McLuhan and Earthscore

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Dedicated to the Memory of John Culkin.(1)

Introduction

Earthscore is a notational system analogous to classical music with its staff, bars and notes. Just as with classical music notation we can orchestrate different musical instruments into a symphony, so with Earthscore we can orchestrate different electronic media into "symphonies of knowledge" that support living on earth in a sustainable way. In a nutshell, the relationship between McLuhan and Earthscore can be put as follows: McLuhan offered us the insight that satellites make it possible to approach living on earth as a work of art. (McLuhan, 1995, p. 224) Earthscore encodes a notational system for realizing life on earth as a work of art.

According to McLuhan, nature ended when the Russians launched the Sputnik satellite. (McLuhan, 1997, pp. 80-1) In other words, "nature" had been the "ground" for human life on earth. Human ways of living constituted different "figures" set against the "ground" of nature. Now with satellite technology providing a new 'ground" for perceiving the earth, we begin to see earth itself as a "figure". The figure of earth includes both nature and the human. Grounded in the new perception provided by satellites, we can

approach the relationship between humans and nature as an interaction that humans could shape into a process work of art. Earthscore is a formal approach to guiding that process. (Ryan 1993, pp. 379 ff.)

Against the background of McLuhan's insight about satellites, characterizing Earthscore as a notational system for a process of art relating nature and culture works well enough as a brief description. But to understand, in depth, the relation between McLuhan and Earthscore we must move from this nutshell description to the tree that nurtured the nutshell. That tree is Christianity. As scholar Walter Burkert argues, mediation between nature and human culture is a function of religion. (Burkert, 1996 p. 23.) To appreciate the critical differences between McLuhan and Earthscore, we must discuss religion.

Biographer Terrence Gordon makes clear that Marshall McLuhan grounded the singularity of his insights in the systemic of the Catholic religion. The "figure" of "McLuhan" was " grounded" in the practices of Catholicism. He was a convert, a daily communicant and a reader of Scripture.(2) McLuhan's critique of electronic man as "discarnate" man, was grounded in the doctrine of the Incarnation of Christ. (Gordon, 1997 pp. 223 -24)

While Catholicism helped ground Marshall McLuhan's critique electronic culture, Catholicism does not offer an operating system for living in electronic culture. The reason is that Catholicism teaches a central Christian doctrine of incarnation which balances transcendence and immanence. An immanent understanding of mind makes sense in a world connected by circuits, but Christian transcendence and electronic circuitry go together like oil and water. Christianity's understanding of God as transcendent came from the Old Testament. In that Testament, there were two distinct tiers.

The immanent seeable physical plane populated by humans and the transcendent unseeable plane occupied by God. God was apart, separate and He could be completely indifferent to the human plane. (Scarry, 1985) Humans knew the transcendent tier only by words spoken through holy men who offered the "Word" of God. Then, in the New Testament story of Christ, the Word that was God became flesh and dwelt among us. The transcendent and the immanent were fused in the person of Christ. Christianity's balancing of transcendence and immanence on the back of this God/Man worked well enough in Western Culture as long as language, - i.e., "the Word", - dominated consciousness. But this balance has been upset by electronic technology. The flood of events streaming into our nervous systems via electricity, from music to televised funerals, cannot be adequately processed in the syntax of a language sourced in transcendence.(3)

Electronic technology is all built from circuitry. Based on the formal study of circuits known as cybernetic theory, Gregory Bateson, a member of the original cybernetic group and the author of *Mind and Nature*, concludes that "We now know, with considerable certainty, that the ancient problem of whether the mind is immanent or transcendent can be answered in favor of immanence...". (Bateson, 1972 p. 315, see also pp. 467-473). Bateson's argues that the basic unit of mind is a circuit of differences that make differences immanent in the processes of life. Take the example of a blind man walking with a cane. Cybernetically, the blind man walking with a cane is understood as a self-correcting process. Differences in the ground make differences in the cane. Differences in the cane make differences in his arm, which, in turn, make differences in his body in where he steps next and differences in where he puts the cane next. Differences in where he puts the cane next record differences in the ground and so on round the circuit. Any

break in the route of reference around the circuit jeopardizes the operational effectiveness of the circuit. If you take away the blind man's cane, he will have difficulty walking.

