Infrapolitics, archival infrastructures and digital reparative practices

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"Somewhere in the interstitial spaces of digital infrastructure,
we might find another way of living"[1].

Archival imaginaries and infrastructures

The accumulation, storage, and management of information in today's big data infrastructures, while unprecedented, raise important questions that have long been at the heart of cultural theories of the archive. Today's information infrastructures, we posit, often repurpose a familiar problematic in postcolonial and feminist archive theories: while archives are always beset by racist and gendered biases, knowledge gaps and traces of violence, they can also represent an opportunity to confront such biases and to complement the absences of the archives with materials and narratives that center the experiences of documented communities (Risam 2018: 47). In this chapter, we draw on the work of the Uncertain Archives research group[2] to reflect upon how such archival problematics manifest themselves in information infrastructures and to think about the conditions for intervening in and reimagining such infrastructures. We begin from the premise that the digital infrastructures into which information is now gathered display continuities with earlier archival imaginaries and epistemologies, but that they also bear witness to shifts - namely in technology and scale - that require critical attention. Indeed, such information infrastructures are governed by complex sets of protocols and standards, by human-machinic processes and by an unprecedented scale of information that magnify political and epistemological questions that have previously been addressed within the "archival turn" in the humanities (Stoler 2002): questions about access, selection, exclusion, omissions, harmful exposure and reductive classification (Chun and Friedland 2015; Nakamura, 2004; Noble, 2019; Sutherland, 2017). We thus argue that while digital infrastructures often appear as new modes of information management that render older forms of archival order obsolete, digital infrastructures in fact often repeat—with a difference—the imaginaries, epistemologies, injustices, and anxieties exemplified by previous archival orders (Agostinho et al 2019).

A focus on infrastructures, we argue, is useful in this context because a sociopolitical reading of information infrastructures can help us to emphasize how social structures such as gender and race are encoded in the technological scaffolding of information, how infrastructures therefore reflect and materialize power dynamics, and how they thereby structure the possibilities for social action. With this we wish to emphasize that infrastructures enforce and constrain experience and knowledge, but also constitute powerful venues for social and political engagement. Combining cultural theories and

[1] Deb Verhoeven, "As Luck Would Have It. Serendipity and Solace in Digital Research Infrastructure", 12.

[2] The Uncertain Archives research group originated at the Department of Arts and Cultural Studies, University of Copenhagen, funded by a grant by the Danish Research Council. The group has since then extended its scope and can today be regarded as a collective that brings together scholars and artists based at different institutions in Denmark and abroad, dedicated to thinking critically about the unknowns, the errors and the vulnerabilities of archives in an age of datafication.

feminist infrastructure studies, this chapter suggests that while digital infrastructures have significant and often oppressive implications for their archival subjects, they also open up spaces for infrastructural negotiation, disobedience, and contestation. These infrastructures, we argue, constitute a powerful field for feminist and postcolonial digital humanities to intervene in.

One obvious site of intervention for feminist digital humanists is the infrastructures of open-source knowledge production such as Wikipedia. As the feminist digital humanist Adrienne Wadewitz (2013) pointed out, knowledge production in Wikipedia is heavily dominated by a few voices, even though it is almost universally hailed as an open instrumental conduit for global knowledge exchange that anyone can edit. One example mentioned by Wadewitz is the extent and success of the Military History WikiProject compared with projects such as Textile Arts, which take up much less space. Gendered and colonial infrastructures also contribute to an unequal distribution of representation in Wikipedia—which remains largely white, and gendered in favor of masculinity—and continue to inform the framing of articles, for instance by drawing on romantic or nationalist accounts of colonial pasts rather than critical voices. As a response in recent years, numerous bottom-up movements have intervened in Wikipedia at the level of infrastructure by bridging critical analyses with material activities. Such interventions seek both to scale marginalized presences and to situate them infrastructurally, by creating new situated points of influence through congregation. Many edit-a-thons are therefore concerned not only with creating content, but also with building and sustaining communities.

Another site of intervention is the infrastructures of digital colonial archives. Numerous institutions are digitizing colonial archival collections, driven by the desire to facilitate access to colonial records to communities all over the world. But this promise of access also gives rise to questions concerning the custody, dissemination, interpretation and reuse of contested material on a large scale. As scholars from the fields of postcolonial and Black digital humanities have pointed out (Christen, 2015; Johnson, 2018; Risam, 2018), digital archival infrastructures often reinscribe the colonial epistemologies inherent to those archives, particularly in amplifying unwanted visibility for archival subjects, in extending colonial and racist terms of address, or in precluding interpretational power. The digitization of colonial archives thus disrupts abstract definitions of cultural heritage that privilege openness and accessibility, prompting researchers and communities to rethink how meaningful and socially just infrastructures can be reimagined (Ping-Huang, 2016). In this context, we suggest, digital infrastructures - when imaginative, radical and creative - can offer routes to critically challenge and reimagine the colonial legacies that haunt archival environments and processes under digital conditions.

