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Inhalt

Infrascapes for Media Archaeographers

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While labs might have become one particular place for investigation of the fundus of media culture, the grey underbellies of technologies are of course not restricted to the urban spaces let alone academia where one investigates them within such an analytically refined atmosphere. Surely needless to state this, but media exist in the great outdoors and as physical architectures that increasingly are of interest to media archaeographers. The already itself long-time mediated practices of landscape paintings might have been one milestone in defining key Western attitudes as to what is the landscape as an object of analysis and control, but the forms of inscription – the *graphein* – of media exists increasingly as the true landscape forming force. One particular case in point is energy – and energy infrastructures, as they both convey the enabling possibility of what counts as media (in operation, in energetic transactions, as it does in technical media culture that needs more than the cranking hand to get time into movement) and the visible forms at sites urban and non-urban. While we present a visual essay of some examples of what we call *infrascapes* – those infrastructural landscapes that are of interest to media studies as much to landscape architects and geographers – we want to acknowledge that even before these images, the landscape is already always inscribed in multiple materials and communication enabling technologies. That is the first-order archaeography before those infrastructures enable particular university institutes to analyze the epistemological side of this infrastructure. Infrascapes are then another part of what we could colloquially call the chicken and egg of media – it takes media to talk and analyze media.

Media analysis starts in landscapes, which themselves include both historical and ecological aspects of multiple dimensions. One definition would actually be that landscapes are energy, and energetic transactions, as are media – as are infrastructures, bundling all three as an entangled entity. In Pierre Belanger's words:

Fig. 1: A collapsed electrical power box in Kruunuvuorenranta that serviced the nearby jetty for oil tankers. The soil around the site is contaminated and toxic from years of spillage. Garbage and driftwood accumulates on the shore, presumably from the peninsula of Helsinki, as well as from the Baltic Sea (Kruunuvuorenselkä). Location: Laajasalo Oil Port, Helsinki, Finland, 2018. ©Samir Bhowmik.

> As an open and porous system of exogeneous and endogeneous processes, urbanization can be expressed through multiple ecologies and different flows, materials, and vectors made of counterintuitive and often contradictory couplings of waste (residuals and detritus), water (fluids and hydrologies), energy (fuel and power), food (biota and habitats) and mobility (speed, transportation, communications).[1]

So if we approach this also as an apt description of the infrastructural as a form of inscription, we start to understand how the visual, material, and energetic are present as different dimensions of this situation. These sites of inscription also remind that whatever prejudice – historical or theoretical – might have separated so-called nature from so-called technology, the two are present in the long tails, trails, and underbellies of the mediated city.

According to the by now worn-out assumptions that states how nature stands for purity and a primary ground, infrastructure that is urban societies' as likely candidate for the ‹ground›, is treated like something artificial, mundane and hidden from public view despite its often stated centrality as part of civic society.[2] The somewhat idealizing view of nature versus the indifference toward infrastructure impedes a proper understanding of the expanded scales of what counts as media as part of the earth and its life forms. Hence it has become clear in past years of scholarship that the concept of what constitutes the ‹environment› or ‹nature› itself needs to be rethought to include media as its constituent, productive and dynamic part. It begs a question: whether nature is in fact infrastructure, and infrastructure nature? What it is, is at least, messy and dirty. Or in Shannon Mattern's words, this concerns «urban media histories [that] are cyclical, entangled, a messy mix of discourses and dirt, imaginaries and I-beams, sketches and sensors».[3]

An apparent disconnect between nature and infrastructure, earth and media in the (so-called) Anthropocene cannot be merely a binary struggle of

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1   Pierre Belanger, Landscape as Infrastructure: A Base Primer, London/New York 2017, Preposition 8.

2   Lisa Parks, Technostruggles and the Satellite Dish: A Populist Approach to Infrastructure, in: Göran Bolin (ed.), Cultural Technologies: The Shaping of Culture in Media and Society, New York 2012, pp. 64–84, here p. 66 (on infrastructural illiteracy).

3   Shannon Mattern, Code and Clay, Data and Dirt: Five Thousand Years of Urban Media, Minneapolis 2017, p. xx.

Fig. 2: Garbage sign by the brownfield of the decommissioned oil port infrastructure in Kruunuvuorenranta. Massive hills of poisoned and toxic land remain fenced off behind the oil silo (No. 468) in the background now repurposed as an arts performance venue. Location: Laajasalo Oil Port, Helsinki, Finland, 2018. ©Samir Bhowmik.

this or that but this that co-constitutes that. Gabriele Schabacher refers to the «anthroturbation» that is the transformative force that runs through «landscapes, soils, oceans and the atmosphere.»[4] It also arranges infrastructure as inherently a *temporal* material system. Susan Leigh Star writes how «infrastructure does not grow *de novo*; it wrestles with the inertia of an installed base and inherits strengths and limitations from that base».[5] This is clearly evident in how infrastructures of energy are inscribed over nature that not only draw strength from the geologies and topographies but also are faced with nature's own whimsical challenges that unfold at times in most unexpected ways. These whimsies can stem from excrement from birds perching on transmission towers causing disruption in distribution or destruction caused by hurricanes in the Caribbean. Or, as in Japan, Fukushima inscribed on the land by the Pacific to take advantage of the site, a steady source of water, was eventually overwhelmed by geological shifts in the Earth's terrain, and now a site of radioactive waste.