Our understanding of transcendence relies on metaphors, not circuits. Metaphor depends on the possibility of breaking the circuit of reference in order to set up understanding by analogy. This is a critical difference. Metaphors are figures of speech that express something by analogy with something else. By analogy, the blind man can be taken to mean a person who is not living in the state of grace. The song "Amazing Grace" uses this metaphor in the line "Was blind, but now, I see." The difference between unsighted and sighted corresponds to the difference between ungraced and graced. The objective of metaphoric thinking is to understand the state of grace by looking at blindness. The objective of cybernetic thinking is to keep the blind man walking. Cybernetic thinking is best conveyed in diagrams. Metaphoric thinking is best conveyed in language. Diagrams are not suited to conveying metaphors. Language is not especially suited to convey cybernetic thinking. However, in using language to discuss circuits, it is possible, using metaphor, to invite someone to think cybernetically.
Given this difference between immanent circuit and transcending metaphor, we can begin to see why a Christianity that has held immanence and transcendence in creative tension for so long cannot effectively mediate between nature and culture in the electronic age. Ongoing self-correction of the balance between nature and culture requires an operative understanding of the circuitry immanent in both nature and culture as well as an understanding of the pattern of circuitry that connects nature and culture. Transcendent metaphoric religious thinking cannot provide this understanding since it locates the pattern that connects on a separate tier,

in an all-knowing entity. I will return to this issue of transcendence and immanence.

Earthscore and Ecology

The biologist C.H. Waddington reasoned as follows. As a species, we humans transmit information over generations in two ways. One is biologically through genetics. The other is through speech and writing. Speech and writing inevitably involve authority structures. Someone telling someone else what to do. "Look at me when I talk to you". " Do as I tell you." The developing integrity of a child's perceptual system is stunted and brought under the language commands of others. Inspired by the example of painters who had sweated blood to see nature without language, such as Cézanne and Monet, Waddington argued that it may be possible to institutionalize this effort and develop an information transmission system married to environmental realities, not to speech and writing. (Waddington, 1970) Inspired by McLuhan, I undertook an extensive exploration of video perception as an artist. . Based on this exploration, I was able to codify a formal notational system for realizing an information transmission system based on shared perception of environmental realities along the lines posited by Waddington. Using this notation I was able to design a television channel dedicated to monitoring the ecology of a bioregion and, based on that shared perception, to develop a consensus about sustainable policies and practices. (Ryan, 1993)

This notation system has five components:
(1) Three comprehensive categories of knowledge
(2) a relational circuit to organize these categories
(3) a relational practice called Threeing,

(4) a family of models for understanding the patterns of nature and
(5) a way of interpreting these patterns for any community in terms of sustainability.

I will now compare each of these five components of Earthscore with McLuhan's work. This is a delicate maneuver, so let me be clear. The concerns behind Earthscore and the concerns that motivated McLuhan are, I believe, part and parcel with each other. The concerns have to do with generating viable electronic cultures. McLuhan approached these concerns by using the rhetorical devices of oral culture to probe electronic culture. By contrast, Earthscore grows directly out of twenty-five years of experimentation with the video medium. The medium being the message, it is not surprising that working with different media would result in different structures of thought. Hopefully, this comparison will illuminate both structures of thought and advance the shared concern.

The First Comparison is in terms of Comprehensive Categories.

McLuhan's probing of everything is based on acoustic space and Thomistic philosophy.

Earthscore's theory of everything is based on the phenomenology of philosopher, Charles Peirce.

McLuhan's approach to everything built out from a sphere of understanding created by acoustic space. He understood acoustic space as total, inclusive and involving. His own mind could be understood as a rich resonant

chamber of commonplaces. (4) As a video artist, I approached whatever I was recording without script. When you go out with a video camera and without a script, you are confronted with everything. To make sense out of everything, you need a theory of everything. After more than twenty years of working with video, I realized that an appropriate theory of everything could be found in the three comprehensive phenomenological categories of the American philosopher Charles Peirce. (Apel, 1981) Technically, these categories are called firstness, secondness and thirdness. In non-technical terms, they refer to quality, fact and pattern. Peirce argued that all phenomena present themselves in these three irreducible categories. In Earthscore, these three categories are the basis for the non-verbal perception of the environment.

