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ABSTRACT  Through a close reading of the 1976 artist’s book and exhibition catalogue “Celebration of the Body,” the N.E. Thing Co. Ltd.’s pioneering representations of the body’s “informationalization” are situated within the conceptual company’s creative reworking of Marshall McLuhan’s sensory media theories. In turn, McLuhan’s thought is located within a genealogy of physiological aesthetics that troubles conventional narratives of Conceptual art as a movement defined by its engagement with theories of cognition, language, and systems. Friedrich Kittler’s analysis of modernism as reflecting the decomposition of the body under a regime of psychophysical experimentation provides the framework for this article’s re-evaluation of the Toronto School theorist and his influence on the foundational Vancouver-based “critical company.”

KEYWORDS Marshall McLuhan; N.E. Thing Co. Ltd.; Conceptual art; Information art

Introduction
Through a close reading of the 1976 artist’s book Celebration of the Body, this article explores the information art of the N.E. Thing Co. Ltd. (NETCO)1 as a significant departure from both the self-reflexive discourse of New York-based Conceptual art and the ideational concerns of the broader conceptual tendency. The controversial terminology that distinguished conceptualism from Conceptual art was first proposed by Luis Camnitzer, Jane Farver, Rachel Weiss, and László Beke (1999) to differentiate between

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competing strands in the international movement, which, beginning in the mid-1960s, mounted an unprecedented challenge to the postwar supremacy of Abstract Expressionist painting through tactics of “dematerialization” (see also Smith, 2012). As developed by Lucy Lippard and John Chandler (1968), dematerialization refers to conceptual artists’ de-emphasis of the visual properties of the art object in favour of ephemeral and linguistic gestures that trouble the formalist criteria enshrined in the influential criticism of Clement Greenberg as well as the commodity status of the artwork. Since what I will term the “sensory conceptualism” of NETCO’s McLuhan-inspired art practice broke with both the residual formalism of Conceptual art and the anti-perceptual bias of conceptualism, this article will employ these terms somewhat interchangeably while being attentive to distinctions between them.

Taking stock of NETCO’s heteroclite practice will mean taking seriously the unusual status of communications theory for contemporary artists working in English Canada during the 1960s. For a range of younger artists who were lacking a robust domestic tradition of art criticism and theory—including General Idea, Intermedia, and Les Levine—media theory was art theory. To some extent, this orientation paralleled the “détournement of the media” (Alberro, 1999, p. 143) carried out contemporaneously by South American activist artists studied by Alexander Alberro. However, NETCO’s corporate identity and resolutely sensorial definition of the media of communication resisted such an identification.

I will read the N.E. Thing Co.’s information art as a form of physiological aesthetics primarily derived from co-president Iain Baxter’s creative reworking of McLuhan’s insights. In turn, I will resituate the Toronto School scholar’s discourse on the co-evolution of bodies and technologies within a growing literature devoted to cultural representations of the body as information. This phenomenon has been dubbed “informationalization” by Michael Hardt and Antonio Negri (2000; see also Meltzer, 2006). German media scholar Friedrich Kittler’s narrative of the constitutive exchange between the science of psychophysics and modernist art will be employed as a framework for historicizing and making sense of this previously underemphasized dimension of McLuhan’s thought and its impact on the sensory conceptualism of NETCO.

Drawing on the Catholic theology of Thomas Aquinas, McLuhan understood the coordinated functioning of the senses as a form of cognition, or *sensus communis* (see Marchessault, 2006; Stamps, 1995). In McLuhan’s neo-Thomist epistemology, concepts are analogues of perceptual forms. “External sense-cognition,” wrote Aquinas in the *Summa Theologiae*, “is achieved solely by the modification of the sense by the sensible. Hence by the form which is impressed by the sensible, sensation takes place” (quoted in Haldane, 1983, p. 233). Knowledge consists of forming adequate “ratios” between concepts and objects in the world, the world itself being “a complex series of proportions or ratios” (Stamps, 1995, p. 101). Though grounded in the sensorial metaphysics of Aquinas, McLuhan’s writings depart from the theology of the medieval schoolman in adapting his analogical paradigm to claim the media of communication as a prosthetic “sensorium,” or artificial exteriorization of being.

In keeping with McLuhan’s neo-Thomist speculations, the primary content of N.E. Thing Co.’s conceptualism was the data of sensation, not abstract thought. NETCO’s
physiological orientation emerges clearly from a 1966 “Glossary” of its “Sensitivity Information” nomenclature: “Sound Sensitivity Information,” or “SSI” (“music, poetry [read], singing, oratory, etc.”), “Moving Sensitivity Information,” or “MSI” (“movies, dance, mountain climbing, track, etc.”), “Experiential Sensitivity Information,” or “ESI” (“theatre, etc.”), and “Visual Sensitivity Information,” or “VSI” [“a term developed and used by the N.E. Thing Co. to denote more appropriately the meaning of the traditional words ‘art’ and ‘fine art’ or ‘visual art’”] (N.E. Thing Co. Ltd., 1966, n.p.). Critics and historians applying analytical values derived from Conceptual art—which emerged, according to Benjamin Buchloh (2006), out of “minimalist sculpture’s self-reflexivity” (p. 33)—have consistently misread the radically non-conceptual orientation disclosed by this vocabulary. Although Buchloh (1990) does not discuss NETCO, his analyses of Conceptual art as staging an “aesthetic of administration” have been tremendously influential on those that have (see especially Tomas, 2010). This article sets out to rectify this misunderstanding by performing a close reading of the N.E. Thing Co. artist’s book, Celebration of the Body, a text published in conjunction with an exhibition of the same title curated by NETCO at the Agnes Etherington Art Centre (AEAC) in Kingston, Ontario, to coincide with the 1976 Montréal Olympics.

