Review of Albert Borgmann, *Holding onto Reality. The Nature of Information at the Turn of the Millennium*. Chicago: University of Chicago Press, 1999.

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Albert Borgmann's new book Holding onto Reality. The Nature of Information at the Turn of the Millennium (1999) continues the interrogation of the epochal significance of new information technology he began in *Crossing the Postmodern Divide* (1992). For Borgmann, the postmodern divide involves, among other things, a shift from involvement with "focal" things and practices (i.e. activities such as eating, gardening, running, and the like), to immersion in media fantasies, or the thrills of cyberspace and virtual reality. Borgmann continues his defense of "reality" against the champions of the hyper or virtual realities of cyberspace and new technologies, focusing on the concept of information and its vicissitudes under the impact of new computer and information technology.

Borgmann's latest book also has millennial echoes, signalled in the book's subtitle, suggesting ways to survive the new era of information technology. Borgmann reminds us that the concept "millennium" contains a sense of both crisis and renewal, of a breaking down of the old order and the creation of a new one. It has overtones of apocalypse, that the breakdown may be catastrophic and that the emergent order may not be preferable to the old order and may indeed be inferior, perhaps disastrously so. This is indeed the thrust of a series of books that present the technological revolution as a philosophical and human catastrophe, a collapse of the real, identity, meaning, the subject and the human, as the explorers of technoculture get lost in byways of cyberspace and the information superhighway.1

On the other hand, a new millennium suggests the possibility of a better future, an overcoming of the limitations and problems of the past epoch in the transition to a preferable new age. Borgmann, however, is neither an optimist, a utopian, nor a visionary of a better future. The title of his recent book *Holding onto Reality* succinctly epitomizes his position concerning his preferred response to the radical effects of new information technology. Hence, "holding onto reality" in the face of the seductions of virtual reality, hyperreality, and the new worlds of cyberspace amounts to Borgmann's fundamental position and advice.

Borgmann bases his analysis on distinctions between three types and levels of signs, of information -- natural, cultural, and technological. Natural information for Borgmann is "information about reality," involving "natural signs," like signs of weather, the environment, or the presence of animals or other human beings. "Cultural information" arose in the transition between oral and written culture, involving the production of conventional signs in the form of writing, art works, or diagrams such as architectural drawings or musical scores which allow one to reproduce cultural forms and products. "Cultural information" can thus be for, as well as about, reality, informing practice and constructing tradition.

Much of Borgmann's text is about the genesis and structure of "cultural information," including

studies of "producing information" that focus on "writing and structure" (Chapter 6) and "measures and grids" (Chapter 7), as well as studies of "realizing information" that analyze "reading," "playing" (i.e. musical scores), and "building" (Chapters 8-10). The modes of producing information analyze the structures and constituents of information, while the latter three modes of realizing information refer to their fundamental embodiment in focal human activities (reading, playing, and building), Borgmann's riff on Heidegger's trinity of living, building and dwelling.

Borgmann provides strong historical and philosophical analyses of the origins of writing, of grids and graphics, of print and book culture, drawing on classical and contemporary philosophical sources to illuminate the structure and evolution of what he calls cultural information. Yet his analyses tend to summarize existing material on these topics rather than breaking new ground. Hence, while one might learn much from Borgmann's account of the genealogy of different forms of cultural information, a thorough-going history and philosophical critique of information for the present age remains to be written.

Yet it is perhaps the third part of his book on technological information, or "information as reality," that constitutes the heart of Borgmann's analysis of the information revolution where the stakes of his undertaking become evident. His project, as signalled in the introduction, is to provide "both a theory and an ethics of information -- a theory to illuminate the structure of information and an ethics to get the moral of its development. My hope is that the theory will lend perspicuity to the ethics, that the ethics will give the theory some force, and that, once we have understand information, we will see that the good life requires an adjustment among the three kinds of information and a balance of signs and things" (6).

Borgmann's worry is that with the advent to cultural dominance of information technology, we will lose touch with nature and natural information, as well as culture and our embodied social lives. Continuing a set of reflections delineated in Crossing the Postmodern Divide, Borgmann worries about losing touch with concrete reality and everyday life, substituting virtual relations, communities, and reality for face-to-face social interaction and enjoyment and preservation of nature. He believes that an imbalance is emerging whereby technological information overpowers concrete "reality," substituting hyperreality and virtual reality for the sort of natural and cultural forms of reality and interaction upon which the human being was focused during past millennia.

