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The city as a medium in McLuhan and Flusser¹

Flusser's enigmatic text *Die Stadt als Wellental in der Bilderflut*² (Flusser 1999b: 175-182), "The City as Wave-through in the Image-Flood," was written in 1988. In this text, Flusser sees the city as a network of transactions and knowledge flows triggered by people meeting other people, rather than as a place full of buildings. Thus, his text suggests the city in its connectivity as a topographic landscape of inter-subjective relationships that are mutually interdependent and deeply-rooted in the co-existence with technical images (*Technobilder*). These relationships are formed mainly by intersections enabled by communicative structures. More than just thinking about today's city as a geographical location, an updated reading of this text encourages us to take into account the call for connectivity of the network city and of the device city, as well as their transformations.

The idea that the city is a device, a social machine that informs individuals according to the extensions it provides, is related to Deleuze and Guattari's term 'social machine' (1985). But we could also state the opposite, that is, that the concept of social machine only acquires total intelligibility when McLuhan's seminal reflections on the media, contained in *Understanding Media, the Extension of Man* (1964), are reconsidered. Much of what we read in Deleuze and Guattari's *Anti-Œdipus: Capitalisms and Schizophrenia*—like the indistinctness between organic being and machine, which is important to explain the huge mechanism that involves the individual versus the social machine—had already appeared in McLuhan's writings: "Man becomes, as it were, the sex organs of the machine world, as the bee of the plant world, enabling it to fecundate and to evolve ever new forms" (McLuhan 1994: 46). In addition, McLuhan states that the human being feeds a mechanism that, in turn, also shapes the human being: "Physiologically, man in the normal use of technology (or his variously extended body) is perpetually modified by it and in turn finds ever new ways of modifying his technology" (McLuhan 1994: 46); and also that language shapes society as much as produc-

¹ Translated from the Portuguese by Carolina Siqueira Muniz Ventura.

² The paper was first presented in 1989 at the 4. "Kulturpädagogische Tagung der Kulturpolitischen Gesellschaft," a symposium held in Cologne, Germany; it was published for the first time in: *Kulturlandschaft Stadt. Neue Urbanität und kulturelle Bildung*, Hagen, 1990 (see Flusser 1999b). An English translation is available in *Critical Inquiry*, Vol. 31, No. 2, (Winter 2005), translated by Phil Gochenour.

tion does: “linguistic media shape social development, as much as does the means of production” (McLuhan 1994: 49).

Flusser’s idea of the city as a poetic, interconnected device that triggers a specific type of subjectivity also leans on McLuhan’s formulations, specifically on that of the city as a medium. We know that McLuhan’s book *Understanding Media, the Extension of Man* was translated into Portuguese by Décio Pignatari and published by Perspectiva in 1969, entitled *Os meios de comunicação como extensões do homem*.³ Décio Pignatari and the Campos brothers, Haroldo and Augusto, concrete poets who were responsible for the magazine *Noisgandres* and whose third issue in 1956 emphasized concrete poetry, belonged to Flusser’s circle of friends and intellectual partners in Brazil. Even without unearthing specific data that could point to the fact that Flusser did, in fact, read McLuhan in one or more languages, or to the rejuvenation that McLuhan’s publication in Brazil generated among São Paulo’s intellectuals, if we focus on Flusser’s text we see that many of his ideas only become clear when they are re-read in the light of McLuhan’s ideas.

Artificially built environments and sensorial perception

In McLuhan’s *Understanding Media* we find his notion according to which technology is an extension of the human: language, clothing, dwellings, means of communication, and even cities. To McLuhan the environment we create is our medium and it is this medium that defines our role in the environment. The technological environment is part of our evolutionary process and requires another perception (McLuhan 1968: 19). The television and the computer, like other artificially built environments, create an immersive device, drastically modifying human sensibility. The environment as an extension of the human began to act, from the second half of the 20th century onwards, like a nervous system outside the skull. According to McLuhan, we are aware that technology is one of our extensions and, for the first time, we are aware that we determine what we will become.

