# Tough Vinyl: Packing in Our Record Collections

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# Liner Notes - Abstract

This paper seeks to illuminate a series of contradictions between the way we talk about, write about, and interact with vinyl records on the one hand, and the material and social relations required for the use, production, and disposal of vinyl records on the other. I examine vinyl as both an ethical commodity (the sonic equivalent to slow food) and as "the poison plastic"; vinyl as both a medium for "subaltern" voices and as a toxic substance that causes cancer in the bodies of working class communities of colour; and vinyl as it both preserves the dead and destroys the living. These contradictions and many more, all part of what I call the vinyl-network, are exposed throughout this paper in a process of de-fetishizing vinyl. The central argument of this paper is that the nostalgia for petrocapitalism's 20th century bounty (of which records are an iconic piece), is a dangerous fetish that perpetuates destructive social and material relations. Ultimately, I contend we need to abandon the vinyl revival and mourn the vinyl record, lest the way we listen to recorded music perpetuate the destructive economic system that is petrocapitalism, enabling it to spin on and on like a broken record. If we cannot move beyond this economic system, the dead will continue to pile up; we will repeat the same tragedies, different not in cause but in effect, as temperature and sea levels rise, as the Anthropocene Extinction Event wipes out one quarter of all mammals on earth, and as the screams of the dying are drowned out by the bourgeoisie's hi-fi. This paper concludes with the suggestion that we take the broken record that is petrocapitalism, smash it into a million pieces, and feed it to a hungry colony of soil fungi.

## Liner Notes - Foreword

In the summer of 2013, just before I was set to begin my Masters Degree in Environmental Studies (MES) that September, I got a job at a Toronto record store. I worked part-time at what I will simply refer to as "The Store" for over half of my degree, until October 2014. What was a teenage dream of mine turned out to be a sort of nightmare for the environmentalist I had since become. Witnessing the vast quantity of plastic that just one record store uses—from polystyrene CD jewel cases to polycarbonate CDs, and from high-density polyethylene (HDPE) record sleeves to polyvinyl chloride (PVC) records—awakened me to the serious need for reform (or revolution) in the way we produce and listen to recorded music. My experience at The Store inspired the formation of a Plan of Study (POS) geared towards addressing the environmental issues of plastic music media, particularly the increasingly popular vinyl record.

The following paper is the culmination of my work in FES and represents the fulfilment of all of the objectives set out in my POS. First, the paper demonstrates both a breadth and depth of understanding of a variety of materialist perspectives: particularly the new materialisms, but also historical materialism. Second, it demonstrates a sustained attention to the politics of sound and makes an important contribution to the burgeoning field of ecomusicology, particularly that strand of ecomusicology which follows Aaron Allen's work "Fatto di Fiemme" in tracing the environmental implications of musical media and instruments. Finally, the paper shows a depth of knowledge of the environmental and social impacts of vinyl records. Having successfully achieved the goals of my POS, I hope that this paper can help move us toward a future where enjoyment of recorded music does not mean simultaneously trashing the planet.

## Liner Notes - Acknowledgements

I would like to thank my advisor and supervisor, Catriona Sandilands. She provided me with some “vital” reading materials early on in my time at York and has given me the perfect blend of freedom and guidance since: hands-free when I needed to go adventuring into the furthest reaches of the vinyl-network, and hands-on when I needed to finally return home and write a paper about what I had seen and heard. Among the many ways in which Cate assisted this project was by contributing to and guiding an excellent reading group on ecocriticism and environmental justice. The group consisted of myself, Cate, and two peers in the MES program: Genevieve Fullan and Adam Linnard, both of whom should also be acknowledged here for informing my thoughts on environmental justice through their wonderful contributions to our reading group discussions. I would also like to thank my parents: my dad for tuning into the “thing-power” of records, and my mom for creating fond boyhood memories of a house filled with her voice and piano playing. They should also be acknowledged for helping out financially where the Academy, strike pay (“Strike to Win!”), The Store, cheques from the government, and other odd jobs came up short. And finally, I would like to thank my partner Morgan, my everything. Here’s hoping those embarrassing love songs I occasionally write can one day be recorded onto a medium that doesn’t kill people and critters!

