

## In / visible Infrastructure: Thinking (along) with Martin Heidegger about Infrastructural Breakdowns in South Africa

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In this paper I will argue against the idea that infrastructures are *normally invisible* and only become visible in certain moments. This notion is problematic

because it is based on the idea that in the *Western* world things work smoothly and normally, while in the rest of the world breakdown is assumed to be a *normal*

state of affairs and makes infrastructures visible. Rather, I will instead focus on the more individual, less visible—although not invisible—micro-modes of infrastructural breakdowns. The approach envisaged will be theoretically grounded by thinking (along) with the work of Martin Heidegger with particular regard to his widely interpreted § 16 of *Being and Time* on tools and “tool-being.” In this text, Heidegger outlines three existential modes of concern, namely *conspicuousness*, *obtrusiveness* and *obstinacy*, which will be helpful for understanding infrastructures as conflictual terrains as well as for thinking through people’s reconfigurations of aspirations in general. In other words, Heidegger describes three different modes of possible breakdowns that interrupt the course of everyday life in such a way that one is compelled to reflect upon one’s subjectivities and, equally important, upon the things themselves. The article will thus focus on how these in/visibilities are mobilized and situated within ethnographic accounts which I am drawing from readings and fieldwork experiences in South Africa.

*Keywords:* breakdown, infrastructure, in/visibility, Martin Heidegger, South Africa

### Introduction

Considering broken sewerage pipes, a rusty grill, and insufficient electricity supply via prepaid solar panels, the article will shed light on infrastructures' inextricable intertwining with questions of temporality, and particularly their vulnerable futures, which are prone to changes, unexpectedness, and interruptions. These encounters with infrastructure will be theoretically grounded by thinking (along) with the work of Martin Heidegger. His work will provide a good point of departure for thinking through and unpacking complex stories about infrastructure's intricacies, particularly when it comes to their breakdown.

My central line of argument concentrates on infrastructure's working on in/visible levels. Thus, my focus is not simply infrastructure itself, but the *visibility* of infrastructure in particular, because more and more the visibility of infrastructure is taking center stage in popular, as well as scholarly, discourse: through *Asian Sand Wars* or *South African Toilet Wars*, to name but two contemporary developments of relevance. As Howe et al. write, "If infrastructure was previously submerged except in times of want and lack, with the growing awareness that planetary systems are being radically altered by our energy practices, infrastructure is

increasingly positioned front and center" (Howe et al. 9). To understand this global shift towards a greater visibility of and attention to infrastructure, without merely focusing on the dimension of spectacle, demands that one explores the evocations of visibility on the level of "technical micro-politics," a term and methodology set out by Antina von Schnitzler in *Democracy's Infrastructure*.

The central question, then, is whether this specific micro-visibility is always at play, and, so to speak, constantly visible, or whether it only comes to the fore in certain moments—not spectacle moments, but structural-processual, *existential* moments. Within the realm of the expanding scholarly work on infrastructure, the relationship between *visibility* and *temporality* of infrastructure has been less addressed, although both notions have been the subject of scrutiny, but separately. In the sketched panorama between normality and messiness, between smoothness and non-coherence, between "seamlessness" and "seamfulness" (Vertesi), I am situating my own approach in-between these extremes. I argue, however, against both: on the one side, infrastructures are not normally invisible and only occasionally become visible during and through spectacles, protests, accidents, and conflicts. On the other side, infrastructures are not

always seamlessly visible and thereby always fluid, always re-assembled. This goes one or two steps too far because certain processes like designing, demolishing, repair, and breakdown stick out visibly in the long and never-ending cycles of infrastructural life histories. In this paper, I will merely zoom in on one of these processes, namely breakdowns.

