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THE DISPOSABLE SURPLUS: NOTES ON WASTE, REINDEER, AND BIOPOLITICS[1]

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The article examines the emergence of waste as an industrial category in the context of contemporary indigenous Sámi reindeer pastoralism and slaughter in northern Norway. In recent decades, commercially available substitutes and the industrial reorganization of slaughter have displaced traditional methods of extraction and utilization. As a result, the slaughtered reindeer body has been reorganized within new regimes of waste and waste management. Focusing on the relationship between disposal and harm, the first half of the article explores some of the reorientations involved in this transition. The second half links the emergence of industrial waste, as the worthless surplus of an anonymous carcass, to the formation of a disposable surplus at the populational level. Is there a link between the anonymous disposability of reindeer parts, constituted as the worthless waste of industrial modernity, and the anonymous disposability of living reindeer constituted within state biopolitics?

Keywords: Waste; Surplus; Disposability; Reindeer; Industrialization; Biopolitics

The present article examines the emergence of waste as an industrial category in the context of contemporary indigenous Sámi reindeer pastoralism and slaughter in northern Norway. While traditional reindeer slaughter made use of every part of the animal body, in recent years commercially available substitutes have rendered such utilization increasingly impractical. Simultaneously, the industrial reorganization of slaughter as a segregated expert practice conducted out of sight, within sealed hygienic environments, has limited herder access to the raw materials traditionally harvested from the dead reindeer. As a result, the slaughtered reindeer body has effectively been reorganized—its lines redrawn, its materiality reconstituted within the vocabulary of new regimes of waste and waste management. Focusing on the

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relationship between disposal and harm, the first part of the article explores some of the pragmatic, moral, and relational reorientations involved in this transition. The second part seeks to link the emergence of industrial waste, as the worthless surplus of an anonymous carcass, to the formation of a disposable surplus at the populational level—that is, to the biopolitical production of an "excess" reindeer population, a surplus of reindeer that exceeds ecological carrying capacity and therefore must be destroyed. Finally, after briefly discussing the concept of "disposability," the closing section draws the argument together and explores some of its more speculative implications. Is there a link between the anonymous disposability of reindeer parts, constituted as the worthless waste of industrial modernity, and the anonymous disposability of living reindeer, considered through the aggregating lens of state biopolitics (Foucault 2004; Lemke 2011; Reinert 2007; Wadiwel 2002)?

The term "waste" is full of contradictions: neither Norwegian nor the northern Sámi language contain terms that translate exactly the English word, with its double function as verb and noun and its complex, morally charged significations. Analytically speaking, the word itself already generates a sort of productive equivocation—a juxtaposition that glosses a range of material specificities, encompassing them to produce a vantage point from which otherwise unrelated phenomena become meaningfully related and commensurable with each other: a broken television set, a freshly torn reindeer lung, and a barrel of degraded nuclear material are all potentially "waste," while abstract concepts such as time, money, effort, and entire lives can be "wasted." The vantage point that this concept produces is choreographic (Law 2004)—it orchestrates, brings into being and connection worlds that are organized by the intersection of core concepts which often remain unarticulated: value, use, surplus, efficiency and inefficiency, expenditure, discard, entitlement, thrift (to say nothing of the implicit spatial imaginaries of where waste "goes," half mythological, out of sight and out of mind). To treat "waste" as a simple analytical category without problematizing the manner in which the term inscribes itself in reality and reorganizes it is to remain oriented within the world(s) that it generates: on some level or other, buying into the ontological choreography that creates "waste," and that "waste" creates in turn. On a planet overflowing with synthetic discards and human detritus, where particulate plastic is transforming the molecular composition of the sea itself (e.g., Cole et al. 2011), this is an increasingly untenable position. The twentieth century has brought about fundamental changes in the ability of human beings to irreversibly alter the physical composition of their own planet—ever since, it seems, the species has been inscribing itself into the geological record at a phenomenal rate, generating a planetary sheath's worth of toxic, indestructible materials: mostly in the form of waste, discards, accidental byproducts of human activity and processes. Vast economies of harm are in play here: risks unevenly distributed, pollution and degradation unequally inflicted, regimes of visibility that "disappear" both waste and victims, hiding from view the harmed, those who live with waste or in it or through it—lives spent in waste and wasted, turned to waste themselves. Waste thus offers itself to the present as a problem of habitability, and survival, on a

planetary scale—its accumulation, as the infinite obverse of infinite growth: twinned activities, in unlimited expansion across the finite spaces of a limited planet. More than ever, it seems pressing to develop (or recuperate) approaches and perspectives that can draw into question not only the management of waste but its very generation and existence—troubling the *normality* of waste, its taken-for-granted character as a kind of constant, regular, necessary output of human collective life.

