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**"It's just for the check mark":
Minimum Requirements, Global Friction, and
Inaccessible Accessibility Ramps in Russia**

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Abstract:

What could be useful about inaccessible accessibility ramps? This question presented itself as an ethnographic mystery when, during fieldwork on disability and marginalization in contemporary Russia, an online meme featuring images of poorly designed wheelchair ramps in Russia began to circulate. This article examines the meanings and uses of accessibility ramps in Petrozavodsk, Russia drawing on interviews with people with disabilities, an architectural engineer, social workers, and laypersons, as well as ethnographic observation. I argue that points of friction arise wherein colloquial meanings of a *ramp* as an architectural element are contested. This article offers a new synthesis of critical design theory, anthropology of infrastructure and infrastructure studies, feminist ethnography of postsocialism, disability studies, and Anna Tsing's concept of *friction*. It assumes a global, sociocultural approach to disability, and observes how norms of accessible design move globally and get taken up in unexpected ways.

Keywords: Russia, disability, design, infrastructure, friction, access, ramp

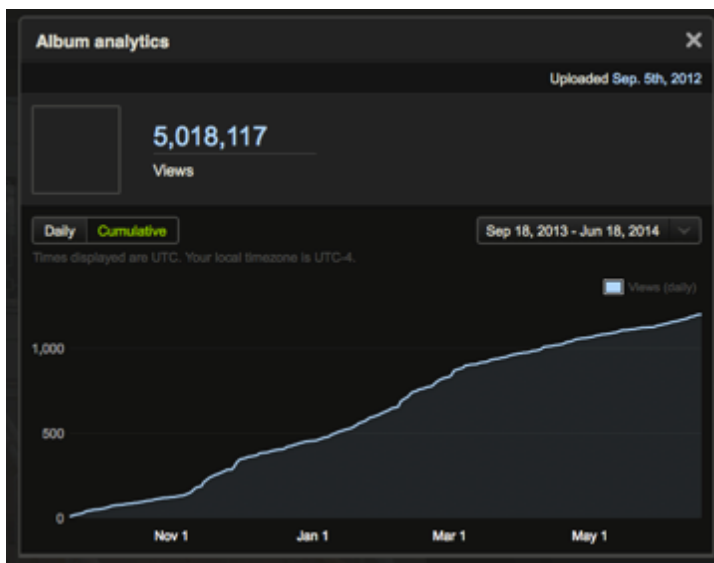
NB: I am currently revising this article, an adaptation of a chapter of my dissertation project, for further review with *American Ethnologist*. First round comments suggested a further development of the ways that global friction can be understood as "productive" in this context. I look forward to comments and suggestions on this and other subjects.

One afternoon in the fall of 2012, I was sitting in my fourth floor walk-up apartment in Petrozavodskⁱ, editing fieldnotes on my laptop. A Facebook alert pinged. A colleague from the US, halfway across Russia conducting his own fieldwork, had sent me a link. I clicked.

The link led to an Imgurⁱⁱ thread - an image gallery of 17 photos, all showing inaccessible accessibility ramps. Here was one ramp in which the railing to the adjoining steps actually cut off access between the stoop and the ramp. Here was another - in my experience ubiquitous in Saint Petersburg and Moscow metro entrances - which consisted of nothing more than a pair of inch-and-a-half wide metal rails, screwed into the granite steps, and descending at the same steep angle. The spaces pictured in the image gallery are marked as Russian by Cyrillic signs in the background and by architectural vernacular.

Another version of the same meme had circulated first on the Russian-speaking internet. In this case, the images were presented on a blog as an amassed body of evidence that the Russian authorities fail to provide an accessible environment for citizens with disabilities. A popular subject with Russian journalists interested in uncovering government incompetence, a Russian-language Google image search for further images of inaccessible ramps (*nedostupnyi pandus*) produces numerous examples. On the Anglophone internet, the meme circulated as an example of irony (inaccessible accessibility!) and Russian incompetence.

The Imgur thread, as a meme, quickly replicated on the English-language internet. Web analytics show that the image has been successively shared at a steady rate since it was posted in September 2012, with a slight surge around the time when I first viewed it [see image below], again shortly after, and again around the time of the Sochi Olympic Games, when a similar meme (#SochiProblems) highlighting shoddy construction in the Olympic Village also circulated.



This image shows a graph documenting the continuous spread of the Imgur photo gallery showcasing the 17 photos of inaccessible Russian accessibility ramps. It lists the overall number of gallery views between September 18, 2013 and June 18 2014 at 5,018,117. Source: Imgur (retrieved June 18, 2014).

The digital photo collection offered a popular illustration of a phenomenon that my research participants - people with disabilities and their family members - had been telling me about since at least 2010: the inaccessible accessibility ramp.

In the summer of 2010, a Russian woman whom I call Nina Anatolievna, a school teacher whose daughter, 22 at the time of the interview, has Cerebral Palsy and uses a wheelchair, told me about such a ramp in an interview. Describing for me the kinds of

frustration that she and her daughter had faced over the years, Nina Anatolievna offered several anecdotes - from only being able to enter a theater through a service entrance in the back, to her daughter's experience as a student at a local university that had a ramp to the first floor classrooms, but no accessible bathrooms. She then turned to the example of a corner store near her apartment, in order to explain that often, ramps do not actually function to provide access.

In a lot of cases it's just for the check mark. Is there a ramp?! [mimes checking something off on a list] It's like, this nearby store, where they also *built a ramp* [sarcastic emphasis].

So Sveta says, "Oh!! They built a RAMP!"

And I say, "Sveta, you know, you can go up the ramp but that's it – you'll stay right there!"

Because she can't go into the store itself. Because there's -- it's only about [shows the width of the door with her hands] that's it! You get it?! She can't even go through the aisles at all. Oh, there's a ramp – a ramp. So something here is *equipped* [sarcastic emphasis] [*oborudovano*]. So for now that's what we've got...