Villages and cities are seen as artificial environments built by human beings used to form—due to physical proximity—a kind of agglutination and organization whose purpose was to provide information and protection for their inhabitants. In his considerations about the means and ways of transportation as forms of communication, McLuhan understands that

³ The Portuguese version of this book used here was published by Cultrix.

these ways and means transported information which, in the past, used to depend on the messenger's speed. With the advent of new communication technologies that allow information exchange and remote control, the distance between urban and rural agglutinations was minimized. For example, concerning the telephone and the television, if the point of reception is located in the area they cover, it does not matter whether it is located in the urban or in the rural perimeter. Computerized electronic means created a network that is different from what used to be conceived as the center of the city and its margins. Only with the telegraph could the message be faster than the messenger. McLuhan concludes that, with computerized communication, we are facing an unprecedented organization that renders urban space and roads – and even the airways – obsolete.

Metropolitan space is equally irrelevant for the telephone, the telegraph, the radio, and television. What the town planners call 'the human scale' in discussing ideal urban spaces is equally unrelated to these electric forms. Our electric extensions simply bypass space and time and create problems of human involvement and organization for which there is no precedent (McLuhan 1994: 104-105).

Clothing – like a kind of suit of armor – and dwellings are extensions of the body, mechanisms of thermal control that prevent the loss of energy in a natural environment. After clothing had met this first need, the dwellings would facilitate new skills and learning processes. Analyzing the most primitive and the most developed societies, McLuhan notices the passage from the circular format of the dwellings to the square format. This passage would correspond to the need to rationalize environments and incorporate the growing tendency of programming. McLuhan exemplifies how these controls influence our perception through the insertion of electric light in our society. Illumination as an extension of our energies helps to program our environment even more, in order to adapt it to our sensory needs, as clothing had already shown. We are responsible for the programming of our environment and for the adaptation of sensory life to the environment that acts on us and is a constant process of technological mutation.

Body, money, and informational systems

Work, money, and the body itself integrate the system of circulation of information and programmed knowledge. Work is no longer physical work; rather, it is programmed knowledge.

Production, in turn, is the computerized production of knowledge (McLuhan 1975: 161): “Automation, which is electronic, does not represent physical work so much as programmed knowledge. As work is replaced by the sheer movement of information, money as a store of work merges with the informational forms of credit and credit card. From coin to paper currency, and from currency to credit card there is a steady progression toward commercial exchange as the movement of information itself (McLuhan 1994: 137).

The body, already accustomed to its extensions – clothing, dwellings, and the city itself – which are enabled by previous technologies, is translated into an information system when inserted into the nervous system of digital technologies (McLuhan 1975: 77). By putting our physical bodies inside our extended nervous systems, by means of electric media, we set up a dynamic by which all previous technologies that are mere extensions of hands and feet and teeth and bodily heat will be translated into information systems (McLuhan 1994: 57).

Just like the body, money as a vast social metaphor is also translated into information systems. Developed societies have started to deal with computerized money that depends on more complex and abstract organisms, like the financial institutions that work with quotations and the stock market. The undeveloped ones still conserve an exchange relationship in which one product can be traded with another one, giving rise, as usual, to bargaining, which needs a face-to-face struggle. The city of the electronic era is less subject to this face-to-face struggle and, like a nervous system; it is decentralized, suffering instantaneous mutations. The obsolescence of the current money system, brought about by the possibility of transmitting electronic information, leads McLuhan to predict that we are already living in a tribal society: from nomads to sedentary individuals and, from sedentary people, we have returned to the nomadic condition, now globally connected through computers.