We begin the chapter by foregrounding the political potential of infrastructures through the notion of infrapolitics. Conceived as the unobtrusive realm of political struggle, the concept of infrapolitics is mobilized here in relation to infrastructures in order to discuss the complex negotiations between conformity and dissent that play out through infrastructures. We then zoom in on two infrastructural interventions that raise questions about the shortcomings and possibilities of infrastructure and infrastructure-building: interventions in open source knowledge infrastructures and in digital colonial archives. Through these selected examples, drawn from our practice and experiences, we show how infrapolitics operates through conformity to infrastructural standards as well as infrastructural repurposing and reinvention. We end with reflections on scale and the sustainability of communal practices of care, and foreground the role of "reparative practices" for growing small worlds of sustenance from which to cultivate a different present and future.

Infrapolitics

In order to conceptualize the political potential of infrastructures, we turn to the concept of infrapolitics, which has hitherto been advanced as a conceptualization of hidden dissent or contestation. In his work *Domination and Resistance*, James C. Scott argues that paying close attention to political acts that are disguised or offstage helps us to discern a realm of possible dissent, including the social and normative basis of practical forms of resistance (such as shirking, theft, and flight), as well as the values that might, if conditions permit, sustain more visible forms of rebellion. Scott (1990: 183) advances the term "infrapolitics" to center what he calls the "unobtrusive realm of political struggle." This implies shifting one's gaze away from the transparent and open politics of liberal democracies and the loud politics of protests, demonstrations, and rebellions, to focus instead on "the circumspect struggle waged daily by subordinate groups[, which] is, like infrared rays, beyond the visible end of the spectrum" (Scott, 1990: 183). Scott's concept gives another name to dissenting and freedom practices by minority and marginalized cultures that fly under the radar of power through quieter and inconspicuous life forms, which often remain illegible in dominant conceptions of politics. Tina Campt calls them "quotidian practices of refusal" (Campt, 2017), Stefano Harney and Fred Moten call them "the undercommons" (Harney and Moten, 2013), and Saidiya Hartman refers to them as "revolutions in a minor key" (Hartman, 2019). These thinkers prompt us to shift our collective attention from the high visibility of unequal public spheres to instead attune to the "lower frequencies" (Campt) of political intervention and how such lower frequencies can afford possibilities for survival (Singh 2020). Acknowledging these different conceptions, we mobilize Scott's term here since it foregrounds how dissent may link to questions of infrastructure.

While Scott himself wrote little directly on infrastructure, his points resonate with infrastructure studies' attention to the political and invisibilized dimension of infrastructures (Easterling 2016; Mitropolous 2013). This is in line with feminist infrastructure studies and their emphasis on the invisible but essential reproductive labor that sustains and enables the visible realm of social life. Central to this thinking is Susan Leigh Star's notion of infrastructure as "an embedded strangeness, a second-order one, that of the forgotten, the background, the frozen in place" (Star, 1999: 379). In her landmark article 'The ethnography of infrastructure' (1999), Star put forward a definition of infrastructure that remains influential to this day: when infrastructure works as it should, it becomes invisible and unnoticed.[3] Star's definition allows us to perceive the ways in which digital humanities and digital archival infrastructures mediate, combine, connect, and converge upon different institutions, social networks, and devices through interoperable platforms and channels. The infrapolitics of digital archives is thus geared toward both standardization (code, platform, cultural algorithms) and variation (creative interventions, contestations and subversions). It is exactly these features that make the politics of digital infrastructures occur at a low frequency; if they are noticed at all, they often appear as boring "lists of numbers and technical specifications." (Star) And their construction and maintenance often occur "behind the scenes" so that their effects become naturalized and often taken for granted.

[3] This definition has been challenged by postcolonial infrastructure studies that point to the fact that infrastructures, especially those outside the wealthy North, are not necessarily invisible and seamless, and that breakdown and leaky circuits are not an interruption of infrastructural functionality but an essential part of the vital materiality of an infrastructure. This brings the labor and politics that goes into their maintenance into sharper focus (Anand, 2015).