Photo documentation of “Celebration of the Body” (the exhibition), recently unearthed by the author in the archives of the AEAC (see Figure 1 and Figure 2), reveals a heterogeneous assemblage of contemporary, historical, and folk art, punctuated by anatomical models and images appropriated from a range of popular sources. The latter appear in reproduction mounted on the company’s standardized “information forms,” designed by NETCO’s director of information, Brian Dyson. Suspended from

Figure 1: N.E. Thing Co. Ltd., “Celebration of the Body,” installation view, 1976

Source: Agnes Etherington Art Centre
the gallery ceiling in a fashion designed to solicit viewer interaction, these information forms staged a three-dimensional equivalent of the “non-book” concept explored earlier by McLuhan and designer Quentin Fiore in their bestselling paperbacks *The Medium is the Massage* (1967) and *War and Peace in the Global Village* (1968). The scope of the present article does not permit a detailed analysis of the exhibition, which was undertaken by a recent monograph edited by Fabien Pinaroli (2014). The exhibition catalogue likewise took these texts as models for its own “exploded” (Michaels, 2012, p. 8) and participatory format of unbound, non-sequential leaves.

**Figure 2: N.E. Thing Co. Ltd., “Celebration of the Body,” installation view, 1976**

![Image of N.E. Thing Co. Ltd., “Celebration of the Body,” installation view, 1976](source: Agnes Etherington Art Centre)

The catalogue set out to “demonstrate the aesthetic concerns and relationships that occur in athletic and art activity” by collaging images of “yoga, streakers, belly dancers, keep fit experts, [and] body painting” into a bustling “mosaic” of bodies (N.E. Thing Co. Ltd., 1976, n.p.; see also Durham, 2011) (see Figure 3). The resulting publication primarily consists of unbound facsimiles of company information forms documenting NETCO performances or featuring images of the body appropriated from popular culture. These forms invite a tactile mode of engagement consistent with the multimodal forms of participation activated by the exhibition design. The following analysis of the company’s informatic but resolutely sensorial representations of the body in its hybrid artist’s book/exhibition catalogue will situate NETCO’s Sensitivity Information as a form of physiological aesthetics derived from McLuhan’s (1964) descriptions of information in *Understanding Media*, as well as Fiore’s representations of the body in his 1967 collaboration with the Toronto School theorist, *The Medium is the Massage*. While the theories of McLuhan and Kittler will serve as a lens through which this article revisits the N.E. Thing Co.’s informatic physiology, it must be underlined...
that the company’s playful reworking of medium theory was always intuitive and productively unsystematic.

**Figure 3: Celebration of the Body**

![Image of Celebration of the Body](image)


**Literature review**

Recent studies of NETCO have begun to explore the company’s inhabitation of commercial structures (see Barrientos, 2008; Tomas, 2010). The under-recognized influence of its innovative photography practice, particularly its early production of Cibachrome light boxes, on the subsequent development of Vancouver photo-conceptualism has also received attention (see Knight, 1995; Moos, 2011). Furthermore, Iain Baxter’s university studies in zoology have been investigated by scholars tracing the origins of the company’s prescient ecological concerns (Darling, 2011). Finally, NETCO plays a leading part in recent histories of conceptualism in Canada, notably Grant Arnold and Karen Henry’s (2012) *Traffic: Conceptual Art in Canada 1965–1980* and Garry Neill Kennedy’s (2012) *The Last Art College: Nova Scotia College of Art and Design, 1968–1978* as well as Lucy Lippard’s (1997) foundational chronology of global conceptualism, *Six Years: The Dematerialization of the Art Object from 1966 to 1972.*
This study contributes to the re-evaluation of Conceptual art currently underway that is revisiting and revising earlier readings of institutional critique (usually defined as practices that interrogate and expose the ideological framing conditions of art’s exhibition and display) to include projects that question binary frameworks and, in the words of Helen Molesworth (2006), put forward utopian “proposition[s] about how the world might be differently organized” (p. 82, emphasis in the original). Viewed through this lens, NETCO’s somatic riposte to what Crow (2006) has termed the “deadened and hermetic mode of presentation” (p. 59) associated with the early Conceptual art of New York suggests analogies with Isabelle Graw’s (2006) characterization of certain conceptual practices as harbouring a “residual expression” (p. 121), or “expressology” (p. 122), that troubles conventional oppositions between the documentary and the painterly, the mind and the body. Eve Meltzer’s (2013) compelling study of the affective and material “excess” (p. 186) generated by certain conceptual projects— notamment Robert Smithson’s anti-structuralist practice—bears a number of similarities to the reading of NETCO’s informatic paradigm as corporeal “non-sense” (p. 182) advanced here. However, in stark contrast to the modes of “dis-affection” catalogued by Meltzer (2013, p. 177), the aesthetics of bodily innervation visualized by Celebration of the Body have little in common with the structuralist imaginary explored by NETCO’s American peers.

The company’s representations of information as a medium of translation between all the senses also distinguish its conceptual practice from other early examples of information art, which tend to reflect a technical view of information concepts and media. Unlike the American engineers of Experiments in Art and Technology (E.A.T.) or pioneering U.S.-based Xerox artist Sonia Sheridan, for instance, NETCO’s appropriation of information concepts and terminology did not grow out of a computer science perspective or a technical knowledge of hardware (see Cowan, 2006; Kirkpatrick, 2006; Morris, 2006). Although the company is increasingly recognized for its pioneering use of telex and Telecopier (see Arnold, 2012; Baumgärtel, 2005; Wood, 1992), its engagement with the media of communication was always guided by nontechnical objectives, the company’s electronic transmissions being just its least dematerialized “products.” The N.E. Thing Co.’s articulation of its information art as the sensitive handling performed by the human operator (or, more controversially, the “legal person” (see French, 1979) of the humane corporation) sheds new light on the origins of what Lev Manovich (2008) dubs “info-aesthetics,” thereby enriching our understanding of contemporary engagements with information and information media that depart from the conventional foci of programming and hardware. Long in advance of fellow Vancouver photo-conceptualist Jeff Wall’s (1991) condemnation of conceptualism’s “mausoleum look,” (p. 19) NETCO was busy devising embodied information tactics that paralleled McLuhan’s critique of American information theory (see Cavell, 1999).