After three thousand years of specialist explosion and of increasing specialization in and alienation from the technological extensions of our bodies, our world has become compressional via dramatic reversal – electrically contracted, the globe is no more than a village. By bringing all social and political functions together in a sudden implosion, electric speed has heightened human awareness of responsibility to an intense degree (McLuhan 1994: 5). We are returning to a tribal relationship with space contraction, interconnected by the speed of information circulation, and making the relationship emerge simultaneously in distant points. This has also had a deep impact on production.

Returning to what I called device city, which is related to the concept of social machine proposed by Deleuze and Guattari, we see that, for McLuhan, the city is a technological composite that was created as a social organism, a mechanism of mutual feedback between human beings and the social machine. Coupling, feedback, and interdependence are terms that are linked to the second cybernetic revolution, which would be opposed to the first one, that of the mechanical servants. An analysis of the patterns of automation shows that perfecting the individual machine by making it automatic involves different forms of 'feedback'. That means introducing an information loop or circuit where, before, there had merely been a one-way flow or a mechanical sequence. Feedback is the end of linearity that came into the Western world with the alphabet and the continuous forms of Euclidean space. Feedback or dialogue between the mechanism and its environment leads to a further weaving of individual machines into whole galaxies of such machines (McLuhan 1994: 354). This feedback and dialogue between the man-machine mechanism and its environment are necessary so that we can achieve the dimension that Flusser attributes to the city: a device of intersubjectivities.

The interlacements between McLuhan and Flusser

There are several interlacements between McLuhan and Flusser. We hear Flusser's 'ein Weltental in der Bilderflut' as a resonance of McLuhan's 'a further weaving of individual machines into a galaxy'. Both authors reflected on the two great ruptures that shape the manner in which we organize ourselves mentally: the linearity of writing and the informational media environment created by the advent of computers, which altered production and the monetary, as well as social and affective relations. Flusser and McLuhan point to the rupture of subjectivities suffered by the human being thrown into the linearity of writing. Additionally, when confronted with the media which produce a different subjectivity, Flusser and McLuhan show us the need to understand this new urbanity that is being built by electronic culture and transforms the linear into a connected world that is coded in sensory modalities rather than the visual-linear one.

McLuhan describes how, by moving from the oral tradition to the phonetic codes, we became visual beings used to the linear sequence of writing. To him, the influence of writing brought about individualism and nationalism: "Print created individualism and nationalism in

the sixteenth century” (McLuhan 1994: 19-20). And: “The development of writing and the visual organization of life made possible the discovery of individualism, introspection and so on” (McLuhan 1994: 45). The technology of electronic means provoked an equivalent rupture when compared to the one that occurred at the introduction of writing. “The phonetic alphabet has no rival, however, as a translator of man out of the closed tribal echo-chamber into the neutral visual world of lineal organization. [...] Yet the speed-up of the electronic age is as disrupting for literate, lineal, and Western man as the Roman paper routes were for tribal villagers” (McLuhan 1994: 92). The fact that we belong to a universe that is mainly organized by visual patterns causes the atrophy of the other senses. However, the revolution caused by the electronic information systems, which created a new environment, stimulated the other senses that were blunted by linear vision (McLuhan 1968: 24-25).

To McLuhan, the artificial environment that we create acts upon us, like the controlled laboratory of the Russian physiologist Pavlov (beginning of the 20th century). Pavlov conducted experiments about conditioned reflexes with dogs (McLuhan 1968: 65). Pavlov’s experiment consisted in turning on a light when the dogs were eating. After a conditioning period, the dogs salivated at the light stimulus, even when the food was not offered. His experience could be repeated even when the light was replaced by a sound, or an electric stimulus on the skin, provided they were constant, that is, always at the same time and with the same intensity. The dogs did not salivate if any change was made to the tone of the sound, the intensity of the shock or the color of the light. The experiment showed, according to McLuhan, the relationship of conditioned reflexes to controlled environments. “The portentous discovery he made was that any controlled environment, any man-made environment, is a conditioner that creates non-perceptive somnambulists” (McLuhan 1968: 71).