Against this backdrop, the present text is a minor attempt to open up the "black box" of waste—by focusing on certain materially specific forms of waste, but more importantly by shifting the locus of attention "upstream," away from issues concerning its disposal, spatial management, or discursive construction, towards the moral and ethical dimensions of *generating* waste in the first place: in this case, drawing attention to some of the moral issues involved in transforming living beings into useless or discarded matter. The argument is based on my own ethnographic fieldwork with reindeer pastoralists in the Norwegian Arctic, ongoing since 2003 (see particularly Reinert 2009). The argument sets out to question waste using the time-honored ethnographic technique of deploying difference to relativize and dislodge the dominance of the given—with the given here understood as the tacitly normalizing acceptance of material waste as a kind of status quo, a shared understanding that defers the urgency of the problem and permits terms like "waste," "trash," and "garbage" to continue circulating, intrinsic and relatively unattended, through modernity.

THE DISPOSAL OF PARTS

Autumn, time for the slaughter. Up at the corral, herders have rounded up the reindeer and are driving them into enclosures for selection. The media are full of controversy: reindeer remains, supposedly littering the tundra in decomposing heaps, dug up by pests, unsightly threats to hygiene, health, landscape, traffic, tourism, even decomposing into methane emissions that threaten the global climate. Curious about the matter, I start asking around at the corral to find out where their waste disposal pits are. No one seems particularly interested in the question. Casually, not looking up from her work flaying reindeer legs, one of the herders waves her hand: "Oh, it's over there." Emerging into the muddy field beyond the corral, I am still unsure where to go, but—looking up—the skies above me are dark with circling birds: carrion eaters, circling some feast. Following the crows, I arrive at a small, freshly excavated mound—black birds perch on it, watching me as I approach. Twenty steps away, suddenly, they all take flight. Nearing the edge of the makeshift ditch, I notice it for the first time—a sweet, strange smell on the cold air. At the rim, I lean over and inspect the contents. Moisture on my camera lens renders everything in soft focus—the cracked skulls and jawbones, ruptured stomachs, glistening lungs, guts trailing in pitiful splashes of red—a mass of parts, all undone, rotting in the freshly dug trench. Overhead, startled up but only temporarily, the black birds circle waiting for me to leave.

In historical terms, the surplus organic material from reindeer slaughter has only recently begun to emerge as a recognizably modern form of waste, within the

coordinates of a post-war industrial production system. Until fairly recently, the vast open spaces of the tundra absorbed the residue of dead reindeer—whether they died on their own from accidents or illness, felled by predators, or slaughtered by their owners, often by hand in small batches. Moreover, in the context of slaughter there was relatively little excess to absorb: among the Sámi, as among most other pastoralist groups, traditional reindeer slaughter made use of nearly every part of the animal body—from the sinews, dried and braided into ropes, to the brain, pulped and used to impregnate leather. The specific uses of different body parts might vary from site to site, over time, and between groups depending on shifting configurations of need, skill, and opportunity. Asking around at the autumn slaughtering site of my key informants during my doctoral fieldwork, I collected a number of such uses that were either still current or that had been widespread in living memory. The soft fur of the heads and the lower legs could be made into handicraft shoes—for personal use, for gifts, or for selling on. Once flayed, the skulls could be cleaved, separating out the eyes and the lower jaw, which were then boiled and eaten. Reindeer eyes in particular are a delicacy, on a par with the tongue, but laborious to extract. The blood could be used for a range of food products—assuming that someone was at hand to collect it in buckets and stir it, for hours on end, to prevent congealing—and the sinews to make thread for clothes and shoes, though manufacturing such thread was again a very laborious process, in decline since the increased availability of synthetic substitutes. The sinews of the back were particularly strong and useful, but they also required the most work. Of the inner organs, some were saved for human consumption, particularly the heart, while others such as the lungs, liver, and stomach might be used for dog food—though again, this practice had been largely replaced by commercially available dog food brands and was retained, mostly for nostalgic reasons, by the elders of the district. Some of the bones could be used to make knife handles or other durable objects, and the brain, finally, could be eaten or used to make oil for treating furs and skins.

In their time, embedded within an ethos of thrift that was adapted to the relative resource scarcity of the Arctic, such extraction practices served to help minimize outtake from the herd—an important consideration in a context where living animals functioned as a form of capital (Paine 1971) and every slaughtered animal represented an irreversible conversion of growing reproductive potential into reproductively inert raw material. Today, many of these uses have passed from common practice. Synthetic nylon has made the laborious extraction of sinews obsolete, and shoes handmade from reindeer skull fur can compete only with difficulty against mass-produced footwear shipping in from China and available at the nearest supermarket, a short drive away. Commercially available substitutes have rendered traditional practices of extraction and utilization impractical and expensive. At the same time, for pastoralists in Norway the second half of the twentieth century was largely defined by far-ranging programs of scientific modernization (Paine 1994), driven both by state and market forces—not least among which was the dramatic reorganization of reindeer slaughter into a large-scale, industrial practice dominated by technical, hygienic, and economic forms of expertise (Reinert 2009). As an unintended consequence, this reorganization has also dramatically curtailed the access of herders to the carcasses of their own

reindeer—by moving meat processing into the closed, hygienically segregated spaces of an emergent industrial production chain, thus severely limiting opportunities to retrieve the raw materials traditionally harvested from the dead body. Today, most reindeer slaughtered for the market are transported from roundup corrals to large-scale commercial operations, where they are processed by third-party operators: herders wave off their animals on the back of transport trucks, parked at the roundup corrals.