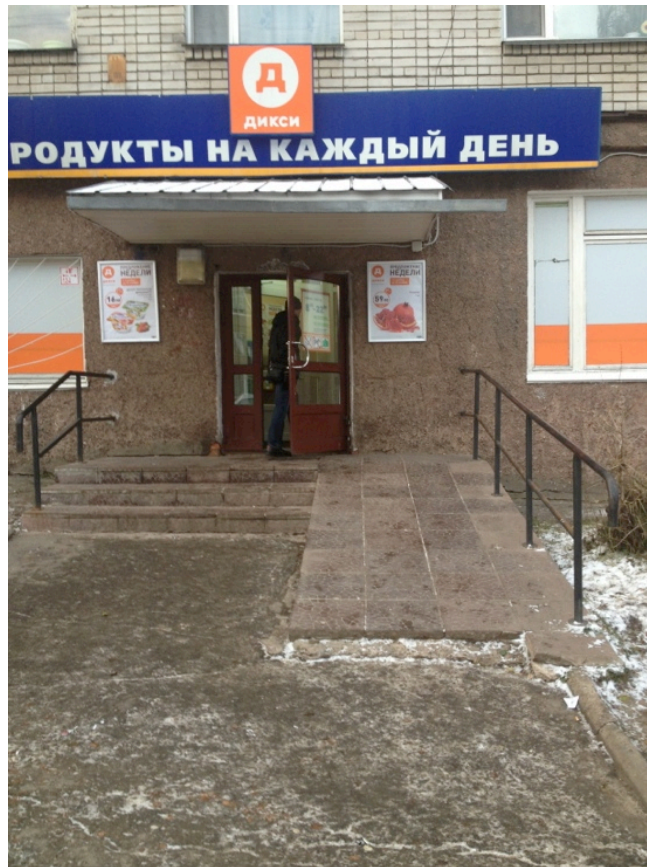
In this utterance, Nina Anatolievna stressed a sarcastic emphasis on the word *equipped*, expressing the contradiction between the purported intent of access, and the real result of a retrofitted environment that, while "equipped" with a ramp, was not actually accessible. Like the online meme, her comment served to draw attention to the ways in which elements of the built environment in Russia, recognizably designated as objects intended to provide access, or, *disability things*ⁱⁱⁱ, failed to actually facilitate access to public space for people with mobility impairments. Nina Anatolievna's commentary fits into broader Russian narratives about the material results of economic and moral corruption in Russian public life, specifically, that the government and wealthy business owners - those

performing "official" functions (whom she refers to *en masse*, as is common in Russian, using the third person pronoun) - cannot be relied upon to carry out their tasks in such a way as to actually benefit the intended recipients (e.g. Rivkin-Fish 2005: 6-9).

After revisiting this interview, I had come to think of these inaccessible accessibility ramps as "check-mark ramps," following Nina Anatolievna's assertion that "it's just for the check mark." Her comment suggests that inaccessible ramps come into being when someone tasked with building a ramp in order to fulfill a requirement on a checklist, without attending to the actual intended functionality of the ramp. An accessibility ramp that is inaccessible for a wheelchair-user has no use for that user, but apparently offers some kind of benefit for the person who built it.

This evokes what Martha Lampland and Susan Leigh Star have described as the "slippage between a standard and its realization in action" (2009:15). Presumably, whoever ordered the ramp built might check off the word "ramp" on some checklist of items required for renovations; or, he might want a ramp in front of his store in order to convey some quality that a ramp evoked. That is, an accessibility ramp might have multiple uses beyond its titular intention. This idea echoed a theme that is familiar both in stories about Russia and in ethnography: a gap between intended and actual use or meaning, the emic and the etic. In the Russian case, the concept of "Potemkin villages" offers a shorthand for something that appears to exist, but turns out only to be a facade (e.g. Bernstein 2014:42-66).

Yet, inaccessible accessibility ramps are familiar to wheelchair users everywhere, and not just in Russia: because ramps are often constructed by people who are not wheelchair-users or mobility-impaired themselves, often to comply with legal requirements, those who use ramps in the US and Britain often find that ramps have dead ends, gaps, or sharp turns that make ascending or descending difficult (Imrie 1995; Linton 1998).



A ramp in front of a neighborhood grocery store in Petrozavodsk looks well constructed at first glance. But, a second look shows that the final lip of the ramp is in disrepair. The door at the top of the ramp opens at an angle awkward for a wheelchair user to navigate. Upon entering the store one finds the tight turns in the vestibule too narrow for a wheelchair or stroller, and inch-high thresholds. At first glance, this storefront, unlike many others in the city, is accessible. But Sveta, a wheelchair-user who lives in a neighboring building, can only enter the store with great difficulty: she relies on the help of her husband to hold doors, push her through tight spots, and lift her wheelchair over high thresholds. As a result, she rarely goes grocery shopping. Photo Credit: Cassandra Hartblay 2012.

In this light, the comedic effect of the Russian inaccessible accessibility ramp meme seemed to get stranger the more I considered it. When I started walking around the city looking for examples of inaccessible accessibility ramps, I found very few, or, the ways in which they were inaccessible were not so immediately obvious, so as to pack the visual punch as those in the online photo collection managed to do (see image: grocery store ramp & caption). And certainly the inaccessible accessibility ramps in other countries were not funny in the same way that the Russian check-mark ramps were. Moreover, in Petrozavodsk, there were many examples of storefronts and important elements of public infrastructure with no ramp at all, but those certainly weren't funny.

Thinking through these elements, I wondered: What were the reasons that someone might build such a ramp? What checklist? Who was enforcing it? If these ramps weren't working for people with mobility impairments, for whom were they working?

Considering these questions in relation to ethnographic material and critical theory, I will argue that, indeed, the symbolic function of a ramp and the actual work that the production of ramped entrances *does* in contemporary Russia is decoupled. Specifically, I identify the following ways that ramps or their images work "for" social processes other than facilitating access: (1) online images of inaccessible accessibility ramps serve a discursive purpose related more to widely circulating narratives (in Russia) about a Russian distrust for the execution of public or official resources, and (in the US) about Russian incompetence, than to debates about disability and access, (2) in contemporary Russia, the symbolic function of an access ramp as an architectural form may have more

to do with performances of professionalism and Europeanness than with a desire for an inclusive public sphere, and (3) the design and construction of ramps plays out through the logic of checklists, a modernist technology which replaces the concern for function of a given form with a list of decontextualized norms. As the concept of "accessible design" circulates globally, the accessibility ramp becomes an object that exists in global friction, taking up different, but interlocking, local meanings.

By attending to friction around disability access in contemporary Russia, this article contributes to a rich literature in anthropology chronicling the ways in which discourses making claims for social and political inclusion of minority groups, such as feminism, LGBT activism, and so on, take on different meanings and spark different debates in the postsoviet context (Phillips 1999, 2008; Rivkin-Fish 2005; Hemment 2000, 2004; Kay 2000; Sperling 1999; Essig 1999). By unpacking the ways in which accessibility ramps move as objects or disability things, and accessible design moves as a conceptual category and technology of modernity, this article also contributes to important debates in disability studies, feminist design theory, information science, and the anthropology of infrastructure about the tension between universal categories and norms as a strategy for institutionalizing access, or, as a modernist mode of discipline that obscures and marginalizes difference and ignores local context (Bowker & Star 1999; Garland-Thompson 2006; Hamraie 2014).

