

This essay accompanies the *CRITICAL INFRASTRUCTURE* project, an artistic research and production residency by Jamie Allen and David Gauthier that took place as part of the lead-up to the transmediale 2014 festival, afterglow, hosted both by transmediale and the Zentrum für Kunst und Urbanistik (ZKU), Berlin. The project spanned the autumn of 2013, and received the gracious support of the Canada Council of the Arts and the Danish Arts Council.

CRITICAL INFRASTRUCTURE was about uncovering the resources and reserves of physical and material energies, signals, and data that scaffold the very possibility of post-digital art-and-technology practices, including festivals like transmediale. Through a series of public workshops and an installation project situated within the festival, *CRITICAL INFRASTRUCTURE* attempted a media-archaeological and (an)archival site-survey, revealing the data layers beneath the moment(um) of an art and technology festival.

The project turned infrastructure studies into a kind of post-digital institutional critique and reflected the “geological turn” in media practice and theory by installing a large number of custom-built “survey” tripods throughout the transmediale premises. In a world where data mining and circuit-bending are increasingly literal geological and archeological activities, *CRITICAL INFRASTRUCTURE* attempted a survey of the technological landscape of transmediale, its participants, and its community.²

Jamie Allen & David Gauthier Critical Infrastructure

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David Gauthier likes to mangle many things, chiefly concepts, objects, disciplines and languages. Born in Québec, he has lived in Montréal, Banff, Cambridge, Copenhagen, and Amsterdam, doing research in puzzling places including the Banff New Media Institute, Hexagram Institute for Research-Creation, MIT Media Lab, Copenhagen Institute of Interaction Design, and the Amsterdam School of Cultural Analysis. David is currently a fellow at the Netherlands Institute of Cultural Analysis where he is researching and practicing errors.



A new poetics giving flesh to a “voice from below,” an eloquent voice of the mute. It purported to decipher the signs written on faces, walls, clothes, etc., to travel under the visible stage and disclose the secrets hidden underground.

—Jacques Rancière³

With *CRITICAL INFRASTRUCTURE* we speculated on what it might be to look “down,” into, and through the sediments of a technological present. We tried to think a course not in terms of eras, generations, and epochs, but through layers, vertical gradients, veneers, and strata—driving the “post-” of post-digitality *into the ground*, not through the ages. In the *afterglow*, the hangover, of the digital booms and busts we have experienced since the late 1980s, there remains the evidence of a very real layering of matter: the dirt and dusts of the digital systems, interconnections, and protocols that feed from and wrap the Earth. What *matters* (that is, presents itself through its material agency) is technical trash, overfilled (an)archives, dendritic digital dimensions, and leaky lead-acid coffers—the bursting at the seams of attentional and intentional gutters. These gutters of dirt and dust pass to a kind of “geological thinking,” pointing to discussions of the Anthropocene and taking stock of how the technological activities that make us human have come to dominate localities and landscapes, modulating climates and environments. Human contributions to the geological record over the course

of this era will primarily show the effects of technical media: the electrification, then wiring, then wire-
lessing, of the globe; the development of more complex and complicated means for turning archives of cosmic energies into archives of digital files and documents; the transduction of petrochemistry into electromagnetic radiation. Consider how the modern engineering concepts of backward-compatibility and FIFO (First In, First Out) memory management, respectively, resonate with proto-geoscientist Nicolas Steno’s seventeenth-century stratigraphic laws of superposition and cross-cutting: “At the time when the lower stratum was being formed, none of the upper strata existed,” and, “if a body or discontinuity cuts across a stratum, it must have formed after that stratum.”⁴ *CRITICAL INFRASTRUCTURE*, a project of methodological and conceptual misappropriations, extends the work of geological and archeological media thinking. How might we perform a core-drill of media and its technical systems?

Infrastructure is not a substrate which carries information on it, or in it, in a kind of mind-body dichotomy. The discontinuities are not between system and person, or technology and organisation, but rather between contexts.