Once the reindeer enter the industrial production chain, an interesting convergence manifests: the skilled thrift and maximal extraction of traditional slaughter echoes the manner in which the industrial meat system is geared towards optimizing the value of each processed body, extracting as much raw material as possible, and transforming it into salable product. The mega-abattoirs of the late nineteenth century were marvels of engineering, colossal engines of disassembly designed to isolate, extract, and process every element of potential value from the dead bodies that passed through them (Giedion 1948). Writing from the Chicago stockyards at the beginning of the twentieth century, the novelist Upton Sinclair famously attributed the joke to a packinghouse tour guide that "We use everything about the hog except the squeal" (Sinclair 1906)—a sentiment that has since been frequently invoked by writers on the slaughterhouse. Such extraction is contained entirely within a capitalist logic, where maximized yields are balanced against minimized costs to generate optimal profit. Every additional commodity that can be made to issue from the dead body increases its profitability, weighed up against the total cost of raising, slaughtering, and disaggregating the animal in the first place. Responding to this calculus, the carefully designed machinery of the first industrial abattoirs precisely calibrated time, energy, and bodies—dead and alive, human and nonhuman—to enhance profit margins and optimize the efficient extraction of surplus value. In this context, "waste" emerged simply as the mathematical limit of value extraction, a matter of efficiency, precision, and finesse—waste as residual matter, in other words, left over at the point where industrial transformation of the dead body ceases to be profitable.

Framed thus, the "waste" from a dead reindeer merely materializes the limit of profitability and of cost-efficient extraction. Crucially, this limit is mobile: it depends on the inventiveness, skill, facilities, networks, and distribution channels of a given operator. Discarded reindeer stomachs, for example, might ship either to Denmark as pet food (generating a margin of value, however slim) or to a dedicated organic waste disposal facility (generating costs)—the deciding factor here being whether the slaughterhouse operator had the network, contacts, opportunity, and material capacity to realize the potential value inherent in the body parts. For a while, some of the slaughterers in the district where I worked shipped reindeer antlers and dried penises to East Asia for powdering as aphrodisiacs—at least until the 1990s, when cheap synthetics like Viagra disrupted that market, dropping profitability and forcing these body parts back to waste status. Waste designation thus fluctuated according to locally specific variables and conditions: the antlers that became waste with the advent of Viagra might become profitable again in the future, if and when other channels of viable commodification arose—perhaps as raw material for souvenirs in the local tourism trade. The key point

here is that the organization of industrial slaughter articulates waste as a residue at the juncture of efficiency and profitability: a mobile limit that inscribes itself in the dead body as a line separating "waste" from potential commodity.

Thus there seem to be two more or less simultaneous logics at work in the production of waste from reindeer slaughter: on the one hand, a capitalist organization of work that pushes towards optimal extraction and transformation, maximizing returns on the disaggregation of individual bodies while simultaneously minimizing the production of expensive waste; on the other, an ethos of traditional slaughter, adapted to relative resource scarcity and the prospect of "bad years," that tends towards minimizing outtake from the living herd through the judicious and skilled utilization of all elements from the dead reindeer—limiting the extent of slaughter, as an irreversible transformation of living animal into reproductively inert material (Ingold 1978). At first sight at least, the two logics appear parallel but convergent, producing similar outcomes: both employ skillful, inventive, and diverse practices of utilization to minimize the "leftover" of slaughter, avoiding the generation of useless or inert material from each carcass. Staying with the juxtaposition of the two logics, however, over the next two sections I want to draw out certain key differences—focusing specifically on the manner in which physical waste from the slaughter functions to mediate a series of social relationships including both human and nonhuman actors. I approach this primarily through a comparison between the multiple mechanisms of harm entailed in practices of disposal.

THE MECHANISM OF HARM

At a conference in Tromsø in 2004, entitled "Sámi Values in the Light of Christian Faith," a priest from Tana in eastern Finnmark gave a lecture where he presented material from interviews he had been conducting with middle-aged and elderly herders in the core herding areas of inner Finnmark (Johnsen 2004). His material focused on rites associated with the slaughter of reindeer, and the one rite described by all his informants was the practice of *russestit áksána*, or carving crosses in reindeer skulls. Having slaughtered a reindeer and severed the antlers from the skull, one was to take the small circle of bone the antlers were attached to, scrape off the brain matter, and carve a cross on the inside, under the antlers. Informants in the study gave three principal interpretations of this rite, to do with blessing, thanksgiving, and regeneration—all three of which Johnsen described as largely compatible with a Christian ethic generously defined. Two other traditional rites were also common, both associated with the consumption of reindeer and the subsequent disposal of remains: Firstly, the bones of a consumed reindeer were always to be taken outside after the meal and buried separately from other forms of household waste, and a short Christian prayer was to be said over them. Secondly, at the end of a meal, the bones of the reindeer must always be cleaved, even if the edible marrow had already been extracted—to do otherwise would offer insult and risk injury to oneself, inviting poor "reindeer luck" (Oskal 2000). Awareness of such customs is still fairly widespread in many of the indigenous reindeer herding areas of Norway: during my own fieldwork with herders in the eastern part of Finnmark, near the Russian border,