The focus on Iain Baxter found in these pages is in keeping with Ingrid Baxter’s suggestion that “individual relationships to particular [NETCO] works become more apparent through analysis of the works and an understanding of the separate backgrounds and interests of the [company’s] two collaborators” (Fleming, 1982, p. 10). Early accounts of Iain Baxter consistently emphasize the artist’s immersion in McLuhan’s
theories. Writing in *artscanada* in 1967, then editor-in-chief of *Artforum* magazine Philip Leider reported that, “underlying Baxter’s playfulness is an intense involvement with the various messages of Marshall McLuhan, and his conversation is heavily larded with terrifying McLuhanesque linguistic horrors: ‘information retrieval’ (in part at least a simple reference to library science), ‘intermedia,’ ‘visual sensitivity information,’ ‘sensitivity information dynamics,’ etc., etc.” (p. 7). In 1969, Lippard went so far as to describe Iain Baxter in the pages of the same magazine as, “probably the prototype of the new artist, a product of the McLubricated era” (p. 6). Lippard (1968) was the first to connect Baxter’s engagement with McLuhan to his work as a university resident at the experimental Centre for Communication and the Arts at Simon Fraser University (SFU), where fellow faculty, including the composer R. Murray Schafer, were applying the Toronto School theorist’s sensorial theories in their critical pedagogy. Baxter’s archive at the Art Gallery of Ontario includes extensive notes jotted in the margins of internal memos issued by the centre that record his efforts to develop sensorial teaching methods compatible with the experiments of Schafer and other SFU faculty.

If Iain Baxter emerges as the figure primarily responsible for developing NETCO’s informatic platform, this is not to suggest that Ingrid Baxter did not make substantial contributions to other areas of the company’s activity, particularly as her role expanded during the 1970s. Indeed, this article will highlight several projects related to the company’s physiological aesthetics in which she played a leading role. But, while an awareness of the thoroughly “corporate” character of NETCO’s production, and of Ingrid Baxter’s contributions to the company as co-president, inform this study, Iain Baxter’s formative exposure to McLuhan at the University of British Columbia (UBC) and, subsequently, to the informatic pedagogy of fellow SFU instructors steeped in McLuhan’s theories, single out his contributions to the information-based framework of NETCO for particular attention in these pages (see also Soutter, 2001, p. 92n3).

Physiological aesthetics: McLuhan in context
Robert Michael Brain (2008) traces the dissemination of a physiological paradigm in modernist aesthetics to the emergence of a unique “economy of exchange [that] developed between physiology laboratories and avant-garde artists” (p. 393), particularly in France and Germany. The discoveries of Ernst Haeckel, Charles Henry, and É.-J. Marey were absorbed by Post-Impressionists such as Georges Seurat and, subsequently, by faculty at the Bauhaus. These artists creatively adapted the findings of biology into physiological formalisms that “promised the means to effect social transformation” (Brain, 2008, p. 413) through their capacity to modify the body and its senses.

Although Brain does not explicitly posit a link, McLuhan’s sensory theories emerged out of precisely this turn-of-the-century conjunction of physiology and art. Richard Cavell (2002) has painstakingly traced McLuhan’s extensive network of nineteenth-century scientific sources. The purified “opticality” promoted by Clement Greenberg’s formalist criticism, and inherited by New York conceptual artists such as Joseph Kosuth (see Camnitzer et al., 1999), may have marked a decline in the utopian projects described by Brain (2008), nonetheless Brain notes that “physiological aesthetics flowed on in many of the eddies and counter-currents within modernism, often finding employment in attempts to undermine pristine formalisms” (p. 413). It is
within such counter-currents that the sensory conceptualism of the N.E. Thing Co., with its “tendency to ‘repel purists in any area,’” (Lippard, 1969, p. 6) is properly located. Indeed, the unruly body art of Celebration of the Body deliberately set out to disturb the residual formalism of American Minimalism.

The immediate sources of NETCO’s aesthetics of Sensitivity Information lie in the sensory philosophy of McLuhan. As translated into graphic form by Fiore in The Medium is the Massage (1967), McLuhan conceived of the body as permeable to technological “probes” and distributed in prosthetic “extension”: an elastic sensorium in noisy interplay with the environment. By the late 1960s, that environment was being rapidly transformed—as McLuhan was one of the first to recognize—by new information technologies. As an early iteration of what we would now recognize as an information society thesis, McLuhan’s writings on the effects of informationization on the body and subjectivity resonate with the more recent scholarship of Helen Molesworth (2003) on the relationship between an emergent postindustrial economy and the re-skilling of artists through processes of professionalization made possible by enhanced accessibility to postsecondary education. An early document of McLuhan’s impact on Iain Baxter is a xerox of the artist’s profusely annotated copy of The Medium is the Massage preserved today in the archives of the Art Gallery of Ontario. Examples of the artist’s McLuhanesque wordplay—scribbled in the margins of a playfully self-reflexive cartoon by Alan Dunn—include “inflowmation,” “me-dia,” and “intermedia reversity” (the latter a punning reference to the fraught multimedia ambitions of SFU’s Centre for Communication and the Arts) (Baxter, 1967).

The socio-technical transformations studied by McLuhan (1964) implied changes in sense perception; the effects of information media, in his reading, being primarily physiological: “[t]he effects of technology do not occur at the level of opinions or concepts, but alter sense ratios or patterns of perception” (p. 18). The body emerges from McLuhan’s thought as the central site of technological transformation much as it does from NETCO’s Celebration of the Body, and its information art generally.

