



# Infrastructural standby: Caring for loose relations

Annika Kühn

## abstract

This paper develops the notion of *infrastructural standby* in order to examine the organization of scheduled breaks in a transport terminal environment. Hamburg's cruise ship terminals rest on a regular basis. They do so in a world for which movement and connection seem to be constitutive. Within such a context, planned pausing becomes relevant as it accentuates processes of (partial) disconnection. It describes a mode of un-participation, yet a mode of being still somehow available. Drawing on ethnographic fieldwork, the paper argues that infrastructural standby can be described as a way to organize a tension between loosening and weaving relations. From routine pauses to their extension through COVID-19 the metastable state of terminal standby builds on careful and timely balancing work. A sociomaterial perspective of infrastructures and a growing body of (feminist) work on care help to address these practices of balancing as a way to care for *loose relations and spaces* in-between on and off, yes and no, interest and indifference. It allows examining standby as a way to care for *the possibility of repetition*: the on-going infrastructuring of loose relations without linking it directly to progress or movement.

## Introduction

Slowdown is a mundane part of infrastructural operations and emerges in varying compositions (e.g. Harvey, 2012; Weszkalnys, 2017). Infrastructures rest while waiting for an emergency (e.g. urban emergency infrastructures or critical architectures, like bunker systems, banking architectures or information

systems); flows of money, information and passengers are hindered and stuck in waiting architectures until further notice and technical compositions remain available for possible re-usage, e.g. personal computers and cell phones, transport infrastructures like roads and their side strips, or shipping terminals and railway tracks which lie idle for future use. Also, workforces, such as soldiers, dancers, flight attendants or drivers pass the time while waiting for the next assignment. Those infrastructural elements share periods of lying dormant, often invisible and ready for work. During this time, operations slip into a sleep mode, which transcends the logics of infrastructural function or failure, on and off, activity and inactivity (Bissell, 2007).

I call these phases *infrastructural standby* and aim to introduce this notion as a mode of infrastructuring (Star and Bowker, 2002), an active processing which may complicate the relation between circulation technologies and circulating flows. The term standby is well known in transport, military and technical contexts. One of its technical definitions directs us to ‘a collection of low-power modes accessed through power management’ (Meier and Siderius, 2017: 1482). Standby – within this context – displays a temporal composition ordered to reduce energy exchange while guaranteeing availability at the same time. Transposing this tension between on and off to a socio-theoretical context, it does not equate to infrastructural breakdown, nor does it refer solely to spaces of exclusion – tropes often related to infrastructural slowdown<sup>1</sup>. Rather, standby describes a mode of un-participation (Munster, 2016; McCormack, 2021), a mode of being partly disconnected and still somehow available.

The notion of infrastructural standby I propose here emerged from on-going fieldwork within Hamburg’s port environment. Researching cruise terminals drew my attention to a specific standby mode of *planned pausing*. Within

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<sup>1</sup> Asking for slowdown within infrastructure theory leads to breakdown and its afterlife (e.g. Star 1999; Stoler, 2008; Starosielski, 2012; Gordillo, 2014); breakdown as an integral part of everyday environments (e.g. Simone, 2015; Amin, 2016); slowdown as a moment of exclusion and (unplanned) discontinuity (e.g. Harvey, 2012; Knox et al., 2015; Weszkalnys 2017), in particular in the form of an infrastructural practice of keeping bodies governable within precarious waiting spaces for months, years and whole lifetimes (e.g. Joronen, 2017; Jeffrey, 2008; Manpreet and Bandak, 2018; Agier, 2018).

cruise ship environments the transformation of terminal facilities and workers from service into standby (and vice versa) becomes a continuous, repeated and default operation. Cruise ship terminals transform when ships arrive and leave. And they do so on a regular basis. This repetitive rhythm of service and standby invites an observation of the specific case of standby as *planned pausing*. It allows the researcher to extract its specific components against other forms of standby, for example standby within emergency environments of disaster infrastructures or within military contexts and their ‘high readiness’ or ‘reserve’ troops, where standby endures much longer and/or its transformation into service is hardly plannable. However, it also differs from various everyday infrastructures in standby service: while the use of cruise ship terminals must be planned well in advance (usually two years), public infrastructures such as stairs, revolving doors or roads lack the need to plan each individual usage.