The article contains two substantial parts: A first more philosophically inclined part will introduce Heidegger's theory of "tool-being." Three different modes of possible breakdowns, namely *conspicuousness*, *obtrusiveness* and *obstinacy*, will be introduced through an in-depth analysis of one particular paragraph from Heidegger's *Being and Time*, published in 1927. Moreover, it will bring these theoretical contemplations into conversation with the anthropological literature on infrastructure, thereby particularly paying attention to breakdowns as infrastructure's always present and also most likely future. The second, shorter part of this article meticulously works through the ideas drawn from Heidegger's theory by presenting ethnographically informed stories based on my own research in an informal settlement as well as on ethnographic readings from South Africa. These stories from the ground will directly speak to the theory, and vice versa. Hence, inas-

much as these cases will constitute articulate exemplifications of Heidegger's theoretical scaffold, they will also disclose its limits and endpoints, as well as designate its potential, from which further directions can be envisioned. For instance, I will introduce former Bantustan bridges, sanitation infrastructures in Cape Town, and prepaid meters from Soweto. All these cases will present specific invisible micro-modes of infrastructural visibilities. In the final, concluding section I will provide prospects for how to deepen and expand this focus on breakdown by looking at its corollary moments, such as repair and maintenance.

### Broken World Thinking

In Martin Heidegger's widely interpreted §16 of *Being and Time* on tools and "tool-being" (Harman, "Heidegger on Objects and Things"; Harman, *The Quadruple Object*) he outlines three "modes of concern": "These permit the entities with which we concern ourselves to be encountered in such a way that the worldly character of what is within-the-world comes to the fore" (Heidegger, *Being and Time* 102). In other words, Heidegger describes three different modes of possible breakdowns that interrupt the course of everyday life in such a way that one is compelled to reflect upon one's subjectivities

and, equally important, upon the things themselves. I have chosen to work with Heidegger here because he is occasionally evoked, but only rarely meticulously worked through, in academic debates on infrastructure (Appel; Schwenkel; Hall 160; Jackson, "Rethinking Repair" 230; Star 380). Acknowledging Heidegger's influence in current debates like those on infrastructure in particular, my aim in this article is to reappropriate him in new ways and in different political contexts, rather than putting his texts to the side or merely vilifying them. I also emphasize that Heidegger is a great resource for allowing one to think through infrastructural breakdowns or people's moral reconfigurations in general (Zigon).<sup>1</sup> As Steven Jackson pointed out:

Social theorists of multiple stripes have acknowledged the special place of breakdown in the opening to thought of heretofore hidden dynamics, processes, powers. Take Heidegger's notion of 'tool-being,' built around the central distinction between tools that are 'ready-to-hand' versus 'present-at-hand' ("Rethinking Repair" 230).

The first of such existential moments of reflexivity, presented in *Being and Time*, is called *conspicuousness* (Auffälligkeit).

This is the simple case when objects, what Heidegger designates as "equipment," such as tools and infrastructure, "turn out to be damaged, or the material unsuitable" (102). What was, in Heidegger's terms, "ready-to-hand" (zuhanden) is now only "present-at-hand" (vorhanden). That is to say, what was part of an everyday context, now sticks out visibly and becomes a concern for reflexivity and re-adaptation. Things become conspicuous when they interrupt the taken-for-granted context in which they were embedded. These interruptions do not necessarily only occur when things break in a literal sense, but also when one simply turns one's attention to them (Harman, *The Quadruple Object* 39). "But even when I do so," writes Harman, "these things themselves are not yet within my grasp. There will always be aspects of these phenomena that elude me; further surprises might always be in store" (39). The second mode Heidegger refers to is *obtrusiveness* (Aufdringlichkeit). When "things are missing," then they are not "to hand" (103). He writes, "[t]he more urgently we need what is missing, and the more authentically it is encountered in its un-readiness-to-hand, all the more obtrusive does that which is ready-to-hand become so much so, indeed, that it seems to lose its character of readiness-to-hand" (103). For Heidegger, the "thinker of