Access in the Russian Built Environment

The Russian built environment is strikingly inaccessible. For instance, a 2004 survey conducted amongst citizens of the cities of Saratov and surrounding regions found that public roadways and sidewalks are particularly inaccessible, and other public spaces are only slightly better (Romanov and Iarskaia-Smirnova 2006:109-110). While private spaces might be renovated or retrofitted, and businesses or government offices might have some gestures toward accessible design.

Similarly, Human Rights Watch and the Russian disability advocacy NGO Perspektiva have documented the egregious degree to which the so-called social marginalization of people with disabilities is related to material elements of the built environment.

International NGOs play important and varied roles in translating international human rights discourses about disability into Russian, in disseminating these ideas to Russian advocates, and in advocating for elements of the international concepts of disability access (such as accessible buses, inclusive public education, and social service programming beyond monthly pensions) to be adopted by the Russian federal government.

Although attention to ramps in particular does not fully encompass the relationship of social attitudes and stigma toward people with the broad diversity of impairments that fall under the category of disability (e.g. Deafness, blindness, autism, Down Syndrome), examining what ramps symbolize can tell us much about how disability or minority access gets prioritized or deprioritized, negotiated, and imbued with meaning in the

Russian context. Disability studies, as a subgenre of critical sociology, is just emerging in Russia (with Romanov and Iarskaia-Smirnova, and the recent volume from Iarskaia-Smirnova and Rasell at the fore), and currently mostly addresses the exclusion of people with physical disabilities; more work on the exclusion of people with social and sensory disabilities in Russia is desperately needed.

In Petrozavodsk, ramps began to appear in new shopping centers built in the 2000s; shiny mall-like facilities, these new spaces also had large, western-style elevators, escalators, indoor atriums and food courts - elements unusual in the centrally-planned, utilitarian logic of Soviet architecture. But most apartment buildings, shops, grocery stores, schools, offices, and public parks had no elements of accessible architecture - most visibly represented by the ramp. Private citizens and disability NGOs installed makeshift ramps in homes and office spaces. Hospitals lacked even accessible bathrooms, but sometimes had ramps at a main entrance, or elevators.

A Sociocultural Approach to Disability

Anthropologists have long observed that categories often taken to be universal - such as race and gender - when studied in ethnographic context, turn out to be contingent and contested. An anthropology of disability treats the concept of *disability* as such.

Categories of disability do not match up cross-culturally, and definitions of disability within cultures and nation states are often hotly contested (Kohrman 2005). Accepting this approach to disability requires dismantling a dominant paradigm, "the medical model" in the parlance of critical disability studies, which attributes disablement to

inherent, pathological characteristics of individual bodies. In contrast, a critical sociocultural model understands disability and disability stigma to be (re)produced through social, cultural, legal, and transnational processes that privilege particular kinds of human bodies and minds (Linton 1998; Imrie 1996; Davis 2006; Ingstad and Whyte 1995 and 2007; Ginsberg and Rapp 2013). Furthermore, because *disability status* is a category bestowed on citizens by the welfare state, and *disability rights* and *social welfare for people with disabilities* are valences by which countries are assessed by their international peers, attention to the ways in which ideas and definitions of disability, and accessibility measures for people with disabilities move and circulate transnationally can uncover much about contemporary global processes and governmentality (see, for example: Kohrman 2005, Petryna 2002, Phillips 2011; Katsui 2014; Wengle and Rasell 2008). This article addresses the latter issue, that is, how elements of access are or are not implemented in one Russian city. By paying attention to the socio-spatial reproduction of barriers and access in the built environment, this work begins to describe one way in which marginalization and exclusion of people with disabilities gets reproduced in contemporary Russia (Imrie 1996:11), while also suggesting a synthesis of disability theory with theories of global friction.

The Physics of Friction: The Ramp in global motion

To most American readers *the ramp*, as an architectural feature, has a very particular meaning: it is a "disability thing" (Orr n.d.). That is, a ramp as an architectural feature is already linked to the thing that we call "disability". A ramp abutting an entranceway in a building or near a short flight of stairs is an object which at a glance is immediately

legible as serving a specific purpose: it facilitates access for people with disabilities. Unlike stairs, a ramp can be navigated by a person in a wheelchair; it can also be a preferable route for people with an unsteady gait, poor balance, or an injured or lesser-functioning leg (stairs require balancing on one leg to lift the other). Or, while steps assume that people are a certain height, a well-proportioned ramp can make mounting a vertical divide more hospitable for people with short legs. Along with people with a broad range of disabilities, children and elderly people often prefer ramps to stairs; in this sense, it is nondisabled adults who prefer stairs.

This meaning of the ramp has not always been present. In fact, the ramp as a tool for accessibility in public space emerged as part of the Universal Design (UD) or Accessible Design (AD) movement. Certain elements of UD were incorporated as minimum standards in the ADA (1991). In turn, they became elements of the legal infrastructure of the US building code. Like feminist design theory that preceded it, accessibility by design starts from the premise that "design is never ideologically neutral. Whether explicitly or implicitly, built environments always reference and imagine bodies and spatial inhabitants. ... both the presumed body *and* the marginalized body are always implied in, structurally incorporated into, or actively excluded from, physical environments" (Hamraie 2013:no page). Aimi Hamraie argues that the look or visual vocabulary of an architectural mode, called *parti*, can be at once both *aesthetic*, and *imply use by particular kinds of bodies using particular kinds of technological assistance* (2013:no page). In this sense, while ramps at the entrances to buildings or between floors or levels can serve all members of an urban population, the accessibility ramp is often imagined as

being "for" a wheelchair user - perhaps the white stick figure of the international "handicap" sign.

But what is a *ramp* actually? A ramp is a machine. In fact, a ramp, called an *inclined plane* in physics, is one of the five simple machines that make up the basic building blocks of mechanical engineering (Hendren 2012). Along with the screw, the lever, and the pulley, the ramp is one of the most basic mechanical tools. Each of these simple machines redirects energy or force in a particular way; designers and engineers put them together and in combination to form the tools that make up our world (Asimov 1966:88). In a classic popular physics book, physicist Isaac Asimov describes how a ramp "works" with the example how one might use a ramp to aide in loading a barrel onto a truck; the ramp "dilutes" the amount of force used to raise the barrel to the height of the truck bed, in proportion the slope and length of the ramp (a longer ramp will dilute the force more, but require transporting the barrel across a longer distance) (91-92). In introductory physics, in order to consider this relationship of slope, length, and force, *students are often instructed to discount friction*. Physicists consider friction to be an "imperfection" in the environment, which inhibits the flow of kinetic energy (Asimov 98). But *friction* is also a factor in allowing for passage up and down an incline - only by calculating the friction can a physicist or engineer know how difficult it will really be to move an object up and down a ramp. And in the real world, not the imagined world of physical modeling, humans *need* a certain amount of friction to move up and down an incline plane without slipping and simply sliding to the bottom.

