated, only such policies and measures are in order which help to ensure the self-regulation of the market by creating conditions which make the market the only organizing power in the economic sphere.

The assumptions latent in typographic segmentation, and in applied knowledge by the method of fragmenting of crafts and the specializing of social tasks, these assumptions were the most acceptable in the degree that typography enlarged its markets. The same assumptions prevailed over the formation of Newtonian space and time and mechanics. So literature, industry, and economics were easily accommodated within the Newtonian sphere. Those who questioned these assumptions were simply denying the facts of science. Now that Newton is no longer synonymous with science, we can meditate on the dilemma of the self-regulating economy and the hedonistic calculus with light hearts and clear heads. But eighteenth century man was locked into a closed visual system that had enveloped him he knew not how. So he proceeded, robotically, to carry out the behests of the new vision.

However, in 1799 Bishop Berkeley had published A New Theory of Vision, which revealed the log-scaled assumptions of Newtonian optics. Blake, at least, had understood the Berkeleyan critique and had restored faculty to its prime role as agent of unified perception. Today artists and scientists alike concur in praising Berkeley. But his wisdom was lost on his age that was wrapped in single vision and Newton's sleep. The hypnotized patient carried out the behests of the abstract visual control. Polanyi observes (p. 71):

A self-regulating market demands nothing less than the institutional separation of society into an economic and political sphere. Such a dichotomy is, in effect, merely the restatement, from the point of view of society as a whole, of the existence of a self-regulating market. It might be argued that the separateness of the two spheres obtains in every type of activity at all times. Such an inference, however, would be based on a fallacy. That no society can exist without a system of some kind which ensures order in the production and distribution of goods. But that does not imply the existence of separate economic institutions; normally, the economic order is merely a function of the social, in which it is contained. Neither under tribal, nor feudal, nor modern prismatic conditions was there a separate economic system in society. Nineteenth century society, in which economic activity was isolated and impinged to a distinctive economic motive, was, indeed, a singular departure.

Such an institutional pattern could not function unless society was somehow submerged in its requirements. A market economy can exist only in a market society. We reached this conclusion on general grounds to our analysis of the market pattern. We can now specify the reasons for this assertion. A market economy must comprise all elements of industry, including labor, land and money. In a market economy the last also is an essential element of industrial life, and its inclusion in the market mechanism has, as we will see, far-reaching institutional consequences. But labor and land are no other than the human beings themselves of which every society consists and the societal surroundings in which it exists. To include them in the market mechanism means to subordinate the substance of society itself to the laws of the market.

A market economy "can exist only in a market society." But to exist, a market society requires centuries of transformation by Gutenberg technology; hence the absurdity in the present time of trying to institute market economies in countries like Russia or Hungary, where feudal conditions subsisted until the twentieth century. It is possible to set up modern production in such areas, but to create a market economy that can handle what comes off the assembly lines presupposes a long period of psychic transformation, which is to say, a period of altering perception and sense ratios. When a society is enclosed within a particular fixed sense ratio, it is quite unable to envisage another state of affairs. Thus, the advent of nationalism was quite unforeseen in the Renaissance, although its cause arrived earlier. "The Industrial Revolution was well on the way in 1700 yet, as Polanyi points out (p. 89): . . . the generation of Speedhampstead was unconscious of what was on its way. On the eve of the greatest industrial revolution in history, no signs and pointers were forthcoming. Capitalism arrived unknown. No one had forecast the development of a machine industry. It came as a complete surprise. For some time England had been actually expecting a permanent recession of foreign trade when the dam burst, and the
old world was swept away in one indelible surge toward a planetary economy.

That every generation poised on the edge of massive change should later seem oblivious of the issues and the imminent event would seem to be natural enough. But it is necessary to understand the power and threat of technologies to isolate the senses and thus to hypotize society. The formula for hypotizing is "one sense at a time." And new technology possesses the power to hypotize because it isolates the senses. Then, as Blake's formula has it: "They became what they beheld." Every new technology thus diminishes sense interplay and consciousness, precisely in the new area of society where a kind of identification of view and object occurs. This surrounds all conforming of behavior to the new form or structure indeed those most deeply immersed in a revolution the least aware of its

dynamic. What McLuhan observes about the invention of these involved in the expedition of the new machine

industry is typical of all the local and contemporary attitudes to revolution. It is felt, at those times, that the future will be a surge or greatly improved versions of the immediate past. Just before revolutions the image of the immediate past is stark and firm, perhaps because it is the only area of sense interplay free from obsession by identification with new technological forms.