—Susan Leigh Star and Karen Ruhleder⁵

Gone is the art-and-technology of the “new media artist” that aimed at some terrifically preposterous future of art or media. Technical media is

Environments are not passive wrappings, but are, rather, active processes which are invisible. The groundrules, pervasive structure, and over-all patterns of environments elude easy perception.

—Marshall McLuhan¹

composed of embarrassingly simple and commonplace repeated elements (the micro-switching of a wireless router, the ordinary hand-to-mouse gestures of a film editor). The exciting exhilaration of “Where do you want to go today?”⁶ The depth of the problems created and solved with technical media might require an engagement that is unseductive, respectful, humble — even boring. Contemporary creative practices express a renewed resonance and interest in these purportedly boring things. Online culture and art-making that we identify as post-digital overflow is concerned with the mundane object, the muted image, and simple interactions. For example, load up a couple of Tumblrs: “Things Fitting Perfectly Into Other Things,” or “The Jogging,” with its particular brand of Duchampian maneuvering.⁷

There is a half-serious post-digital counterstrike known as The Society for People Interested in the Study of Boring Things. One of the society’s charter members, Susan Leigh Star, has described its activities, characteristically, as a list of things:

Among the boring topics presenters brought to the table were: the inscription of gender in unemployment forms used by the city government in Hamburg, Germany; the difficulties of measuring urine output in a post-surgical ward in the Netherlands, and how to design better cups for metrication; the company mascot and the slogans used by a large Midwestern insurance firm in its attempts to build “corporate cultures”; and [...] how nematologists use computers to keep track of their worm specimens [...]. [What] they have in common is a concern with infrastructure, the invisible glue that binds disciplines together, within and across their boundaries.⁸

What would an art-and-technology of these “punctualized building blocks,”⁹ these condensation points for the misty haze of technology as it ascends forever into a — or the — cloud, look like? An attention to infrastructure in artistic work can point out the links between institutional, economic, and political structures, and commonplace and material systems. These “always-on” systems allow for, and (to a lesser degree) are allowed by art-and-technology practices. These banal systems are what we are not supposed to care about, not supposed to notice, while awestruck and immersed, blown away by the spectacle, the narrative, the aesthetic. What lies beneath? “You wouldn’t be interested.” At least until something has gone, often terribly, wrong. When something works — really works — it *is* infrastructure; just as Douglas Adams puts it: “Technology [...] is ‘stuff that doesn’t work yet’”¹⁰ There are a number of ways and reasons that these things disappear, or are made to disappear, and far too many are motivated by the worrying Realpolitik of knowledge and access, and by the techno-social relations incumbent upon capitalism. There is a particular system of exchange wherein tensions between impressions and realities, the politics of knowledge, at individual and community scales, become highly pronounced. Bureaucracies and institutions express a set of techniques that are also present in the design and development of technical infrastructure: abstraction, compartmentalization, classification, oblivious interiorities, optimization — the list of tendentious strategies spins round and round, centrifuging imbalances of both knowledge and power.

More interesting than visibility through breakdowns are instances where infrastructural performers and human actors do an explicit double-act. A favorite story regarding such a vaudevillian ploy involves one Harvey

transmediale/conversation/piece transmediale Marshall McLuhan Lecture by Sara Diamond: Anxious to Sea Change, Talk, 02.02.2016 transmediale 2015 CAPTURE ALL Three Questions on Media Criticality, A Critical Media Salon, Workshop, 01.02.2015 transmediale 2014 afterglow artwork: Critical Infrastructure / McLummatons 14:1 Counter-Environment Infrastructures and Substrata of the Global Village, Conference, 01.02.2014 / afterglow effects: transmediale 2014, Opening Ceremony, 29.01.2014

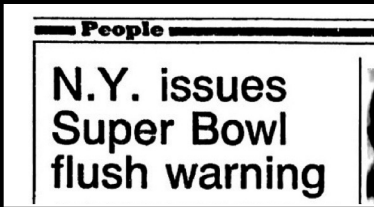


transmediale 2014 afterglow Artwork: *Critical Infrastructure* / afterglow effects: transmediale 2014, Opening Ceremony, 29.01.2014 / McLuminations 14-1 Counter-Environment Infrastructures and Substrata of the Global Village, Conference, 01.02.2014