In contemporary ethnography, Anna Tsing has proposed that we may think of *friction* metaphorically, as a productive force that occurs and produces heat or complexity.

Things and ideas, Tsing argues, do not flow freely from one context to another. Like the imaginary ramp in the mechanical physics of Galileo, which exists in a universe free of the "imperfections" that cause mechanical friction, economists and globalization theorists often imagine supply chains and human rights concepts flowing freely from one cultural space into another. Tsing suggests that rather than think of cultural differences or the mismatches in the ways that given objects or ideas are passed from one cultural sphere to another as an impediment or imperfection, it may be useful to think as these mismatches and tensions of interpretation or meaning as productive friction. Or rather, where conventional wisdom reads mismatches or misunderstandings as troublesome, Tsing takes a more neutral perspective: the friction generated by the mismatch may be useful. This is one of many ways that contemporary ethnographers talk about conflicting ontologies (e.g. Ries 2009; Mol 2002).

Extending Tsing's concept of friction by combining it with the physics of ramps might point ethnology in an interesting direction. In many ways, the ramp as a design element or architectural feature has moved through multiple cultural or ontological spheres to arrive on the streets of Petrozavodsk and in pixelated images on my internet browser.

What are the tensions and incongruences of meaning and interpretation that have aided the accessibility ramp in spreading and replicating across multiple global contexts? At what points are students of access or purveyors of human rights instructed, like physics students to "ignore friction"?

Checklists as smooth passage

The checklist, as well as the ramp, is a particular kind of technology. Bowker and Star discuss the *list* as a particular tool of modern bureaucracy and civilization (137). Foucault (1970), they argue, conceptualizes *the list* as key to the development of modern science - e.g. the elaboration of *kinds of* animals or plants in the elevation of biology from a rich-man's hobby to a science. Latour (1981) has highlighted lists as physical objects that can be shuffled and compared, moved across space, and held as proof of protocol by a bureaucrat. In this way, Bowker and Star note, list making is "foundational for coordinating activity distributed in time and space" (138). It attempts to streamline, coordinate, or make congruent a decision-making process that occurs across space and time. The list also produces a certain expectation of reality, in that it presupposes a bureaucratic action that might be applied "in response to a recurrent situation" (138).

In this sense, list-making technology becomes an important tool in the execution of the infrastructure of modernity. As particular ideas, forms, or norms are disseminated through a geographical territory, lists serve to normalize and standardize practices of design and implementation. As power has taken different forms, so too has the reach of the list and its norms. The monarch created particular kinds of lists, as did the twentieth century state (Scott 1995). Now as the flows of global capital distribute ideas and technologies across uneven cultural settings, lists and norms attempting to reproduce infrastructures of modernity get taken up and implemented in a diversity of cultural settings where the meanings of the products they presuppose are heterogeneous and

contested. That is, precisely because lists attempt to standardize across time and space, they operate as a system for managing the heterogeneity and disagreements of global friction (Bowker and Star 1999:139).

A suspicion of norms, and of modernity's obsession with the mean or average body, is central to disability studies (Canguilhem 2009; Davis 2006; McRuer 2006). Yet, disability rights activists working in global contexts rely on norms or standards as central technologies of list-making, in order to disseminate the principles of accessible design to diverse global contexts (Djumbaeva; Kohrman; DPI; Abilis). Concerns with material and environmental inaccessibility as bound up in the social exclusion of people with disabilities are central to both the theoretical debates unfolding in disability studies (Imrie 1996; Charlton 2010) and international development and human rights discourses.

Standardized modes of constructing accessible infrastructure, characterized by specific norms in the form of measurements and materials - the architectural building codes that make up accessible design - are considered to offer potentially universal solutions (even as many disability scholars and activists rebuke the very idea of "universal"). In this way building standards, or norms, already occupy a place of tension in relation to accessible infrastructures. Even as disability studies is wary of norms, or norming, when it comes to disseminating elements of the built environment, disability advocates may chose to "ignore friction". Even as list-making is a tool to smooth difference, and therefore checklists always function in friction, individual components of the list - the aesthetic look of a ramp, the check mark itself - may become fetishized, and sought after as ends in themselves.

What happens when we apply these problems to the checkmark list and ramp-building habits in Petrozavodsk? If we consider checklists as universal standards that are developed in relation to international building code standards, a checklist could be a functional tool for implementing accessible design principles in Petrozavodsk. However, if checklists are haphazardly implemented, or the details are not upheld, something that "looks like" a ramp may come to stand in for an actual tool for accessibility. By exploring some of the actual anecdotes and tensions on the ground in Petrozavodsk, we can see how these frictions play out in the logic of check-mark ramps.

Friction in Function and Form

In the spring of 2013, I recorded an interview with my friend Anya, who lives in the Western Russian city of Petrozavodsk. Anya is well known in the local disability community; she is professionally successful, which is rare for people with a visible disability in the city. She works as a psychologist and social worker, doing group work on psychological development with adults with and without disabilities. Anya grew up with a chronic illness that has progressively caused her to lose muscle tone. She now uses a power wheelchair to get around. She has devised numerous shortcuts to save energy for herself - she drinks out of a straw using the lightest plastic cup she could find.

Anya is a compelling person to interview. Not only does she frequently talk for long stretches at a time with only minimal prompting, but she is a keen observer, and has sharp sense of humor is highly entertaining. She often deploys her sarcastic wit to drive home

the absurdity of a particularly element of inaccessibility - a tactic that many disability activists in the West will find familiar.

For some reason they are trying to make the buildings of certain social services, or medical facilities, or the town hall and mayor's office, accessible. Like, they did something with the grounds of the pension office, and then something else. But how useful is building a ramp to the town hall, if I can't get down the stairs from my apartment?! [laughing] How am I supposed to use a ramp to the town hall? I think that in the first place, they need to adapt the entranceways (*pod"ezdi*) of the buildings where people with disabilities live. To start from there and work on out. To make public transportation accessible! ... Like in Finland -- I showed up, I stood at the bus stop, a bus came, laid down a ramp, I got on, the doors closed, and we were off. What's so bad about that?! ... I don't need a ramp at the pharmacy if I can't get out of my house!
 ...if we *do* have a ramp, it's covered in snow and no one shovels it!
 But who ever said life would be easy? No one promised an easy life! [pause; then, sarcastically, thinking of how hard it is to get around in the winter] It's our little way of doing rehab!"

In this quote, Anya observes that recent construction in the city has seemed to prioritize making accessible particular buildings that have some official function related to the state - the post office, the court house, or the town hall and mayor's office (*meioria*). These isolated islands of accessible passages remain disconnected from the broader network of transportation and passageways. Without the broader grid of the city undergoing similar renovations, a ramp to the town hall, to Anya, seems an empty gesture, or a cruel joke.