Philosophically speaking McLuhan was a self proclaimed Aristotelian Thomist. (Gordon. 97. p 189) Thomism sees everything in terms of form and matter. Form and matter were meat and potatoes for McLuhan. For Peirce, the dyad of form and matter were not enough. This dyad was linked to an Aristotelian logic of classification that the West had exhausted. Peirce went after a logic of relationships, not of classes. He saw a logic of relationships as inherently triadic. McLuhan saw form and matter and the gap between as a gap that invited metaphor. (2) Peirce saw the gap as filled by the "thisness" of Duns Scotus. Instead of the form/matter dyad, Peirce saw a threefold continuum of possibility, actuality and formality. This continuum invites relational thinking without words. Where McLuhan would codify his percepts in language, Peirce's system allows for codifying percepts without language. (3)

The second comparison is between what I will call McLuhan's "metaphor that is meant" and the non-metaphoric relational circuit.

The "medium is the message" is a dictum that denies differences in a way that generates transcendence.

The relational circuit is a sign of itself that organizes differences in a way that cultivates immanence.

The codification of McLuhan's famous teaching, "the medium is the message" is identical in structure to the way the Catholic Church codifies its teaching that the consecrated bread *is* the body of Christ and the consecrated wine *is* the blood of Christ. This isomorphic codification, this parallel in the structure of assertion without qualification, invites comparison. In the sacramental system that grounded McLuhan, this is a serious doctrine. For a Catholic, the Eucharist is where, colloquially speaking, "the rubber meets the road". The word of the priest makes the bread into the body of Christ. This is not symbolic, this is real. This is the critical point where Catholicism fuses a metaphoric understanding of a transcendence God with the immanent reality of a piece of bread. The fusion requires faith, belief without evidence. This is the metaphor that is meant. The metaphor short circuits perception. The authority of the word is blatantly asserted over the perceptual system. You cannot see the body of Christ, you see bread. Yet you must suppress your perceptions. You must believe the bread is the body of Christ. You must believe that there has been a 'transubstantiation" which you cannot see. Once you believe what you cannot see, multiple meanings are unfolded in a sacramental context. This host of bread is the bread of angels. Christ so loved us that he gave himself to us as food and so on.

Within the peculiar alchemy of McLuhan's unconscious genius, within the " smythe of his soul", I think it is possible to see the "the medium is the message': and the multiple meanings he gave to this dictum, - i.e., "massage", "mess-age", as a transformation of this sacramental coding process into a code of playful secular probes. The probes were unseriously serious. Just as the sacramental coding process suppresses the testimony of the senses to highlight the authority of the word, just so McLuhan himself tells us "the medium is the message" suppresses content in order to highlight the effects of technologies. (Gordon, 97, p. 176)

When you suppress perception and highlight the word, you privilege language. As linguist Derek Bickerton argues, language is inherently hierarchic. (Bickerton, 1990) Hierarchies built on the authority of language engender transcendent thinking as a way of offsetting the suppression of perceptions required by language itself. The Christians who came to North America interpreted what they saw as the land promised in Holy Scripture and failed to perceive the actual ways in which the land worked. Only now are we moving away from a kind of transcendental Christian tourism destructive to this continent and learning to live in terms of the actual ecological systems that support our lives here.

By contrast, the relational circuit does not work hierarchically. Let me offer a mundane schoolyard example to explain how the relational circuit organizes relationships without hierarchy. In a hierarchy, the biggest boy pushes the next biggest boy. The next biggest boy pushes the littlest boy. The littlest boy dare not come around and shove the biggest boy. He cannot loop back and complete the circuit of relationships. Rather, he might go out and kick a rock or scribble curses on the school building. By contrast take

the child's game paper-rock-scissors. Three children, regardless of size, throw out a hand that indicates paper, (flat) rock (fist) or scissors (two spread fingers). The three children then playfully slap each other wrists according to the formula: paper covers rock, rock breaks scissors, scissors cuts paper. This organization of differences is immanent in the circuit of relationships among the children and does not engender transcendence but an immanent use of the mind. Without going into details, the relational circuit works in a similar way (5) Just as the game of paper-rock-scissors references only itself, so the relational circuit is a sign of itself. (Ryan, 1993 pp. 93 ff., pp. 345 ff.) As a sign of itself, the relational circuit can be explained without reference outside itself, without reference to a transcendent, non-perceptible entity. The relational circuit is an immanent unit of mind.

The third term of comparison is what McLuhan called "primitive emotions".

In the face of retribalization by electronic technology, McLuhan saw the need to "restructure the primitive emotions".

Earthscore restructures the primitive emotions through a relational practice called Threeing.

The phrase 'restructure the primitive emotions" (McLuhan, 1968) can be taken in two different ways. It can mean restoring primitive emotions the way they once were before literacy, or it can mean taking our primitive emotions and create structures for them appropriate to electronic cultures. Earthscore interprets this phrase in the latter sense.