I was frequently told at meals to "suck the marrow from the bones, or the cows will not lick their young"—meaning that unless the remains of the reindeer were consumed fully, as a measure of due respect, the females of the herd would cease to care for the offspring and the herd would diminish, possibly perish. My own informants usually referred to such sayings and practices as quaint custom, associated with another age of herding—before the advent of motorization, industrialization, state regulation, mass production, hygiene restrictions, and so on—but, nonetheless, such maxims continued to inform their consumption practices in the present: leaving aside the matter of "reindeer luck," flagrant disregard of such observations might be considered at least impolite, at worst an offense to the hospitality of the host and the pride and integrity of herder traditions.

In the present context, I am interested in how such rites, proverbs, and traditional gestures outline a modality of disposal—now largely disappeared though surviving in the form of proverbs and traditions—that is oriented towards preventing and neutralizing certain kinds of insult, or offense, both against human and nonhuman agencies. Managing reindeer remains without care or disposing of them without due attention risks drawing down social, material, or "spiritual" injury on the transgressor. While interesting in their own right, the exact mechanisms at work here (for example, the ontological structure of "reindeer luck" or the specific agencies by which retribution is ensured for insults) are less important than the relationships that are mediated through such disposal and the attentions that these relations focus. Through the concern with respectful disposal, slaughter and consumption both become oriented toward the living origin of the materials at hand: the meat, the bones, the gristle that originated in a living being. The reindeer themselves, and other nonhuman agencies, are rendered as susceptible to insult, to offenses that can be traced back along the chain of transformations that lead from living animal to materials consumed and disposed of in the present. Foregrounding the origin of materials in a relational being, such attentions serve to embed the meal, the act of consumption, within an ongoing relationship between consumer and consumed—a relationship that continues after death, specifying the scope and terms of potential harm, and in terms of which the nonhuman dead continue to command respect and attention. Drawing on Carol Adams, one might say that such practices serve to sharply counteract the "structure of the absent referent" (1990:50–73), as this is conventionally encoded in industrial meat production—that is, the mechanism by which the dead animal and the violence that produces it as meat are both semantically erased from the terminal meat commodity but continue to exist as a continually repressed presence contained "in" it: a spectral surplus that constantly threatens to resurface, or erupt, in the act of eating.

With industrial slaughter, on the other hand, the discarded residue—bones, organs, heads, meat scraps—carries the potential for harms of an entirely different order: harms to human health, primarily, but also to the environment, to the landscape, and, through this, to tourism, to the economy, sometimes even to the climate as decomposition supposedly emits greenhouse gases in sufficient quantity to warrant the attention of pollution monitoring bodies. The mechanisms of harm involved here

differ in key respects from the potential for harm that traditional disposal aims to manage and neutralize. For one, the harms accounted for here are located in the future—prevention is geared towards downstream effects that may arise from the agency of the discarded substance itself, through its material transformations, decomposition, and properties. Understood and managed as industrial waste, reindeer remains thus manifest a potential for *future* harm, arising, for example, through their capacity to host microorganisms, their unpleasant aesthetic qualities, or their power to attract pests and scavengers—effects associated with the materiality of an impersonal, nonsocial substance describable entirely within a material-scientific register of causality. The harm here begins with the inappropriate management and disposal of material substances, creating potentials that may materialize in the future as poisoned consumers, pests, and scavengers, spoiled landscapes, disgruntled tourists—appropriate disposal becomes, in other words, a matter of managing, by minimization, future risk. To control and minimize these risks, complex regulations direct the movement, storage, disposal, and elimination of these dangerous materials, often requiring transport to specialized disposal facilities hundreds of miles from the slaughtering site at costs that are prohibitive to small-scale operators, reinforcing centralization in a feedback spiral that increasingly eliminates traditional forms of slaughter, rendering them impracticable and impossibly expensive.