Anya imagines an alternate universe in which people-centered design would consider her homespace - which she has adapted herself - as ground zero, and work out from there. Instead, accessibility starts at points of state power, as a symbolic expression of the

Russian Federation's compliance with the minimum standards of international norms of access, Anya drives home this point by drawing a comparison between her own city and cities in neighboring Finland.

Anya's monologue reminds us that in order for an accessibility ramp to function, a person must have already arrived at the bottom (or top) of the ramp. If a wheelchair-user can't get out of her house, or across town on public transportation, she will not be able to make use of a perfectly executed design element in the new shopping mall downtown. Ramps as tools to facilitate access to public space in Russia, even if perfectly executed as discrete architectural elements, often do not function fully, as a ramp presumes certain other technological minimums, which may not be met. As part of a heterogeneous network of sociotechnological actors (Callon 1991), ramps may or may not find convergence with other elements.

That is, a ramp alone is only an indicator of access; the ramp requires numerous other elements of the infrastructure to converge in order to actually function for access. Ideally, a ramp functions as an enabling device or technology, allowing a smooth passage^{iv}, where otherwise social boundaries might need to be broken - requests for help getting over a threshold or up a set of steps. Yet, as Anya's narrative illustrates, there are multiple ways in which the diverse elements or sociotechnological actors in the infrastructure may not align to promote the function of the ramp. In these cases, the form of the ramp, and its symbolic function as a "disability thing" and element of global design culture remain, but its active function as a technology of access is lost^v.

Another example: for wheelchair users, the usefulness of a ramp presupposes a wheelchair. If there are no wheelchairs, or if wheelchairs are broken, a ramp is not a useful tool (of course, a well-built ramp can still be a preferable option to stairs for ambulatory people with chronic fatigue or impaired mobility). An unevenness in the distribution of wheelchair technology is a significant problem for access both in Petrozavodsk and in the former Soviet Union more broadly. Sarah Phillips has documented the ways in which wheelchair-users in postsoviet Ukraine worked to form complex alliances to convince business owners and government agencies to support the manufacture, purchase and distribution of well-designed wheelchairs in the 1990s and early 2000s (2012). Wheelchairs are expensive, usually manufactured abroad, and difficult to obtain. Because the supply and distribution of wheelchairs is slow and unreliable, if a part breaks or wears out, they can be difficult to fix. In Petrozavodsk, Anya complained that the frequently encountered rail ramp design (a ramp that is not a flat incline plane but two rails which wheels must fit into installed over a staircase), tends wear out the treads on her automatic chair's tires as they rub the sides of the railings. This causes problems, because the tires are expensive and a hassle to replace.

My friend Alina waited six months of 2012 for the replacement part for her broken manual wheelchair. She was able to borrow another chair to get around in, though it didn't fit her as well. We laughed when I came to visit, because the broken wheelchair took up so much space in her room that she had taken to using it as a desk chair while she waited for a replacement part. In another interview, she told me that when she was taking

courses at a community college three miles from home, she would often “walk” (her mother Valya pushing her chair), because it was too difficult to get lifted on and off of the city bus. Like Anya's comment, this story illustrates the ways in which particular elements of the sociotechnological infrastructure of Petrozavodsk were inaccessible; this led wheelchair users to create alternative networks or pathways that facilitated smooth passages (see endnote iv).

These objects - wheelchairs, ramps, and other design elements (or their absence) - can be understood as part of a sociotechnological network, in that they are always embedded in social relations. It is not only an object itself that facilitates access, but also social attitudes that foster or dismiss the implementation of design elements for their intended use.

When ramps, wheelchairs, and other technologies of access and elements of accessible design move into postsoviet spaces unevenly, their function is compromised by gaps in the network of sociotechnological actors. This means that whether or not a ramp is a check-mark ramp, or visibly non-adherent to the formal design principles that facilitate good passages, from the perspective of the wheelchair-user, the ramp may not be fully functional.

Friction Two: minimum requirements and the logic of checklists

During one interview, I asked Anya to tell me what she thought about the concept of accessibility in the built environment. I used the phrase *bezbariarnaia sreda* (literally, a

barrier-free area or surrounding environment), a conceptual and linguistic translation from international disability activism. Disability activists in Petrozavodsk used this term when talking to the media about accessibility in the downtown area, drawing on examples from ongoing activism in Moscow (facilitated by internationally-connected disability rights organizations), which they followed online. In this sense, Anya's response to my question was to immediately situate *bezbariarnaia sreda* in the Russian context, as a traveling term that had to be distinguished from the Western contexts that it was adapted from.

Accessible space - *bezbariarnaia sreda*? It's a painful question. The law on accessible space, well... last year they rewrote it several times, so that in the end they could implement it. I was following one particular point in the law. [...] there's this word, "minimum conditions of a barrier-free environment." I thought about that and realized that the word *minimum* is the key word. That someone could just argue that *this* word - *here* is the standard. I'd be saying, "You understand, that we have a right, as everywhere else, to the minimum standards of a barrier-free environment." And they'd answer, "Sure, our ramp is set at the wrong angle of incline - that's nothing, because the main thing is that a ramp is there! So, take a look, here are your minimum conditions." And I'd say that this is wrong, but I can't prove that it's wrong. There's no way to beat it. So, in this sense, I guess you could say that [the law] is written exactly how they wanted it.

In this quotation, Anya expressed the sense of frustration that she feels about the notion of accessible public space. Although the phrase for the concept - *bezbariarnaia sreda* - is now standardized in Russian, the real world work of implementing the concept, through a system of legal right seems to her to apply to some *other* place, and to have been adopted in Russia only symbolically. On the one hand, she is making a joke - in Russia, she

implies, we define things (like accessibility) in order to wiggle around them. On the other hand, she is speaking seriously. As a powerchair user, whose mobility device is too heavy to be easily lifted, she very much counts on ramps to be able to get in and out of buildings. She has personally overseen the installation of a ramp outside of her apartment building, and of several at a previous place of employment - never without significant hassle (a story that will be familiar to power chair users both in Russia and elsewhere). While this latter experience could be part of a litany of complaint from a wheelchair-user anywhere in the world, the particular cadence of her interpellation of legal code as difficult to enforce aligns with broader Russian conversations about government accountability, and lip service rather than integrity in implementation.