No more extreme instance of this delusion could be mentioned than our present image of TV as a current variation on the mechanical, move pattern of processing experience by repetitiveness. A few decades hence it will be easy to describe the revolution in human perception and motivation that resulted from beholding the new mosaic form of the TV image. Today it is futile to discuss it at all.

Looking back to the revolution in literary forms in the late eighteenth century, Raymond Williams writes in Culture and Society, 1780–1950 (p. 42) that "changes in convention occur when there are radical changes in the general structure of feeling." Again, "while in one sense the market was already the artist, artists themselves were seeking to generalize their skills into the common property of imaginative truth." (p. 43) This can be seen in the Romantics who discovered their inability to talk to conscious men, begin by myth and symbol to address the unconscious levels of dream life. The imaginative union with tribal man was simply a voluntary strategy of culture.

One of the most radical of new literary conventions of the worker society of the eighteenth century was the novel. It had been preceded by the discovery of "equation prose." Addison and Steele, as much as anybody else, had devised this novelty of maintaining a single consistent tone to the reader. It was the literary equivalent of the mechanically fixed view in vision. Mysteriously, it is this break-through into equation prose which suddenly enabled the more author to become a 'man of letters.' He could abandon his patron and approach the large homogenized public of a market society in a consistent and complacent role. So that with both sight and sound given homogenizing treatment, the writer was able to approach the mass public. What he had to offer the public was equally a homogenized body of common experience such as the movie finally took over from the novel. Dr. Johnson devoted his Rambler no. 4 (March 31, 1750) to this theme:

The works of fiction, with which the present generation seems more particularly delighted, are such as exhibit life in its true state, diversified only by accidents that daily happen in the world and influenced by passions and qualities which are really to be found in conversing with mankind.

Johnson shrewdly notes the consequences of this new form of social realism, indicating its basic deviation from the forms of book learning:

The task of our present writers is very different; it requires, together with that learning which is to be gained from books, that experience which can never be attained by solitary diligence, but must arise from general converse and accurate observation of the living world. Their performances have, as Horace expresses it, plus netis quantae sensus visae, little indulgence, and therefore more difficulty. They are engaged in portraits of which every one knows the original, and can detect any deviation from exactness of resemblance. Other writings are cold, except from the malice of learning, but these are in danger from every common reader; as the supper ill served was corrected by a housemaid who happened to step in his way at the Wass of Aplees.

Johnson continues in this vein, pointing out further rivalries between the new novel and the older modes of book learning.

In the romances formerly written, every transaction and sentiment was so remote from all that passes among
man, that the reader was in very little danger of making any applications to himself: the virtues and crimes were equally beyond his sphere of activity and he, absorbed himself with heroes and with traitors, deliverers and persecutors, as with beings of another species, whose actions were regulated upon motives of their own, and who had neither faults nor excellencies in common with himself.

But when an adventurer is lost in the rest of the world, and acts in such scenes of the universal drama, as may be the lot of any other man, young spectators fix their eyes upon him with closer attention, and hope, by observing his behavior and success, to regulate their own practices, when they shall be engaged in the like part.

For this reason these familiar histories may perhaps be made of greater use than the declamations of profound morality, and convey the knowledge of vice and virtue with more efficacy than anons and definitions.

Quite parallel with this extension of the book page into the form of a talking picture of ordinary life, was what Leo Lowenthal mentions in Popular Culture and Society (p. 75) as "the crucial shift from Patern to Public," citing the testimony of Oliver Goldsmith’s 1759 Enquiry into the Present State of Public Learning in Europe:

At present the few parts of England no longer depend on the Great for subsistence, they have none no other patrons but the public; and the public, collectively considered, is a good and generous master. A writer of real merit now easily may be rich if his heart be set only on fortune; and for those who have no merit, it is but fit that such should remain in mortified obscurity.

Leo Lowenthal’s study of popular literary culture is not only concerned with the eighteenth century and after, but studies the dilemmas of discerning salvation through art from Montaigne and Pascal to modern magazine iconology. In pointing out how Goldsmith made a great change in criticism by shifting attention to the experience of the reader, Lowenthal has broken rich new ground (pp. 107-8).

But perhaps the most far-reaching change which took place in the concept of the critic was that a two-way function was premised for him. Not only was he to reveal the beauty of literary works to the general public, by means of which, in Goldsmith’s terms, “even the philosopher may acquire popular applause,” he must also interpret the public back to the writer. In brief, the critic not only teaches the vulgar on what part of a character to lay the emphasis of praise, “but must also show the scholar where to point his censure and show it. Goldsmith believed that the absence of such critical mediators explained why wealth rather than true literary fame was the goal of so many writers. The result, he feared, might be that nothing would be remembered of the literary works of his time.

