

Marshall McLuhan, Understanding Media: The Extensions of Man, introduced by Lewis Lapham (Cambridge: The MIT Press, 2001).

## 2. Media Hot and Cold

"The rise of the waltz," explained Curt Sachs in the *World History of the Dance*, "was a result of that longing for truth, simplicity, closeness to nature, and primitivism, which the last two-thirds of the eighteenth century fulfilled." In the century of jazz we are likely to overlook the emergence of the waltz as a hot and explosive human expression that broke through the formal feudal barriers of courtly and choral dance styles.

There is a basic principle that distinguishes a hot medium like radio from a cool one like the telephone, or a hot medium like the movie from a cool one like TV. A hot medium is one that extends one single sense in "high definition." High definition is the state of being well filled with data. A photograph is, visually, "high definition." A cartoon is "low definition," simply because very little visual information is provided. Telephone is a cool medium, or one of low definition, because the ear is given a meager amount of information. And speech is a cool medium of low definition, because so little is given and so much has to be filled in by the listener. On the other hand, hot media do not leave so much to be filled in or completed by the audience. Hot media are, therefore, low in participation, and cool media are high in participation or completion by the audience. Naturally, therefore, a hot medium like radio has very different effects on the user from a cool medium like the telephone.

A cool medium like hieroglyphic or ideogrammic written characters has very different effects from the hot and explosive medium of the phonetic alphabet. The alphabet, when pushed to a high degree of abstract visual intensity, became typography. The printed word with its specialist intensity burst the bonds of medieval corporate guilds and monasteries, creating extreme individualist patterns of enterprise and monopoly. But the typical reversal occurred when extremes of monopoly brought back the corporation, with its impersonal empire over many lives. The hotting-up of the

medium of writing to repeatable print intensity led to nationalism and the religious wars of the sixteenth century. The heavy and unwieldy media, such as stone, are time binders. Used for writing, they are very cool indeed, and serve to unify the ages; whereas paper is a hot medium that serves to unify spaces horizontally, both in political and entertainment empires.

Any hot medium allows of less participation than a cool one, as a lecture makes for less participation than a seminar, and a book for less than dialogue. With print many earlier forms were excluded from life and art, and many were given strange new intensity. But our own time is crowded with examples of the principle that the hot form excludes, and the cool one includes. When ballerinas began to dance on their toes a century ago, it was felt that the art of the ballet had acquired a new "spirituality." With this new intensity, male figures were excluded from ballet. The role of women had also become fragmented with the advent of industrial specialism and the explosion of home functions into laundries, bakeries, and hospitals on the periphery of the community. Intensity or high definition engenders specialism and fragmentation in living as in entertainment, which explains why any intense experience must be "forgotten," "censored," and reduced to a very cool state before it can be "learned" or assimilated. The Freudian "censor" is less of a moral function than an indispensable condition of learning. Were we to accept fully and directly every shock to our various structures of awareness, we would soon be nervous wrecks, doing double-takes and pressing panic buttons every minute. The "censor" protects our central system of values, as it does our physical nervous system by simply cooling off the onset of experience a great deal. For many people, this cooling system brings on a lifelong state of psychic *rigor mortis*, or of somnambulism, particularly observable in periods of new technology.

An example of the disruptive impact of a hot technology succeeding a cool one is given by Robert Theobald in *The Rich and the Poor*. When Australian natives were given steel axes by the missionaries, their culture, based on the stone axe, collapsed. The stone axe had not only been scarce but had always been a basic status symbol of male importance. The missionaries provided quantities of sharp steel axes and gave them to women and children. The men had even to borrow these from the women,

causing a collapse of male dignity. A tribal and feudal hierarchy of traditional kind collapses quickly when it meets any hot medium of the mechanical, uniform, and repetitive kind. The medium of money or wheel or writing, or any other form of specialist speed up of exchange and information, will serve to fragment a tribal structure. Similarly, a very much greater speed-up, such as occurs with electricity, may serve to restore a tribal pattern of intense involvement such as took place with the introduction of radio in Europe, and is now tending to happen as a result of TV in America. Specialist technologies detribalize. The nonspecialist electric technology retribalizes. The process of upset resulting from a new distribution of skills is accompanied by much culture lag in which people feel compelled to look at new situations as if they were old ones, and come up with ideas of "population explosion" in an age of implosion. Newton, in an age of clocks, managed to present the physical universe in the image of a clock.