In Anya's experience, a "minimum requirement" is the requirement that *might* have a chance of being met (but only after a long process of complaint, threats, incorrect or unacceptable half-hearted stop-gap measures). Anything above and beyond a minimum requirement simply will not be considered, she insinuates. In her description of these *minimum standards*, Anya used the common Russian construction of assigning actions to an unnamed "they" - the faceless mass of government bureaucracy or the powers that be. Who, I wondered, were "they"? Who was actually responsible for designing, building, and assessing the implementation of accessibility ramps?

Anya and our mutual friend Rudak, also a wheelchair-user and activist, had some guesses. Anya had experience in the spring of 2013 trying to get a ramp built in the entranceway to her new apartment. Unfortunately, no one from the building management

knew what she was talking about, and no one was convinced that it was their job to build such a ramp. In Anya's telling, she left several messages for her building manager over the course of two months; she joked that they began simply answering the phone and hanging up to get rid of her when they saw her number on the caller ID. Finally, she announced that she was calling the local media to do a story on the fact that no one was responding to her request; a handyman showed up shortly, and in Anya's estimation, spent about fifteen minutes laying an asphalt wedge along half of the single step in front of her apartment building entrance. The work isn't great, but it allows her to get on and off the stoop daily on her way to work and back without ruining her tires. Haphazard, off-the-cuff ramps like this are frequently built onto storefronts and homes as afterthoughts, by workmen with little or no training and little attention to building codes.



Image: A screenshot from a local TV news spot about the ramp in front of Anya's apartment shows the unstudied concrete construction, and a hand-painted notice not to park cars in front of the entrance. Photo credit: http://vk.com/im?sel=5865389&z=video5865389_168244542%2F843d901b04a66ab013

In another scenario, the duo, along with another local activist, worked to find out who in the town administration was responsible for enforcing building codes. The train station in the center of town was scheduled to be renovated, and they wanted to make sure that the renovation would include ramps and elevators to facilitate wheelchair access to the platforms (currently only accessible by stairway). Having narrowed down responsibility to one of two possible offices, they were curtly informed by bureaucratic workers in each department that the question of enforcing building codes was out of their respective jurisdictions. The activists then obtained a letter from a federal agency, which stated that, according to federal law, an office in the city administration must accept responsibility for this role. But, having obtained this letter, and presented it to the same offices to no avail, the activists were stumped. Aside from the state, they could think of no organization with the authority to enforce the building codes.

In this sense, my interlocutors who are wheelchair users have a fairly good sense of how these unstudied ramps get built at apartment buildings, and limited ideas of how to enforce a standard of access. This makes other type of ramps that exist in the city -- the architecturally-designed, professionally-built ramps that can be found in front of government buildings or in shopping malls -- somewhat of a mystery. I asked Rudak how he thought that these ramps came to be built according to standards of accessible design, and he suggested that the reason that these well-designed ramps can only be found in such buildings is that shopping malls are simply built according to existing modular plans adapted from European cities, and the ramps happen to come along with the design. That

is, in his estimation, a well-designed and well-executed accessibility ramp, by definition is not Russian, and could not have originated in a Russian context.

"Lots of lists - really a lot!": Building professionalism

In the fall of 2012, I brought my questions about architecture and accessibility to a friend who works as an assistant in a Petrozavodsk architectural firm. At the time she already had completed most of a four-year degree in civil engineering, and was preparing to take licensing exams. We had known each other already for several years, and she knew that my research was on *invalidi*.

Thinking of the check-mark ramps, I asked Olya to repeat for my digital recorder what she had explained to me in an earlier conversation about checklists. Olya explained that using checklists to ensure that draft plans for new buildings are in agreement with building codes (*normi* in Russian) is a key element of her job.

O: I work in a company that does contracting for residential buildings, public buildings, sports complexes, and so on. And, I work in the architectural division. And - mostly our work is to see to it that all the building codes are fulfilled. And, included in those are norms for -- [pausing to emphasize or recall the official term] accommodations for low-mobility groups in the population.

C: What are some of the other codes?

O: Other codes? Well, for example, mmm. There are codes to make sure that there is good natural lighting in a room. [...] There are codes, for example, so that the toilet in your apartment isn't next to the living room of a neighboring apartment. That's against regulations. Because it would be bad if there were a leak -- it wouldn't be very pleasant! There are lots of codes, in general. Really a lot. You have to set the thickness of the walls, the thickness of roofing, so that people will be warm,

and -- so that it will be comfortable, and you won't hear your neighbors, and so on. So, among all of those, now these last few years, they've really been actively following up with implementing codes for people with limited mobility (*malomobil'nikh grupp*).[...] in the population. That is -- this goes for wheelchair users (*invalidi kolyaskochniki*), and, also for pregnant women, women with strollers, mothers... like, there are a lot of these people.

Olya went on to explain to me that her work is made up of verifying numerous, seemingly unrelated measurable elements of a building plan with established norms. While she intellectually recognizes that each norm is based on a particular corresponding function, e.g. thick walls and roofs so that people will stay warm, her job is not to establish the norms, or work out the norms, but to verify that the architects who have laid out the plans have met the existing norms. And, in her telling she made sure to demonstrate to me that the work of meeting standards regarding access is not set apart from the other elements of her job, but rather included in the same manner and importance as light, heat, and sound. She emphasized repeatedly that there are "a lot of norms - really a lot!" Later in the interview, she elaborated:

it's an interesting job, of course, but sometimes it can be -- tedious to work out. Like, when you're like, [adopts a sarcastically delighted voice] "I'll come in! I will draw a building! I'll add staircases! Oh, it's so pretty!!"[returning to her normal voice and cadence] But, in reality, you are sitting there with all these building codes (*normom*). And you spend a lot of time on it.

Olya contrasts her vision of architecture as a romanticized, exciting career and a chance to change her environment by building her world, with the much more mundane reality of checking figures. *This*, she emphasizes, is the actual content of her work: endless

verification. Checking that the elements of a given design meet the standards established for accessibility for "people with limited mobility" in Olya's telling is not an afterthought or chore, but rather a routinized element of her work, seamlessly integrated with others.

I asked Olya how it was that the norms for MG came to be instituted.

O: I don't know exactly what year it started. But, when I started with this work, the first job, well, it was like four years about. And -- it was already, like -- well, they were trying. To implement it. Lately, they're *really* strict that we follow up on this.

C: What does *strict* mean?

O: That - it means that - we *have to* do it, so that there's a *ramp*, with the right incline. So that we can't just - you know, how a lot are done, like lean some kind of board up against something, and say, so there it is - a ramp. We are obligated to do it so that it has a comfortable incline [--] so that a person can get in and out. We are obligated, like I said, to make a nice big bathroom stall. An elevator. Et cetera.