At this point, I think there is sufficient material for some conjecture and preliminary comparisons. Importantly, the two modalities of disposal I have described—call them "traditional" and "industrial"—construct the potential for harm using different temporal frames: one is focused on possible future effects, the other with a kind of retroactive agency of the act of disposal itself, acting on the deceased nonhuman "donor" of the meat in the context of a still-ongoing relationship between consumer and consumed—a relationship that is not necessarily terminated in death. In this latter framing, both inappropriate disposal *and* the conversion of reindeer into unnecessary or useless materials (i.e., the production of waste, or at least excessive or unnecessary waste, from the act of slaughter) constitute forms of potential insult or injury to the reindeer. The problematic of traditional disposal thus brings into view not just the management, disposal, and circulation of "waste" but its *production*, its classification as waste in the first place. Transforming living beings into dead bodies and disaggregated materials already appears as problematic—rendering them into abject matter, a useless residue to be rejected and "thrown away," constitutes not only an inefficiency, or cost, but also a form of moral failure and a relational offense directed at the slaughtered being.

On the other hand, industrial reindeer-waste management—as encoded in government regulations, hygiene protocols, and the practice of veterinarians (Reinert 2009:79–104)—*begins* with this abject matter already in existence, then asks how it can be correctly disposed of so as to minimize the risk of future harm. In the light of the other modality I just described, this appears as an invisible move, one that takes place not so much behind the scenes as before them, constructing the stage—and it serves to bracket off the social, ethical, and moral problems raised by generating this abject material in the first instance. To contain the risk of future harm, the parameters

that define industrial waste are also very strictly stipulated: any organic residue that is not appropriately transformed must be disposed of as waste. Commodity or waste—the line may be mobile, but it is also absolute. Simply put, very limited space exists within the industrial management paradigm for problematizing the generation of the waste, never mind the attendant transformation of living beings into useless and undesirable material; this, I suggest, is a basic structural aporia, produced by the overarching configuration of waste as a technical problem requiring technical solutions. With this configuration come particular organizations of expertise, agency, and responsibility: technical knowledge regarding the correct disposal of reindeer remains becomes the focus of "ritual experts"—scientists, regulators, hygiene specialists, technical operators who work behind closed doors, elaborating directives that control the disposal of remains. With industrialization, a new and binding economy of knowledge thus arises to organize the posthumous life of reindeer, wrought through novel forms of expertise and relocated authority.

Both traditional and industrial modalities of disposal thus specify how and why the material residue of slaughter is dangerous, why the remains of reindeer must be handled with care—though both the nature of the remains and the forms of risk they present differ in radical ways. Neither mode treats the remains as freely disposable, but the mechanisms that describe the consequences of inappropriate disposal differ—differ, that is, as to the cause, mechanism, effect, distribution, and scope of potential harms that may arise from the wasting process. Putting it simply, one might say that industrial disposal develops a *hygienic materialist* model of harm, centered primarily on systematically limiting the future effects of a dangerous substance through containment, destruction, and elimination from view of the processes by which it is generated. Traditional disposal, on the other hand, concerns itself—perhaps more—with the social, moral, and ontological risks that arise when transforming a living being into meat, body parts, and raw material; somewhat crudely, one might gloss this latter model of disposal as *necromantic*—capturing the manner in which it brings forth the dead, making them present in the act of disposal and subject to injury through the acts of the living—and *cross-species relational*, in that it extends attention to the personhood of significant nonhuman entities and lends to them (or recognizes) a capacity to suffer injuries that are irreducible to physiological terms. Traditional disposal thus exceeds the matter of simple thrift, just as industrial disposal exceeds the logic of optimizing value or maximizing efficiency. Radicalized through the ontological scope of harm, the production and management of reindeer waste brings into play fundamental questions—questions that concern the sort of beings that exist or that may exist, the manner in which they exist, the sort of relations they may enter into with humans or with each other, and the manner in which they may be harmed.

THE DISPOSAL OF POPULATIONS

Reindeer are migrant, their herders nomadic; historically, as with many other highly mobile populations, this has made them thorns in the side of the state. At least since

the border closures with Finland and Russia in the middle of the nineteenth century, a statist biopolitical machine has been in operation in Norway to insist on the existence of a reindeer "excess" in the northern territories (Bull, Oskal, and Sara 2001). Despite a series of discursive shifts, from national security to social welfare to ecology, the underlying determination—"there are too many reindeer"—has remained constant, a sort of traveling fact and immutable mobile of reindeer governance discourse. Through the operation of this constant, the dominant issue of Norwegian reindeer pastoralism has been stabilized as the problem of a persistent excess, a technical problem that demands technical solutions on an urgent and continuous basis. Administrative efforts to stabilize and reduce the reindeer population continue today, more or less unabated, fluctuating in line with oscillations in the "total population." The persistence of the excess as an unresolved problem generates an atmosphere of sustained emergency, a policy environment that resembles the state of exception in a number of respects—up to and including the suspension of the conventional codes that regulate the exercise of state violence, as evidenced every so often by calls to "normalize" the situation through interventions by the police or military imposing a "forced slaughter" or "mass cull."