The pages of McLuhan and Fiore’s The Medium is the Massage likewise teem with bodies and body parts: toes, torsos, fingers, eyes, and ears. This emphasis on the organs of perception draws attention, as noted by Jeffrey T. Schnapp (2012), to “the human body as the site where media imprint their messages” (p. 84, emphasis in the original). One oft-reproduced image—a close-up of fishnet-clad women’s legs accompanied by the caption “when information is brushed against information …”—offers a deliberately provocative illustration of the friction generated, according to McLuhan, by the co-shaping of bodies and technologies as a form of innervation, and thus sensory awareness.3 In addition to bringing into representation McLuhan’s neo-Thomist understanding of the body as a physiological common sense, Fiore’s image is notable for its continuity with the conventions of popular media, as instantiated by NETCO’s archive of roughly contemporaneous portrayals of “the body as a sensuous object” found in Celebration of the Body.

Like the wrestlers and fashion models appropriated by NETCO’s exhibition catalogue, Fiore’s representations of the body are calculated to elicit a visceral response from the viewer. The torso of a nude model, her arms playfully outstretched, visualizes
McLuhan’s thesis that clothing is an extension of the epidermis. The staging of the female body in this image is consistent with NETCO’s spectacle of naked women sporting body paint—appropriated from men’s magazines and incorporated into one of the company’s trademark information forms—accompanied by the caption, “The Body as a Canvas for Expressing Abstract and Realistic Imagery” (see Figure 4). Like The Medium is the Massage, NETCO’s Celebration of the Body compiles a “catalogue of the human body” (Schnapp, 2012, p. 86) thoroughly inflected by vernacular and commercial representations of bodies.

**Figure 4: Celebration of the Body**

NETCO’s interest in, and blurring of polite distinctions between, pornography and other genres that, in the words of film theorist Linda Williams (1989), make a “visceral appeal to the body” (p. 5), instantiates the company’s distinctive brand of physiological aesthetics. NETCO’s Sensitivity Information does not recognize divisions between high and low cultural forms, and deliberately generates “automatic” excitation rather than detached contemplation. Following in the footsteps of McLuhan and Fiore’s earlier pop-cultural inventories, Celebration of the Body charts a continuum of innervating...
but historically denigrated genres: from professional wrestling to burlesque. NETCO’s apparently non-ironic valorization of the reified images of women’s bodies assembled by Celebration of the Body’s self-consciously stimulating collage of flesh stands in unresolved tension with the second-wave feminist critique of body art—including nude performances by Marina Abramović—articulated by Lucy Lippard (1976) in an essay reproduced elsewhere in the pages of the same artist’s book. It is somewhat ironic that Lippard (1993) would later dismiss the “sexist imagery all too often endorsed by NETCO” (p. 59), given the important role that her own writings played in defining the unresolved tension between affirmation and critique articulated by the company’s representations of hegemonic gender roles during the 1970s.

In addition to McLuhan’s theories,NETCO’s body art also reflects the athletic training of the company’s co-presidents. Prior to undertaking studies in education and visual art, Iain Baxter trained as a competitive skier, while Ingrid Baxter worked as a swimming instructor at Simon Fraser University after participating in synchronized swimming events at the University of Idaho. Unsurprisingly, a number of the actions documented by NETCO researchers and appropriated as Sensitivity Information make direct reference to these sports. For instance, a 1968 “drawing” that documents Iain Baxter skiing moguls, substitutes snow for the mythic monochromy of modernist ideology.

The introductory remarks of the co-presidents also propose parallels between art and sport redolent of McLuhan and Fiore’s physiological aesthetics:

There is … a great deal of interest in the aesthetics of movement and physical expression in athletics. A similar interest is creating a heightened awareness of basic movement qualities within contemporary dance. (N.E. Thing Co. Ltd., 1976, n.p.)


Lucy Lippard (1969) was early in drawing attention to the gulf separating the heteroclite conceptualism of NETCO from the analytical and minimal concerns of New York-based peers such as Robert Smithson and Lawrence Weiner. Although Lippard attributed the company’s deviation from mainstream conceptualism to its differing attitude toward language and the environment, NETCO’s embrace of the impure, mass-mediated body as a generator of innervating Sensitivity Information likely contributed to the confusion with which artists and critics alike greeted the Canadian enterprise (see Lippard, 1969–1970). The McLuhanesque physiological aesthetics underpinning NETCO’s informatic practice would likewise prove a source of misunderstanding for critics and historians, who have consistently demonstrated difficulty in reconciling the impure percept of N.E. Thing Co.’s commodified Sensitivity Information with the ideational, systems orientation of its American peers. A deeper look at the origins of physiological aesthetics will assist us in situating the sensory epistemology of McLuhan,
the primary influence on NETCO’s art of Visual Sensitivity Information, within a broader history of the body’s informationalization.

**The body as generator of information**

The forms of “anti-linguistic, anti-hermeneutic scientific modernism” explored by Brain (2008, p. 401) introduced above closely parallel Friedrich Kittler’s (1990) narrative of psychophysics as a key influence on modernist literature in *Discourse Networks, 1800/1900*. The term psychophysics refers to techniques devised by the German physiologists Hermann von Helmholtz and Gustav Fechner to quantify “just noticeable differences” (Crary, 2001, p. 26) in perception. Kittler (1990) traces the emergence of a Nietzschean “aesthetics of applied physiology” (p. 189) in the wake of new media that appeared in tandem with these experimental methodologies during the later nineteenth century, which claimed “bodies and their nonsense” (p. 312) as their common subject. Kittler’s account of the popular and technological diffusion of physiological aesthetics furnishes a compelling framework within which to historicize NETCO’s creative reworking of McLuhan’s claims about the effects of media (see also Hui, 2013).