absence,” as Graham Harman called him in *The Quadruple Object* (35), things are missing when they are temporarily not part of the context, but are belonging to or are imagined to belong to this context. The third mode of concern is labeled *obstinacy* (*Aufsässigkeit*). Things, here, are neither unusable nor missing, “but stand (sic) in the way of our concern” (Heidegger, *Being and Time* 103). These things are “disturbing to us,” they do “not belong here,” and they appear as obstacles. In most of the cases, we simply did not have the time to “attend” to them, yet (103). *Obstinacy* occurs when things demand to be integrated into the context or when established contexts are disturbed by elements from within. Steven Jackson distinguished between, on the one hand, breakdowns which occur in a functional sense *within a context*, and, on the other hand, breakdowns that come about through a *change of context* (Jackson, “Rethinking Repair” 7). The latter is the case when things and people move on, or when things and trajectories become outdated, abandoned, or left in ruins. Heidegger mainly considered breakdowns in the first functional sense. Let me give examples: These types of breakdowns can be manifold, particularly in South Africa. Often times, citizens feel abandoned or neglected, as when their houses provided

by the government begin to crack and crumble (Dubbeld). Moreover, infrastructure is sometimes missing, as when people are faced with a lack of toilet facilities, electricity supply, or housing opportunities. Thus, “invisible citizens” have to make their problem *visible* via being “legible” to the state (Robins). Furthermore, prepaid water and electricity meters, as described by Antina von Schnitzler, are constantly redesigned by engineers while resistant residents attempt to tamper with and bypass the meter. Thus, a never-ending game of “insurgency” and “counterinsurgency” follows—“an endless cycle of innovation and subversion” (von Schnitzler, “Travelling Technologies” 688). These are just three cases of infrastructural breakdown in South Africa: The fact that houses crumble means they are conspicuous; the fact that toilets and electricity are missing means they are obtrusive; and meters are disturbing, hence, obstinate. Due to the fact that meters are introduced from outside and then re-adapted, they oscillate between different contexts and therefore create disturbances, while toilets and electricity as such are belonging or are strongly imagined to be part of the context, and are thus very much demanded. Here infrastructures, understood as conflictual terrains and as conditions, come into sight in their inextricable intertwining

with questions of temporality, particularly their futures. As Edwards et al. put it in the article “An Agenda for Infrastructure Studies”, infrastructures are “indispensable yet unsatisfactory, always already there yet always an unfinished work in progress” (365). However, I am not so much concerned with infrastructure’s association with a future of progress and modernity (Larkin, “The Politics and Poetics”; Schwenkel), although this certainly plays a role in people’s framings. Rather, I am focusing on an infrastructural future that is prone to changes, unexpectedness, and interruptions. Edwards et al. write about a universal “future proof” aspired to and envisioned mainly by designers and engineers that stands at odds with a particular “future vulnerable” of what they call “real-world systems” (Edwards et al. 371; Howe et al. 6). These systems require in-situ design and redesign, constant reconfiguration and repair because one deals with infrastructural setups that can be less understood in terms of construction and building, but more in the sense of their growing capacity (369). Steven Jackson has termed these practices of “real-world systems” in a different way when he speaks of “broken world thinking” (Jackson, “Rethinking Repair”). This conceptualization starts from Heidegger but implicitly flips his concept

of “being-in-the-world” around by saying that the world most people live in is “a fractal world, a centrifugal world, an always-almost-falling-apart world” as much as “a world in constant process of fixing and reinvention, reconfiguring and reassembling into new combinations and new possibilities” (222). Repair and maintenance are the dominant practices of handling this broken world (222), and not solely coping in order to dwell in a familiar, normal world as Heidegger would suggest. In the rubric of “Repair” in the *Infrastructure Toolbox*, Steven Jackson speaks of the need to disrupt “the primacy of design and designers, as well as the equally limited dichotomy of designers and users.” Richard Rottenburg and Sandra Calkins go perhaps even one step further by referring to a general shift in the anthropological literature on infrastructure that has now turned more towards “the practice of doing infrastructure – i.e. infrastructuring in the verbal form” (Calkins and Rottenburg 254), and therefore emphasizing infrastructure’s “fluidity, openness, and adaptability” (254). Heidegger has opened up such an (ontological) turn by thinking through breakdowns and their consequences, but *Being and Time* has still too much of what I would term a humanistic and Eurocentric underpinning when always taking the

*Dasein* as a starting point and consequentially referring to a certain *normalness* and *invisibility* of functional things. Thus, I am arguing against the idea that infrastructures are normally invisible and only become visible in certain moments. This is a notion that, on the one hand, focuses too much on users’ perspectives, while, on the other hand, buys into the idea that in the *Western* world things work smoothly and normally, while in the rest of the world breakdown is completely normal. Such ideas have prevailed for too long in the discourse on infrastructure, too.