McLuhan’s description of the action of the media is not always positive. According to him, the artificial environment of our electronic society is equivalent to self-amputation. The pain, felt as referred pain, ghostly pain, which is the pain located at the limb that was already amputated, also occurs when we are deprived of acclimatization systems, e. g., of electricity, television, computers or, today, of the connectivity of cell phones. The computer is a much more sophisticated extension of the central nervous system than ordinary electric relays and circuits. When people live in an environment of feed-back circuitry, carrying much greater quantities of information than with any previous systems, they develop something akin to what medical professionals call ‘referred pain’. The impulse to be ‘turned-on’ is a simple

Pavlovian reflex felt by human beings in an environment of electric information. Such an environment is itself a phenomenon of self-amputation. Every new technological innovation is a literal amputation of ourselves so that it may be amplified and manipulated for social power and action (McLuhan 1968: 73).

Moreover, the artificiality of the environment and the continuance of the working hours, together with the fact that education is used as a form of war, stimulate, according to McLuhan, a feeling of frustration and emptiness, impulsive violence, and drug-consumption. Each new communication technology dictates a new form of war. The First World War was the war of railway networks and the second the war of the radio. In McLuhan's prediction, the third would be the war of television, which would annul any difference between civilians and soldiers, all participants in the same war (McLuhan 1968: 132-134). This prognostic was not entirely wrong, for we know that many authors referred to the Gulf War as a media spectacle⁴.

The status of images according to Flusser

Before we return to the topography of this new urbanity described by Flusser, it is necessary to understand the status the author attributes to the image. Flusser also considers the rupture caused by the passage from the oral to the written tradition as absolutely central. However, while McLuhan suggests that we are returning to a tribal condition that would stimulate other senses, Flusser thinks that we cannot experience the image in an original manner any more. We can neither neutralize centuries of book traditions nor rescue the magical status that the image had in pictograms found in caves. According to Flusser, we are incapable of experiencing the images like the prehistoric men experienced them in Lascaux, because the techno-images have changed our very text and image awareness. In fact, as images do not translate directly the phenomenon 'world', texts no longer transport us to these primordial images (Flusser 1998: 161).

In *Kommunikologie*, Flusser (1998) develops the concept of techno-images and the type of mental imagery techno-images produce. In this book, Flusser describes the passage from the magical stage of the first pictogram, when it was the image that represented the world, to the stage resulting from a technological society that is historic – the book universe – and the

⁴ Subirats was one of them (see E. Subirats, "A guerra como obra de arte," in: E. Subirats (1993), *Vanguarda, Mídia, Metrópoles*. São Paulo, Studio Nobel.

more recent ‘techno-images’ culture. Techno-images are images loaded with the textual concept that precedes them: “Aber die Definition soll auch zeigen, daß die Spezifität der ‘Technobilder’ weder in der Methode zu suchen ist, mit der sie erzeugt werden (durch Apparate), noch in dem Material, aus dem sie gemacht sind (zum Beispiel Kathodenröhren), noch in ihrer Struktur (zum Beispiel, daß manche abrollen), sondern in ihrer Bedeutung” (Flusser 1998: 139-140)⁵. In this way, Flusser points to the existence of two types of coding instruments: the conceptual and the technological types, which interpose themselves in our relationship to the world. What results from the mechanical and electronic apparatuses are techno-images that continue to subordinate us to a linearly codified world, while the interrelation between text and techno-images remains invisible. Photography is Flusser’s example to show how technological and conceptual interfaces interpose themselves in the observation process. A support that is covered with symbols representing linear texts (Flusser 1998: 139) is a transposition that takes us to concepts, because it results from a camera.

At first, the term *techno-images* could be translated as machine images, close to Guattari’s concept of ‘image machine’ (Guattari: 1996)⁶. But Flusser’s concept encompasses images that were not processed by any mechanical apparatus; rather, they were processed by a technological one – for example, graphs and images that originated in texts, in a linear code like the alphabetic one – which, in turn, translates the graphic representations of the phenomenon world.