This note concentrates on Hamburg’s three cruise terminals in order to extract systematic components of standby as a mode of *planned pausing*. It will show that standby, in this case, can be described as a form of infrastructuring looseness: the caring for loose relations and spaces in-between on and off, yes and no. In order to do so, the paper weaves its lines around short empirical vignettes of this transport context where standby becomes a mundane and logistical operation of ordering loose relations. The note follows the recurring rhythms of pausing and engages with the tension described above as a transformative force allowing infrastructures to switch between standby and service. It engages with operational routines but also with their interruption: following the unexpected outbreak of COVID-19 shows that docking a ship does not simply turn the relationship between active/passive, mobile/stilled upside down but keeps complicating their relation. Although a critical engagement with the highly contested cruise ship business may seem tempting, this paper concentrates on the operative processes between circulating flows and circulation infrastructures. It asks how standby complicates temporal folds of circulation technologies without any a priori attribution of stillness and movement, on and off, activity and inactivity.

## Moving infrastructures

The notion of infrastructural standby directs us to an intensive debate on ‘mobilities and moorings’ within early mobilities studies (see Hannam et al., 2006; Adey, 2006; Söderström et al., 2013). Stillness is emphasized here as one variety of movement and points to unevenly distributed power relations ‘where the speed of some comes at the expense of others’ (Bissell and Fuller, 2011: 4). Adjoining this important debate, Bissell and Fuller suggest considering ‘how stillness might emerge through other configurations of matter which are not necessarily reducible to the dialectic of mobility and immobility’ (*ibid*: 6). In a similar way, critical infrastructure studies tend to emphasize the potentiality, multiplicity and indifference of the stilled and slow-downed (e.g. Adey, 2010; Knox et al., 2015; Merriman, 2016; Harvey and Knox, 2015; Venkatesan et al., 2018). In various ways, this literature conceptualizes infrastructures as *evolving* entities, which not only *enable* movement but *are* their very own movement (Bowker, 2015). They only endure and keep their shape because of practices of maintenance, repair and re-usage (e.g. Graham and Thrift, 2007; Jackson, 2017; Denis/Pontille, 2020). Consequently, large infrastructures, such as airports, data centres or train stations are understood as reliable and solid anchors that organize circulation *and* as moving materiality, which is constantly changing and becoming connected anew. Thus, infrastructure is a moving target embracing various temporalities, like enduring, acceleration, spontaneity, latency, slowing down and delay (Anand et al., 2018). Within this framework, cruise ship terminals become relevant way beyond their ability to *enable*. Rather, they (re-)direct our attention to local processes of connecting and disconnecting within sociomaterial configurations. Simultaneously, with an interest in temporality infrastructure theories go beyond a narrow concept of hard materialities. In particular, elementary, affective and imaginative compositions are infrastructuralized (e.g. Stewart, 2014; Peters, 2015; Bissell, 2015; McCormack, 2016; Berlant, 2016), calling into question the picture of a long-term structure made out of stable and enduring materiality and inviting alternative perspectives on (infra)structuring mechanisms, such as the affective and imaginative.

Nevertheless, while the definitions of infrastructure have changed, the emphasis on motion and connectivity has intensified. Infrastructure is what binds us to the world in movement, writes Lauren Berlant (2016), inspiring us

to focus on the more or less moving connections that organize our worlds. Within such a context, planned stillness becomes relevant as it accentuates processes of (partial) disconnection. Standby raises questions with regard to infrastructure approaches which may include: how pauses are integrated and organized in a world for which movement is constitutive; how pausing organizes these infrastructural worlds; and how access and repeatability can be guaranteed in a constantly moving world of spatiotemporally distributed actors. Both the constant possibility of (sudden) detachments and the (almost unnoticeable) energy flow between entities on standby generate a *looseness* of connections that might at any time fall apart as it may integrate various elements standing-by (Knox et al., 2015; Stäheli, 2018; Kemmer et al., forthcoming). An infrastructural turn on standby follows this looseness of connections and asks for its ordering mechanisms. It describes standby as a desire to order the availability of formations between ‘not-yet’ and ‘no-more’.

