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CRITICAL INFRASTRUCTURE

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> *Environments are invisible. Their groundrules, pervasive structure, and overall patterns elude easy perception.*
> *(McLuhan,* The Medium Is the Massage *68)*

> *If a work of art is to explore new environments, it is not to be regarded as a blueprint but rather as a form of action-painting.*
> *(McLuhan,* Letters of Marshall McLuhan *325)*

Infraduction

The essay and ideas included here is a discussion of the topics raised through *CRITICAL INFRASTRUCTURE*, an artistic research and production residency that took place as part of the lead up to the transmediale festival, afterglow, 2014. The project's initiation 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. Through a series of public workshops, and an installation project situated within the transmediale 2014 festival, *CRITICAL INFRASTRUCTURE*'s 'post-digitality' is not only historical-temporal, but immediate, and dredged up from below, in the present. The artistic project stemming from research and public events through the project creates a media-archaeological site-survey, revealing data and depth of the present moment of an art and technology festival, in the Haus der Kulture der Welt, in Berlin, on Earth. As such, the project intends a kind of post-digital institutional critique, as well as reflecting something of the "geological-turn" in media and media theory through the landscape survey form. When "data mining" and circuit-bent archeologies (Parikka and Hertz 424), are powerful metaphors and methods for artistic knowledge practices, we perform a survey of the media-technical landscape.

The project spanned the Autumn of 2013, and received the gracious support of the Canada Council of the Arts and the Danish Arts Council, and hosted by transmediale 2014 and the Zentrum für Kunst und Urbanistik (ZKU), Berlin.

Post-digitality and infrastructure

> *[...] 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 — to travel under the visible stage and disclose the secrets hidden underground. (Rancière 15)*

If there is something of value in seeking out what "post-digital" might mean for, artists, technologists, and researchers, we first and foremost think it temporally. That is, what we grasp at is 'afters' and 'befores'—placing developments and destinies along imagined timelines. Going "post-" presupposes a hopeful and helpful epochal exit-strategy of lateral reasoning and longitudinal conclusions. Post-digitality smudges across the many real and re-imagined tendencies and nostalgias, regularities and inconsistencies that lie in the wake of a dampened digital euphoria. The result, in our current moment, seems to favour a very tight cybernetic loop, as we re-visit, re-wire, re-create, re-source, re-new, and re-surface the dreams and nightmares of 20 years of somehow anticlimactic technological emissions. The overly enthusiastic 20-something ages into a seasoned,

skeptical 30-something, embarrassingly sweeping the dusts of digital idealism from the 1990s and 2000s under an IKEA rug. But this dust sifts its way back up through the weft and weave—and we, as with other techno-utopic waves and generations before us, are called to wonder, "What happened?"

With *CRITICAL INFRASTRUCTURE*, alongside time-based concepts, we speculate another "way of seeing" the post-digital: to look down, into and through the sediments of a technological present we re-main a re-action to. If "post-" usually refers to that which comes after, let's look here at what lies below — charting a course not in terms of eras, generations and epochs, but through layers, vertical gradients, veneers and strata — driving our "post-" into the ground. The afterglow, the hangover, of the digital booms and busts we have been experiencing since the late 80s evidence a very real layering of matter: the dirt and dusts of the digital systems, interconnects and protocols that now wrap the Earth. What matters (that is, presents itself with all its material agency) is technical-trash, overfilled (an)archives, dendritic digital distensions — the bursting at the seams of attentional and intentional gutters.

These gutters of dirt and dust are passageways to geological thinking, pointing to the "anthropocene", our current geological age (during which humans and our activities have dominant influence over climate, environment). Our contributions to the geological record over the course of this era will primarily show the effects of technical media: the electrification, then wiring, then wirelessing, of the globe. For material reminders, consider how the modern engineering concepts of backward-compatibility and innovation, respectively, resonate with proto-geoscientist Steno's 17th 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." (Brookfield 143) *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?