While a layering of matter and energies are present in all infrastructural interventions (inscriptions), energy infrastructures are also a result of many fields of human activity, including the technical, the scientific, the economic, the political and the organizational. Hughes insisted that electrification is a cultural artifact:[6] The growth of energy generation was intrinsically tied to the land, its material resources and cultural contexts. Yet, as electricity has become almost ubiquitous in the 20th century (at least in so-called developed countries), it faded into the background as infrastructure that comes out only at moments of its abrupt cuts, fossil fuel waste and pollution effects, and enthusiastically boyish discourses of innovation as to new industries of energy (the sort often attached to the figures such as Elon Musk from e-cars to rocket trips). The original fire and combustion that is channeled as energy and re-enacted through our media devices has been buried under the layers

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4   Gabriele Schabacher, Abandoned Infrastructures. Technical Networks Beyond Nature and Culture, in: Zeitschrift für Medien- und Kulturforschung, Vol. 9, Issue 1, 2018, pp. 127–145, here p. 127.

5   Susan Leigh Star, The Ethnography of Infrastructure, in: American Behavioral Scientist 43, No. 3, 1999, pp. 377–391, here p. 382.

6   Thomas Parkes Hughes, Networks of Power: Electrification in Western Society 1880–1930, Baltimore/London 1983.

Fig. 3: Electrical transmission pylon at Hietaniemi overlooking the Baltic Sea (Seurasaa-renselkä). It is one of the many towers dotting the outer edges of Helsinki used to carrying electricity from the power generating plant nearby in Salmisaari to the northern parts of the city. Location: Hietaniemi, Helsinki, Finland, 2015. ©Samir Bhowmik.

of infrastructures and remain concealed from the public imagination. In John Durham Peters' words, reminding of the centrality of fire for/as media: «As Plato said, without fire, nothing would be visible. Combustion, says Pyne, goes together with cognition.»[7] Infrastructure arranges things visible and thinkable.

Today, the power plants dot the city with their chimney stacks, billowing clouds of smoke, they feast on hills of coal, occupying multiple blocks of the city. These are strategic and long-term inscriptions on the land. Whereas the transmission towers and pylons carrying high voltage alternating current and data cables quietly ring the outer edges of the metropolis. And, as they approach the city, they submerge under our streets and homes, reappearing inside cellars within electrical boxes and meters, through sockets into our media (and thus electrics converges with electronics). These infrastructures are visible and invisible at the same time, occasionally withdrawing from sight while at times calling attention to itself. As such, they assume a wide register of visibility, ranging from the hidden to the monumental.[8] And, unlike the stoic heavy presence of an electrical generating plant, a data center, or a brownfield wasteland, the peripheral energetic landscape is always shifting, adjusting and mutating with the needs and aesthetics of urbanity. Their inscriptions are tactical, they migrate from locale to locale. The images presented in this essay are one cartography of these sites.

Yet it is clear that the nature of these infrastructural inscriptions is difficult to visualize. According to Benson they are embedded in complex environments animated by unexpected agencies and often invisible to their users.[9] Their planetary level ecological entanglements today as intertwined with media and human societies is difficult to assess.

In many ways, attempts to visualise infrastructure – and the whole genre of even critical visual culture of infrastructure – risks undermining

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7 John Durham Peters, The Marvelous Clouds. Toward a Philosophy of Elemental Media, Chicago 2015, p. 133.

8 Brian Larkin, The Politics and Poetics of Infrastructure, in: Annual Review of Anthropology 42, 2013, pp. 327–343.

9 Etienne Benson, Generating Infrastructural Invisibility: Insulation, Interconnection, and Avian Excrement in the Southern California Power Grid, in: Environmental Humanities, Vol. 6, Issue 1, 2015, pp. 103–130.

many of the subtle, one would be tempted to say invisible, aspects of what technologies have meant. From the modern monuments of centralised forms of nation building to their more recent as monumental forms of corporate power, infrastructures as pipes, plants, highways, sewers, pylons, and cables itself become a suitable decoy for the critical visual arts. As Louise Amoore has noted in her take on cloud geographies, the temptation to be able to place data into particular locations – data centres or otherwise strategically or symbolically central architectures – should not obscure that data analytics do not just have a place but they reform place and how we see it as intensive relations with various social, economic and political uses.[10] The same applies to other infrastructures: One would not get far by mistaking the sites of these technological monuments as their only defining form, presenting one example of misplaced concreteness (to use a term from Alfred North Whitehead developed by Fuller[11]) instead of understanding how infrastructures stand in-between and as mediating locations and abstractions.