The information emitted by the body’s organs is the noisy ground of all signifying systems in this antihumanist account of modernism. Kittler (1990) argues that cinema and other media derived from nineteenth-century laboratory technologies “by their physiological effects ... explode the limits of European art” (p. 189). Not recognizing distinctions between the traditional fine arts and popular entertainment, technical media substitute a “physiological nature” (p. 187) grounded in the noisy body studied by psychophysicists for the traditional signifiers of elite culture. The resulting physiological aesthetics address a “meaningless body” (Kittler, 1990, p. 219) defined by thresholds of sensory response. The modernist texts analyzed by Kittler suggest parallels with the self-consciously antihumanist art practice of the American minimalist Robert Morris studied by Meltzer. But, unlike the “paradiscursive space of affect” (Meltzer, 2013, p. 89) constructed by Morris through an engagement with the self-reflexive systems of structuralism, the analphabetic paradigm explored by Kittler is founded on precisely the type of “arbitrary information” (Meltzer, 2013, p. 79) rejected by the rule-bound American artist.

*Discourse Networks, 1800/1900* is particularly attentive to the prominent place of autoexperiments—self-administered tests involving forms of automatic writing—in the circuits between psychophysics and modernist literature. Kittler (1990) singles out the work of nineteenth-century psychologist Hermann Ebbinghaus, who performed autoexperiments to quantify mnemonic capacity by writing down random syllables from memory. In such tests, “numbers are the only kind of information that remains relevant beyond all minds” (p. 206). Psychophysical techniques of autoexperimentation are thereby important precursors, in Kittler’s narrative, of technological media for data storage, such as gramophones and computers, which substitute asymbolic data that can only be recorded for the semiotic structures of human sign systems. Psychophysics likewise served as a prototype for modernist art forms. A key figure in this narrative is Hugo Münsterberg, a psychophysicist and Harvard professor of psychology who numbered Gertrude Stein among his experimental subjects. *Discourse Networks, 1800/1900* draws a direct parallel between the autoexperimental techniques
practiced by Münsterberg and the American author's trademark stream-of-consciousness style.

Although Kittler is at pains to distance himself from the anthropomorphism of McLuhan's descriptions of media as "extensions" of the senses, his account of the progressive psychophysical inscription of human subjectivity nonetheless shares much in common with the Toronto School theorist's thesis that, "[i]n this electric age we see ourselves being translated more and more into the form of information" (McLuhan, 1964, p. 57). In particular, the work of both scholars reveals a persistent interest in the "physiological graphics" (Brain, 2008, p. 401) which, according to Brain, were beginning to dominate the biological sciences in the later nineteenth century. For McLuhan (1951), this new entanglement of art, science, and popular culture was brought into vivid representation by the streamlined silhouette of the Hollywood bombshell, her image calculated to evoke the curves of the statistician. Much as the Canadian viewed popular representations of the "mechanical bride" as personifying the abstract logic (and unconscious allure) of the assembly line, Kittler identified the eurythmy (an expressive art of movement) practiced by disciples of the philosopher Rudolf Steiner as a kinaesthetic equivalent of psychophysicists' contemporaneous decomposition of communication into noise.

Despite these parallels, the essential difference between Kittler's media determinism and the tensions between anthropomorphism and antihumanism structuring McLuhan's writings must be underlined. In effect, employing Kittler's insights to historically situate McLuhan's claims about the body within a genealogy of information-alization sheds new light on unresolved antagonisms within the thought of the Toronto School theorist that undermine the anthropomorphic illusion of his "extensions" thesis. Though products of McLuhan's speculations, Netco's representations of the body assist us in grasping these same tensions through their satirical thrust, which frequently exaggerates the antihumanist pole of the Canadian media theorist's claims to darkly comic ends.

Given the McLuhanesque genealogy of NETCO's physiological aesthetics, it is unsurprising that one of the most striking manifestations of the company's informatic body art should be a satirical variation on the figure of the mechanical bride cum corporate "dummy." The company's most powerful rendition of this figure was presented as part of its 1971 exhibition of company "products" at the Sonnabend Gallery in New York (see Figure 5). Mannequins, resembling the co-presidents and sporting the attire they had worn to the exhibition opening, were stationed at the entrance to the gallery next to an easel displaying a show card that announced, "a presentation by N.E. THING CO. LTD." This gesture reads in equal measure as a critique of corporate habitus and of the traditional paraphernalia of studio practice. The technological uncanny conveyed by these corporate simulacra is further exaggerated in documentation of the installation reproduced in Celebration of the Body. A company information form juxtaposes a photograph of the co-presidents attending the exhibition opening with an image of the "dummies" in identical poses and garb. This repetition of bodies and affect literalizes the process of automatization effected by the new technologies of mechanical reproduction and data storage that are brought into visibility by McLuhan's
(1951) “Love-Goddess Assembly Line” (p. 93) and Kittler’s (1990) discourse on Edison de Villier’s “mechanical Eve” (p. 272). By cannibalizing the conventions of corporate communication, Celebration of the Body’s double portrait of the NETCO presidents simultaneously instantiates the company’s tactics of corporate “gender insubordination” (see Butler, 1998). These are exemplified by the election of Ingrid Baxter to co-president in July 1970 as a strategic troubling of the implicit gendering of corporate “personhood” (see French, 1979). NETCO’s gender critique constitutes a powerful counterblast to Kittler’s (1990) ironic representations of “automatized female media-professionals” (p. 348) (the typists of Kafka and Nietzsche) as the mechanical brides of a psychophysical regime.

Figure 5: Celebration of the Body

![Image of Celebration of the Body](source: N.E. Thing Co. Ltd., 1976, n.p.)

Particularly when read against the background of the company’s appropriation of commercial pornography in Celebration of the Body, NETCO’s reduction of bodily experience to a code also suggests analogies with the 1970 General Idea work Orgasm Energy Chart, which invited correspondents of the Toronto-based conceptual enterprise to monitor the frequency of their sexual activity for a one-month period using a custom chart (see Bonin, 2010, p. 41). The resulting graphs recall NETCO’s ubiquitous infor-
mation forms as well as the company's engagement with McLuhan's physiological aesthetics via strategies of innervation.