# TRACK LIST

# Liner Notes - The Trouble With Vinyl

> Plastic is pretty much universally recognized as a problem these days, from the oil needed to produce it to the virtually immortal debris it leaves in our oceans [. . .]. PVC plastic (polyvinyl chloride), commonly referred to as vinyl, is the most hazardous plastic at all stages of its life.
>
> - Annie Leonard, *The Story of Stuff*


**Fig. 1** Anti-PVC Greenpeace banner-drop. Location unknown. <http://www.greenpeace.org/usa/toxics/pvc-free/>

Environmentalists have long advocated an outright ban on polyvinyl chloride (PVC, or just "vinyl"), affectionately known to them as "the poison plastic" (see figure 1). But anti-PVC campaigns all have their roots, as the Greenpeace banner indicates, in the United States' Environmental Justice (EJ) movement. Examples of anti-PVC EJ actions will be discussed further in this paper, but suffice it to say for now that the vast majority of PVC plants in the US are located in low-income communities of colour, whose residents experience an alarming

number of negative health effects from the plants: clear examples of environmental racism (Belliveau and Lester 18). But the problems with PVC are not only to do with EJ: PVC not only threatens workers and those located near the plants, but everyone, as annual production in the US alone emits 500,000 pounds of cancerous vinyl chloride into the air ("PVC Factsheet"). Moreover, considering its entire life-cycle, PVC causes the release of more dioxins than any other product in use today. Because of the campaigning of groups like the Falls Church, Virginia based Centre for Health and Environmental Justice (CHEJ) and Greenpeace, many companies, either afraid of public perception or genuinely concerned about these and many other dangers associated with PVC, have begun phasing the product out ("PVC Policies"). With such fierce campaigning against PVC being undertaken in the last couple decades, it strikes me as a bitter irony that, just as the music industry seemed to be phasing PVC out completely, the vinyl revival threatens, well, just that: a PVC revival.

I pinpoint the vinyl revival's beginning to the year 2008; sales in the US had hovered around one million units per year during the previous three years, then all of a sudden nearly doubled in 2008, from one million units sold in 2007 to 1.9 million in 2008, more than any other year in the previous 13 (Ingham; Shah). Sales have grown dramatically since then, with 9.2 million sold in America in 2014 (Ingham). The global market for vinyl grew by 54.7% between 2013 and 2014, from $224.2 million (USD) to $346.8 million (USD), with more than half of all global sales taking place in the US alone ("Global Vinyl"). Growth shows no signs of slowing down: in the first quarter of 2015, sales in the US have risen 53% compared with the same period of 2014, and global sales for 2015 are expected to be the highest in over two decades (Palermino). Although vinyl remains a niche market and only accounts for about 2% of the

global music market, the astonishing growth in popularity of vinyl is nonetheless cause for environmental concern (IFPI).

To begin with, vinyl is a particularly dangerous type of plastic. Like Leonard in the epigraph, most environmentalists consider it to be the single most harmful plastic to humans and nonhumans alike. This toxicity has to do with the type of chemistry at work in its production: chlorine chemistry. Geneticist Joe Thornton has conducted an extensive overview of chlorine chemistry's production process and dangers: It "begins at a handful of large chemical facilities, where an extremely powerful electric current is passed through a solution of salt water," which "transforms salt's stable chloride ions into molecules of chlorine gas, a heavy, violently reactive, greenish gas that does not occur in nature" (3). I will describe the route from chlorine gas to PVC as this paper progresses, with special attention to the production process given in "chapter" 3, but for now I want to focus on the dangers of chlorine chemistry in general as the larger family of practices to which vinyl production belongs.[1] The most pernicious aspect of chlorine chemistry is that it creates "chlorinated organic substances," also known as organochlorines (Thornton vii). These pollutants "dominate all lists of global contaminants and environmental health hazards" (vi). Among the most famous of the organochlorines are DDT, Agent Orange, chlorofluorocarbons (which caused the ozone hole), PCBs, and dioxin; but there are hundreds of lesser known (and even unknown) ones too (2). Indeed, because of one of chlorine's signature traits—that it is "highly reactive, combining quickly and randomly with whatever organic matter it encounters"—chlorine chemistry is ultimately "unpredictable and unpreventable by-products are formed along with the intended products" (3, 267). Disturbingly (but perhaps not