In short, infrastructure reminds any media theorist that the scale of a media object – epistemological or material – is rarely merely that room-contained object but its larger set of affordances which allow for its operation to exist. This, of course, begs the question as to what uses can artistic or visual forms of cartography of this infrastructure offer to the broad field of media investigations? One aspect, for sure, is that infrastructures cannot be understood as decontextualized art objects, even if there is a temptingly fruitful theme in considering how forms of land art since the 1960s have contributed to the expanded set of connections of architectures, landscapes and media/technology.[12]

Alongside the images we offer, let's take another contemporary example. In the photographic works by Jenny Odell (2013–14) images are cut out of

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10   Louise Amoore, Cloud Geographies. Computing, Data, Sovereignty, in: Progress in Human Geography, Vol. 42, Issue 1, 2018, pp. 4–24.

11   Matthew Fuller, Media Ecologies, Cambridge, MA 2005, p. 97.

12   Rosalind Krauss, Sculpture in the Expanded Field, in: The Anti-Aesthetic. Essays on Postmodern Culture, ed. and with an Introduction by Hal Foster, New York 1979, pp. 31–42; see also: Jussi Parikka, Earth Forces: Contemporary Land Arts, Technology and New Materialist Aesthetics, in: Cultural Studies Review, Vol. 21, Issue 2, 2015, pp. 47–75, online: http://epress.lib.uts.edu.au/journals/index.php/csrj/article/view/4317 [13.11.2018].

Google Satellite View into collages to show a non-human perspective of infrastructures that include silos, landfills, waste ponds and brown-fields. Her collages isolate the industrial landscapes from their contexts and present them as forms and shapes, in different colors. In new collages these elements of silos, water tanks and railway tracks are brought together in geometrical forms, rather than as they exist inter-twined with nature. Here she extracts out entire brownfield from their contexts and presents them as extinct monuments. Odell says:

> Even as testaments to the best in engineering, the structures take on a tragic air. They are already monuments; that is, they are monuments of a time (now) […]. This is the tragic air: that they look already like dinosaurs, like relics of a failed time from the perspective of a time when we will know better – or when we are no longer here.[13]

While the idea of landscapes as artistic forms has been part of both military and civilian form of aerial vision – the photomosaics of landscape in the age of technological media of composite photography – since the early 20th century,[14] Odell's satellite enabled visual examination reminds of the continuous importance of the abstraction that is formative of contemporary landscapes of conditions of digitality – industries of transport, energy, and more. These infrascapes are leftovers of industrial-scale inscription as well as contemporary sites of continued activity drawing whatever strength left from their previous energies. Sometimes they lie in between, in slow transformation awaiting the removal of toxic waste, a cleansing back to its original condition, towards de-inscription. These infrascapes are the sites of entanglements of energy, media and infrastructure, of successes and failures, of processes and extractions, of generation and labor. They mark sites of environmental transformation as well as the expansion of what media studies can do as part of a continuous reshifting of the scales of its investigation. For media archaeographers, infrascape(ing) can be seen both as the act of inscription on the land as well as negotiating with the remnants of the inscription for remediation.

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13   Jenny Odell, Satellite Landscapes, 2015.

14   Paul Saint-Amour, Photomosaics: Mapping the Front, Mapping the City, in: Peter Adey/Mark Whitehead/Alison J. Williams (eds.), From Above. War, Violence and Verticality, London 2014, pp. 119–142.

Fig. 4: A dying pine tree on Lapinniemi. Beyond, the power generating plant of Helsinki Energy in Salmisaari. The power plant is a combined heat and power generating station that uses coal and wood pellets producing 160 Mega Watts of electricity and 300 Mega Watts of heat for the city. Location: Salmisaari, Helsinki, Finland, 2018. ©Samir Bhowmik.

Fig. 5: The Power Generating Plant in Salmisaari occupies two large city blocks, over a reclaimed island called Pikku-Pässi (Lilla Bässen). A typical instance of energy infrastructure inscribed on as well as obliterating natural landscapes of Southern Finland. Helsinki is made up of several such reclaimed islands in the south of the city. Location: Salmisaari, Helsinki, Finland, 2018. ©Samir Bhowmik.

Fig. 6: A gigantic hill of coal that supplies the Hanasaari Power Plant forms the background for a children's park near the Sörnäistenrantatie. Location: Sörnäinen & Hanasaari, Helsinki, Finland, 2018. ©Samir Bhowmik.