One key problem with this understanding—that the technical solution to the reindeer "problem" involves a stabilization of the population at an "optimal" sustainable level—is that optimal herd sizes are dynamic, fluctuating over time in response to a complex set of interlinked variables: weather, grazing conditions, shifts in family structure, availability of hired labor, market conditions for meat, subsidiary or alternative opportunities for employment, and so on. A large herd also serves as a buffer against inevitable "bad years" when large numbers of animals tend to perish due to environmental factors that lie beyond the control of individual herders. Maintaining a stable herd size over time thus requires, at the very least, a stable and predictable physical (and social) environment. Taken to its extreme, the aim of establishing a fixed sustainable "optimal number" would thus involve engineering environmental control over the entire physical environment of the reindeer, to prevent unanticipated losses. In livestock industries premised on the management and processing of captive animals, such control might be feasible—applied to pastoralism in an Arctic climate, in environments characterized by extreme and frequently unpredictable weather conditions, it becomes deeply problematic. Worse, the fixed number functions to produce transgression as a practical inevitability of practice, a more or less inevitable but nonetheless condemned outcome of regular fluctuations in uncontrollable environmental conditions. As the idea of a stable number becomes increasingly embedded in popular discourse, it becomes a morally charged norm or standard by which pastoralists are judged for compliance. In a context where tensions over land use are already pronounced, the discourse of "excessive" reindeer numbers continues to further delegitimize pastoral practice and its associated land claims.

Beyond this, however, scientific and administrative attempts to "solve" the problem of establishing and maintaining a numerically fixed "sustainable" threshold serve to reproduce and consolidate, as a basic premise, that the number of reindeer

on the tundra is a technical problem, subject to technical solutions—solutions that involve, as a rule, physically reducing the number of living bodies. In other words, the "reindeer problem" contains the terms of its own solution, foreclosing the question of method by tending to collapse all alternatives into the biopolitical management of an aggregated populational object or objects. Since the populational object in question is not human, the destruction of individual bodies that compose it appears reasonable, a viable option. Within a biopolitical optic, the "total" reindeer population comes to exist in such a manner that a line can be cut through it rendering a fraction of the total number as bodies to be destroyed. Such calculations are perhaps the quintessence of contemporary nonhuman biopolitics, the baseline modus operandi of an optic that takes the population as its primary and fundamental object of concern and that considers the individual bodies composing it as subordinate, expendable. This mode of biopolitics maps a relation of priority between populational whole and sacrificable parts—a relation that corresponds, in a nontrivial sense, to the imagined relation between organism and cells, a relation by which fungible, interchangeable, and anonymous parts can be destroyed to safeguard the preservation and well-being of a whole.

This configuration of reindeer as freely destructible parts of an abstract "whole" is a discursive effect produced through geographical distance and, as importantly, by a lack of coherently articulated counternarratives. Through a series of successive abstractions, from animal to herd to district to total reindeer population, the discourse of "excessive" reindeer produces the total number of reindeer—the "whole"—*as if* this number were a straightforward aggregation: a tangible and directly controllable entity, transparently subject to techniques of intervention that presuppose the complete manipulability, the "killability," of individual bodies within the population (Reinert 2007). The abstract figures that compose this eliminable populational excess, the bodies to be "trimmed," exist only through a process of compounding abstractions that erase the individuals making up the supposed excess—each of whom must be individually killed, presumably (in the first instance) by their owners and herders. Interventions such as "forced slaughter" thus not only assume the existence, legitimacy, and operation of the state as a biopolitical agent, capable of meaningfully exercising such sovereignty—they also erase the complex forms of resistance that counteract, diffuse, and sometimes refuse to acknowledge such exercises of power. The sovereign control exercised by a herder is not identical with the sovereign power as exercised by the state as a biopolitical agent (Reinert 2009).

More or less universally, solutions that are based on reducing the "total" population entail the manageability of individual reindeer as silent, pliable, and morally inert—raw material, completely at the disposal of its owner—in short, as a kind of being that is very nearly not a being, an entity over whom sovereign violence can be exercised unproblematically, without restriction or resistance. Put most simply, the foreclosure involved in this aggregation obviates the question of whether individual reindeer are, in fact, the sort of beings that *can* be destroyed in this manner—never mind whether they should be thus destroyed. Biopolitical calculations

may legitimate vast interventions and tremendous destruction—but they do not necessarily make them feasible; designation is not execution. To some extent at least, with regard to Norwegian reindeer, the biopolitical mandate of the state is illusory: herders I worked with shrugged cracking jokes about the threat of culls and mocked the image of tanks rolling out across the tundra to "destroy" their reindeer. How would they even find them? Seen from the far north, on the border to Russia, the claims of urban political elites in the south were easy to mock, easily rendered as absurd. Derisively, herders questioned exactly how such culls were to be carried out and by whom if they themselves did not collaborate—drawing out the material limits to state power and of the intangible biopolitical machine that generated threats such as forced slaughter or mass culls. This strategy of ridicule amounted to a kind of rematerialization, a making-concrete both of numbers and of pastoral practice—a figure-ground reversal of sorts, by which the abstract mechanisms that rendered the "local" absurd could themselves, in turn, be rendered absurd.