### **Standby as a circular and metastable movement**

Around 200 cruise ships arrive in Hamburg per year, with high season between May and October and very low traffic during Northern European winter (November-March). Cruise tourism is a controversial practice that has led to huge protests, most prominently in European cities, like Venice and Dubrovnik. The international turmoil has left its mark. Nevertheless, the city of Hamburg plans to expand its business: sustainably, as they say in interviews (Kühn, 2017). Along with this infrastructural expansion, cruise pollution, alternative energy supply and working conditions on cruise ships are well-discussed political issues. However, besides one single political investigation (Bürger-schaft der Freien und Hansestadt Hamburg, 2013), it remains mostly unquestioned in political debate that cruise ship terminals remain on standby most of their time: kept in readiness, i.e. heated, maintained, constantly cared for, but remaining inactively waiting, occupying public spaces. This may at least in part be due to what Pawley describes as the very architecture of terminals as box-like buildings valued for their invisibility and functionality. Following Hönke and Cuesta-Fernandez (2017) on port areas, these boxes are gateways that link, order and territorialize global flows of ships and passengers. However, without their counterpart, they slip into the background where they reliably stand-by and become a logistical promise for the movement of others’.

During standby they are maintained regularly and re-used as event-locations. Standby durations vary from one day to several weeks, yet usage remains high enough (at least once a month) to leave them on standby – able to operate with a short lead time – and to not shut down service completely. Thus, within the cruise business, the transformation between standby and operation appears as a recurring and alternating rhythm: standby is transformed into service, service becomes standby.

This recurring rhythm of an invisible mode inspired this research project to take a closer look at standby's specifics. Similar to other transport infrastructures, terminals display a repetitive pausing form, a *circular* movement. Waiting in the classical sense is often characterized as a teleological process that serves some goal and ends with its achievement, even if further waiting often follows (Schweizer, 2008). Yet, the *specific waiting form of standby as a pause* lacks such a grand finale. Standby includes continuous transformation where each mode incorporates the following: standby embodies full operation, full operation embodies standby. An image that illustrates this 'turn around'<sup>2</sup> is the hourglass. In art it serves as a symbol of transience honouring the moment and pointing out that everything will eventually be over (Jünger, 1954). In everyday life, it is more familiar as a mundane instrument to measure time. In the form of a kitchen alarm, a toothbrush or sauna clock, it also emphasizes an approaching yet desired ending. A given amount of loose sand grains trickles from one glass through a constriction into another. As soon as all has reached the bottom, the process ends. The *architecture* of the hourglass, however, allows, even demands refusal of this ending; it demands to ephemeralize it straight away by turning the hourglass upside down and start the game all over again. (Terms, like 'to set a watch', point to the entrance of this mechanics into the use of language (*ibid*: 131)). Two identical sides allow the change and interchangeability of beginning and ending at every moment within the process without changing the function of the hourglass. This interplay illustrates the circularity of the process between standby and operation. Infrastructure formulates the ending as always only temporary – the hourglass (only) sleeps (*ibid*).

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<sup>2</sup> The arrival and leaving of a ship and the exchange of all of its guests at one port is called 'turn around'.

This continuous folding of time, the recurring deconstruction of beginning and ending, urges us to engage with moments of transition. Standby's technical origin suggests engaging with transition as a change of *tensions*. Simondon's techno-philosophical idea of metastability (2009) dedicates attention to transformation processes and declares tension as their condition: every system possesses conflicting energies, which are the driving force of change. Thus

[t]he individual as Simondon conceives it is not opposed to difference but is born out of tensions and sustained by tensions - it even evolves thanks to these tensions. (Hoel, 2018: 260)

Simondon describes these tensions as metastability, 'which is very different from stable equilibrium and from rest' (2009: 6). Transformation and the (always only partial) actualization of potential means the re-organisation and re-distribution of materiality and the modification of systems (*ibid.*; Combes, 2013; Hoel, 2018). Thus, tension is a prerequisite for transformation, and for changing cooperations. Similar to how Berlant describes objects as loosely organized patternings (Berlant and Seitz, 2013), the specific mode of standby can be addressed as a form of *infrastructuring looseness*: the infrastructuring of *loose patterns* that makes change possible without running the risk of losing everything (*ibid.*).