In this regard, two aspects are often reiterated when it comes to the consideration of breakdown of infrastructure. First, that “breakdowns are often a ‘normal’ part of infrastructure, in particular in the global south” (von Schnitzler, *Democracy’s Infrastructure* 9). In *Signal and Noise*, Brian Larkin does not evoke the concept of *normality* itself, but argues with the same binary, when he writes: “Breakdown and failure are, of course, inherent in all technologies, but in societies such as Nigeria, where collapse is a common state of technological existence, they take on a far greater material and political presence” (219).<sup>2</sup> Second, it is reiterated that “the normally invisible quality of working infrastructure becomes visible when it breaks: the server is down, the bridge washes out,

or there is a power blackout. Even when there are back-up mechanisms or procedures, their existence further highlights the now-visible infrastructure,” emphasizes Susan Leigh Star (Star 382; Star and Ruthleder 113; Bowker and Star; Robbins 26; Edwards et al. 369; Pipek and Wulf; Howe et al. 6, 9). In short, the “breakdown” of infrastructure in certain parts of the world is assumed to be a *normal* state of affairs and makes them *visible*. Thus, I rather follow Brian Larkin’s later conceptualizations, when he states that in/visibility is mobilized and situated: “Generic statements about the invisibility of infrastructure cannot be supported” (Larkin, “The Politics and Poetics” 336; Larkin, *Signal and Noise* 245; Bowker and Star 44; von Schnitzler, *Democracy’s Infrastructure* 9; Schwenkel 523; Chu 352).

As this suggests, I am arguing on a level that considers the more individual, less visible, although not invisible, micro-modes of infrastructural breakdowns. I am considering infrastructures that frequently suffer breakdowns, are abandoned without apparent reasons, get rusty, uninhabited or demolished, and constantly change their shapes, scales and identities. In her article on breakdowns of water provisions in postwar Vinh in socialist Vietnam, Christina Schwenkel explores infrastructure as “spectacular socialist achieve-

ments” and what she terms “technopolitics of visibility” (Schwenkel 521; Larkin, *Signal and Noise*; Appel; Chu; Howe et al.; von Schnitzler, *Democracy’s Infrastructure*). Hence, she focuses on infrastructures and their breakdowns on a more spectacular, monumental level while I focus on a more mundane micro-level. In Enkanini, in the Western Cape of South Africa, one of Stellenbosch’s informal settlements, where I carried out six months of field research in 2016, pipes break and human feces flood the street. A grill gets rusty and full of holes, and almost unusable. An illness interrupts the whole *shebeen* (bar) buzz. Or a broken cup leads to an unexpected layoff. These were some of the micro-level everyday situations with which people were confronted and whose partial stories I got to know over the course of my research.

These events speak to the future vulnerable and broken world that requires constant repair and flexibility. Christina Schwenkel has spoken about the “possibilities for new social and political collectivities to emerge around the deployment, upkeep and breakdown of technical systems” (530). I speak about less organizational forms triggered by breakdowns that provide the ground for a reconfiguration of aspirations. I am suggesting here that a focus on breakdown helps to better

understand people’s copings with infrastructures as well as their very personal aspirations that are either reconfigured, abandoned, or even more strongly pursued when it comes to a breakdown. I will now turn to some of these ethnographic accounts, thereby systematically considering the three types of possible breakdown outlined by Heidegger.