In this exchange, Olya contrasts the work of using checklists with non-expert vernacular design, like the ramp outside of Anya's apartment, which she implies is haphazard and unprofessional. In Olya's estimation, it seems that part of the utility of a strict building code is a more beautiful and well-executed public space. Without professional norms and standards to follow, ramps and other elements of the built environment might be poorly executed. In other conversations, like Anya, Olya described the jolt of jealousy she feels every time she crosses the border of the Russian Federation into Europe. Immediately,

she said, the roads are smoother. The sidewalks are not only well designed, but also well executed, and the bus stop shelters are new. I have often heard her joke with friends about how poorly the infrastructure of the city stacks up to other cities they have visited abroad. While Olya is busily making plans to continue to live in Petrozavodsk - she recently married and bought an apartment - she would like to live in a Petrozavodsk that looks more like Helsinki or Stockholm.

Olya's "obligation" to make sure her bosses' drawings meet building code standards is therefore, for her, not only busy work, but actually linked to a real world outcome: a built environment to be proud of, that functions well. And, to the expression of her own professional expertise. She went on to explain how the building code is enforced.

O: [...] So, it's not *just* that we have to follow up on all of this. There's a regulating body (*kontroliruyushaia organizatsiya*) that then checks over all the projects, and says, well, *orders* corrections on mistakes. And, then we fix them. It's not only -- it's not just about accommodating the movements of people with limited mobilities. It's also about all the other regulations in general, too.

[...then,] when we finish a project we give it to the expert review panel - [it's called] *ekspertiza*. It's made up of educated people, who sit on the panel and look out for everyone. For compliance with all the regulations (*sobludeniye vsyekh normy*). When they say, yes, you have it all correct, *theoretically*, only then can work start on the project. Like, construction on the project can go ahead and begin. But, more *often* (laughs), it construction is already underway while the plan is still being worked out (both laugh). So then it's going on in parallel sort of, so the work is coordinating it all, and moreover, then to make it all match up, to finish building peacefully, and so on. So, like, in order to not have to throw out the final construction, we'll start to build the

building. [The project financier] could, at any moment, on his judgment, take his resources and leave.

Olya's description of the role of checklists in ensuring accessibility standards reveals a Russian design expert culture that is concerned with executing their work according to the highest European professional standards. In Olya's perception, civil engineering in Petrozavodsk is not comparable to that in other Russian cities, so much as to geographically comparable international cities.

In contrast to Rudak's supposition that ramps in shopping malls come about because a building plan has been stolen from a European shopping mall, in Olya's telling, each building and each renovation is designed carefully by trained Russian professionals. As professionals, she and her colleagues execute the elements of design laid out in checklists, including the checklist for *malmobil'nikh gruppov*.

That is, in contrast to Anya and Volodya's guesses, according to Olya's insider's perspective, it's not at the architectural stage that plans for accessibility standards break down, but rather in the hands of the building contractor. This is not about Soviet bureaucracy, but the precarity of public/private and negotiations of capital in neoliberalism. Olya went on to retell a story that she had told me once before. She recalled it, in particular, because it represented a moment of ethical conflict for her, and because she had recognized it as a point when the execution of accessibility norms broke down.

There was this big building (*dom*). It was divided into two floors. And, they needed to make some kind of way to get to the second floor. They made this giant, enormous ramp. It was for cars and people and everything else. And, along the edge of the ramp, they made a handrail. There were high ones - according to the regulations they have to be [something like] 100 centimeters - and a lower one. It could be for children, or for wheelchair users (*invalidov-kolyasnichkov*). That is, we do all of this. We drafted everything. When these railings or handrails went - to the people who - well, who make them, from metal, they calculated the cost, and they sent it to our boss, and said, *That's expensive. Take out the handrail for invalidi (invalidov)*. So [the project underwriter] took it upon himself and just got rid of it. I don't know, how it all happened --- [but in the end when I visited the building, there was only one railing].

When I asked her to elaborate, Olya explained that the project foreman proposed some changes to cut costs. When the revised plans were presented to her, she refused to sign-off on changes that didn't meet the building code. But, she shrugged, embarrassed, someone else must have signed off.

In these tellings, both the architect and the ramp-users fail to imagine one another as individuals, and disregard one another's expertise. Olya's story suggests that the architects would point fingers at the builders for being at fault in moments when norms are not upheld. Yet, they would not think to reach out to ramp-users to raise a fuss about an oversight in execution. In Olya's telling, wheelchair-users are recipients of a built environment, not co-designers. And, as a mere employee, Olya herself, and the sanctity of her checklists, were ineffectual in the face of the logic of the bottom line. In an economy of capitalism, scarcity, and every-man-for-himself, if the one footing the bill

wants to take out a handrail, that's his gamble to make, regardless of how well Olya's drawing executed the elements of the checklist.

Anya, the powerchair user, also described a scenario when building norms were subverted at the hands of builders. In her case, however, it wasn't the boss overriding a well-designed plan, but rather, day laborers following orders and guessing what a ramp should look like.

At the Martial Springs retreat center (*Martzialniye Vody*) they made a ramp, so that you could get [from the main building] down to the spring. The springs with the healing waters^{vi} are down the hill and leading down to them is a long staircase. And last year, the good people [sarcasm] decided to build a ramp down to the springs. And it ended up, that at the same time that they were doing the renovation work, my mom happened to be driving in to the resort. She saw what they were up to and stopped and asked, "What are we doing?" and they answered her, "We're making a ramp." And mom says, "You're not building a ramp, because I can already see that a wheelchair won't be able to get through there." They started to wave some documents around, they go, 'we have the regulations (*normy*), we have the standards (*standarty*)!' And so, Mama says, "I don't need your standards, I am talking to you as a person who has spent 35 years of my life with an invalid, and I am saying that a wheelchair won't be able to get through here.

So, what do you think happened? They erected the ramp all the same. And ... so then it ended up that I started to bug them to redo the ramp. I chipped away at them and in the end they redid it.

In this telling, the fault for an inaccessible accessibility ramp falls on the day laborers tasked with building it. Again, a barrier of class or identity separates the executor of the ramp design from the user. The user's perspective is subverted to the laborer's own

informal checklist: use the materials we were given, build something that looks like something else we've seen, according to the instructions we've been given, get paid, go home. The black and white of the norms and instructions override Anya's mother's lived experience as a source of expertise. Operating in conditions of scarcity, and as laborers, the workers had instructions to follow that aligned with hierarchies of command, and could not be interrupted by horizontal avenues of advice from a passerby. In these cases, the purpose of the ramp and its meaning existed in friction between each set of parties involved.