Critical infrastructure?

> *[…] 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.*
> *(Star and Ruhleder 114)*

The mercurial character of technical infrastructure is what renders it critical in two ways. These constellations of technologies are by definition ceaseless and foundational, in the way that the U.S. Department of Homeland Security describes them:

> *Critical infrastructure are the assets, systems, and networks, whether physical or virtual, so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, national public health or safety, or any combination thereof.*
> *(Homeland Security Website)*

But they are also, in a sense critical of themselves, unstable and doomed ultimately to breakdown and failure. Paul Virilio puts frames the broad, pharmacological relation of infrastructures this way:

When you invent the ship, you also invent the shipwreck; when you invent the plane you also invent the plane crash; and when you invent electricity, you invent electrocution […] Every technology carries its own negativity, which is invented at the same time as technical progress.
(Virilio 89)

Looking at the post-digital as infra-digital (below-digital, sub-digital), outlines a superorganism. It is an image of the technical that intends to take account of specific contexts and micro-relations of both creation and use. A post-digital minerality, or elementally shows the desire, the need, to bring the digital euphoria that erupted twenty years ago down to size, down to protocol, down to implementation, down to its gritty, grimy details. The depth of the problems created and solved with technical media might require an engagement with them that is unseductive, respectful, humble — even boring. Contemporary creative practices give account of the resurgence of these purportedly boring things, having renewed resonance and interest. Online culture and art making that we identify as post-digital overflow with concern for the mundane object, the muted image, simple interactions. For examples, load up a few Tumblrs: "Things Fitting Perfectly Into Other Things" (http://thingsfittingperfectlyintothings.tumblr.com) or "The Jogging" (http://thejogging.tumblr.com), with its particular brand of Duchampian manoeuvring. Jack Strange's 2008 exhibition work 'g' — an exhibition piece where a lead ball is placed on the 'g' key of a Macbook laptop — places technological dullness on a pedestal. Gone is the art-and-technology of "New Media Artist," aiming at some terrifically preposterous future of art, or of the media. Technical media is composed of embarrassingly simple and commonplace, repeated

Figure 1: 'g' (2008), by Jack Strange. A "g" key of a laptop is held down by a lead ball, repeating the letter into a Microsoft Word document.

elements (the micro-switching of a WiFi router, the ordinary hand-to-mouse gestures of a film editor, etc.). The exciting exhilaration of "Where do you want to go today!?" digitality is set against its monstrous monotony: The repetition of keystrokes, clicks, logic gates, ethernet routers and seemingly never-ending lists. ("Where do you want to go today?" was Microsoft Corporation's global campaign slogan for most of the mid-90s.)

There is a thing that exists in the world, a half-serious post-digital counter-strike, 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 their 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." Star continues that, "what they have in common is a concern with infrastructure, the invisible glue that binds disciplines together, within and across their boundaries."

(Star, *Got Infrastructure?*) Relying on, and extending Star's discussions of infrastructure elsewhere (Star, *The Ethnography of Infrastructure*), we can sketch an outlines of a concept of infrastructure that is full of contradictions. Infrastructures are:

> *• embedded, but give themselves to experience as secreted access points;*
> *• transparent in terms of how we use them, but opaque in terms of how they work;*
> *• articulated at human scale but operational only at much larger and smaller scales;*
> *• material and systemic, as well as learned and practiced;*
> *• locally articulated, but rely on a globally "installed base";*
> *• designed to be reliable and established, but existentially insecure, unpredictable and precarious.*

The infrastructures of media-technics, is a lively area for cultural and artistic activities, and realist, non-idealized approaches to creative work. What we provide with art-and-technology are "punctualized building blocks," (Hertz and Parikka 427) and condensation points for the misty haze of technology as it ascends into "the cloud." We can no longer study or use a thing called technology: "Think of technology as a verb, not a noun." (Red Burns) Likewise, we can never claim to step outside of the technological: "I don't see an outside, but see technology everywhere, even where it purportedly is not […] Is it never not on?" (Ronnel, *The Fable of Media Technology*) Using Heidegger's terminology to discuss the experience of use, and the design of informational systems, Star writes:

> *Within a given cultural context, the cook considers the water system a piece of working infrastructure integral to making dinner; for the city planner, it becomes a variable in a complex equation. Thus we [should] ask, when — not what — is an infrastructure […]infrastructure occurs when local practices are afforded by a larger-scale technology, which can then be used in a natural, ready-to-hand fashion.*
> *(Star,* Steps Toward an Ecology of Infrastructure*)*

A fascination for infrastructure in art making can serve to 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 classically aesthetic. What lies beneath? "You wouldn't be interested," anyway. And if we do notice these underlying systems, then something has gone, often terribly, wrong. Infrastructural technologies are like DJs — you only realy notice them when they suck. *CRITICAL INFRASTRUCTURE* is a characterisation of the technological that shares much in common with the *Critical Engineering Manifesto*, prescriptive instead of the technologist :

> *The Critical Engineer looks beyond the 'awe of implementation' to determine methods of influence and their specific effects.*
> *(Oliver, Savicic and Vasiliev,* The Critical Engineering Manifesto*)*

When something works — really works — it becomes infrastructure. We give this name to something we are not enough aware enough normally to name at all. As Douglas Adams has put it, "Technology is a word that

describes something that doesn't work yet." (Adams, *How to Stop Worrying and Learn to Love the Internet*) So, infrastructures are at once easily detected and indiscernible — they are everywhere and nowhere, at once. These dynamics of appearance and disappearance, of visibility and invisibility are perhaps somewhat fundamental to what is to be technological. But there are other ways and reasons that technologies disappear, and some of are motivated by the worrying realpolitik of knowledge and access, as well as social relations incumbent of late capitalism.

The infrastructure of institutions/institution of infrastructure

There are significant impediments to understanding large and complex technologies, and one mode of invisibility is here brought about through a purposeful projection of tedium. For example, "one of bureaucracies' most effective, least appreciated weapons is its tedious technical reports. Like frigid February elections in Chicago, these fat volumes dissuade all but the most faithful." (Espeland 109) There is a particular colour of grey used in the telecommunications industry that, at least in industry folklore, has been psychologically proven to be the world's most boring colour. This cognitive camouflage marks everything technological that is intended to be uniformly dull and uninteresting. The seemingly colorless cross-connection boxes that stand aloft in the urban landscape are like tombstones of a bygone digital era, an invasive species we aren't supposed to notice the presence of. Fuller and Goffey define "grey media" as those,

> *databases, group-work software, project-planning methods, media forms, and technologies that are operative far from the more visible churn of messages about consumers, empowerment, or the questionable wisdom of the information economy. (Fuller 9)*

Figure 2: The Sichert family of cross connection and KVz — Kabelverzweiger, or "Cable fan out" — cabinets, for outdoor use. These grey boxes are used to connect trans-regional and trans-national telecommunications infrastructure to individual subscribers and households, known in the industry as "the last mile." (Image with the explicit permission of Julian von Hardenburg, Berthold Sichert GmbH management — http://sichert.com).

> *Networks can no longer be conceived of as intrinsically utopian. On the contrary, they are now the third terrain (alongside nations and markets) on which the bitter competition for wealth and power are undertaken […] they retain, in layers, older formations — network security, network discipline, and network sovereign power over life and death. (Cubitt 312)*

Infrastructures and institutions are related: they are conjoined twins — the former generally thought to be the latter's more obstinate, material counterpart. The practices of institutions create and sustain infrastructures, and, reciprocally, institutions require the channels and stratifications scaffolded by them. If infrastructures order

and delimit a kind of imperceptibly-opaque, fragile, material-technological hyperobject (Morton 130), institutions do the same kind of work for social, political and even personal life. Infrastructures and institutions may not be so different, beneath their commonplace surfaces:

> *an idea or something that has been learned can also be considered as having material-objective force in its consequences and mediations,' the understanding of the material nature of ideas, and their relation to medial activity such as reading, navigation, and calculating, has become commonplace.*
> *(Fuller 214)*

And this is where a tension between impressions and realities, a politics of knowledge, at individual and community scales, becomes highly pronounced. Bureaucracies and institutions express a set of techniques that are also present in the design and development of technical infrastructure: abstraction, compartmentalisation, classification, oblivious interiorities — the list of tendentious strategies spins round and round, centrifuging imbalances of both knowledge and power.

Histories and studies of science and technology in the industrial age are witness to multifarious accounts of dangerous and productive complicities like this (Eisenhower famously terming the U.S.'s initial version of such an infrastructure the "military industrial complex" as early as 1961 (Eisenhower, *Farewell to the Nation*)). A more personal, illustrative account comes from Colleen Black, one of 75,000 residents of Oak Ridge, Tennessee, who's war-time period in America was spent unwittingly processing uranium for the bombs dropped on Hiroshima and Nagasaki in 1945. When asked how almost the entire population of the town could have worked in the processing facility, without knowing its incendiary purpose:

> *You'd be climbing all over these pipes, and testing the welds in them. Then they had a mass spectrometer there, and you had to watch the dials go off, and you weren't supposed to say that word, either. And the crazy thing is, I didn't ask. I mean, I didn't know where those pipes were going, I didn't know what was going through them […] I just knew that I had to find the leak and mark it."*

Ms. Black is here speaking of a fearsome impedance matching sometimes achieved by institutions and infrastructures. When capitalism, its institutions, and comprehensive technologies collude, no one needs to know anything: "If somebody was to ask you, 'What are you making out there in Oak Ridge,' you'd say, 79 cents an hour." (National Public Radio, *Secretly Working To Win The War In 'Atomic City'*)

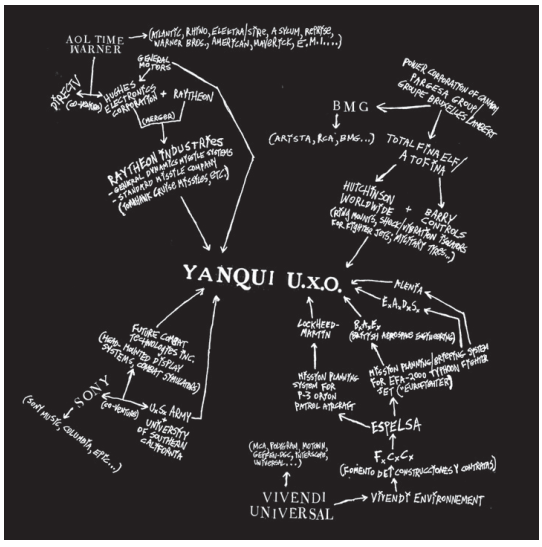


Figure 3: Godspeed You Black Emperor!'s Yanqui U.X.O. back cover, showing relationships between music publishing and recording industries and the military-industrial complex. (Used with the permission of Don Wilkie, Constellation Records, Montreal, Canada).

So, nobody gets to know everything. Technologies, when they become infrastructural, are never fully understood by any one. Try asking a car mechanic to fix household plumbing, a supercomputer programmer to reconfigure a Microsoft Windows network, or a WordPress php coder to build a robot. There are vectors of re-integration, signs of domain hopping, but by and large and more and more we just have to "find the leak and mark it," and wait for the cable repair man to show up. And these contradictorily interdependent-autonomies manifest themselves all the way down. The telecommuting MacBook Pro graphic designer and the resident of a developing-world megacity are different in every way, save this: each is subject to the imposed vulnerability and inflicted impotence of institutional, technical infrastructures. The result is a devolving chain of irresponsibility (where responsibility is "the ability to respond," as well as its more common meaning). As these infrastructural systems ascend from our physical, then from perceptual, then our conscious realities, we are called upon to think about them less and less, and the consequences get more and more gnarly. It get to the point that even when we would like to find out where the pipes are going, and what is going through them. When confronted with highly complex technological systems, "individuals [are] simply incapable of bearing full responsibility for their effects," as Jane Bennett discusses in attempting to trace causal logic (blame) to the North American power blackout of 2003. (Bennett 24)