In keeping with McLuhan's understanding of the primitive, I think it fair to approach primitive emotions as they once were through the work of Rene Girard, particularly as articulated in his book *Violence and the Sacred*. (Girard, 1977) Recall that Girard describes how relational ambiguities within a group are resolved. Under the authority of a priest figure, the ambiguities of intra-tribal interaction are heaped on the head of the sacrificial victim. In the Old Testament this scapegoat is cast out into the desert to die and the ambiguities of group identity are temporarily resolved. In the New Testament, the sacrificial victim is crucified and Christian Churches coalesce around ritually reenacting the sacrificial crucifixion.

Threeing is a relational practice that works for three people the way the practice of yoga works for an individual. Just as yoga stabilizes well being for a practitioner, so threeing can stabilize relationships among three or more people. Threeing resolves the ambiguities of small group human interaction without recourse to a sacrificial victim. How? Normally when three people get together, two combine and exclude the third party. As bilaterally symmetric humans, this pattern is normal. We cannot look in four eyes at once. To look at Jack, I must choose not to look at Jill. To relate to you, I must choose not to relate to someone else. Within a tribal group this experience of excluding and being excluded repeats itself over and again. When this repetition of events of exclusion within the group accumulates in such a way as to threatens the cohesion of the whole group, a scapegoat is identified so that everybody else, everybody not a scapegoat, can reinstate themselves as members of the group, members of the non-excluded "in" crowd. Everybody takes on the guilt of excluding. The experience of suffering exclusion, of being left out, is temporarily healed.

Threeing is a pattern of interaction that neutralized the effect of choice on relationships. A participant never is forced to choose between Jack and Jill. Choices are made in terms of positions in an unambiguous figure outlined on the floor. The figure is the relational circuit. Threeing is a nonverbal interaction that uses the relational circuit to restructure the primitive emotions (Ryan, 1993, pp. 144 ff.). As we know from Walter Benjamin, ritual allows people to experience emotions in a crisis proof setting. Ritualized Threeing provides us with the opportunity to restructure the primitive emotions in non-excluding patterns that do not require a sacrificial victim. Using the relational circuit, it is possible to organize differences among people in terms of the relationships themselves. Such ordering of differences would not be a unity arrived at by common reference to an excluded sacrificial victim encoded in a sacramental system. Rather the reciprocal relationships among people can themselves become sacred. (Ryan, 1998)

The Fourth Comparison has to do with understanding of natural patterns.

McLuhan understood natural patterns by analogy.

Earthscore understands natural patterns as 'chreods."

In my work with video recording and playback, using time lapse and slow motion, I came to understand natural patterns in a non-verbal way. Think of time lapse studies of budding flowers and slow motion studies of insects. Watching these moving images, it is possible to understand the pattern presented in a single gestalt without rational inference using language. The

moving image allows the natural event to occur in the mind like a fist in the hand. It is a wordless event. There is a spontaneous, intuitive appreciation of a pattern in nature. Peirce would call this “the firstness of thirdness.” This intuitive appreciation of natural patterns through perception is the fourth component of the Earthscore Notational System. In Goethe's terms it is an exercise of "exact imaginative sympathy".

As a formal codification for the intuition of pattern,- the firstness of thirdness,- Earthscore uses the family of qualitative models developed by topologist Rene Thom know as catastrophe theory. (Thom, 1975) These models are called "chreods", from the Greek. "Chre" meaning "necessary" and "ode" meaning path. Nature is understood as an ensemble of recurring events such as the falling of leaves, the migration of geese, the ebb and flow of the tides. These recurring events have a necessary structure that can be modeled by chreods. By careful observation using video we can gather an understanding of these event patterns, come to understand how they connect with each other and how we might relate to them on a sustainable basis.

The route of reference between chreods and McLuhan is by way of Gerard Manley Hopkins and his doctrine of inscape. I have often used inscape to explain chreods, (Ryan 1993, pp 226 ff.) but here I must distinguish between chreods embedded in video as a non-verbal event and inscape as Hopkins used that doctrine in his poetry. This distinction, *mutatis mutandi,* also serves to differentiate between McLuhan's use of analogy and Earthscore's use of 'chreods".

In his reading of the Hopkins poem "Windhover", (McLuhan, 1945) McLuhan explicates how Hopkins works with analogical mirrors on three levels.