If, according to Star, the optimal functioning of infrastructures is equated with invisibility, infrastructures are thus also easily associated with the social reproductive labor historically ascribed to women, people of color, migrants and low-status workers. As Ara Wilson points out, infrastructures operate in ways that "obscure the labor and politics involved in [their] functioning" (2016: 270).[4] As other contributions in this volume testify to (see Brown and Mandell; Stringfield and Losh; Wernimont and Stevens), this becomes particularly relevant in digital humanities projects and programs which are heavily dependent on reproductive labor (especially by women of color) that remains largely unacknowledged and devalued.

The invisibilities and obscurities of infrastructures, their labors and politics can, however, as Susan Leigh Star notes, become "visible upon breakdown" (Star 1999: 382). The unfolding crisis of COVID-19 offers a case-in point as it foregrounded and visibilized infrastructural labour as well as their politics (and necropolitics). So-called "essential workers" (Bergfeld and Farris, 2020), often working under precarious conditions, remain in public - and thus in harm's sight - while everyone else shelters in place. In the context of digital humanities, this foregrounding of the otherwise unnoticed emerged during the early days of COVID-19: as entire universities shifted to online learning, the otherwise invisible and devalued labour of often precarious academic workforces came into view, offering 'emergency' online teaching kits for panicking lecturers and building amazing resources based on critical, feminist, crip and critical race pedagogies for online teaching within days of the lockdowns. While these digital (humanities) resources are laced with the risk of exploitation, and hold few opportunities of career advancement, they also testify to the ways in which infrastructures can emerge not only to "constitute and control", but also as "dream worlds of promise that are actively desired and called upon by marginalized groups" (Appel, Anand and Gupta 2018, 28). The resources that became visible under COVID-19 thus not only offered essential knowledge for online teaching, but also created didactic archives of mutual care and generosity, while shedding light on the the racialized, ableist and gendered infrastructures of universities that usually are only visible to and experienced by some.

With the notion of infrapolitics, we thus wish to emphasize this obscured labour and politics, and to recognize infrastructures as a structuring force, that offers both control and creativity, rather than a background for social existence. Moreover, the notion of infrapolitics prompts us to expand existing political vocabularies to recognize labors of infrastructural maintenance, care and repair - which usually remain illegible by dominant political lexicons - as key modes of political action. In the following sections, we will take a closer look at different infrastructural interventions in open source knowledge infrastructures and in digital colonial archives to demonstrate how infrapolitics plays out in digital infrastructures. This notion of infrapolitics is crucial, we argue, to understand and intervene in the socio-technical systems that subtend information infrastructures.

[4] The invisibilization of infrastructures is in many ways endemic to contemporary capitalism, and its reliance on, and further development of, new technologies for control and management, modularization and transportation. It is thus often co-opted by neoliberal forces, for instance in the form of free trade zones (Easterling 2016) and new forms of exploitative digital labour, for instance Amazon's Mechanical Turk (Irani 2015) and the globalized content moderation industry (Roberts 2019) which all rely on the harmonization, homogenization and replication of digital infrastructures, and of projecting an imaginary existence beyond sovereign control.

Editing: feminist engagements with contested knowledge infrastructures

The past decade has seen an increase in feminist, intersectional, and anti-colonial interventions that aim to add, change, and challenge open-source knowledge production through off- and online communal events. These events draw inspiration from critical digital humanities work including a broad spectrum of practitioners, from experienced and habitual coders to first-time drop-ins. In such cases, these infrastructural interventions represent the coming together of those who design, those who build, and those who theorize about the design and architecture of such structures, bridging critical analyses with material activities.

Wikipedia has become a crucial site of feminist and decolonial interventions, where scholars and practitioners engage with the open source infrastructures to counter its male, white, Western bias through edit-a-thons that seek to amplify the presence of women, people of colour and the naratives and perspectives from the Global South. To paraphrase Diane Nelson's work on mathematics and numeracy, these interventions are often premised on the problematic idea that if women and communities and narratives made marginal could "code more" (become computer literate) and hence write more they would also "count more" (matter to the public). In 2015 the Uncertain Archives research group co-organized such a feminist Wikipedia edit-a-thon in Copenhagen, together with the feminist-activist group *Renegade Runners,* to address and challenge the male bias of Wikipedia both in terms of editors and content. In conjunction with this, the group also organized a symposium to offer space not only for production, but also reflection on the politics inherent in the logic of crowdsourcing, data literacy and open source knowledge infrastructures (see Borgen, Thylstrup & Veel 2016).

The event allowed participants to complicate the infrapolitics of quantification and openness in Wikipedia. Specifically, the symposium interrogated how Wikipedia's performative openness produces new opacities and how these new opacities conceal patterns of abuse and discrimination. In addition, we also attended to the interstitial openings in Wikipedia, to explore how they could be reconfigured into new forms of feminist collaboration and knowledge production that could in turn create new and more equitable social worlds.