“What a useful thing a pocket-map is!” I remarked.
“That’s another thing we’ve learned from your Nation,” said Mein Herr, “map-making. But we’ve carried it much further than you. What do you consider the largest map that would be really useful?”
“About six inches to the mile.”
“Only six inches!” exclaimed Mein Herr. “We very soon got to six yards to the mile. Then we tried a hundred yards to the mile. And then came the grandest idea of all! We actually made a map of the country, on the scale of a mile to the mile!”
“Have you used it much?” I enquired.
“It has never been spread out, yet,” said Mein Herr: “the farmers objected: they said it would cover the whole country, and shut out the sunlight! So we now use the country itself, as its own map, and I assure you it does nearly as well. Now let me ask you another question. What is the smallest world you would care to inhabit?”
—Lewis Carroll¹¹

Schultz of New York City. During a press conference in advance of the 1987 National Football League Super Bowl game, Schultz hinted to the public at large that it might be a good idea for football fans to “stagger their bathroom visits” during the game — so as to avoid a potentially hydraulically catastrophic “Super Flush.” The exacting news outlets of the moment took the story and ran with it. Hearsay about the Super Flush is an important mechanism for unveiling infrastructure in the minds of we who use it unwittingly. The important thing about Schultz’s peculiarly artful institutional critique that day at the press conference is not whether or not what he said was true (it was not), but that it made present, perhaps for the first time, that New Yorkers have toilets: they are each part of a massively interconnected system, all connected to an otherwise unnoticeable aqueduct. Schultz did no less than render the infrastructure of plumbing and sewage visible in the consciousness of millions of people.



The Tri-City Herald article from January 25, 1987, reporting on the possibility of a “Super Flush” occurring due to toilet activity during the Super Bowl football game. Harvey Schultz, then New York City’s Commissioner of Environmental Protection, urged “Don’t rush — and think before you flush.”

The performance of infrastructures, as making present unwitting, unwanted, or unthought-of systems, has its place and prelude in artist practice. The methods developed by artists and activist associated with forms of Institutional Critique treat the institutional infrastructures of art as fodder for artworks that expose and elaborate them. Institutional Critique serves

as a perforative and performative interrogation into the value and support structures of the museum, gallery, catalogue, and official welcome. For instance, among artist Andrea Fraser’s wellknown works is *Museum Highlights: A Gallery Talk* (1989). The scripted dialogue in these interventions includes not only an exposition of art historical and aesthetic concerns, but also discussions of material infrastructure (water, electrical lighting), museum sponsorship, and cultural-economic and political agendas more widely: “Jane walks into the Coat Room, gesturing toward the drinking fountain at the far end. Addressing the drinking fountain: Hmm, ‘a work of astonishing economy and monumentality’ [...] ‘it boldly contrasts with the severe and highly stylized productions of this form.’”¹¹ One thing that makes the work interesting is that it may not matter if what Fraser is saying is wholly accurate or factual. A narrated dataset of factoids and excerpts, the work presents an appropriately incoherent and unlocatable constellation of information and messaging (some lifted from official museum publications), which the audience is left to interpolate between and within. This is infrastructural theater of the super-organism of the art museum and the art world, all strings attached. But in the post-digital landscape, what could be potent for enlivening and reinvigorating this kind of theater? What could serve as a further “new departure point for what used to be called institutional critique?”¹²



Abb2. Andrea Fraser, as Jane Castleton, highlights the water fountain as part of *Museum Highlights: A Gallery Tour at the Museum of Philadelphia*, 1989.