In operationalizing a "total" reindeer number as their significant object, the biopolitical technics of state intervention seem to posit that the "total" number stands in an unproblematic and transparent relation to the parts that compose it and that the movement "up" and "down" between scales is routine, unproblematic: in other words, that the move from "individual" to "total population" and back again, via intermediary stages (scales of aggregation such as herd, herding unit, kinship group, working collective, reindeer grazing district, reindeer grazing area), can be made without resistance, friction, sometimes even without reflection. This is of course a managerial fiction, an effect produced by the circulation of the number itself as a "social fact," as an actually existing entity. As the failures of state reindeer policy in recent decades amply illustrate, and the mocking stance of herders flaunted, there is no simple or straightforward way to move between a "total" number that designates a fraction of reindeer as destructible and the designation of specific animals within individual herds as "killable." Abstracting "upwards," the crisis discourse of reindeer policy erases the multiple nodes that present resistance to the straightforward implementation of "killability." In this sense, one might say that the biopolitical calculus operates on the basis of a compounded erasure that misrecognizes not only the microphysics of its own implementation but also the political economy of pastoralism *and* the pastoral relationship itself. Part of the puzzle is that for all that they may be commercially slaughtered, reindeer still remain less "killable" than presupposed in administrative calculations: it is a long way from the tundra to, say, the killing fields of the 2001 British foot-and-mouth crisis (Wadiwel 2002).

THE INJURY OF WASTE: CONCLUSION AND SOME SPECULATIONS

Earlier, I discussed two mechanisms that model the harm of waste: a hygienic materialist account, actualized in the regulated production of organic industrial waste as a dangerous substance, and what I called a "necromantic" relational version, encoded in traditional axioms, which takes into account a potential for social or

intersubjective harm that arises in the transformation of living beings into inert raw material—primarily by tracking insults and offense to the dead, that is to the reindeer, but including also certain kinds of harm that may accrue to the offender through the act of causing insult. Based on the discussion in the last section, here I want to tentatively suggest a third mechanism of harm that may be involved in the production and disposal of reindeer waste—a form of harm that arises in the space between individual and aggregate and that connects the multiple scales at which reindeer are managed as living bodies transformable into meat. To bring this third modality of harm into view and draw out its scope in the context of my argument I need to briefly expand the frame of discussion.

Shortly before I began drafting the first version of this text, in November 2011, a minor scandal erupted in the United States. After years of painstaking investigation, an American war widow had finally discovered that the body parts of her dead husband, killed during service overseas, had been classified as medical waste and disposed of in a landfill—anonymously blended with body parts from several hundred other war veterans ("Remains of War Dead Dumped in Landfill," *Washington Post*, November 9, 2011). In an age of Twitter storms, the story did the rounds, drawing outrage and sparking discussion. The scandal touched potent affects, reverberating through powerful and symbolically charged vocabularies of war, death, honor, nation, and service. A full account would demand a paper of its own; presently, however, the incident connects to my argument through the symbolic kernel of an inappropriate disposal—that of the honored body, a body that deserved dignity and preferential treatment but which was disposed of as (and allowed to decompose into) worthless waste—nameless remains, anonymous and impossible to cherish or honor. The mode of disposal transformed the body, *rendering insult*: death had been neither ameliorated nor kept at bay, the offering had not been repaid. In context, this lack took the shape of a kind of violence, a symbolic disruption that reached back through time retroactively acting on the person-that-was and threatening to reorganize both their memory and their social identity as one of the cherished dead (as well as those identities of the living that were connected to it: of the widow, of other soldiers currently serving, and so on). We have here, in other words, the horror of disposal as a posthumous transformation that renders complex insult to the dead, disaggregating their bodies into parts and toxic anonymous substances, generating insult that radiates through the social body—not entirely dissimilar, perhaps, to the disrespectful or inappropriate disposal of a reindeer as this appears from within the "traditional" modality of disposal. My sense is that the case of the reindeer and the case of the war hero both hinge on an issue of *disposability* and of *rendering disposable*; here in closing, to pursue the sense of this juxtaposition, I want to briefly make use of this notion to reframe the material I have presented so far.

In English at least, the notion of "disposability" entails both being disposed *over* and disposed *of*: a disposable entity is simultaneously available (for consumption, as raw material), discardable (single-use, throwaway), *and* subject to a sovereign commandment that is exercised over the very conditions of its existence, its life and death (Khanna 2009). Configured as inert and freely transformable, the disposable