#### Modes of Breakdown

Most notably, one finds the first mode *conspicuousness* in the life of infrastructure during and after construction work; when things age or when things fall apart. A smooth reintegration into a broader societal assemblage may then no longer be possible. In regard to the temporality of this particular first mode, it is best described by what Akhil Gupta frames as infrastructure “in suspension.” Gupta describes a large-scale infrastructural project called the Colombo Port City Development Project, which in the face of constant postponements and delays was eventually suspended by the new government of Sri Lanka in 2015. “Suspension,” for Gupta, however, is not “a temporary phase between the start of a project and its (successful) conclusion, [...] between past and future, between beginning and end,” but, as he further elaborates, “(it) needs to be theorized as its own condition

of being”. Conspicuousness and suspension as a primary temporal mode often also result from a lack of maintenance. This illuminates why constructions and inaugurations are often evoked as highly visible, ritually charged practices, whereas maintenance is often forgotten and denigrated to invisibility. Rob Nixon explains it in the following way when he introduces the example of a specific bridge, the Great Fish River Bridge, which he one day became aware of, while driving through the formerly rural Ciskei in South Africa:

Construction is more glamorous than maintenance. Politicians gain kudos from erecting structures that gleam with novelty, but gain little from the quotidian business of unspectacular upkeep. Maintenance is well nigh invisible until the moment of collapse. But neglect is political – it’s unevenly distributed. The strangler figs and weaver bird, as they slowly pick apart the bridge, receive a boost to their life chances from the infrastructural neglect that is intertwined with rural misery. (7)

At my fieldsite, after a sewer pipe repair had torn apart the whole street, an enormous stench was still palpable much later. The renewed sewer pipe was, for some reason or another, still leaking, and soak-

ing the muddy settlement road days after the initial repair. I remember Grace,<sup>3</sup> a single parent of two children, who, on the very same road, grilled chicken feet every evening to make a living. Her grill was broken from too much fire. It had holes at the bottom, so that the coals and burning logs would easily fall through. A repair was made with a little wooden plank, but it was very much improvised and would not last long. These are all cases of things becoming conspicuous and eventually leading to suspension: Work and income-generation is suspended; water and sanitation facilities are interrupted. Or, as Howe et al. framed it:

Here, we witness constant deferrals and unfulfilled hopes for material benefits as people wait or improvise in order to get hold of water, electricity, transport, digital communications, and other resources and services needed, or desired, for daily life (4).

On a broader level, the second mode, *obtrusiveness* – the things which are missing – can be illustrated by the prevailing fact that people strongly demand infrastructure like sanitation, water supply, and electricity, that are simply not there – or not “at hand”. Providing a case for “obtrusiveness” from the South African context,

Steven Robins describes the sanitation infrastructure in his paper *Slow Activism and the Tactics of Legibility*: “In (sic) Khayelitsha on the outskirts of Cape Town people could not afford toilet fees” (130), they live(d) under “the everyday conditions in informal settlements [...] of open defecation, raw sewage, and the high incidence of sanitation-related illnesses” (131). Put differently, this case also demonstrates that missing infrastructure can actually have detrimental effects on people. “To improve sanitation infrastructure” residents and social activists (of the Social Justice Coalition) did not rely on “media spectacles,” “but instead deployed a variety of slow, patient modes of activism” (133), mainly self-enumeration and self-surveying. Hence, “invisible citizens” could make their situation and their infrastructural problem *visible* via making themselves “legible” to the state. Or alternatively, as I observed on a more individual level in the settlement I worked in, citizens could make their own arrangements in order to come to terms with missing services. Abby, who was employed as a domestic worker for a rich Afrikaans family that one day unexpectedly fired her for breaking a coffee cup, had her own *she-been*, that is an alcoholic beverages-selling bar. She had a solar panel which was provided by a local NGO called iShack,

but she only had it as a back-up. It would never suffice to keep three fridges and a much sought-after jukebox for her customers running. For this reason she had introduced an illegal electricity supply into the space, but it always would be finished before month end. Eventually she got sick. I also remember her saying repeatedly how tired she was. So her business was interrupted, too. It had broken down because too many things were missing: she was missing, the clients were missing, things like her jukebox music and her electricity connection were missing as well. Hence, breakdowns were multiple, some less severe, others more invasive, some less personal, others more public. Heidegger’s third mode of concern is *obstinacy*. Obstinate things appear as obstacles. They demand too much attention and therefore overwhelm us. The obstinacy of the things is, however, certainly not only relevant for the “ethnographer of infrastructure” who has to handle too much data, too many field sites with too many people (Star 383; Larkin, *Signal and Noise* 236). Obstinacy can affect anyone who utilizes the infrastructure: from government officials and engineers to end users and social activists who receive too many emails per day and who have to manage too many tasks or meetings at the same time. Either it takes only more time

or the whole nature of the thing has to be changed and/or re-adapted.