### Infrastructuring looseness

Standby does not necessarily mean reduced energy expenditure. On the contrary, maintaining metastable states may require as much energy and tension as operating at full capacity. To stand by, to be reachable, stilled, yet reliable means doing something. Similar to what Manning (2009) has shown for dancing bodies and Easterling for urban infrastructures (2014), holding a pose requires tension and balance work, so that the (infrastructural) body pulsates but neither flashes nor collapses. When it comes to terminals, holding a pose involves the maintenance of heterogeneous connections and disconnections (Knox et al., 2015). Susan Leigh Star (1999) already emphasised the relationality and perspectivity of infrastructures: one's infrastructure is another one's workplace. And mobility studies add, one's speed is another one's slowdown. This reminds us that speed 'is a hard-won and by no means automatic

accomplishment' (Jackson, 2017: 183). Speeding up *and* switching into a mode of standby and enduring it requires the orchestration of various processes of weaving and unweaving (Ingold, 2015).

When cruise terminals loosen their relations and transform into standby they carefully disentangle threads formerly tightly coupled and patterned (see Schweizer, 2008, on unravelling): after cruise service, soft infrastructural parts, transfer shuttles, check-in staff and media coverage – all tightly ordered during the presence of a ship – disconnect, pull back and become loose threads re-orienting within other compositions. Via technologies like protocols, timetables, contracts and incentives they remain connected to the process of cruise shipping, guaranteeing their availability when needed. Every relation within this interplay contains a specific latency time – the time needed to get ready for use – which is highly structured and ordered by port operations: for example, keeping check-in personnel in readiness involves the engagement of a port-service agency which keeps employees available all year round (often via minor employment contracts), the usage of a *morally* binding operation schedule filled in at the beginning of the season and an availability check four days in advance of the ship's arrival via WhatsApp. Employees need to appear two hours before the clocked arrival of the ship and need to be prepared and 'on standby' (as they call it themselves) at their counter 30 minutes before disembarking begins<sup>3</sup>.

Inert infrastructural elements managed and controlled by Hamburg's public company CGH like terminal buildings, quay walls and internal IT systems remain in place when turning into standby mode. Their standing-by may include various processes, from idle waiting to re-usage within other contexts. Pausing is often used as a period of weaving together: to maintain, repair, test and regularly run dry infrastructures in order to remove traces of slow but

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<sup>3</sup> After their shift, they 'take off their uniform' within the staff's wardrobe, leave the building to the subway or ferry and on several (research) occasions do not even recognize the colleagues they just worked with and now anonymously join for their ride home (author's research).

continuous decay (Edensor, 2005) and to guarantee availability and ‘clear ground’ in time (at least 10 hours before arrival<sup>4</sup>).

Standby thus works as a ‘structuring mechanism’ which requires the work and techniques of loosening and tightening, of unweaving and weaving. It orders and maintains the disconnection and distancing of various elements and secures their responsiveness in time (Anderson, 2015). Loose relationality is not a dysfunctional state, but a way to deal with complexity, as Stäheli (2018) points out with reference to Karl Weick’s work on loose couplings in organizations. It directs attention to intermingling relations and also the spaces in-between: loose spaces, which may contain latency, indirect relations and also sudden changes.

These sudden changes become traceable when engaging empirically with infrastructural standby. An early translation of standby power as ‘leaking electricity’ (Sandberg, 1993) already identifies subversive energy as its constitutive part and reminds us that standby operations also have to handle unplanned incidents. A short example may help to picture this contingency within this specific port and terminal context: In June 2016, one of the largest cruise ships able to dock in Hamburg was expected. Timing had to orient on high tide to enable the crossing of the Elbe river’s flattest point. Yet, bad weather conditions delayed its movement and it was unclear if crossing was still possible the moment the ship made it to the threshold. Notes from the next morning describe the discussion of the event in retrospective as follows:

The conversations of the employees (especially port agents) revolve around the weather conditions of the last night, which almost made the arrival of the cruise ship impossible. Container ships have already been rejected and remained outside the port area; however, the cruise ship was allowed to pass. The staff on shore followed this decision making live (via GPS until early morning). One port agent expresses her last night’s ‘fear’ about what to do if the ship would arrive with a massive delay and the case Hamburg could not be called (‘I already planned its re-routing to Bremerhaven in my head’). (Notes from the author)

When one takes into account the infrastructuring of natural elements, like water and air, the idea of a simple stilling and holding in readiness of terminal

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<sup>4</sup> Timetable for stakeholders provided for the author by port authority’s Cruise Gate Hamburg (CGH).

infrastructures becomes insufficient. Instead, infrastructures move and transform, sometimes contrary to planning efforts. Transforming in and out of standby modes, thus can be conceived as an orchestration of relations, which vary in their controllability and responsiveness. Contingency remains and flexibility is needed even though – or because – un/weaving follows closely timed plans and protocols. Organization thus needs to be re-thought as a ‘contingent and always-incomplete outcome of complex order(ing)s and disorder(ing)s’, as Knox et al. (2015: 1) summarize for an airport terminal context.

The specific challenge of ordering standby modes may lie in the often-vulnerable processes of metastable relations. The will and possibility to pause regularly is based on the confidence to be able to get back into the process at a targeted time and this guarantee constantly has to be remade. Similar to what Jackson (2017: 173) describes for processes of decay, standby is thus less marked by ‘the absence of form than by its multiplication and diversification: a profusion, rather than attenuation, of order.’ The logistical surplus of standby as a mode of pausing then may be the ability of probing and correcting over and over again. Practicing under conditions of *full capacity* distinguishes standby-as-pausing from standby within other context<sup>5</sup>. Although contingency can also never fully be eliminated within transport contexts, the serial character of pausing contains the potential (and the challenge) for adjustment in every episode: the repetition of the very same (yet always slightly varying) events enables an infrastructural composition to restart, to transform, to optimize and to connect the threads even better at each iteration.

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<sup>5</sup> Referring to alternative banking architectures, Pawley describes their waiting as preparedness for an undesired yet potentially actualizing situation at a prior site. These disaster infrastructures are repeatedly maintained, tested and actualized in order to respond to terror, fire, cyber-attacks, natural catastrophes or illness. Yet, repetition and seriality actualize as testing. Instead of a recurring demand, a potential threat builds the legitimization to regularly maintain stilled infrastructures and keeping them on standby, thus transforming training and testing into relevance-making practices (Deville, 2021).

## Interrupting repetitive rhythms

This on-going repetition helps with building confidence. Cruise shipping became a prosperous and global business and the possibility that a terminal's standby period extends from regular and short pauses into longer periods of unproductivity seemed far away. Operations were based on a surplus of destinations, often enabling cruise ship companies to dominate the negotiations on docking conditions (Kühn, 2017). An always-present potential of re-routing and abandoning of destinations meant a financial and existential threat for remote and economically weaker areas, which tied huge parts of their welfare to the cruise industry<sup>6</sup>. Yet, within a running business, as was the case in Hamburg, the possibility of being abandoned (for logistical, economic or political reasons) was perceived as a possibility that could be minimized by strategic and planning actions, such as international networking and the extension and use of modern sustainable technologies (*ibid.*). During ethnographic fieldwork, the participants showed great confidence in the international standing of the port of Hamburg and in a sustained demand for cruises. Interview questions regarding (extended) standby phases were mostly answered with amusement and/or expressions of boredom, although on some occasions a moment of thoughtfulness and silence emerged.

COVID-19 made this silence audible. Beginning with outbreaks on the British-registered Diamond Princess in January 2020, it soon turned out that cruise ships were an excellent base for the virus to spread. They were quickly labelled as 'contagion communities' (Gehm, 2020, trans. AK) and perceived as a threat to port cities. One port after the other closed its doors for the otherwise popular ships – around 400 worldwide (NDR, 2020), which were now often gathering off the coasts of their former destinations. This intervention turned power relations between ports and cruise ship companies upside down, but it also all of a sudden put cruise ship terminals on standby – this time indefinitely.