puts up no resistance: whether as raw material or discarded surplus, it serves as the phantasmagoric fantasy substance of capitalism, made possible only through a startling suspension of relation and consequence—costs externalized, violence erased, life and death transformed into simple technical operations, and beings reduced to material, to abstractions or freely transformable numbers. To render living humans "disposable" in this way, we understand, is an awful injury, an opening to monstrous and extreme forms of violence: here are the horrors of the concentration camps, of unlawful medical experiments, sacrificial calculations of collateral damage and civilian targets (Agamben 1998). To render their *remains* freely disposable is another form of injury, not unrelated to the first: a posthumous insult to the continuing material existence of the dead as social persons, to the bonds and affordances that continue to define them, relationally, after death. To limit the scope of such offenses to the human is simply a social artifact, an ideological function of human exceptionalism in its specifically Western, post-Cartesian mode—useful neither as a basis for analysis nor for critical praxis. Reinscribed within a broader analytical economy of personhood, one that attends to the empirical vicissitudes of human-nonhuman relations, the notion of disposability (and the injury of rendering-disposable) might offer one frame within which the historical emergence of industrial waste could be articulated with the production of reindeer as the object of certain biopolitical attentions—specifically, their transformation into populations manipulable by the state, subject to abstract calculations, and controlled through techniques made possible by the biopolitical management paradigm: regulatory techniques with sovereign and bodily jurisdictions.

Historically speaking, the industrial mass processing of living beings is an anomaly, a technical novelty from the late nineteenth century that rose to full-spectrum dominance over the course of the twentieth, naturalized at the heart of the human world in the span of a few generations. It is not my place here to interrogate this phenomenon in depth; nonetheless, in closing, it does seem pertinent to point to some of its aporias and enabling assumptions—perhaps particularly, its symbiotic relation with the great binomials that structure the modern constitution (Latour 1993). In the twentieth century, applied to humans, techniques of industrial mass processing developed in the Chicago stockyards brought the edifice of modernity itself into crisis (Bauman 2003), demonstrating, if nothing else, the manner in which the industrial processing of living beings is rendered tolerable not only by mechanisms of visual concealment and euphemism (Vialles 1994) but also by deeply entrenched notions of human exceptionalism (Noske 1997). As per Heidegger (1977), one might speculate that the industrial processing of life forms part and parcel of an abstract machine that generates not just farm animals (Smith 2002) but *the world itself* as a silent standing-reserve: present to a human perspective as morally inert, stripped of sentience, reduced, and freely available for manipulation—a world, in other words, that is contained entirely within the Adamic parameters of "the loneliness of man as a species" (Berger [1980] 2009:6). To consider the insult of waste, as I have tried to do here, is implicitly to start opening this world, for a time so solitary and disposable, to

the possibility of other presences, of myriad others that also share it—and perhaps, in the process, to begin soothing this imagined loneliness.

Parsing waste disposal through the lens of ontology, by sketching some contrasts between a loosely "animist" and an industrial materialist paradigm of waste, my argument here has sought to draw attention to the manner in which inherited structures may present (or foreclose) possibilities for enacting, performing, dreaming up alternatives to the present. Generally speaking, in the ontological *Realpolitik* of bureaucratic modernity, the "reality" of zoonotic germs trumps "belief" in the possibility of spiritual injury, or of complex intersubjective harms that may arise through the disrespectful handling of nonhuman remains. Elevating the former to the status of "fact"—in alignment with state bureaucratic knowledge forms—a scientific materialist perspective would consign the latter to the domain of cosmology, relativized as "culture." Suspend this foreclosure, however, and germs and spiritual injury might both appear in a sharper light—as problems for an exploratory cosmopolitics (Stengers 2005), emerging in an ongoing and unfinalizable problematization of reality that addresses itself, always, to the determination of certain pressing questions: Who are the beings? How can they be harmed? What can be done to prevent it?

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ИЗЛИШКИ, ПОДЛЕЖАЩИЕ УНИЧТОЖЕНИЮ: ЗАМЕТКИ ОБ ОТХОДАХ, ОЛЕНЯХ И БИОПОЛИТИКЕ

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В основе работы лежит исследование, проведенное при финансовой поддержке Научного совета Норвегии (RCN) и Эстонского научного совета (ETAG, в прошлом Эстонского научного фонда).

Статья посвящена анализу возникновения отходов как промышленной категории в сфере современного пастбищного оленеводства и забоя оленей у саамов, коренного населения северной Норвегии. В последние десятилетия на смену традиционным методам получения сырья из туш оленей пришли коммерчески более выгодные технологии, в результате чего произошла промышленная реорганизация оленебоен. В результате туша убитого оленя заняла новое место в цикле обращения с отходами. Первая часть статьи проблематизирует изменения в отношениях между утилизацией отходов и ущербом, наносимым процессом утилизации, произошедшие в связи с трансформацией производственного процесса. Вторая часть статьи связывает меж-

ду собой такие явления, как возникновение промышленных отходов, остающихся от безымянных туш, и появление на уровне популяции избыточной массы, подлежащей утилизации как ненужная. Существует ли связь между утилизацией частей убитых оленей – отходов, не имеющих ценности с точки зрения индустриальной современности, – и сокращением поголовья оленей, предписываемым государственной биополитикой?

Ключевые слова: отходы производства; излишки, «подлежание утилизации» (*disposability*); северные олени; индустриализация; биополитика