Antina von Schnitzler's writings about the prepaid meter, already briefly mentioned above, offer a case for obstinacy as the never-ending struggle to cope with and within the world. She is concerned with tracking the

technical micro-politics involving residents, engineers, and utility officials in a seemingly perennial struggle over the enforcement and evasion of payment (Schnitzler, "Travelling Technologies" 671).

The initial design of the meter as "a little coin operated machine" in 19<sup>th</sup> century Great Britain was designed completely differently in the post-apartheid South African context. The latter version operated with credits that had to be uploaded, and in this way left "no room for negotiation" (675). When designing the prepaid meter, the "sociologist-engineers" (Cressman 7) took into account that the residents would attempt to tamper and bypass the meter. In this respect, the meter, especially in the South African context, is constantly refashioned and "retrofitted" (Howe et al.). The prepaid meter, perhaps even more so than the famous example given by Langdon

Winner in his article "Do Artifacts Have Politics?" about the Long Island Bridge designed by Robert Moses, demonstrates that artifacts are endowed with 'political qualities' marked by contestation, service delivery protests, tamperings.<sup>4</sup> In this constant game of *obstinacies*, of back and forth, exemplified by Antina von Schnitzler's prepaid meter, the future is always open, always unfinished and cannot easily be dominated and secured. What is meant here is that infrastructural designers, more often than not, imagine their infrastructures to be "future proof" and universally explicable" whilst they are "invariably particular and 'future vulnerable'" (Edwards et al. 371; Howe et al. 6). This explains why I have focused on infrastructure's inextricable intertwining with questions of temporality, particularly their futures that are constantly prone to changes, unexpectedness, and interruptions.

### Conclusions and Prospects

I differentiated breakdowns, with Martin Heidegger, into three possible modes of concern: conspicuousness, obtrusiveness and obstinacy. In each case infrastructures attract attention and become visible, although not necessarily visible in a spectacular sense. They become visible in their capacity to interrupt, but also recreate the

everyday micro-politics. Three cases have been outlined: They become visibly complex in suspension and in the resulting requests for maintenance; they become visible as missing and require legibility or other improvised arrangements. They also become visible in the sense of overwhelming us with multiple demands for never-ending re-adaptions, re-appropriations, and repairs. Surely, it never ends: breakdowns of infrastructure only mark one particular, although crucial, moment in the temporal life histories of infrastructure. They do not simply become forgotten or get demolished when they break. Rather, breakdowns have all sorts of consequences. As alluded to previously, they are followed by abandonments or by maintenance, or more particularly by repair and care work. In either way a newly built and often hardly sustained invisibility succeeds or is aspired to against the too-visibility of its breakdown. Abandonment and maintenance, for instance, are two other moments in the life histories of infrastructure that are inevitably linked to the previous discussion. Care and repair in particular attempt to remake things as indiscernible, that is to *reinvisible* them (to use a slightly odd-sounding neologism).<sup>5</sup> More work needs to be done in order to explore the relationship between break-

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down and repair, breakdown and care, and breakdown and abandonment. It needs to be further explored what Larkin in relation to Nigeria termed the “constant cycle of breakdown and repair,” or what Annemarie Mol assumed, however provocatively, in her interpretations of the conjuncture of technology and care. To use Mol and de Laet’s example, we do not only *care* for the Zimbabwe bush pump, we might even *love* it (Mol and de Laet 225, 252). It is important “to attend not only to the birth of infrastructures, but also to their care and feeding over time,” as Jackson pointed out (Jackson, “Rethinking Repair”; Edwards et al.). In one word, we need more “exercise in broken world thinking” (Jackson, “Repair” 221).