Nature is mirrored in Christ and Christ mirrors the glory of God. Nature has "forged features" such as veins of a violet or the "roped" sides of a mountain. These are the features that can be observed with a video camera, embedded on tape and modeled using the chreods provided by catastrophe theory. As McLuhan says, Hopkins lays no claim to any perception of natural facts hidden from ordinary men. But in his sacramental view of the world Hopkins finds in nature an analogical mirror of Christ. Hopkins then works his way through the poem to a theme of imitating Christ in humble obedience to God which gives beauty back to God through the mirror of man's moral life.

Earthscore does not move into this sacramental realm. Rather the chreod is embedded in the relational circuit, the topology of which is generated from a looped length of paper with a half twist called a moebius strip and not a mirror. This is a somewhat technical point, but an important one. When you attempt to shake hands with yourself in a mirror, it will not work. The mirror returns a left hand for your right hand. If you set up a video camera atop a monitor and attempt to shake hands with yourself it will work. The monitor returns a right hand for your right hand. Video feedback operates along the continuum of a moebius strip and not in terms of discontinuous mirror reverses. The relational circuit is a transformation of the moebius strip into a six part continuous figure. (Ryan, 1993 pp. 93 ff.) This figure, as I have argued, is an immanent relational circuit . This circuit organizes the Earthscore Notational System. Gathering and organizing chreods within the relational circuit makes it possible to interpret the patterns of nature without resorting to mirrors, analogy or transcendence.

For Earthscore, Thom's models are to electronics what Euclid's models were to paper. Electronics has to do with events. The ecology is seen as an

ensemble of events and these events can be electronically monitored, modeled and understood using catastrophe theory. (5)

The fifth comparison has to do with how Nature is interpreted to different Communities.

McLuhan used the semiotics of Saussure.

Earthscore uses the semiotics of Peirce.

Semiotics is the study of signs. Saussure gave us a dyadic semiotics based on language. As Terrence Gordon explains, this semiotics was very congenial for McLuhan and toward the end of his life McLuhan studied Saussure and made use of his insights. (Gordon, 1997 pp. 323 ff.) While there is record of some familiarity with Peirce's more generic semiotics, there is no evidence that McLuhan took to Peirce's semiotics the way he took to Saussure. Peirce' triadic semiotics grows from his phenomenological categories and embraces both the verbal and the non-verbal in one system. The power of this system can be seen in Gilles Deleuze successful effort to classify the whole of cinema according to Peirce's semiotics (Delueze, 1986, 1989). This is the same semiotics proper to Earthscore, the semiotics I was able to employ in designing an environmental television channel. (Ryan, 1993) Using this system it is possible to represent the earth for humans living on the earth so that they can understand how not to destroy the earth. Because it is grounded in perception, this representational process can, in principle, include any language family and be used to monitor any cultural effort to comply with the ways of the earth. The Earth and the human can become part of the same circuitry of sustainability. More than

that, we could learn to interact with the natural world as if our life on earth were a sacred work of art.

Footnotes:

(1) John Culkin started the Media Studies Program at the New School where I currently teach. More importantly, he gave me a chance to work directly with McLuhan. In the summer of 1965 I was living in a garret on the Lower East Side pounding a typewriter. I defined myself as a writer. Midway through the summer, I tuned in WBAI's radio coverage of the International Writer Conference. First thing I heard was this guy saying "Of course, in this age of radio, television, computers and satellites, the writer can no longer be someone sitting in his garret pounding a typewriter." It was McLuhan. His talk brought my linear sequential writing to a dead stop. For the next three months I could hardly read or write. Then I read *Understanding Media* , *Gutenberg Galaxy* and all the McLuhan's source material I could track down. I found my way to Fordham. John *Culkin hired me a*s part of the team that worked *with Marshall McLuhan at Fordham. With Culkin's support , this position fulfilled my obligation to do alternate service as a conscientious objector during the Vietnam War.* When McLuhan returned to Canada, I stayed on at Fordham through the good offices of John Culkin and began experimenting with portable video equipment. Subsequently, I defined myself as a video artist and developed a formal approach to using video for the interpretation of ecological systems. I called this formal approach Earthscore. Since its development in video, Earthscore has had many non-video iterations in education, worker training and on the Internet. All of these iterations are efforts to bring human behavior into compliance with the ways of the Earth. Given that Earthscore originated out of explorations with the video medium following McLuhan's insights, in this presentation I will emphasis the video version of Earthscore.