A striking alternative to the objectified female bodies of McLuhan and Kittler (as well as the mass mediated imagery of Celebration of the Body) is found in Ingrid Baxter's contribution to Lucy Lippard's 1973 exhibition of all-woman conceptualists, c. 7500. Retro-Aesthetically Executing the Crane (see Figure 6) consists of photo-documentation of the co-president executing the eponymous synchronized swimming movement accompanied by a short psychological description of her efforts to reprise a form of physiological aesthetics in which she had become unpracticed. "My response was at first elation because I properly manoeuvred through all of the various parts of this skill and ended up in the starting position as I should" (quoted in Lippard, 2012, n.p.). In contrast to the shell-like bodies of McLuhan and Kittler's psychophysical subjects, Ingrid Baxter's exercise in autoexperimentation delivers a portrait of physiological artistry rich in psychological data.

Figure 6: Retro-Aesthetically Executing the Crane

A precursor to Retro-Aesthetically Executing the Crane can be found in the 1967 NETCO "happening," Centennial Aquatic Event: an elaborate exercise in "water VSI" staged at the SFU Pool. Ingrid Baxter—who was then employed there as an instructor—received credit for co-ordinating the event. Retro-Aesthetically Executing the Crane and Centennial Aquatic Event are rare but compelling examples of NETCO works in which Ingrid Baxter is front and centre.

The foregrounding of Ingrid Baxter's involvement with sport as a form of aesthetic spectacle in these works in some respects looks forward to the concerns of Celebration of the Body. Yet the therapeutic orientation of the text component of Retro-Aesthetically Executing the Crane distinguishes Ingrid Baxter's engagement with physiological aesthetics from the McLuhanesque satire of Iain Baxter's figurations of the body during
his time at the Centre for Communication and the Art—which culminated in his unrealized proposal for a punningly phallic shadow campus that he dubbed “Eunuchversity.” The therapeutic thrust of Retro-Aesthetically Executing the Crane notably sets the stage for Ingrid Baxter’s 1983 UBC Master of Physical Education thesis, Water Ways: The Aquatic Program at Berwick Preschool. Baxter’s (1983) text describes her efforts to develop an experimental “therapeutic pool” (p. 3) for children with disabilities through “total body awareness and control” (p. 6).

The superimposition of the NETCO co-presidents against the grid of the company’s information form in Dummy Self-Portrait Sculpture also suggests parallels between the ritual choreography of corporate behaviours and the motion studies of Eadweard Muybridge. This comparison is strengthened by the incorporation of multiple Muybridge studies within the mosaic of Celebration of the Body (see Figure 7). Muybridge participated in the same graphic decomposition of the body as the physiologists and psychophysicists studied by McLuhan, Kittler, and Brain. The impersonal registration of bodily motion in his chronophotography brings into representation the early stages of its informationalization vis-à-vis new media of data transmission (telegraph) and storage (gramophone).

Figure 7: Celebration of the Body

Muybridge’s depictions of the naked body have also been linked to the emergence of new conditions of spectatorship based on “shock” that reflect the industrialization of physiological aesthetics, particularly as applied to cinema and theories of scientific management (see Gunning, 2000). Linda Williams (1989) argues that through their fetishization of mobile female bodies, Muybridge’s motion studies simultaneously bring into visibility the preconditions for subsequent forms of commercial pornography that exploit the camera’s capacity to record involuntary paroxysm: “with this ability to induce and photograph a bodily confession of involuntary spasm,” writes Williams, “Muybridge’s prototypical cinema arrives at the condition of possibility for cinematic hard core” (p. 48). NETCO’s direct and satirical citations of Muybridge in Celebration of the Body (see Figure 8), some of which pointedly substitute images of modern-day professional athletes for the naked bodies of the original chronophotographs, position the company’s exploration of informatic embodiment, and its ambivalent tribute to the Olympics, within a historical continuum of socioeconomic processes of informationalization and commoditized genres of physiological aesthetics.

**Figure 8: Celebration of the Body**

At first sight, the Canadian context of McLuhan’s media studies might discourage comparisons with the European foundations of Kittler’s writings. But closer scrutiny
reveals continuities between the work of both scholars on instruments that reduce bodily habits to a “chart-image” (McLuhan, 1951, p. 48). Like Kittler, McLuhan traced the common influence exerted by emergent information technologies across the formerly discreet domains of laboratory, studio, and home. Describing the Nielsen Audimeter—a device that generates a graphic representation of the habits of radio listeners—McLuhan (1951) claimed that it “gives the inside story which is typical of X-ray photographs, boudoir journalism, and cubist painting alike. For, as in cubist painting, the spectator is placed in the center of the picture” (pp. 48–50). McLuhan’s interdisciplinary descriptions of the sensorium drew heavily on German art theory dating from the period studied by Kittler (1990) in Discourse Networks, 1800/1900. Richard Cavell (2002) has analyzed the extent to which Adolf von Hildebrand’s 1893 monograph, The Problem of Form in Painting and the Fine Arts (translated in 1907), was influential on McLuhan’s theorization of “acoustic space.” But if in some respects the explorations of McLuhan and Kittler share more in common than the German theorist avows, the latter pushes the antihumanist pole of the Canadian’s thought to a determinist extreme that utterly transforms his conclusions.

Educating the senses
The dialogue between art and science charted respectively by Brain and Cavell assumes a specifically pedagogical cast in McLuhan’s and Kittler’s writings that sheds new light on the teaching aims of NETCO’s art of Sensitivity Information. If reflection on the educational applications of psychophysics leads the German media thinker to dwell on tests administered by late nineteenth- and early twentieth-century academics such as Münsterberg, the Toronto School theorist looks to much earlier figures. McLuhan’s (1962) discussion of the renaissance educational reformer Peter Ramus in The Gutenberg Galaxy is his most extended meditation on the connections between media, physiology, number, and pedagogy.