Like many other feminist edit-a-thons, ours was thus concerned not only with creating content, but also with building a reflective community of care. For this we were inspired by the community-building efforts of Art+Feminism, a group informed by critical pedagogy and intersectional feminist organizing principles that trains and supports communities that collectively create and update articles and other media on Wikipedia. Art+Feminism particularly strives towards an adequate representation of cis and trans women, non-binary people, people of color, and Indigenous communities in the writing and editing of Wikipedia. Moreover, Art+Feminism follows a Safe/Brave Space Policy to develop strategies and tools that help communities deal with, prevent and document online harassment or misbehavior that may occur during edit-a-thons. The collective responds to what it identifies as a "desperate need for information activism in the realm of gender politics on the web" (Evans et al., 2015) not only by organizing online, but also by creating a valuable form of offline organizing—organizing bodies in real, physical spaces. Creating such situated and social infrastructures, and ensuring that they are inclusive, also means tending to hands-on needs, including accessibility, childcare, and food. Only then, the group argues, can the actual infrastructural intervention begin, with the sharing and learning of skills through face-to-face tutorials. This skill-sharing crucially includes support for the affective labor that most such interventions entail—because, as Michael Mandiberg (2015) points out, much of the labor around Wikipedia (and the reason many women and

other minoritized groups opt out) requires people not only to create knowledge, but also to sustain that knowledge through edit-wars.

Quite often, edits are deleted by Wikipedia editors on the grounds that they do not abide by the platform's exhaustive standards and rules for edition, even if the edits are accurate, informative and grounded in peer-reviewed knowledge. Dariusz Jemielniak, for instance, describes his attempts to edit the Wikipedia entry on "glass ceiling" and how he got caught up in an edit-war after an editor annulled his amendments to the concept. He explains how, in the end, he was able to get his edits approved, not by proving that his definition of "glass ceiling" was more accurate, but by conforming rigorously to the platforms' protocols for editing (Jemielniak, 2016). Other times, editorial contestations take a much more abusive and personal turn. The GamerGater controversy is a famous example of this problem (Salor 2016). But as one queer agender trans male Wikipedian explains in a blog post, the problem is structural: "The thing is, if all trans people are driven away from editing Wikipedia by trans-antagonism — which comes from established editors and administrators as well as anonymous users — then only cisgender people will decide how we should be represented in the encyclopedia. That, to me, is unacceptable. But as much as I want to be included, I don't feel that I should have to volunteer my time to be abused. I face enough ridicule and discrimination in my daily life as it is" (Gethen 2018).

These moments of abuse and contestation are moreover often hidden from view in the "talk pages", thus also effectively concealing Wikipedia's infrapolitics of editing from the mainstream user. As Melissa Adler notes, "for the most part these kinds of conversations are unnoticed and hidden beneath the entries that appear to have achieved consensus. The erased minority points of view are hidden in layers of a palimpsest. This is true of the content of the entries, but also of the categories used to designate what those entries are about." (Adler 2016, 36). The concealing of these editorial negotiations become even more problematic when they turn into abusive contestations.

As problematic as they are, the infrapolitics of Wikipedia's knowledge production is a feature, not a bug. An early article on Wikipedia (Lamb 2004, 42) refers to the term *Darwikinism* citing Wikipedia's own internal philosophy pages on the same term to describe the knowledge production of Wikipedia: "This online Tower of Babel resolves its many differences in varying ways across the system. In most cases, "Darwikinism" holds sway—with sections and sentences 'subject to ruthless culling and replacement if they are not considered "fit."' In practice, however, 'evolution toward stability occur[s] just as much through cooperation as competition"'.

It is this infrapolitical tension between collaboration and competition (survival of the fittest) that makes Wikipedia a contested space, and it is therefore for ideological and communal support, as much as for skills development, that feminist and antiracist initiatives such as Art+Feminism and akin collectives seek to create safe physical infrastructural spaces. Their interventions emphasize that Wikipedia is haunted by many of the structural inequalities, colonial and patriarchal focal points that also skew most other encyclopedias in terms of topics, profiles, and framings. As demonstrated by the extent of the decolonial and feminist movements assembling on- and offline to counter the gendered and colonial biases of open-source knowledge databases such as Wikipedia, such interventions offer digital humanities scholars and activists the chance not only to reflect on the historical trajectories and contemporary expressions of Wikipedia's biases, but also to counter those biases by bridging critical analysis with an engagement with the materiality of technologies (Koh and Risam, n.d.; Borgen et al., 2016; Adler, 2016). The collaborative modality of most feminist and anti-colonial Wikipedia edit-a-thons offers technical and social means and opportunities to counter, renegotiate, and invent new ways of existing in and with the digital and its infrastructures by practicing an infrapolitics that

mobilizes resistance in and through standards and protocols. Moreover, it provides the social context through which to stand together, both off- and online, rather than alone.