[1] I will have cause to abandon the term "chapter" in what follows, hence the scare quotes.

surprisingly), “the majority of these by-products have not been characterized,” meaning that the chlorine chemistry we have been practicing since WWII (when vinyl records were also popularized as V-Discs, or Victory-Discs) is producing unknown effects (267).[2] The effects that have been characterized, however, are very alarming. According to the United Nations Environment Programme (UNEP)’s report on the Stockholm Convention on Persistent Organic Pollutants (or POPs), the 12 “worst” POPs ever created are organochlorines: 9 of them are pesticides, 2 of them are industrial chemicals, and one family of POPs has no use at all but is a by-product of chlorine chemistry, dioxins and furans (“Ridding the World of POPs” 6). These latter two POPs, dioxins and furans, are of particular concern to this paper because they are by-products of the production of polyvinyl chloride (6). The UN is unequivocal in their categorization of the risks imposed by dioxins and furans: “they are the most potent cancer-causing chemicals known” (6). For those who ratify it, the Stockholm Convention “requires governments to take steps to reduce the release of dioxins, furans, hexachlorobenzene, and PCBs as byproducts of combustion or industrial production, with the goal of their continuing minimization and, where feasible, ultimate elimination” (7).[3] Before the recent re-popularization of records, then, the music industry was getting incredibly close to achieving the highest goal of the Stockholm Convention: ultimate elimination of dioxin production.

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[2] This “unknowability” of organochlorines is taken up in “chapter" 7 in the context of new materialist philosophy and what Jane Bennett calls “thing-power” (*Vibrant* 10).

[3] As they are the two geographical focal points of this study (I live in the former and vinyl consumption is concentrated in the latter), I should note that Canada has ratified the Stockholm convention, while the United States has not.

Of course, I am not suggesting that polycarbonate CDs are the answer; indeed, concern is mounting about the human health effects of bisphenol A (BPA), the building block in the production of polycarbonate (see Raloff).[4] But polycarbonate is not an organochlorine, and is not associated with the production of dioxins or any of the other 12 POPs listed as priorities by the Stockholm Convention. The vinyl revival is concerning, then, insofar as it involves shifting back to "the poison plastic" (a shift in quality), but it is also important to register the revival as a shift in quantity. Not only does the average 120 gram vinyl record use about 7 times as much plastic as a CD, but increasingly records are being pressed at heavyweights like 180 grams and 220 grams, meaning that records can use up to 12 times as much plastic. In sum, vinyl revivalism requires more of a more toxic plastic.

It remains to be seen what the environmental impacts of downloading and streaming are. Scholarship on the subject remains limited. A 2009 study (see figure 2) examines the $CO_2$ emissions of digital files versus CDs, taking into consideration variables like retail store energy usage, CD production, CD case production, customer transport, and data centre energy usage. They conclude that use of digital downloads reduces $CO_2$ emissions by between 40 and 80%, depending on several variables (Weber, Koomey, and Matthews i). Their study shows that consumer transportation is the single largest contributor to $CO_2$ emissions in CD consumption (14). They note that, while walking and biking in urban centres might be more common, over

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[4] Polycarbonate is especially dubious as food packaging; many studies have shown that BPA leaches into food and drink ("Banning Bisphenol A"). However, BPA is also found in cash register receipts that use thermal paper (and most do). Recent research shows that exposure to BPA during pregnancy can have serious affects on the brain development of unborn children (Munro). At the time I discovered that fact I was working at The Store and one of my colleagues was pregnant. I told her what I had learned, but it was not something she was going to quit her job over (I imagine precisely because she had a baby on the way).