(2) When I asked the liberal critic Conor Cruise O'Brien about McLuhan, O'Brien wanted to know when McLuhan converted to Catholicism. As an Irishman, O'Brien himself had struggled with Catholicism. (See *Maria Cross* Fresno Ca.: Academy Guild Press, 1963) When I told him McLuhan converted in 1937, O'Brien said "Spanish Civil War. Not a good year to convert. What did Yeats say?

> 'I never bade you go
> To Moscow or to Rome,
> Call the Druids home.' "

As a sophisticated convert influenced at Cambridge by G.K. Chesterton, McLuhan's relationship to Catholicism was complex in a way that I do not think any commentator has yet made entirely clear. While the conservative McLuhan did not respond politically to the Spanish Civil War, he did keep a rendering of Picasso's *Guernica* on the wall in his Toronto home. (Teri McLuhan, conversation, 1998) For a current articulation of the relationship between orality and liturgy in the radical orthodoxy of Christianity that I associate with McLuhan, see *After Writing* by Catherine Pickstock, a teacher at McLuhan's Cambridge. This extraordinary book deals with Plato, Derrida, Scotus, Ramus, Descartes and the Roman Eucharistic Ritual. I am also told that a new volume containing McLuhan's spiritual and religious, writings along with a discussion of his conversion and its impact on his thought is due out this spring. (Teri McLuhan, conversation, 1998).

Re McLuhan's radical orthodoxy consider the following remark "Let me make a little note here about the church and literacy. Alphabetic man is the only one who every tried to transform other cultures into his own. Oral societies never tried to convert anybody. The early church began with a liaison with the Graeco-Roman and the alphabetic. Ever since, the church has made

inseparable the propagation of the faith and Graeco-Roman culture. Thus ensuring that only a tiny segment of mankind would ever be Christian. Would it appear to you, now that literacy is technologically expendable, that the church can also dispense with Graeco-Roman forms of literacy and hierarchy? I have been able to find no ecclesiastic or theologian for whom this is a meaningful question'" (Gordon, 1997 p. 224)

In contrast to O'Brien respond, when I asked George Steiner about McLuhan he called him a genius, urged me to go study with him and offered to take a personal letter from me to McLuhan on his trip to Toronto.

(3) In this essay my use of the word "transcendent" is specific to Christian theology and not mean to include the range of authentic human experience beyond ordinary limits that many people testify to in their own lives, even if that experience is explained by the participants in terms provided by Christian theology.)

(4) McLuhan was not afraid to consider anything and offered an approach to everything. I can remember at lunch him writing down a Thai word for "moving like a snake" mentioned by a former Peace Corp volunteer and telling everybody to write down anything that struck them. While at Fordham, when I wanted to know what McLuhan though of something, I would ask a question. Sometimes the answer I got on the spot was an answer to a question asked by somebody else two weeks before. So I would listen for my answer to arise during a lecture on a two week delay. Usually, I would hear a brilliant relevant insight. He could connect anything with anything. However, I had to wait until it was processed through the richness of his chamber of commonplaces.

(5) In the child's game, the children have no choice. They must act according to the formula paper covers rock, rock breaks scissors, scissors cuts paper. In the relational circuit there is not fixed formula. Rather it is like a Cézanne composing a painting using *his little blues, his little browns and his little whites.* He works without hierarchy or formula, he composes art. Threeing is an art of behavior. See Earthscore for Educators (tentative title, forthcoming).

(6) By way of connection to McLuhan let me report on a meeting I had with Rene Thom. Thom and I had a brief correspondence about an early version of the relational circuit and he invited me to a talk he was giving at Columbia University in 1970. During the course of our conversation, without knowing I had anything to do with McLuhan, he suddenly said "You know, I think McLuhan was right." It was as if his own mathematical musing about the patterns of nature made it possible for him to see each technology McLuhan talked about as having a different morphology, like different plants. The effects of each technology could be understood by reference to its unique "chreod" or necessary pattern. This suggests to me that maybe, just maybe, McLuhan's approach to media could be formalized beyond the laws of media by using the models developed by Thom.
In the *Laws of Media* this approach becomes the reverse parallelism of thinking we call chiasmus. (McLuhan, 1995, p. 366 ff.)

(7) In response to a query whether McLuhan was grounded in the Scripture, McLuhan suggested that his ground was not Scripture but that he had been pursuing phenomenology for years in a non-technical manner. (Gordon, 97, pp. 312-313)

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