These cases, however, are not only inspiring examples of how technologies can be wielded to create better feminist and anti-colonial infrastructures. They also raise questions about the shortcomings and affordances of open source knowledge infrastructures that feminist software, archive and infrastructure theories might help us to unpack. Here we recall Tara McPherson's discussion of modularity, computational systems and race, in which she points out that today's information infrastructures have furthered modularity at the expense of contextuality, obscuring the blind spots for gender and race that are historically embedded in archival infrastructures (McPherson 2012). As she points out, the epistemology and practice of modularity promotes a worldview in which a troublesome part might be discarded without disrupting the troublesome whole.

We believe that Tara McPherson's analysis raises important questions for digital humanities infrastructures and the infrapolitics of information. How can we grapple with the fact that while we change small bits of information to create more equity, these small bits of information remain lodged in racist and misogynist infrastructures? This of course raises the question that has long haunted feminist and postcolonial archival thought: is it possible, through infrastructural interventions, to radically overturn the structural inequalities that still form the base root of archival infrastructures? Is it possible, for instance, to radically transform Wikipedia as a feminist site for knowledge production even though it is rooted in a culture of misogyny and capitalism? After all, Wikipedia was founded by Jimmy Wales, a self-professed fan of Ayn Rand. His career before Wikipedia involved the establishment of Bomis, which Wales himself has described as a "guy-oriented search engine" aimed at a similar market to *Maxim* magazine, complete with a section of adult photos called "Bomis Babes." The question, then, is whether these misogynist origins will continue to haunt archival infrastructures in both physical and digital form, or whether it is possible to unsettle such patriarchal infrastructures and give rise to new ones. One might advocate forgetting Wikipedia altogether and focusing one's energy instead on building new archival infrastructures. As Françoise Vergès asked rhetorically at a recent seminar organized by Daniela Agostinho on archives and social justice: "how much time do we want to spend decolonizing the colonial archive instead of building new archives? Because it keeps going back into its old forms in its very founding." (Vergès, 2019).

This critical reflection on the infrapolitics of Wikipedia does not undermine feminist digital humanities projects engaging with its contested infrastructures. However, it does provide us with an opportunity to reflect not only on the contexts we create, but also on the infrapolitics of the conditions under which we create them. How to ensure that information lodged in a spreadsheet does not become de- and recontextualized, perhaps even weaponized? How to protect pixels that matter? And how to counter colonial economies of information transmission?

Smuggling: colonial archives and fugitive infrastructures

Another site of intervention revolves around the urgent need for critical engagements with colonial archives' digitization processes. The recent digitization of the archives of Danish colonialism in the former Danish West Indies (today United States Virgin Islands) is a case in point. This digitization project carried out by Danish cultural heritage institutions was presented as a promise of greater access to historical records, particularly for the descendants of the documented communities, from whom these archives were removed more than hundred years ago when Denmark sold the islands to the United States (Agostinho, 2019; Bastian, 2003). But the project also showed that hosting colonial

archives on digital infrastructures raises crucial questions about infrapolitics, pointing to the harms that infrastructures can perpetuate, as well as to potential lines of flight lodged in digital circuits.

Very much like the physical archive, infrastructures are not innocent. They organize attention, distribute visibility, and structure how we enter a relationship with knowledge and people (Verhoeven, 2016). For these reasons, digital infrastructures can amplify some of the epistemic problems besetting colonial archives. As Amalia S. Levi and Tara A. Inniss put it, digitization cannot save what was never accounted for, what was never described properly, and what has not been documented (Levi and Inniss, 2020). Digital infrastructures for colonial archives are thus a complex terrain for infrapolitics, as they structure our encounters with these records in ways that can magnify colonial economies of seeing and possessing.

Such colonial economies are not only embedded in the archival records; they are embedded in the digital infrastructures themselves, and in the digital environments where such infrastructures come to exist. As Tonia Sutherland (2017, p 37) forcefully argues, the digital sphere is structured by race in ways that render Black and brown bodies as records for consumption, all too often with retraumatizing effects. Scholars in the digital humanities have pointed out that the notion of datafication itself is deeply embedded in colonial histories of quantification (Johnson, 2018; Moro, 2018; Wernimont, 2019). If left unattended, Jessica Marie Johnson cautions, the violence of these processes can "reproduce themselves in digital architecture" (Johnson 2018 , p. 58). Moreover, as Jeffrey Moro notes, "while informatic forms such as the database or spreadsheet allow us structured access to information, they impoverish our affective and experiential understanding of fundamentally unknowable events". This means that, ultimately, "by imagining the Middle Passage as data, as fungible, manipulable, discrete, countable—we are not necessarily doing something new to it. We are participating in a deep time of datafication" (Moro, 2018, n.p.). How then to restore the subjectivity denied to those accounted and unaccounted for by these archives? How to "suspend damage" (Tuck, 2009) in a digital archival encounter?