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— that is, technological materials that are at once constitutive of social and political meaning, while reflexively analytic and self-destructive — allow art and technology practices to move “Towards a New Critique of Institutions,” as Brian Holmes suggests, through extra-disciplinary, or perhaps anti-disciplinary, approaches.¹³ A critical infrastructural study (as artwork, as whatever) might appropriate from the gray media of engineering, instrumentation, and technical disciplines, creating less of an artistic gesture and more of an articulation of live research. How “raw” can the “data” of an “art world” be, and how might it be performed for its artists and audiences? How might such infrastructural data be presented in public, such that we are prompted or called to draw an appropriate panoply of individual, evolving conclusions? There are no truths to be evoked, but relationships and resonances can be modeled and estimated, meanings evoked, tendencies charted, charts traversed; these are further attempts at living in a world we seek to understand. These are extra-disciplinary methods and strategies. Such a reassessment of the post-digital technological landscape seems

necessary: an infrastructural account of the heaving, bristling detritus the digital has left in its wake.

- 1 Marshall McLuhan and Quentin Fiore, *The Medium Is the Message* (London: Penguin, 2008), 68.
- 2 “CRITICAL INFRASTRUCTURE,” <http://criticalinfrastructure.cc> (accessed August 29, 2016).
- 1 Marshall McLuhan and Quentin Fiore, *The Medium Is the Message* (London: Penguin, 2008), 68.
- 2 “CRITICAL INFRASTRUCTURE,” criticalinfrastructure.cc, <http://criticalinfrastructure.cc> (accessed August 29, 2016).
- 3 Jacques Rancière, “From Politics to Aesthetics?” *Paragraph* 28, no. 1 (March 1, 2005): 17–8.
- 4 Michael E. Brookfield, *Principles of Stratigraphy* (New York: John Wiley & Sons, 2008), 143.
- 5 Susan Leigh Star and Karen Ruhleder, “Steps Toward an Ecology of Infrastructure: Design and Access for Large Information Spaces,” *Information Systems Research* 7, no. 1 (1996): 114.
- 6 “Where do you want to go today?” *Wikipedia*, last modified on May 15, 2016 (23:46), https://en.wikipedia.org/wiki/Where_do_you_want_to_go_today.
- 7 “Things Fitting Perfectly Into Other Things,” [Tumblr](http://thingsfittingperfectlyintothings.tumblr.com), <http://thingsfittingperfectlyintothings.tumblr.com> (accessed August 29, 2016); “The Jogging,” [Tumblr](http://thejogging.tumblr.com), <http://thejogging.tumblr.com> (accessed August 29, 2016).
- 8 Susan Leigh Star, “Infrastructure and ethnographic practice: Working on the fringes,” *Scandinavian Journal of Information Systems* 14, no. 2 (2002): 108.
- 9 Garnet Hertz and Jussi Parikka, “Zombie Media: Circuit Bending Media Archaeology into an Art Method,” *Leonardo* 45, no. 5 (2012): 428.
- 10 Douglas Adams, “DNA/How to Stop Worrying and Learn to Love the Internet,” [douglasadams.com](http://www.douglasadams.com/dna/19990901-00-a.html), <http://www.douglasadams.com/dna/19990901-00-a.html> (accessed August 29, 2016).
- 11 Andrea Fraser, “Museum Highlights: A Gallery Talk,” *October* 57 (1991): 120.
- 12 Brian Holmes, “Extradisciplinary Investigations: Towards a New Critique of Institutions,” in *Art and Contemporary Critical Practice: Reinventing Institutional Critique*, eds. Gerald Raunig et al. (London: Mayfly, 2009), 55.
- 13 Holmes, “Extradisciplinary Investigations,” 53–61.

In each apparatus, there is a hidden decision. The Good Cyberneticists from the CNRSIO spin it this way: “The apparatus can be defined as the realization of an intention through the implementation of planned environments.”

— Tiquunⁱⁱⁱ

i Marshall McLuhan and Quentin Fiore, *The Medium Is the Message* (London: Penguin, 2008), 68.
ii Joint Chiefs of Staff, “Joint Publication 3–28: Defense Support of Civil Authorities,” U.S. Department of Defense, 31 July 2013: IV–3.
iii Tiquun, *This Is Not a Program*, trans. Joshua David Jordan (Cambridge, MA: MIT Press / Semiotext(e), 2011), 154.