half of the population in the United States lives in suburban or rural areas and so automobile transportation is an unavoidable energy expense for many consumers of physical music media (16). Their conclusion that consumer transport to purchase CDs produces over 1500 grams of $CO_2$ (assuming an average trip of between 2 and 20 miles) applies equally to consumer transport to purchase vinyl records (see figure 2). Moreover, their findings regarding e-tail consumption emissions also apply to vinyl record consumption done through e-tail (Amazon, discogs, etc.), though I suspect the energy usage and emissions would be higher for vinyl because of its greater weight. The major shortcoming of this study's conclusion, however, is that it assumes similar consumer behaviour between the two formats (CD and digital files); that is, it assumes that the same amount of music is being consumed, when in reality digital downloading (especially the free kind) has the potential to dramatically increase consumption ("The Carbon Impacts"). So, while the study shows that digital downloading is between 4 and 6 times less carbon intensive than CD consumption, it might be the case that digital downloading encourages 6 times as much music consumption, or even more. Research that adequately addresses all of the variables that should factor into an analysis of the carbon emissions of music media is therefore, at the time of writing, incomplete and unsatisfactory for drawing conclusions about the environmental benefits and disadvantages of digital downloading. Nor have any studies been conducted on the carbon emissions of streaming versus downloading, though it is generally expected that the former would have greater emissions as it requires internet usage with the play of every song ("The Carbon Impact"; Türk *et al* 34).

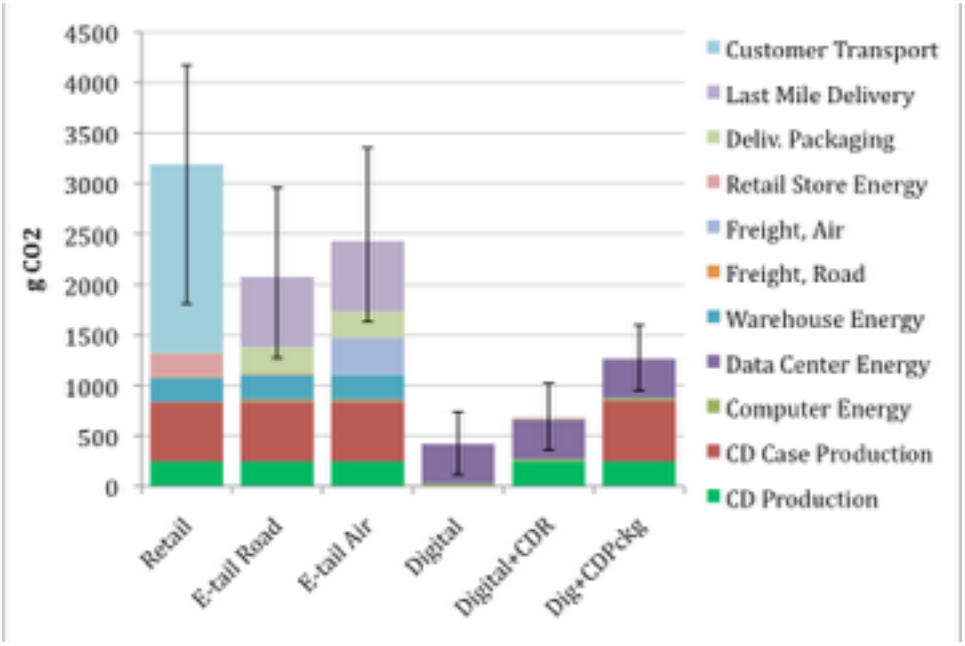


**Fig. 2** Graph showing greenhouse gas emissions (GHG) measured in $CO_2$/album. The six scenarios, left to right, are as follows: 1) "bricks and mortar" retail; 2) e-tail shopping where the delivery method is by automobile; 3) e-tail shopping where the delivery method is by plane; 4) digital download; 5) digital download subsequently burnt to CD-R disc; 6) digital download subsequently burnt to CD-R disc and placed inside a slimline jewel case. (Weber *et al*)

While the empirical evidence does not yet exist to determine which is better for the environment (digital download or CD), the vinyl record is very clearly not in the running. To reiterate: not only does vinyl use up to 12 times as much plastic (thereby increasing the $CO_2$ emissions at the production stage by a presumably similar factor), it also uses a significantly more toxic plastic whose production and disposal create one of the 12 worst POPs in the world, dioxins and furans. This paper, then, is primarily an attempt to halt the vinyl revival by showing very clearly the often overlooked environmental costs of vinyl records.