Infrastructural interventions in these contexts often take place at the level of description - for instance, through interventions that replace racist and misogynist descriptions in archives with metadata that is communally produced and premised on local knowledge and values. While these are unquestionably important interventions, the same question we posed above about Wikipedia necessarily surfaces: how can we grapple with the fact that while we change small bits of information to create more adequate descriptions, these small bits of information remain lodged in racist and misogynist infrastructures?

Here we recall the vital work of Black digital humanists that draw attention to the power of repurposing existing technologies to foster alternative practices and counterpublics (Gallon, 2016; Lu and Steele, 2019; Brock, 2020; Johnson, 2020; see also Stringfield and Losh, this volume). Such repurposing can be seen as a form of infrapolitics that operates in and through the circuits of dominant technologies to tread new grounds and lines of flight. These rerouting practices, we suggest, emphasize the aesthetic nature of infrastructures. Here we understand infrastructures as fundamentally aesthetic in the sense that they condition what becomes visible, sayable and knowable in the world (Larkin, 2013). Recognizing the powerful aesthetic force of infrastructures also allows us to see how infrastructures can be transformed through aesthetic praxis to foster more creative and sensitive encounters with colonial archives. An aesthetic understanding of infrastructures points to the need to intervene not only in existing metadata, but also in the gaps and missing data sets, as artist Mimi Onuoha suggests in her project *The Library of Missing Datasets* (2016). At the same time,

such an aesthetic understanding prompts us to imagine alternative infrastructures that foreground the material, affective, sensorial and embodied knowledge that the colonial archives alone cannot account for (Agostinho, Dirckinck-Holmfeld & Soilen, 2019).

This aesthetic understanding brings us back to the importance of context in which infrastructures are situated, since contexts shape what becomes knowable and sayable. The work of the Virgin Islands Studies Collective (VISCO) has been groundbreaking with this respect. The Black feminist collective founded in the Virgin Islands has recently used the digitized and translated Danish archives to read the prison records of the so called Fireburn Queens, a group of four women who led the Fireburn labor revolt that occurred in 1878 on St. Croix. Each member of the collective - visual artist La Vaughn Belle, anthropologist Tami Navarro, philosopher Hadiya Sewer and novelist and poet Tiphanie Yanique - responded to one of the prison records of the four women. Their reflections combine speculation, fabulation, fiction, Black feminist theory and critique to respond to the gaps and silences in the archive. VISCO's intervention highlights that in the aftermath of the mass digitization of Denmark's colonial archives, there is an urgent need to explore not only the **contents** of the archive, but also to expand the **context** within which these archives are situated, experienced and interpreted. As Tami Navarro asks about visual archives, "how different it would be if such images were not just digitized by Danish institutions and *shared* with those in the Virgin Islands, but housed—and, importantly, situated there?" (VISCO, 2019, 24). She contends that the way in which these documents are currently archived and "shared" via digitization is outside the frame of reference for Virgin Islanders, and that vital context that they could provide is currently missing. Not just, for instance, names and social locations of photographed subjects, but more broadly in centering Black life in the interpretation of the historical records (see also Flewellen 2019). One of their central planned interventions is therefore the creation of a virtual museum, where archival material that is held in Danish archives and has recently been digitized can be rehoused in a radically different context, in which Black life is fully centered.

These questions prompt us to imagine what it would be like if colonial archives could find a new life outside standardized digital infrastructures. What possibilities for knowledge, reckoning and recognition would such an infrastructure open up to? In collaboration with artists and community organizers from St. Croix, Katrine Dirckinck-Holmfeld ran an experiment for such an infrastructural reinvention. In the summer of 2018, Katrine participated in the event "Connecting with the Archives: Reclaiming Memory" in Frederiksted, St. Croix, organized by Frandelle Gerard, director of CHANT: Crucian Heritage and Nature Tourism. For this occasion Katrine printed more than 200 photographs from the archives primarily from Frederiksted (selected together with David Berg, a photographer from St. Croix, and Mette Kia Meyer, from the Royal Danish Library) into a 7 meters long paper roll, which she transported from Copenhagen to St. Croix, to hand it over to CHANT. Participants were then able to engage with these photographs within the physical, material and affective context from which they were removed, reconnecting the archive through an infrastructure in which the community constitutes the frame of reference (see Agostinho, Dirckinck-Holmfeld and Søilen, 2019).