Comparing the cave images with those of the Renaissance, Flusser concludes that the images of the Florentine painters were based on Biblical scenes, which were already impregnated with the written text. The historical images born from reflections on the text and not from confrontation with the phenomenal world are deciphered through the acquisition of the code and of knowledge about history. The prehistoric images were elaborated on by different methods according to the possibilities of each individual. Our life with techno-images, obtained through mechanical devices and also deriving from the written text technology (since both McLuhan and Flusser consider that writing is a technology), makes us assume

⁵ “But the definition must also show that the specificity of the ‘techno-images’ cannot be found in the method through which they are produced (by the apparatus), in the material with which they are produced (for example, electromagnetic waves), nor in their structure (for example, how they are transported), but rather, in their meaning”. Translation provided by the author.

⁶ “Da produção de subjetividade” (On the production of subjectivity), which was translated into Portuguese by Suely Rolnik. It was sent by Guattari to the International College of Cross-disciplinary Philosophical Studies to integrate the text in one issue of the magazine *34 Letras*, about the theme of Post-Modernity. The publication did not occur. The text was published for the first time in the journal *Chimère-Revue des Schizoanalyses* (no. 4, 1987/1988, pp. 27-44) and republished as “Preface” in the book by Guattari (1989), *Cartographies Schizoanalytiques*, Paris: Galilée, pp. 9-25.

the point of view of the apparatus, no matter whether we are looking at the Lascaux paintings or whether we are admiring the Renaissance paintings (Flusser 1999a: 72). By either looking at the Lascaux paintings or admiring the Renaissance ones, we transport ourselves to the photographer's activity, splendidly commented on by Arlindo Machado (2001) in his text *Repensando Flusser e as imagens técnicas* (Revisiting Flusser and the technical images), where he refers to Flusser's *Filosofia da caixa preta* (Philosophy of the Black Box). The photographer's activity forces us to choose the best translation and framing of the phenomenal world in the view of the interface that is the camera, marked, in turn, by the rationality of the person who designed it.

A new urbanity?

But let us come back to the complexity of the topology of the new city. Old city models, according to Flusser, did not adequately take into account in its planning the cities' vocation for connectivity, as they were influenced by a thought based on the linear organization of writing. The city must be understood as the winding oscillation of an immaterial (virtual) field that can be modeled by the flows of knowledge formed by people meeting other people, not by the representation of objects or of a geographic place. As McLuhan reminds us, what the city stores with the advent of electricity and, subsequently, with that of the computer, is not of a material nature: "In the case of electricity, it is not corporeal substance that is stored or moved, but perception and information" (McLuhan 1994: 351). The field of this new urbanity, according to Flusser, is defined more by the gravitational attraction of inter-subjectivities (Flusser 1999b: 178) and less by the accumulation of interlacements of electric wires (and let us not forget that they would be archaic today, if we think of wireless technology and viral networks). The paradigm to understand this new urbanity – which could be visualized through the language of algorithms in a topographic model – is abstract and complex.

This new urbanity, instead of the nucleation of individuals, creates thicker or thinner currents of information, since Flusser considers the human being as a knot through which information flows: "Körper sind Verknotungen der vier Kräftefelder" (Flusser 1999b: 178). The same meaning is acquired by a human being when inserted into an informational system, or as McLuhan put it: "With electricity as energizer and synchronizer, all aspects of

production, consumption, and organization become incidental to communications. The very idea of communication as interplay is inherent in the electrical, which combines both energy and information in its intensive manifold.” (McLuhan 1994: 355). The image of agglomerates of people can be interpreted as knots of interpersonal relations, as channels through which emotions, information, and purposes flow. However, to experience this new urbanity, we need a spirit of non-locality and the abandonment of the antinomy ‘me’ and ‘you’, replaced by ‘us’⁷, viewed as unstable points of the network city that become concrete only through the frequency and density of the encounters between people. Flusser has an anthropological view of the city as a “field of inter-subjective relations” in which visionary images, feelings, new knowledge, and intentional objects are shared (see Araujo 2001). Flusser’s utopian prognostic about the city calls for the need to get rid of the ‘wrappings’ that the ‘self’ imposes on us. In McLuhan’s view, we have to overcome the individualism created by the technology of writing so that we can open ourselves up to new forms of subjectivation. Thus, in the new urbanity, politics (and all the creative disciplines of the sciences) are going to be an exercise in inter-subjectivity as a form of art.