But poets like Blake were far ahead of Newton in their response to the challenge of the clock. Blake spoke of the need to be delivered "from single vision and Newton's sleep," knowing very well that Newton's response to the challenge of the new mechanism was itself merely a mechanical repetition of the challenge. Blake saw Newton and Locke and others as hypnotized Narcissus types quite unable to meet the challenge of mechanism. W. B. Yeats gave the full Blakean version of Newton and Locke in a famous epigram:

Locke sank into a swoon;  
The garden died;  
God took the spinning jenny  
Out of his side.

Yeats presents Locke, the philosopher of mechanical and lineal associationism, as hypnotized by his own image. The "garden," or unified consciousness, ended. Eighteenth century man got an extension of himself in the form of the spinning machine that Yeats endows with its full sexual significance. Woman, herself, is thus seen as a technological extension of man's being.

Blake's counterstrategy for his age was to meet mechanism with organic myth. Today, deep in the electric age, organic myth is itself a simple and automatic response capable of mathematical formulation and expression, without any of the imaginative

perception of Blake about it. Had he encountered the electric age, Blake would not have met its challenge with a mere repetition of electric form. For myth *is* the instant vision of a complex process that ordinarily extends over a long period. Myth is contraction or implosion of any process, and the instant speed of electricity confers the mythic dimension on ordinary industrial and social action today. We *live* mythically but continue to think fragmentarily and on single planes.

Scholars today are acutely aware of a discrepancy between their ways of treating subjects and the subject itself. Scriptural scholars of both the Old and New Testaments frequently say that while their treatment must be linear, the subject is not. The subject treats of the relations between God and man, and between God and the world, and of the relations between man and his neighbor - all these subsist together, and act and react upon one another at the same time. The Hebrew and Eastern mode of thought tackles problem and resolution, at the outset of a discussion, in a way typical of oral societies in general. The entire message is then traced and retraced, again and again, on the rounds of a concentric spiral with seeming redundancy. One can stop anywhere after the first few sentences and have the full message, if one is prepared to "dig" it. This kind of plan seems to have inspired Frank Lloyd Wright in designing the Guggenheim Art Gallery on a spiral, concentric basis. It is a redundant form inevitable to the electric age, in which the concentric pattern is imposed by the instant quality, and overlay in depth, of electric speed. But the concentric with its endless intersection of planes is necessary for insight. In fact, it is the technique of insight, and as such is necessary for media study, since no medium has its meaning or existence alone, but only in constant interplay with other media.

The new electric structuring and configuring of life more and more encounters the old lineal and fragmentary procedures and tools of analysis from the mechanical age. More and more we turn from the content of messages to study total effect. Kenneth Boulding put this matter in *The Image* by saying, "The meaning of a message is the change which it produces in the image." Concern with *effect* rather than *meaning* is a basic change of our electric time, for effect involves the total situation, and not a single level of information movement. Strangely, there is recognition of this matter of effect

rather than information in the British idea of libel: "The greater the truth, the greater the libel."

The effect of electric technology had at first been anxiety. Now it appears to create boredom. We have been through the three stages of alarm, resistance, and exhaustion that occur in every disease or stress of life, whether individual or collective. At least, our exhausted slump after the first encounter with the electric has inclined us to expect new problems. However, backward countries that have experienced little permeation with our own mechanical and specialist culture are much better able to con-

front and to understand electric technology. Not only have backward and nonindustrial cultures no specialist habits to overcome in their encounter with electromagnetism, but they have still much of their traditional oral culture that has the total, unified "field" character of our new electromagnetism. Our old industrialized areas, having eroded their oral traditions automatically, are in the position of having to rediscover them in order to cope with the electric age.

In terms of the theme of media hot and cold, backward countries are cool, and we are hot. The "city slicker" is hot, and the rustic is cool. But in terms of the reversal of procedures and values in the electric age, the past mechanical time was hot, and we of the TV age are cool. The waltz was a hot, fast mechanical dance suited to the industrial time in its moods of pomp and circumstance. In contrast, the Twist is a cool, involved and chatty form of improvised gesture. The jazz of the period of the hot new media of movie and radio was hot jazz. Yet jazz of itself tends to be a casual dialogue form of dance quite lacking in the repetitive and mechanical forms of the waltz. Cool jazz came in quite naturally after the first impact of radio and movie had been absorbed.

In the special Russian issue of *Life* magazine for September 13, 1963, it is mentioned in Russian restaurants and night clubs, "though the Charleston is tolerated, the Twist is taboo." All this is to say that a country in the process of industrialization is inclined to regard hot jazz as consistent with its developing programs. The cool and involved form of the Twist, on the other hand, would strike such a culture at once as retrograde and incompatible with its new mechanical stress. The Charleston, with its aspect of a mechanical doll agitated by strings, appears in Russia as an avant-garde form. We, on the other hand, find the *avant-garde* in the cool and the primitive, with its promise of depth involvement and integral expression.