This quasi-literal smuggling experiment can be seen in light of Irit Rogoff's conceptualization of smuggling as an "operating methodology", a "potent model through which to track the flights of knowledge, of materials, of visibility and of partiality all of whose dynamic movements are essential for the conceptualisation of new cultural practices" (Rogoff, 2006, p. 3). This act of smuggling, as a form of infrapolitical flight, interrupts the circulation of digital files under the colonial regimes

enlarged by digitization, to instead redistribute them towards an alternative infrastructure for archival engagement.

From this perspective infrastructures can become a means of transformation and inventiveness (Verhoeven, 2016). As Deborah Cowen (2017, n.p.) notes, "alternative worlds require alternative infrastructures, systems that allow for sustenance and reproduction". Cowen suggests that perhaps the greatest railroad ever built was the Underground Railroad, an infrastructure built not from railway connections but from safe houses, passageways and people who made escape from bondage imaginable for fugitive enslaved people. The Underground Railroad, Cowen remarks, "is a breathtaking reminder of the power of oppressed peoples to build infrastructures that work to make another world possible" (Cowen, 2017, n.p.).

Growing patches of care: scale, sustainability and reparative practices

The two examples outlined above offer examples of how digital infrastructures can work as structuring realms of social life, where not only control, but also creativity and dissent can flourish. They also point to how mundane engagement with standards (Star 1999) and quiet and "quotidian practices" (Campt, 2017) such as building context, relationships, communities and intimacies can have a radical force that brings about sustained change. As digital communities grow across and beyond communal and national boundaries, however, their infrastructures also raise a crucial question, namely how to correlate scale and care. As Anna Tsing (2019) shows, scale is not just a neutral frame for viewing the world; rather, scale must be brought into being. While Tsing's references come from software systems, she locates their logics in the colonial plantation economy. As she notes, one important model of scalability design was European sugarcane plantations in colonized places. "These plantations," she writes, "developed the standardized and segregated nonsocial landscape elements" that "showed how scalability might work to produce profit (and progress)" (Tsing, 2019: 510). "Plantations," then, "gave us the equivalent of pixels for the land" (Tsing, 2019: 510), which also embeds digital infrastructures within colonial epistemologies. Tsing's historical account of scalability gives us cause to reflect on the ways in which infrastructural interventions conceptualize and make the world we desire, including the naturalization of *expansion* as a meaningful way to create more just environments. Expansion here refers not only to "gigantism" in information architectures (Veel & Steiner 2020), but also to data collections, that are often framed as "the bigger, the better". But making spaces of care will not work through quantitative measures alone since these can "further oppress[es] the marginalized by creating a false norm to which they are never able to measure up" as Jen Jack Gieseking (2018) points out.

With Tsing we might ask, then: what is it that we want to grow? Who profits from this growth, and who suffers? What are the legacies of the tools with which we expand the sites that allow us to subsist? We are inspired by Anna Tsing's (2015, 62) trope of the patch to think through the infrapolitics of digital environments. Tsing borrows the notion of a patch from landscape ecologies to describe the "patchy" nature of capitalism and the interrelations and translations that take place between the landscapes, species and local meshworks that have emerged in its wake. While Anna Tsing, Andrew S. Mathew and Niels Bubandt (2019) describe "patches" as "sites for knowing intersectional inequalities among humans", they also argue that we might in the anthropocene find "patchy hope" exercised as forms of "collaborative survival" that "resist easy globalization" because it is fundamentally unscalable. Anna Tsing's (2015) analysis of the Matsutake mushroom has become a famous example of such a patch. But the mushrooms are only one example among a multitude of

differentiated patches in the Anthropocene. Within this multiplicity, as Tsing, Mathews and Bubandt note, we might also find hope, since,

> "Patchiness is hope's condition of possibility and its limit at the same time. Patchy hope operates on the acute awareness of its own limitation. Indeed, it operates on the acute likelihood of its own failure: tree snail love amid extinction; marabou proliferation amid the internalization of pollution. Patchy hope works with the dilemma of staying with the trouble (Haraway 2016): the impossibility of doing nothing compounded by the acute awareness of the politically fraught nature of collaboration across multispecies, disciplinary, and multiperspective difference. Patchy hope works within a register of internal failure rather than heroic action." (2019, 194)