In this article, I attempted to highlight the visible complexities of infrastructures and to question prevailing norms of visibility and normality in conjunction with their breakdowns. Therefore, I worked with Heidegger, as described in the first section, in order to identify specific life moments and emphasize their temporal dimensions. These concerns can be conceived of as moments – existentials – that are deeply ingrained into one’s state of being, moments where the whole structure and networks of our being in relation to all other beings comes to the fore. Apart from breakdowns and their here briefly

sketched in/visible consequences in the form of abandonments, maintenance, and repair, there are multiple other moments such as upgrading, demolition, and re-invention whose infrastructural life histories still need to be written—written with “new historiographical skills,” as Geoffrey Bowker once demanded.

## Notes

<sup>1</sup> Zigon suggests that Heidegger's vocabulary for understanding breakdowns similarly accounts for persons and not only for tools. "For although Heidegger uses such words as 'conspicuousness, obtrusiveness, and obstinacy' to describe the breakdown of tools, so too can these words be used to describe persons and certain difficult situational relationships within which one might find oneself. [...] the ethical dilemmas, difficult times, and troubles in which people do on occasion find themselves can best be described as a breakdown. Just as the hammer is usually and for the most part ready-to-hand, so too are moral expectations and dispositions" (Zigon 137). Analyzing moral dispositions of everyday life, Jarrett Zigon has spoken of a "moral breakdown" (Zigon) and the only ethical demand in such situations is "to get out of the breakdown" (139). The motivation in such moments is not fuelled by asking about what is good or bad, or how "one acts in order to be good," the only way to re-immense oneself into the everyday life is, according to

Zigon following the words of Alain Badiou, to "Keep Going!" (139).

<sup>2</sup> These views are countered by Howe et al.: "Decades later, after a proliferation of neoliberal policies in which governmental provision of public goods and infrastructures has been reduced, many of us who reside in the Global North live among the remnants: infrastructures that have been neglected, abandoned, and left to deteriorate. But it is worth pointing out that deterioration as such is intimately tied to northern neoliberal forms of governance and experience; in much of the Global South a high-functioning Keynesian infrastructural apparatus never existed. It is important that we distinguish between infrastructure that has gone to ruin and infrastructure that never was" (Howe et al. 4).

<sup>3</sup> All real names have been changed.

<sup>4</sup> Steven Robins' renderings of sanitation infrastructures can be seen in a similar light. In a more recent article together with Peter Redfield, they explore the contrasts between humanitarian designs and sanitation activism in Cape Town. They consider the contrast between an attempt to redesign the toilet according to global plans on the one side (like it is done by the Gates Foundation) and the demands for inclusion within infrastructural norms and expectations on the other side (Redfield and Robins).

<sup>5</sup> In light of future research directions, Heidegger's later work is, in some ways, even more apt to understand infrastructural breakdown in terms of rising and newly-adapting networks with all sorts of in/visibilities for all sorts of actors. His publication *Gelassenheit* expresses his vision of how to free the things from their status as objects (Brown; Harman, *The Quadruple Object*). Lassen means to let, which would easily get lost in other translations. The literal translation of *Gelassenheit* is close to composure, calmness or even patience and the prefix Ge- always signifies a gathering or an assembly in Heidegger's terms. On a more theoretical level, introducing *Gelassenheit* as a concept of his later work provides one solution of how to come to terms with his stated concerns in his earlier work. His later work might be insofar also appealing for infrastructural analysis and thing theories because it brackets a human-centered approach. With concepts of his later work such as the "fourfold" (Harman, *The Quadruple Object*) and "gathering" (Latour), one can imagine

more and plural ways in which humans and non-humans align themselves without assuming any vague and omnipresent idea of the human. The biggest shortcoming of Heidegger's earlier work here, however, arises with the fact that he assumes a visibility only upon breakdown without necessarily considering the relatedness and in/visiblens of things breaking. These are aspects, he has given more consideration in *Gelassenheit* and similar works such as *What is a Thing?* and *Building Dwelling Thinking* (Latour).

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