Globally, the scaffolding of institutional and governmental power through technological artefacts, often taking the form of territorialisation through instrumental measurement, has long been part of the infrastructural bargain. Techniques include, "dependence on imported equipment rather than self-sustaining networks, and an absence of R&D in the colonized territory." For electrical power, for example, these are "techniques which keep the regional power companies in thrall to larger global corporate networks of goods and services." (Cubitt 314) Information and network archivic infrastructures work in the much the same way — cartographic mapping and scientific investigation (as "quantification" movements of the 18th and 19th centuries) were serviceable preludes to Western European powers' dominion over the new world, the Indian subcontinent and Africa, among others. German and British geographers, map makers and natural scientists certainly thought themselves to be doing a great, inherent service to the world. And the preplanning of today's contemporary superpowers seems no less an irreproachably admirable bargain: Google just wants to know, and we just want free email.

Measuring Infrastructure

> *Whenever things were frightening, it was a good idea to measure them. (Kehlmann 16)*

The promise that base metals supposed for the alchemist, and the capacities that scryers gave to globes of rock crystal, is the promise that "data" brings to our present moment. Richard Wright's essay for *Software Studies, A Lexicon* (2007), points to the archive fever and historical anxiety from which contemporary techniques of data visualisation arose: "In 1987 the US National Science Foundation published their 'Visualisation in Scientific Computing' report (ViSC) that warned about the "firehose of data" that was resulting from computational experiments and electronic sensing." (Fuller 78) Artists, "creative technologists," designers, programmers are, right this moment, developing an enormity of alternate perspectives on comma delimited lists,

spreadsheets and other seemingly humdrum data formats and sources. The tools they employ often involve a surprisingly potent mix of simple statistical techniques, aesthetic schemes, and data massaging.

But the whole endeavour reveals a quintessential epistemic irony of our data-age: Data is collected in order to characterise the truth of an object or event. But, having collected too much data, of a kind that is impossible to comprehend directly, we elaborate a whole literature of symbols, infographics, explanations and visualisations. As Vilem Flusser puts it,

> *every mediation between man and the world, [is] subjected to an internal dialectic. They represent the world to man but simultaneously interpose themselves between man and the world ("vorstellen"). As far as they represent the world, they are like maps; instruments for orientation in the world. As far as they interpose themselves between man and the world, they are like screens, like coverings of the world.*
> *(Flusser, "Our Images")*

We drill-down, slice and sieve the database — digital dowsing, attempting to "strike oil," or to "sift gold" from these stratifying datasets. And here again is why geological thinking is more than an inter-disciplinary conceit. We find ourselves inventing a new tectonics of the database, an elaborate succession of measurements and multiple-working-hypotheses, that we hope will bring us closer to the realities we seek to characterise. But, there is much to be said for the insights wrought by perspectivally looking at the data. Perhaps "a landscape is best viewed with a single source of light — the sun, one light bulb, a lone candle, a lone writer — so that all the shadows and highlights are true to each other." (Coupland, Extraordinary Canadians) In order to study something highly non-linear, perhaps we must first arrange it, slice through it, in or with a line.