These reflections on how to build "patches of hope" prompts us to consider the value of "staying with the trouble" of digital knowledge infrastructures to develop *patches of care* from within contested infrastructures, knowing that care can never be fully uncontaminated by colonial and misogynist politics. It also reminds us to remove the rose-coloured glasses and abandon the optimistic hope of modernity to instead imagine new radical forms of hope that are both troubled and humble (Tsing, Mathew and Bubandt 2019, 193). Tsing herself explores these possibilities as co-organizer of the digital humanities project *Feral Atlas Collective*, which gathers scientists, humanists and artists to examine the un-designed effects of human infrastructure and to explore how digital media can "help energize readers and listeners rather than paralyzing them, even if this means offering up terrible accounts" by "[c]onnecting the scale of hyperobjects such as climate change to the human scales of ecological patches" to compel us "to act instead of leaving us feeling overwhelmed." (Tsing 2018).

Developing patches of care from within contested infrastructures also compels us to question the infrapolitics of withdrawing from those infrastructures. As Sarah Sharma (2017) forcefully pointed out in her Transmediale lecture, dreams and strategies of exit are prevalent in all walks of life and all communities. It is a fantasy of queer utopias and left-wing squatter spaces, of decolonial movements and class-based dreams. Indeed, as Sharma notes, there is nothing strange about dreaming of exit and its many forms: detach, unplug, refrain, remove, withdraw, retreat, hide, leave, turn away. But ultimately, she cautions, "here's where the pain of capitalism truly sets in, the escapes are minimal and the routes unknown. If there are exits at all, they are few and far between, not least because exit is most often only a fantasy. But there is also another confounding dilemma, that of patriarchy. Exit, I argue, falls too heavily on gendered lines for it to be a feminist political strategy."

Sharma argues that exit—or what she calls sExit—is a privilege that occurs at the expense of cultivating and sustaining conditions of collective self-determination, and she identifies this as a prevalent political strategy, from Brexit to Trump's foreign policy. Furthermore, she notes that exiting stands in direct contradistinction to care. Care is an opposing political force to exit. Care stays back with the trouble, holding the fort, while the Exiters exit. Care sustains, nourishes, enables and keeps alive. Such quotidian gestures of sustenance that cultivale life, livability, and ways of moving forward amidst violence do not translate easily into the headlines of grand narratives. But such "micro-labors" (Campt 2017) are a radically productive and transforming force that produce new patches of hope resistant to scalability and capitalization.

In their reflections on what we can learn from COVID-19, the transnational network Pirate Care has posited the need to not only "flatten the curve" as a public health response to slow down the spread of the coronavirus, but also to "grow the care" (Graziano, Mars and Medak, 2020). Pirate Care

problematizes the now famous graph depicting the virus outbreak: two curves representing higher or lower rates of contagion, with an unspecified "health care capacity" represented as a straight line that appears as a stable indicator. Pirate Care highlights that this straight line of care capacity is not a given, but rather the result of society's diminished capacity for care under neoliberal governance. The care crisis was always already here, with disproportionate effects on the most vulnerable population, but became a visible and generalized social problem under pandemic conditions. What they contend is that a public response to the global health crisis will require a re-focusing of societies on strengthening and growing their capacities of care. We thus draw on their call to "grow the care" to think about how to re-focus digital infrastructures, not on exit strategies or scalability, but on growing patches of care and hope.

For these reasons, we suggest that feminist digital humanities can tend to two patches of care, bringing them into solidarity with one another in "reparative critical practices" (Dirckinck-Holmfeld, 2019): on the one hand, in intervening in and mending existing racist and gendered infrastructures to reduce the damage they have caused and continue to cause; on the other hand, in upending the socio-technical systems that subtend those infrastructures and giving rise to new, inventive and more equitable infrastructures. The notion of "reparative critical practice" that we foreground here is informed by Eve Sedgwick's "reparative reading". Rather than a temporal closure or a finite gesture that calls an end to something, repair is a process of ongoingness that emphasizes the need to continue to tend to. This means that the notion of repair, rather than the reconstitution of something to its previous whole, is tied to a poetic dimension, to the possibility of imagining a future different from the present. With Sedgwick we thus situate repair as a "reparative practice" to emphasize the processual, transformative and quotidian micro-labor of repairing the past into something new. "What we can best learn from such [reparative] practices", Sedgwick wrote, are "the many ways in which selves and communities succeed in extracting sustenance from the objects of a culture – even of a culture whose avowed desire has often been not to sustain them" (Sedgwick, 1997, 35). Drawing on Sedgwick, the reparative practice we propose is about learning how to grow worlds of sustenance from infrastructures not always meant to sustain us, in order to cultivate and live out a different future. Such reparative practices should give continuous cause for reflection on the ethics of infrastructure, and on how we might find other ways of living with, through and beyond these technologies.

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