The "hard" sell and the "hot" line become mere comedy in the TV age, and the death of all the salesmen at one stroke of the TV axe has turned the hot American culture into a cool one that is quite unacquainted with itself. America, in fact, would seem to be living through the reverse process that Margaret Mead described in *Time* magazine (September 4, 1954): "There are too many complaints about society having to move too fast to keep up with the machine. There is great advantage in moving fast if

you move completely, if social, educational, and recreational changes keep pace. You must change the whole pattern at once and the whole group together - and the people themselves must decide to move."

Margaret Mead is thinking here of change as uniform speed-up of motion or a uniform hotting-up of temperatures in backward societies. We are certainly coming within conceivable range of a world automatically controlled to the point where we could say, "Six hours less radio in Indonesia next week or there will be a great falling off in literary attention." Or, "We can program twenty more hours of TV in South Africa next week to cool down the tribal temperature raised by radio last week. Whole cultures could now be programmed to keep their emotional climate stable in the same way that we have begun to know some thing about maintaining equilibrium in the commercial economies of the world.

In the merely personal and private sphere we are often reminded of how changes of tone and attitude are demanded of different times and seasons in order to keep situations in hand. British clubmen, for the sake of companionship and amiability, have long excluded the hot topics of religion and politics from mention inside the highly participational club. In the same vein, W. H. Auden wrote, ". . . this season the man of goodwill will wear his heart up his sleeve, not on it . . . the honest manly style is today suited only to Iago" (Introduction to John Betjeman's *Slick But Not Streamlined*). In the Renaissance, as print technology hotted up the social *milieu* to a very high point, the gentleman and the courtier (Hamlet-Mercutio style) adopted, in contrast, the casual and cool nonchalance of the playful and superior being. The Iago allusion of Auden reminds us that Iago was the *alter ego* and assistant of the intensely earnest and very non-nonchalant General Othello. In imitation of the earnest and forthright general, Iago hotted up his own image and wore his heart on his sleeve, until General Othello read him loud and clear as "honest Iago," a man after his own grimly earnest heart.

Throughout *The City in History*, Lewis Mumford favors the cool or casually structured towns over the hot and intensely filled-in cities. The great period of Athens, he feels, was one during which most of the democratic habits of village life and participation still obtained. Then burst forth the full variety of human expression and

exploration such as was later impossible in highly developed urban centers. For the highly developed situation is, by definition, low in opportunities of participation, and rigorous in its demands of specialist fragmentation from those who would control it. For example, what is known as "job enlargement" today in business and in management consists in allowing the employee more freedom to discover and define his function. Likewise, in reading a detective story the reader participates as co-author simply because so much has been left out of the narrative. The open-mesh silk stocking is far more sensuous than the smooth nylon, just because the eye must act as hand in filling in and completing the image, exactly as in the mosaic of the TV image.

Douglas Cater in *The Fourth Branch of Government* tells how the men of the Washington press bureaus delighted to complete or fill in the blank of Calvin Coolidge's personality. Because he was so like a mere cartoon, they felt the urge to complete his image for him and his public. It is instructive that the press applied the word "cool" to Cal. In the very sense of a cool medium, Calvin Coolidge was so lacking in any articulation of data in his public image that there was only one word for him. He was real cool. In the hot 1920s, the hot press medium found Cal very cool and rejoiced in his lack of image, since it compelled the participation of the press in filling in an image of him for the public. By contrast, F.D.R. was a hot press agent, himself a rival of the newspaper medium and one who delighted in scoring off the press on the rival hot medium of radio. Quite in contrast, Jack Paar ran a cool show for the cool TV medium, and became a rival for the patrons of the night spots and their allies in the gossip columns. Jack Paar's war with the gossip columnists was a weird example of clash between a hot and cold medium such as had occurred with the "scandal of the rigged TV quiz shows." The rivalry between the hot press and radio media, on one hand, and TV on the other, for the hot ad buck, served to confuse and to overheat the issues in the affair that pointlessly involved Charles van Doren.

An Associated Press story from Santa Monica, California, August 9, 1962, reported how:

Nearly 100 traffic violators watched a police traffic accident film today to atone for their violations. Two had to be treated for nausea and shock . . . Viewers were offered a 50% reduction in fines if they agreed to see the movie, *Signal 30*, made

by Ohio State police. It showed twisted wreckage and mangled bodies and recorded the screams of accident victims.