Infrastructures, networks of materials and people, piping and protocols, seem a favorable source for ever more data, to be distilled and visualised. Operating at the dashboard — via interfaces that try to convey new understandings via illustration — we can decide to engineer awareness in almost innumerable ways. Can we imagine an "infrastructural proprioception" of a kind similar to the "social proprioception" that the social media allows for? (Thompson, *Clive Thompson on How Twitter Creates a Social Sixth Sense*) There will exist a data-space for infrastructure, all the way up, and all the way down. It would seem that withdrawn technological entities call us toward then, inevitably in this way:

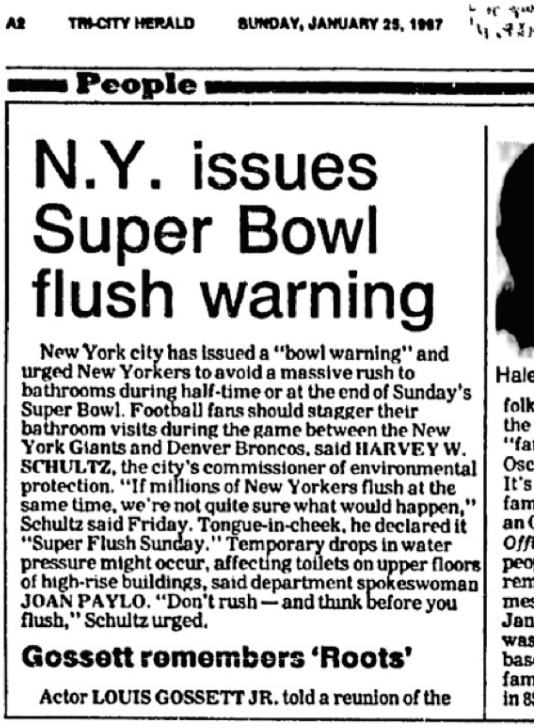
> *Thus what is a mere procedure of mind in the translation of sense-awareness into discursive knowledge has been transmuted into a fundamental character of nature. In this way matter has emerged as being the metaphysical substratum of its properties, and the course of nature is interpreted as the history of matter.*
> *(Whitehead 16; qtd. in Latour 43)*

Performing infrastructure

Technology slips from the invisible to the visible in a number of ways, some already outlined, and some more intentional and performative than others. The most obvious is perhaps through internal or external failure. This breakdown, as self-critique by and of infrastructure itself, is a reading that Sean Cubitt gives of McLuhan's influential

description of electric light: “The electric light is pure information. It is a medium without a message.” (McLuhan, *The Medium Is the Massage* 15) Infrastructural breakdown, here the example and existentialism of electricity and light, can be “an assertion of the criticality of the medium to our innately communicative species.” (Cubitt 15) When a large power blackout happens, it increasingly means a complete severing of all cultural communicative ties—arenas for public and private interactions are artificially lit, and social spheres (in the West, at least) are nearing complete metastasis from situated to networked, analog to digital, neighbourhood to online.

More interesting than breakdowns are instances where infrastructural performers and human actors do a more explicit double-act. A favourite story regarding such a vaudevillian ploy involves one Harvey 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 rendering of infrastructure in the minds of we who would 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: New Yorkers have toilets, they are each part of an massively interconnected system, all connected to an otherwise unnoticeable aqueduct. Schultz did no less than to render the infrastructure of plumbing and sewage visible, in the consciousness of millions of people.



A2 TRI-CITY HERALD SUNDAY, JANUARY 25, 1987

People

N.Y. issues Super Bowl flush warning

New York city has issued a "bowl warning" and urged New Yorkers to avoid a massive rush to bathrooms during half-time or at the end of Sunday's Super Bowl. Football fans should stagger their bathroom visits during the game between the New York Giants and Denver Broncos, said HARVEY W. SCHULTZ, the city's commissioner of environmental protection. "If millions of New Yorkers flush at the same time, we're not quite sure what would happen," Schultz said Friday. Tongue-in-cheek, he declared it "Super Flush Sunday." Temporary drops in water pressure might occur, affecting toilets on upper floors of high-rise buildings, said department spokeswoman JOAN PAYLO. "Don't rush — and think before you flush," Schultz urged.