To delineate his argument, Borgmann provides in the third part of the book a philosophical genealogy of what he calls "technological information," drawing on philosophical and historical sources, replicating the procedure that he provided in his analysis of natural and cultural information. Technological information, for Borgmann, is described as "information as reality" and here his critique finds its edge. Once again, one can learn much about the genesis of information technology, its mode of information and differences from natural and cultural signs, and the epochal significance of the information revolution, although, again, there is not that much new in the way of a philosophical critique of informational technology.

Throughout, Borgmann deploys a structural analysis of signification in which signs are related to things whereby "intelligence" enables a person to be informed about a thing within a certain

context. Different signs inform differently and Borgmann is concerned to distinguish between three types of information and signs and how they relate to "reality." For his project to work, Borgmann must develop a robust conception of reality to, first, overcome the postmodern dictum that reality (and language, consciousness, et al) is a social construct, a mere effect of a specific culture or discourse system. But he also needs to demonstrate that a more fundamental and compelling "reality" is being overcome and displaced by the new (hyper/virtual)realities of cyberspace, informational technology, and new multimedia, and must persuade his readers to take more seriously and ground their lives in this more primal "reality."

Borgmann's conception of reality involves philosophical analysis with theological underpinnings and attempts at phenomenological evocation of focal and resonant natural and cultural reality. For Borgmann, "reality" consists of structure, "the how and lawfulness of a thing" (99), and contingency, "the what and idiosyncrasy of a thing" (99). In this conception, "Reality is both knowable and unsurpassable" (99). "Reality" is also contested, with different conceptions competing for allegiance. For Borgmann, "reality" has a "commanding presence" and "real gravity" (189), as opposed to the "lightness" of virtual reality.

Theological underpinnings run throughout Borgmann's arguments. Reality and things are eloquent because they are created; nature and natural reality are eloquent because they are the direct product of the Creator, God, while humans, in the Christian framework in which Borgmann operates, are also created by God, although there are intimations their own human creations can be divorced from reality, fallen into the realm of culture and eventually cyberspace and hyperreality. For Borgmann, as medieval philosophers, the significance of things "has priority over the significance of words, and the significance of things in turn arises from divine eloquence" (88). Throughout, Borgmann cites biblical and theological sources to illustrate his points and closes his book with cryptic religious millennial ruminations concerning a coming potential salvation whereby "our souls will be rocked in the bosom of Abraham" (233).

There is thus in Borgmann a sense that the ascent into cyberspace is a fall for the human being, creating a fatal imbalance between nature, culture, and technology. For Borgmann, "Righting the balance of information and reality is the crucial task. It amounts to the restoration of eminent natural information" (221). Borgmann is reasonable enough to acknowledge that: "There is no danger that technological information might entirely displace natural or cultural information" (219). Yet he fears that: "There is a real possibility, however, that natural and cultural information will decline to mere utilities, tools we need but fail to sustain as signs of irreplaceable kinds of excellence" (219).

I think few will disagree with Borgmann that we need to balance the types of information -- natural, cultural, and technological -- that we utilize and that as we venture through the realms of technological culture we need to be conscious of the importance of the natural and socio-cultural environment with its myriad forms of information and experience. Indeed, our challenge is to produce a cultural ecology that achieves that sort of balance that Borgmann wisely affirms. Yet I do not think that Borgmann himself delineates a sustainable balance as he fails, in my view, to adequately analyze and appraise the possibilities of the new technological environment. Throughout, Borgmann frequently engages in denigration and dismissal of salient aspects of the new cyberculture and displays a technophobic negativity toward this realm of experience, despite

his attempts to fairly and cogently address the nature and exigencies of the new information technology and cyberculture.

There are frequent exaggerated claims concerning the dangers and negativities of cyberculture and information technology, and some dogmatic assertions of his critical stance that will not stand up to more perspicuous critique. For instance, in appraising claims for the positive effects of information technology, Borgmann argues that growth in bandwidth, information-storing capacity, and processing power "suggests that freedom of choice today is as likely stifling as liberating" (139). But who exactly is "stifled" by such technological progress and how? Here and elsewhere Borgmann engages in rhetorical assertion rather than deploying evidence and argumentation to make his case.