Whether the hot film medium using hot content would cool off the hot drivers is a moot point. But it does concern any understanding of media. The effect of hot media treatment cannot include much empathy or participation at any time. In this connection an insurance ad that featured Dad in an iron lung surrounded by a joyful family group did more to strike terror into the reader than all the warning wisdom in the world. It is a question that arises in connection with capital punishment. Is a severe penalty the best deterrent to serious crime? With regard to the bomb and the cold war, is the threat of massive retaliation the most effective means to peace? Is it not evident in every human situation that is pushed to a point of saturation that some precipitation occurs? When all the available resources and energies have been played up in an organism or in any structure there is some kind of reversal of pattern. The spectacle of brutality used as deterrent can brutalize. Brutality used in sports may humanize under some conditions, at least. But with regard to the bomb and retaliation as deterrent, it is obvious that numbness is the result of any prolonged terror, a fact that was discovered when the fall out shelter program was broached. The price of eternal vigilance is indifference.

Nevertheless, it makes all the difference whether a hot medium is used in a hot or a cool culture. The hot radio medium used in cool or nonliterate cultures has a violent effect, quite unlike its effect, say in England or America, where radio is felt as entertainment. A cool or low literacy culture cannot accept hot media like movies or radio as entertainment. They are, at least, as radically upsetting for them as the cool TV medium has proved to be for our high literacy world.

And as for the cool war and the hot bomb scare, the cultural strategy that is desperately needed is humor and play. It is play that cools off the hot situations of actual life by miming them. Competitive sports between Russia and the West will hardly serve that purpose of relaxation. Such sports are inflammatory, it is plain. And what we consider entertainment or fun in our media inevitably appears as violent political agitation to a cool culture.

One way to spot the basic difference between hot and cold media uses is to compare and contrast a broadcast of a symphony performance with a broadcast of a

symphony rehearsal. Two of the finest shows ever released by the CBC were of Glenn Gould's procedure in recording piano recitals, and Igor Stravinsky's rehearsing the Toronto symphony in some of his new work. A cool medium like TV, when really used, demands this involvement in process. The neat tight package is suited to hot media, like radio and gramophone. Francis Bacon never tired of contrasting hot and cool prose. Writing in "methods" or complete packages, he contrasted with writing in aphorisms, or single observations such as "Revenge is a kind of wild justice." The passive consumer wants packages, but those, he suggested, who are concerned in pursuing knowledge and in seeking causes will resort to aphorisms, just because they are incomplete and require participation in depth.

The principle that distinguishes hot and cold media is perfectly embodied in the folk wisdom: "Men seldom make passes at girls who wear glasses." Glasses intensify the outward-going vision, and fill in the feminine image exceedingly, Marion the Librarian notwithstanding. Dark glasses, on the other hand, create the inscrutable and inaccessible image that invites a great deal of participation and completion.

Again, in a visual and highly literate culture, when we meet a person for the first time his visual appearance dims out the sound of the name, so that in self-defense we add: "How do you spell your name?" Whereas, in an ear culture, the *sound* of a man's name is the overwhelming fact, as Joyce knew when he said in *Finnegans Wake*, "Who gave you that name?" For the name of a man is a numbing blow from which he never recovers.

Another vantage point from which to test the difference between hot and cold media is the practical joke. The hot literary medium excludes the practical and participant aspect of the joke so completely that Constance Rourke, in her *American Humor*, considers it as no joke at all. To literary people, the practical joke with its total physical involvement is as distasteful as the pun that derails us from the smooth and uniform progress that is typographic order. Indeed, to the literary person who is quite unaware of the intensely abstract nature of the typographic medium, it is the grosser and participant forms of art that seem "hot," and the abstract and intensely literary form that seems "cool." "You may perceive, Madam," said Dr. Johnson, with a pugilistic

smile, "that I am well-bred to a degree of needless scrupulosity." And Dr. Johnson was right in supposing that "well-bred" had come to mean a white-shined stress on attire that rivaled the rigor of the printed page. "Comfort" consists in abandoning a visual arrangement in favor of one that permits casual participation of the senses, a state that is excluded when any one sense, but especially the visual sense, is hotted up to the point of dominant command of a situation.

On the other hand, in experiments in which all outer sensation is withdrawn, the subject begins a furious fill-in or completion of senses that is sheer hallucination. So the hotting-up of one sense tends to effect hypnosis, and the cooling of all senses tends to result in hallucination.