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<sup>6</sup> For example, Caribbean Islands (e.g. Grenada, St. Kitts and Nevis, Antigua and Barbuda) made high investments in cruise infrastructures (often financed by loans from the shipping companies) which tie these islands to the business despite exploitative practices by huge shipping companies (Economist, 2019).

This crisis lent itself to ethnographic research, yet a request to Hamburg's terminal operators CGH in March 2020 was turned down: times were perceived as too uncertain; anyhow they did not have any answers at the moment and besides that, the wait-and-see periods were incredibly busy. The unexpected interruption of a prosperous business, its radical deceleration and muting seemed to call for intensive work and the terminal operators were not ready to share their effort, processes and timings. However, soon thereafter Hamburg's terminals became populated again, sometimes with seven ships anchoring simultaneously. But it turned out that during pandemic conditions, the arrival of a cruise ship did not necessarily transform terminals from standby into service mode: besides the core team, workers stayed at home, passengers did not show up and baggage belts were kept resting. During COVID-19 highs, ships and terminals intermingle into a standby assemblage. This composition lingered with engines turned on, crew members on-board and port agents regularly on site, but without handling departures regularly.

The unexpected interruption of COVID-19 thwarted the planned transformations between standby and service. Docking a ship does not simply turn the relationship between active/passive, mobile/standby upside down. Rather, port and ship infrastructures interact in an extended version of standby - both *keeping their engines on* while waiting for the next move.

## Conclusion

This last example, once again, emphasizes the work needed to keep infrastructures available. The loose relations of standbys' always risk a disordering of future cooperation. Infrastructures' fraying out, (partially) disconnecting and moving make it much more precarious to organize their availability (Lovink and Rossiter, 2018). The maintenance work needed to keep standby systems running can best be described by the feminist notion of 'care' (see e.g. Baraitser, 2017; Puig de la Bellacasa, 2017): caring involves a 'staying with in time and place' and a re-orientation to various rhythms and flows of others, writes Jackson (2017: 183) with reference to Puig de la Bellacasa. Care work starts from the recognition of vulnerability and fragility of bodies; it sustains individuals in a wider network of value and relationality and it contains

affective attention – ‘a “listening forth” organized around a radical openness to the state and status of others’ (183).

Caring for standby infrastructures then means a complex ordering of *loose relations and spaces* in-between on and off, yes and no, interest and indifference. Movement, effort and activity cannot be attributed to one side or single factors, but need to be traced carefully. The slowing down of some means the enduring and rising efforts of others – yet, interestingly, this relation tends to complicate itself continuously. Caring, thus, is no dead time of repetition and meaningless labour. Rather, caring for standby infrastructures means caring *for the possibility of repetition*: the on-going infrastructuring of loose relations without linking it directly to progress or movement (Baraitser, 2017).

A preoccupation with standby reveals the constitutive role of deceleration and disconnection processes for infrastructural movement and functioning. It helps to undermine the idea that speed always lies at the heart of logistical and capitalist world-making (Bear et al., 2015: online). For future engagement, it is worth looking closely at standby’s ticking rhythm between precarity and boredom (Berlant, 2011): does standby’s constant seriality contain the potential to hold together entities and processes or does it make us blind to subtle but continuous change (Kemmer et al., forthcoming)? What are the thresholds at which operational pauses turn into pressing compositions? Transposing the practical, political and affective planes of care work to the idea of standby helps to engage with complex and changing relations (Kemmer et al., 2021). It enables us to follow the intermingling of temporal folds and operational mechanisms and to draw connections to the affective planes of infrastructural looseness.

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**the author**

Annika Kühn works as a researcher, author and filmmaker in the fields of critical infrastructure studies and sustainable urban mobilities. She has organized international conference panels, screenings and workshops on the affectivity, temporality and dis/connectivity of urban mobilities. She is co-editor of the Special Issue on 'Standby: Organizing modes of in|activity', forthcoming in *ephemera*, and author of #standby, an internationally screened short film, also available on *ephemera*'s website [<http://www.ephemerajournal.org/contribution/standby>].

Email: [Annika.kuehn@hcu-hamburg.de](mailto:Annika.kuehn@hcu-hamburg.de)