Gossett remembers 'Roots'

Actor LOUIS GOSSETT JR. told a reunion of the

Figure 4: The Tri-City Herald article from January 25th, 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.”

Along with breakdowns (hoaxed or otherwise), we could add a further mode to the ways in which infrastructures move from the mysterious to the manifest. Correlation, a process known to statisticians and scientists that serves to establish links between data derived from individual processes, can further serve to elucidate infrastructures. Marshall McLuhan expressed correlation in a more felt manner, emphasizing an underlying inclination of systems and people toward patterns and connectivity:

> *When information is brushed against information […] the results are startling and effective. The perennial quest for involvement, fill-in, takes many forms.” (McLuhan,* The Medium Is The Massage *103)*

Consider a phenomenon known to exist in the United Kingdom power industry known as "Television Pickup." By quite a large majority, the English like to make tea, and watch television drama. Whenever a particularly popular drama or sport programme on the BBC ends, the entire viewing public gets up from their television and makes tea. During these mass-brew events, millions of electric kettles are turned on all at once, just prior to which the national electrical grid system goes into mini-emergency mode. The largest pickup recorded for the TV drama *East Enders* happened on April 5th, 2001, when an estimated 22 million viewers watched to find out 'Who shot Phil Mitchell'. (BBC 2007) The post-episode power load by 2290 megawatts and the population of the UK at this time was 58.7 million. (Wikipedia United Kingdom Census 2001). Television Pickup is a correlation between media, behaviour and electrical supply — and it is this correlation, revealing unexpected infrastructural causalities, that allows for an awareness of subsystems, and how they interrelate. (British Broadcasting Corporation, Britain From Above) Through unexpected correlation and causal relationships, technologies are drawn out from their transparent fog, their immanent and pervasive haziness.

The performance of infrastructures, as the rendering present of 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 institutional infrastructures of art as fodder for artworks that expose and elaborate them. Institutional Critique, serves as perforative and performative interrogation into the value and support structures of the museum, gallery, catalogue and official welcome. Amongst artist Andrea Fraser's well-known works is *Museum Highlights: A Gallery Talk* (1989). The scripted dialogue in these

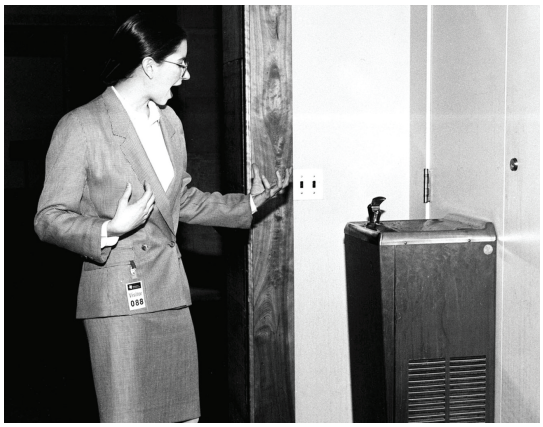


Figure 5: Andrea Fraser, as Jane Castleton, highlight the water fountain as part of the *Museum Highlights: A Gallery Tour*, at the Museum of Philadelphia, 1989.

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 stylised productions of this form." (Fraser 120)*

One thing that makes the work interesting is that it may not matter if what Fraser is saying is wholly accurate of 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), that the audience is left to interpolate between and within. This is infrastructural theatre of the superorganism of the art museum, and the art world, all strings attached. But what in the post-digital landscape could be thought potent for enlivening and reinvigorating this kind of theater,

that could serve as a further "new departure point for what used to be called institutional critique"? (Holmes, "Extradisciplinary Investigations")

Interminable terminals

CRITICAL INFRASTRUCTURE — 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. (Holmes, "Extradisciplinary Investigations") A critically infrastructural study (as artwork, as whatever) might appropriate from the grey 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 modelled and estimated, meanings evoked, tendencies charted: further attempts at living in a world we seek to understand. These are extradiscplinary methods and strategies, as 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.

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