Building on the work of his former student Walter Ong, McLuhan (1962) describes how Ramus and followers reduced educational problems to techniques of visualization “highly reminiscent of printing processes themselves” (p. 175). Long in advance of the autoexperiments of Ebbinghaus and Münsterberg, Ramus’s efforts to quantify the traditional art of memory through strategies of itemization and classification “moved the word away from its original association with sound and treated it more as a ‘thing’ in space” (Ong quoted in McLuhan, 1962, p. 175). The resultant informationalization of memory and sensory experience documented by McLuhan anticipates the effects of the “writing down” (Kittler, 1990, p. 304) procedures subsequently developed by the psychophysicists studied by Kittler.

If at first Ramus seems a distant ancestor to Münsterberg, McLuhan drew explicit parallels between Ramist pedagogy and the cybernetic “teaching machines” that were gaining ground among educators in the 1950s and 1960s. What Ramus and modern educators share in common, McLuhan argued, is a focus on classification and memorization of knowledge harnessing linear and visual techniques of data organization (tabularization, itemization, etc.). These were the same instruments critiqued by Iain Baxter through the experimental “nonverbal” teaching methods that he devised with
fellow educator Joel Smith while completing MFA studies at Washington State University (see Baigell & Smith, 1966).

McLuhan’s critique of educational methodology bears a striking resemblance to Kittler’s psychophysical reading of twentieth-century pedagogy (though the German media theorist posits a break between classical and modernist discourse networks that McLuhan’s futurological orientation does not respect). “The pedagogy of 1900,” writes Kittler (1990, p. 216), “because it was applied physiology, was preoccupied with standardizing, individually and successively, the brain regions of its pupils.” Continuities between McLuhan’s critique of Ramist method and NETCO’s allusions to contemporary standardized testing are further brought into focus through reflection on the fact that McLuhan’s (1964) Understanding Media grew directly out of an earlier report commissioned by the National Association of Educational Broadcasters (NAEB), an American organization devoted to pedagogical reform. In The Gutenberg Galaxy McLuhan (1962) even imagined an encounter between fellow educators and the followers of Ramus that drew attention to the informationalization of pedagogy as a process with a longue durée.

The “meaning-free sensations” (Kittler, 1990, p. 208) recorded by Ebbinghaus through autoexperimentation, like the Ramist visualization exercises catalogued by McLuhan, suggest comparisons with the varieties of Sensitivity Information documented by NETCO “researchers.” Reminiscent of the psychophysical data aggregated by Ebbinghaus, NETCO’s $P+L+P+L+P=VSI/VSI$ Formula No. 10 (1970)—a colour photolithograph of a grid of 35mm slides documenting various company projects—translates the ephemeral contents of perception (the constituent slides of NETCO’s collage) into an “algebraic formula” (the title) capable of being transmitted by company personnel via the channels of an emergent information society (e.g., Telecopier) and subsequently stored within its corporate archive of information forms (Kittler, 1990, p. 207).

If, according to Boris Groys (2010), the driving concern of Moscow Conceptualism was the contested status of the artist, for NETCO the leading question was: What does art teach? This thematic, which Iain Baxter refined through his leading role in SFU’s Centre for Communication and the Arts (see Lauder, 2013), reflected McLuhan’s exploration of the pedagogical possibilities of art. Janine Marchessault (2006) has explored McLuhan’s pedagogical interest in “reflexive methodologies that draw upon modernist aesthetics” as an antidote to the “visual bias” (p. 7) of Western literacy. Earlier, Marchessault (2005) situated McLuhan’s teaching experiments against the backdrop of Harold Innis’s realization that in the postwar university, “education and information were becoming identical” (p. 105). The Telecopier and telex documentation assembled in NETCO’s 1970 artist’s book, Trans-VSI Connection NSCAD-NETCO—originally transmitted as part of the company’s remote participation in the 1969 iteration of David Askevold’s celebrated Projects Class at the Nova Scotia College of Art and Design (NSCAD)—are compelling evidence of the pedagogical ends to which N.E. Thing Co. put these formulae. NETCO’s formula pieces can be read as a McLuhanesque satire of the Ramist “desire for order” (Ong quoted in McLuhan, 1962, p. 145), which—as McLuhan (1962) makes clear in his ironic gloss on the work of communications theorist Wilbur Schramm in The Gutenberg Galaxy—continued to hold
many educators and scholars spellbound well into the 1960s. It was precisely such quantitative methodologies that the interdisciplinary curriculum of the Centre for Communication and the Arts sought to counter through the sensorial and informatic pedagogies pioneered by Baxter and Schafer, among others.

Yet McLuhan’s trenchant critique of the visual bias of Ramist classroom procedure belies a more ambivalent attitude toward some contemporary applications of technology in educational settings. Perhaps the theorist’s most controversial engagement with quantitative instruments was the funding that he received from IBM in January 1965, with University of Toronto professor of psychiatry Daniel Cappon, to produce a typology of sensory preferences using computers (see Marchand, 1990). Prior to parting ways with Cappon over a business dispute, McLuhan embraced the resulting IBM Sensory Profile Study as a potent retort to the growing chorus of critics who charged his sensorial claims with lacking a scientific foundation, even promoting the test (albeit unsuccessfully) to organizations such as the Ontario Institute for Studies in Education (OISE).