Conclusion: the ramp as modernity

The non-functional ramp fails as a tool for accessibility for wheelchair users or other members of the *malomobil'naia grupp*a (those with strollers, children, the elderly and others with poor balance or compromised mobility). However, it is functional as a symbolic element of the visual public sphere. The ramp, as a cultural icon, references access and social democracy, as well as aesthetics of European society. A ramp is not just a requirement of meeting building standards (after all, with the right kind of bribes and lack of oversight, these might be overlooked altogether) - it is a vessel for a particular kind of cultural flagging. This is a place of modernity, a ramp is imagined to indicate. A ramp carries with it the mark of modernity, a standardization of the built environment, that, through the logic of checklists and norms, bit by bit, overtakes local vernaculars.

Checkmark ramps continue to spring up, as they are implemented by architectural firms in new constructions or executed by workmen following orders. Anya's insight that by

establishing a norm, a process also establishes a de facto minimum level of satisfactory execution, begins to circulate in interesting ways, as we watch the manipulation of "minimum" come into negotiation between different parties with different interests. A norm operates as a necessary and useful tool of modernity - offering the possibility of sharing potential measurements for a well-functioning ramp between different locales. Yet, the establishment of a norm also creates a fundamental situation of friction, by decoupling design process from function. From the perspective of centralized planning, the shortcut of creating a checklist or instructions prevents the kind of mistakes that vernacular architecture might make, or the replication of costly design process through trial and error, assessing the properties of various materials and measurements. However, by centralizing expertise, the checklist prevents fellow citizens from recognizing that knowledge of what counts as a working accessibility ramp can be found in ramp-users themselves. The check mark reveals itself as fundamentally belonging to systems of centralized, hierarchical design and planning. Materials and energy may actually be wasted when checklists are incorrectly interpreted, elements are left off to save on costs, or design elements are added without integrating them fully with the overall environment. The check-mark ramp appears where universal design travels in friction. The form of the ramp implies the invisible presence of the checklist, and the power relations facilitate the execution of the checklist's guidelines.

In this way, we might return to Rudak's (ultimately untrue) comment that ramps most likely come to Russia not as individual elements, but as part of plans for shopping malls that are imported wholesale from Europe. The logic of this statement underlines his

certainty that accessibility ramps, as an element of material design, are patently not Russian in origin. That is, the concept is one that is imported, and moreover, that the import of the accessibility ramp is something that travels into Russian infrastructures not as an independent unit, or as a design element actually intended to facilitate the access of minority populations, but *as part of a larger imported infrastructure*.

Rather than part of the plans for a specific building, the accessibility ramp is continually being imported to Russia as part of a series of plans for the new Russian nation. The ramp as a technology, and the checklist of architectural accommodations for *malomobil'nikh grupp*, travels within Russia as part of an infrastructure of illiberal democracy (as described by Zakaria), which, on the one hand, reconsolidates centralized power of in an autocratic, modernist state, and on the other hand, privileges profit-making and economic growth in private industry as an end to itself, as the social good from which other social goods might follow. In this mode of logic, ramps are built in the most symbolically important government buildings as a way of asserting lip service to internationally disseminated democratic principles of human rights and minority inclusion: in this incarnation the ramp symbolizes the egalitarian access to the tools of governance that characterizes democracy in the global imaginary. In shopping malls, the ramps play into an aesthetic of access that has to do with luxury, comfort, and ease, with technology and Europeanness. That is, these ramps are tied up in a global politics of development, wherein a symbolic inclusion of minority groups is not an end in itself, but leverage toward entrance or membership in Western systems of governance that privilege minority inclusion as a precept of modernity. The aesthetic work of the ramp as evidence of

dissemination of the varied value systems appeals to a heterogeneous array of stakeholders - most of whom are not members of the *malomobil'nikh grupp*.

Standards and norms - elements of design or infrastructure, and their implementation - are always already engaged in an ontological presupposition about what kinds of human bodies count. Do Russian human bodies count? Do disabled, poor, or racialized bodies count? Which bodies "deserve" access to the symbolic capital of a ramp-laden public space? Does Olya? Does Anya? As Arturo Escobar has pointed out, when designers describe "design for the real world," anthropologists must ask, "which world? what design? what real?" (2012). Or even, Who designs? Who builds? These are questions that must be posed if ethnography insists that friction is not an imperfection of physics, but rather, the unevenness that drives intentional motion. When worlds are built and rebuilt, when norms travel, power and exclusion are built in. Power relations do not operate as nested binaries of exclusion or domination - Russia/West, Able/Disabled. Rather, valences of power move through, across, and with one another, producing frictions that propel unexpected relationships or objects - like the inaccessible accessibility ramp - into existence and prominence.

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ⁱ Petrozavodsk is a city in the Northwest of Russia. It is the administrative capital of the Karelian Republic, which borders Finland. The populations native to the region share ethnic, linguistic and prehistoric archaeological evidence of cultural ties with Eastern

ⁱⁱ Imgur is an online image aggregating site that allows readers to give a news item an *up* or *down* vote to signify whether a given content item should be promoted or get buried. By processing the massive algorithm, the site provides constant new content to its readers. Imgur was designed to generate viral image memes and draws an international user base (Garber 2014).

ⁱⁱⁱ The phrase "disability things" is one coined by Katherine Ott, a curator at the National Museum of American History of the Smithsonian Institute (See the project *Everybody: An Artifact History of Disability in America* for an example of how her work uses material culture and technology to discuss the complexity of disability). The phrase has been a point of departure for a series of panels at the Society for Disability Studies conference for two years running (2013 and 2014), at which disability studies and design scholars have unpacked the cultural associations in a given object that is often characterized as a *disability thing* but does not necessarily have to be (prosthetic limbs), or is not usually considered a *disability thing*, but may in fact be (the iPhone). Thanks to Aimi Hamraie for their help with tracking the origin of this concept.

^{iv} The notion of smooth passage is one that I carry over from the article "Good Passages, Bad Passages" in which Ingunn Moser and John Law blend science studies and disability theory to argue that as cyborgs, humans rely on the confluence of a variety of

technologies and material and human factors to facilitate smooth communication or passage from one state, stage, or place to another. But often for those of us negotiating non-normative bodies, the linkages between the elements in these exchanges and passages do not align; and passage is rocky, incomplete, tumultuous, slow, or difficult. In crip culture, the choreography of discrete design elements and social factors into a "good passage" is a goal rather than an expected occurrence. Here I have used the phrase "smooth passage" to emphasize the concept of unevenness and friction.

^v Robert McRuer reported a similar phenomenon regarding a lone curb cut installed in a sidewalk outside of the British Embassy in Mexico City - although installed with much fanfare, McRuer argued that the curb cut did little to facilitate access in the city, nor to assuage the disabling and debilitating conditions of life in the city more broadly ("Crippling Development" Seminar Presentation, Prague, 2013).

^{vi} People drink the water from the springs, which is also gathered and used for mineral baths. Each of the three springs has a its own composition of minerals, which are said to be healing for specific ailments.