We have observed that Goldsmith, in his endeavor to come to grips with the dilemma of the writer, represented a variety of sometimes conflicting views. We have seen, however, that it was likely to be Goldsmith in his optimistic rather than in his pessimistic vein who set the tone for what was to come. So, too, the ideal of his function as one of mediation between the audience and the writer, was to prevail. Critics, writers, and philosophers—Johnson, Burke, Hume, Reynolds, Kames, and the Whig—adopted Goldsmith’s premise as they began to analyze the experience of the reader.

As the market society defined itself, literature moved into the role of consumer commodity. The public became patron. Art reverses its role from guide for perception into convenient amenity or package. But the producer or artist was compelled, as never before, to study the effect of his art. This in turn reveal to human attention new dimensions of the function of art. As manipulators of the mass market tyrannized over the artist, the artist in isolation achieved new clairvoyance concerning the crucial role of design and of art as a means to human order and fulfillment. Art has become as total in its mandate for human order as the mass markets that created the plateau from which all can now share the awareness of new scope and potential for everyday beauty and order in all aspects of life at once. Respectively, it may well prove necessary to accommodate to the period of mass marketing the creation of the means of a world order in beauty as much as in commodities.

It is quite easy to establish the fact that the same means that served to create the world of consumer abundance by mass production served also to put the highest level of artistic production as well as all other men in a consistently controlled basis. And, as usual, when some previously opaque area becomes transparent, it is because we have moved into another phase from which we can contemplate the contours of the preceding situation with ease and clarity. It is the fact that makes it feasible to write The Gutenberg Galaxy at all as
we experience the new electronic and organic age with ever greater indications of its main outlines, the preceding industrial age becomes quite intelligible. Now that the assembled forecasts ahead of the new patterns of information, synchronized by electric tape, the miracles of mass production assume entire intelligibility. But the volume of automation, creating weightless and propertyless communities, envelops us in new uncertainties.

A most generous passage of A. N. Whitehead's classic *Science and the Modern World* (p. 141) is one that was discussed previously in another connection.

The generous invention of the nineteenth century was the invention of the method of invention. A new method entered into life. In order to understand our myth, we can neglect all the details of change, such as railroads, radio, motion pictures, synthetic dyes. We must concentrate on the method in itself, that is the mid-nineteenth century. In order to understand the foundation of the old tradition. The prophecy of Francis Bacon has been fulfilled, and man, who in general, is a little lower than the angels, has submitted to become the tyrant and the minister of nature. It still remains to be seen whether the same man can play both parts.

Whitehead is right in insisting that "we must concentrate on the method itself." It was the modernist method of technology synthesis, for which centuries of scientific tradition here prepared. The psychological ground, where the truth of the modern world. The impressive pattern of events and products of that method of mechanized handicrafts, are merely incidental to the method itself. It is the method of the fixed or specialist mode of view that initiates on repetition as the criterion of truth and practicability. Today our science and method strive not towards a point of view but to discover how not to have a point of view, the method not of closure and perspective but of the open field" and the suspended judgment. Such is the only viable method under electric conditions of simultaneous information movement and total human interdependence.

Whitehead does not elaborate on the great nineteenth-century discovery of the method of invention. But it is, quite truly, the technique of fragmenting the end of any operation whatever, and of working backwards from that point to the beginning. It is the method inherent in the

Gutenberg technique of homogeneous segmentation, but not until the nineteenth century was the method extended from production to consumption. Planned production means that the total process must be worked out in stages, backwards, like a detective story. In the first great age of mass production of commodities, and of literature as a commodity for the market, it became necessary to study the consumer's experience. In a way it became necessary to examine the effect of art and literature before producing anything at all. This is the literal emergence to the world of myth.

It was Edgar Allan Poe (who first worked out the rationale of this ultimate awareness of the poetic process and who saw that instead of directing the work to the reader, it was necessary to incorporate the reader in the work. Such was his plan in 'the philosophy of composition.' And Baudelaire and Valery, at least, recognized in Poe a man of the Leopard's Da Vinci stature. Poe saw plainly that the anticipation of effect was the only way to achieve organic control for the creative process. T. S. Eliot, like Baudelaire and Valery, gives his entire attention to Paris's discovery. In a celebrated passage of his "essay on Hamlet," he writes:

"The only way of expressing emotion in the first six months is by finding an 'objective correlative'; in other words, a set of objects, a situation, a chain of events which shall be the formula of that particular emotion, that such when the external facts, which must terminate in sensory experience, are given, the emotion is immediately evoked. If you examine any of Shakespeare's more successful tragedies, you will find that the rows of sand of Lady Macbeth walking in her sleep has been communicated to you by a skillful impression of fragrance, the words of Macbeth in hearing of his wife's death strike us as if, given the external facts, these words were automatically achieved by the last event in the scene.