According to Flusser, up to this moment we have been used to the description of the city as the interrelation of three spaces: the private, the public, and the religious. The author states that, nowadays however, there is no distinction anymore between private and public spaces. The private space has been invaded by television and telecommunication wires and apparatuses, which take the images of the external world into the interior of the homes, and from the interior of the homes back to the public space. We should add web cams, which mix the private and public spheres. Dialogic means, like the telephone and the Internet, have opened new perspectives of interaction when compared to older means of communication, like the newspaper, the radio, and the television, all of them centralizing means of communication that spread the same information to disconnected points. External spaces like churchyards, marketplaces, and squares, which used to enable citizens’ encounters and political exercise, have become insignificant in view of the telematic forums of the Internet. The Internet as a form of dialogic communication enables social encounters that could not be imagined before, and it creates a culture based on the exchange of information and knowledge (see Araujo 2001). The network city is formed by encounters capable of synthesizing new

⁷ In Portuguese, “[...] o abandono da antinomia ‘eu’ e ‘você’ substituído pelos ‘nós’ [...]” The word “nós” is being used here with the two meanings it has in Portuguese: first person plural (*we, us*) and an intertwining of two or more lines (*knot*).

knowledge and forming knots that act as public sites. These knots, however, are temporary and mobile because they produce mutual attraction. Knowledge production, circumscribed in the past as a fixed place or delimited by temporal issues, has migrated from churches and schools to other community centers such as spaces for sports practice, discos and Clubs, like the ‘Club Méditerranée’, mentioned by Flusser. Knowledge production was recently sheltered by the electronic niches within cyberspace, in the multi-user spaces of chats, video streaming, and games, niches that are reinvented by mobile technology on a daily basis.

The limitations incurred by Flusser derive from the fact that he, too, must search for examples in models of his time that do not accompany the prediction of the new urbanity. His city topography as the valley of image undulations, very close to cyberspace, would certainly have to include the Internet user as one of the protagonists of the new city, along with the consumers, the bourgeois, and the philosophers of the city in the past. We can conceive of *Die Stadt als Wellental in der Bilderflut* as a proposition open to collaborations that update the question formulated by McLuhan: “If the work of the city is the remaking or translating of man into a more suitable form than his nomadic ancestors achieved, then might not our current translation of our entire lives into the spiritual form of information seem to make of the entire globe, and of the human family, a single consciousness?” (McLuhan 1964: 61).

This updating process will certainly have to be re-fed by the formats and manners of contagion of the new networks because we affectively inhabit places, not spaces, which can be formed by the new networks such as the Internet. And, of course, this paper could have analyzed in more detail many of the points that were just mentioned, such as the different forms of nomadism suggested by McLuhan and Flusser, or Flusser’s categories regarding different images – prehistoric, historic, techno-images, and synthetic images. However, in order not to lose sight of the fluidity of the complex topology of the network city, the device city, and their transformations – and for both the location of being is insignificant – I would like to conclude with the words of a popular song by Caetano Veloso: “A minha casa fica lá de traz do mundo, onde vou em um Segundo quando começo a cantar. O pensamento parece uma coisa à toa, mas como é que a gente voa quando começa a pensar.”⁸

⁸ “My home is located at the end of the world, and I can get there in a second when I start singing. Thought seems to be worthless, but we sure do fly when we start thinking.”

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