In retrospect, these efforts to endow his humanistic media explorations with an aura of scientific legitimacy were almost universally judged unsound, not least by McLuhan himself (see Marchand, 1990). Judith Stamps’s (1995) assessment is particularly condemnatory, characterizing the notion that computers could quantify sense ratios as, “a grotesquely positivist reading of [McLuhan’s] sensory thesis” (p. 142). While there is undoubtedly truth to the claims that his findings were unreliable, I think Stamps goes too far in repudiating McLuhan’s efforts to test his hypotheses in an effort to rehabilitate the media thinker as a respectable critical theorist. Rather than pointing to a sheer lack of scientific training, I want to argue that McLuhan’s (1964) attempts to quantify sensory thresholds should be recognized as integral to his utopian vision of programmable environments. “Whole cultures could now be programmed,” he speculated in Understanding Media, “to keep their emotional climate stable in the same way that we have begun to know something about maintaining equilibrium in the commercial economies of the world” (p. 28). This vision of communally adjustable sense ratios developed out of McLuhan’s (1951) earlier call for a corrective “musicalization” of society as an exercise in physiological aesthetics writ large.

Whether couched in the language of musical composition or that of computer science, McLuhan paradoxically situated his sensory epistemology within a partial recuperation of the statistical instruments of an emergent information society. When located within the ambivalent terrain of McLuhan’s utopian program of societal musicalization through sensory testing and adjustment, NETCO’s VSI notations and non-verbal teaching methods can be read as a comparable “analogy to musical notation” (Brain, 2008, p. 401), recalling the auditory overtones of the physiological graphics studied by Brain.

As a form of “controlled spontaneity and guided improvisation” intended to counter the “deadening effects” (Baigell, 1967, p. 2) of conventional scripted pedagogy, Baxter’s non-verbal teaching resonates with McLuhan’s (1962) gloss on John Dewey’s attempts at “restor[ing] education to its primitive, pre-print phase” (p. 144). While this interpretation suggests a utopian intent, as usual, a satirical reading also suggests itself: Baxter’s non-verbal teaching and NETCO’s cybernetic choreography alike staging a cri-
tique of the Ramist “principle of translating non-visual matters of motion and energy into visual terms [as] the very principle of ‘applied’ knowledge” (McLuhan, 1962, p. 155). The ambivalent dynamics of NETCO’s critical pedagogy helps situate the company’s proprietary Sensitivity Information concepts in relation to McLuhan’s conflicted discourse on informationalization as illness and cure.

Conclusion

The representations of the body as Sensitivity Information found in N.E. Thing Co.’s 1976 exhibition catalogue and artists’ book, Celebration of the Body, responded to McLuhan’s ambivalent descriptions of the informationalization of the body and subjectivity under modernity. Viewed through the lens of NETCO’s satirical visualizations of the McLuhanesque body, the Toronto School theorist emerges from this re-evaluation, in turn, as articulating a posthuman version of physiological aesthetics. This is derived from an unlikely application of Aquinas’s sensory epistemology to describe the effects of information technologies on the “sensorium.” McLuhan’s and, by extension NETCO’s, engagement with the body as a producer and recorder of information is historicized by the more recent scholarship of Friedrich Kittler, whose media studies situate the informationalization of the subject vis-à-vis the emergence of psychophysical techniques for measuring and quantifying the body’s thresholds of response.

The thick descriptions of the informatic body that emerge from this careful reading of a late work by NETCO contribute to a deeper understanding of the progressive informationalization of the subject described by McLuhan, as well as artists’ reception of McLuhan’s thought in English Canada. It also resituates the Toronto School theorist’s discourse on information within a revised genealogy of physiological aesthetics and the psychophysical decomposition of subjectivity.

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Notes

1. N.E. Baxter Thing Co. was a nom de plume under which Iain Baxter exhibited prior to adopting the registered name N.E. Thing Co. Ltd. in late 1967. The company’s January 16, 1969 articles of incorporation list Iain Baxter as one of two original shareholders (the other being NETCO’s counsel and secretary, Sholto Hebenton) (see N.E. Thing Co. Ltd, 1969, January 16). The minutes of a January 18, 1969 meeting record Ingrid Baxter’s election as co-director and appointment to the office of vice-president (see N.E. Thing Co. Ltd., 1969, January 18). The same meeting minutes document Ingrid Baxter’s purchase and allotment of 2,000 company shares (valued at one cent per share), and Iain Baxter’s purchase and allotment of an additional 1,998 shares, in addition to the transfer of Sholto Hebenton’s one common share to him. The minutes of a subsequent meeting of the directors held on July 17, 1970, register Ingrid’s appointment to the office of co-president, a change also noted retroactively in the minutes of the January 18, 1969, meeting (see N.E. Thing Co. Ltd., 1970, July 17). Under British Columbia law, the corporation only ever had one “chairman”: Iain Baxter (Vancouver Art Gallery, 1976, n.p.).

2. In my view, Ingrid Baxter’s corporate role has been obscured by efforts to recuperate her activity as a form of what Helen Molesworth (2006) has dubbed “house work”: the usually invisible and unpaid domestic labour of women brought into representation by artists including Mierle Laderman Ukeles and Martha Rosler. Depictions of the co-president in such pieces as the 1969 series President of a Company are striking precisely for bringing into visibility the work of women professionals occupying...
public roles formerly reserved for men. In many ways, these representations parallel the administrative personae cultivated by Joseph Kosuth and Seth Siegelaub studied by Alexander Alberro (2003) and Benjamin Buchloh (1990). Ingrid Baxter’s corporate role thereby constitutes a form of “gender insubordination” (see Butler, 1998): a masquerade of the norms of “transnational business masculinity” (Connell, 1998 p. 16) traditionally vested in corporate habitus and sometimes conflated with the very ontology of corporations (see also Alvesson & Billing, 2009).

3. For discussions of the concept of “innervation” as developed in the writings of Walter Benjamin, see Bratu Hansen, 1999; Bratu Hansen, 2004; and Buck-Morss, 1992.

4. For a critique of Walter Ong’s construction of orality as ideology, see Sterne, 2011.

References