The method to work in many of his poems and stories. But it is most obvious in his invention of the detective story in which Dupin, his sleuth, is an artist-esthete who solves crimes by a method of artistic perception. Not only is the detective story the great popular instance of working backwards from effect to cause, it is also the form in which the reader is deeply involved as co-author. Such is also the case in symbolist poetry whose completion of effect from moment to moment requires the reader to participate in the poetic process itself."
It is a characteristic chasmiont that weins upon the utmost development of any process that the last phase shall show characteristics opposite to the early phases. A typical example of massive psychic chaos or reversal occurred when Western man fought the harder for individuality as he surrendered the idea of unique personal existence. The nineteenth century artists made a man surrender of that unique selfhood, that had been taken for granted in the eighteenth century, as the new mass production made the hollowness of selfhood too heavy. Just as Mill fought for individuality even though he had given up the self, the poets and artists moved towards the idea of impersonal process in art production in proportion as they botched the new masses for impersonal process in the consumption of art products. A similar and related reversal or chasmiont occurred when the consumer of popular art was invited by new art forms to become participant in the art process itself.

This was the moment of transcendence of the Gutenberg technology. The centuries-old separation of senses and functions ended in a quite unexpected unity. The reversal by which the presence of the new markets and the new masses encouraged the artist to surrender the unique self might have seemed a final consummation for art and technology alike. It was a surrender made almost inevitable when the symbolist began to work backwards from effect to cause in the shaping of the art product. Yet it never was at this extreme moment that a new reversal occurred. The art process had no sooner approached the rigorous, impersonal pattern of the industrial process, in the period from Pos to Valery, than the assembly line of the symbolist art was transformed into the new "stream of consciousness" mode of presentation. And the stream of consciousness is an open "field" perception that reverses all aspects of the nineteenth century discovery of the assembly-line or of the "technique" of invention.

As G. H. Bantock writes of it:

"... in a world of increasing socialization, standardization, and uniformity, the aim was to assimilate uniqueness, the purely personal in experience as one of "mechanical" rationality; or absent other means through which human beings can express themselves, to see life as a series of emotional intensities involving a logic different from those of the rational. Abstract forms such as Cubism, Cubist forms of expression, and related images or stream of consciousness movements..."

Thus, the technique of the suspended judgment, the great discovery of the twentieth century in art and physics alike, is a recoil and transformation of the impersonal assembly line of nineteenth century art and science. And to speak of the stream of consciousness as unlike the rational world is merely to insist upon visual sequence as the rational norm, handling art over to the unconscious quite gratuitously. For what is meant by the irrational and the non-rational in much modern literature is easily the rediscovery of the ordinary transactions between the self and the world, or between subject and object. Such transactions had seemed to end with the effects of phonetic literacy in the Greel world. Literacy had made of the enlightened individual a closed system, and set up a gap between appearance and reality which ended with such discoveries as the stream of consciousness.

As Joyce expressed it in the Wake, "My consumers are they not my producers?" Conspectively the twentieth century has returned to free itself from the conditions of passivity, which is to say, from the Gutenberg heritage itself. And this dramatic struggle of noble modes of human insight and outlook harbored in the present of all human ages, whatever in the arts or in the sciences. We are living in a period richer and more terrible than the "Shakespearean Moment" so well described by Patrick Cournelle in his book of the same title. But it has been the business of The Gutenberg Galaxy to examine only the mechanical technology emergent from our alphabet and the printing press. What will be the new configurations of mechanical and of literary in these older forms of perception and judgment, are interpenetrated by the new electric age? The new electric galaxy of events has already moved deeply into the Gutenberg galaxy from without collision, tech-experience of technologies and awareness brings trauma and tension to every living person. Our most ordinary and conventional attitudes seem suddenly twisted into gorges and grooves. Familiar institutions and associations seem no longer mere and malignant. These multiple transformations of the normal consequences of introducing new media into any society whatever, need special study and will be the subject of another volume on Understanding Media in the world of our time.