In general, Borgmann asserts the "decline of meaning with rise of information" (232, passim), but this is never clearly explicated or demonstrated, and one could argue that information technology provides new venues and opportunities for the production of meaning, as well as new forms of experience and reality. Throughout, one gets the sense that information technology is an inferior source of knowledge and experience for Borgmann as when he writes that compared to lecture halls, libraries and labs:

technological information, to the contrary, comes endlessly and relentlessly pouring forth from one source to address an immobilized body via one sense. Or so it would if personal computers were a truly rich information source. As it is, the prohibitive imbalance between abundant information and severely stunted capacity is righted by reducing information to a thin trickle, tricked up into colorful bubbles (208).

In passages like this, Borgmann reveals bias and prejudice that he tries to avoid in his more rigorous philosophical and historical studies. In doing computer research, one is not necessarily more "immobilized" than in reading books, one may access a multitude of sources, including some of the world's great libraries, and with multimedia technology more than "one sense" is in play. Multimedia may enrich information with sights, sounds, and graphics, that are more than a "thin trickle" or "colorful bubbles." In such passages, Borgmann relies more on questionable rhetorical excess than philosophical argumentation, revealing a prejudice against a technology and mode of culture that he finds threatening and foreign.

To restore the balance, Borgmann sometimes exaggerates the primacy of nature over other domains, arguing, for instance: "Nothing so engages the fullness of human capabilities as a coherent and focused world of natural information" (219). Whereas in many contexts and epochs this is no doubt true, there are times when humans are fully engaged in social activity (war, labor, invention, cultural production, etc), and for many the world of cyberculture is fully engaging. A genuine balance between such things as natural, cultural and technological information requires that each realm be respected as equals, that all realms be accorded appropriate validity, significance, and reality, and that specific realms not be elevated over and against competing cultural forms and realms of life which are correspondingly downplayed and degraded.

Whereas champions of new information technology often make overstated claims for the

benefits of cyberculture over previous natural and social forms of culture and life, Borgmann frequently makes the opposite error, downplaying or denigrating technological experience and reality in contrast to natural or cultural reality. Moreover, Borgmann's critique rests on a series of binary oppositions between reality and hyper/virtual reality, and natural/cultural vs. technological information, in which metaphysical and moral primacy is bestowed on the first term of the opposition, while the latter is seen to be derivative and inferior (curiously, the distinction between focal things and practices versus the domain of technological devices which was central to his earlier thought does not surface in a major way in his latest book). A deconstructive critique could argue that "reality" and "nature" are more highly constructed than in Borgmann's account, while hyper and virtual reality, or technological information, also are salient forms of reality. Borgmann has thus not really grounded his conceptions of reality and the ethics of information in an adequate metaphysical or normative conception. Occasionally, he provides theological underpinnings to his apparatus, but does not adequately develop a robust concept of reality to play against hyper/virtual reality, nor does he provide grounding for an ethics of information that would provide the sort of normative perspective to make his arguments.

Hence, Borgmann's perspectives are somewhat free-floating, rooted more in assertion, rhetoric, and theological spin, rather than evidence or solid argumentation. Thus, while intuitively one would be willing to agree with Borgmann that we need appropriate scale in our adventures with new technologies, it is not clear that he has provided an adequate account of its novelties, benefits, and possibilities, or a genuinely balanced account of harmonious relations between our natural, cultural, and technological environments. Yet Borgmann is constantly provocative and his new book should help generate informed debate over the benefits and dangers of the shape and effects of a new mode of information and the need to harmoniously integrate this sphere into the broader dimensions of natural and cultural life.

Note

1. Such technophobic books include Martin Heidegger (1977) *The Question Concerning Technology*. New York: Harper and Row; Jacques Ellul (1964) *The Technological Society*. New York: Knopf; and a series of books by Paul Virilio including (1996) *Cybermonde, la politique de pire*. Paris: Textuel; (1997) *Open Sky*. London: Verso; and (1998) *Polar Inertia*. London: Sage. U.S.-written jeremiads against new technologies include Mark Slouka (1995) *War of the Worlds*. New York: Harper and Row; Clifford Stoll (1995) *Silicon Snake Oil: Second Thoughts on the Information Highway*. New York: Doubleday and Borgmann's earlier (1992) *Across the Postmodern Divide* Chicago: University of Chicago Press.