Lest the small amount of scientific vocabulary lead the non-scientific readership to think otherwise, I should be clear that I am not a trained scientist. If I have some small familiarity with organochlorine chemistry, it is only a result of me being a concerned citizen (one who really

enjoys recorded music). If one had to put me in a discipline, it would be the humanities: most likely English. Indeed, the field in which I situate myself and this paper is the field of ecocriticism, a field that began by focussing on the "relationship between literature and the physical environment," but which has since shifted to an analysis of all modes of "cultural" production: "popular scientific writing, film, TV, art, architecture and other cultural artifacts such as theme parks, zoos, and shopping malls" (Glotfelty qtd. in Garrard 4). I put the word "cultural" into scare quotes because today many ecocritics are upsetting orthodox understandings of what is "culture" and what is "nature." Whereas ecocriticism has in the past been primarily concerned with "cultural" texts, a new group of scholars, spearheaded by Serpil Opperman and Serenella Iovino, have begun to argue that "the world's material phenomenon are knots in a vast network of agencies, which can be 'read' and interpreted as forming narratives, stories" (Iovino and Opperman, *Material Ecocriticism* 1). This insight is at the core of a new branch of ecocriticism, "a *material* ecocriticism [that] examines matter both *in* texts and *as* text" (2). Less commonly, however, material ecocritics respond to the following question of Opperman and Iovino: "If matter is a text, what about texts as matter?" ("Theorizing Material Ecocriticism," 460). This paper attempts to do a bit of all three with one specific material, the vinyl record; I consider vinyl *in* text, *as* text, and consider the text usually associated with vinyl (that is, music) as vinyl. In other words, I look at vinyl records as they appear in texts (especially literature, art, and film); I look at vinyl records as forming "narratives, stories," with an emphasis on toxic stories; and I look at music that seems to contemplate or be aware of itself as vinyl.

Following Gilles Deleuze and Félix Guattari's suggestion that *A Thousand Plateaus: Capitalism and Schizophrenia* can be read as if it were a record, I have structured this paper

something like an LP and have broken the paper up into "tracks" in lieu of "chapters" or "sections" (*Dialogues II* 4). (That should explain the heading "Liner Notes" above and several other unusual headings throughout). In track 1 I develop an analysis of the fetishization of vinyl records, coining the terms "petronostalgia" and "Tough Vinyl" to describe the disastrous continuation of petrocapitalism (of which the vinyl revival is a perfect example) despite the increasingly devastating ecological and social costs of oil. Track 2 looks at "texts as matter" and includes a discussion of the music of Father John Misty and Tanya Tagaq, both of whom evoke in unique ways the subterranean origins of the petrochemical medium through which they disseminate their art. In Track 3 I analyze some of the narratives in which vinyl is a "main character," most often an antagonist. The track begins by examining a discursive trend I have called "vinyl organicism," a way of hiding the types of stories that vinyl tells; I then attempt to de-fetishize the vinyl record, exposing the contradictions within vinyl organicism precisely by shedding light on vinyl's toxic tales. Track 4 considers vinyl *in* two texts: Jeroen Diepenmaat's installation *Pour des dents d'un blanc éclatant et saines* and Ruth Ozeki's creative writing contribution to *The Petroleum Manga*, both of which explore the subject of immortality. My analysis draws parallels between the immortality of the voice achieved through audio recording and the immortality of the body achieved through the plasticization of everything, especially our oceans. Track 5 looks at Dario Robleto's artwork *The Sad Punk (Named Extinction)* through the lens of two contemporary materialist theories which emphasize the corporeal by exploring the figure of the zombie. The vinyl record is considered as a "zombie medium" and as part of the geological stratum of the Anthropocene (Parikka 141). In track 6 I look at two records that make innovative efforts at conserving endangered land and species, before turning to an examination

of several texts that frame the vinyl record itself as an endangered species. Track 7 explores the new materialist political philosophy of Jane Bennett and examines the extent to which vinyl record collectors can be considered anti-consumerist. Track 8 does the opposite of track 7, exploring the many ways in which vinyl record collecting is a form of conspicuous consumption and leisure. And finally, track 9 explores an arch-nemesis of record collectors: mold. The track considers fungi as a potential source of hope in the otherwise grim landscape of vinyl record disposal options.

As I mentioned in the foreword, my passion for this subject partially arose from working at a record store, but before I begin the paper in earnest, I should mention one other biographical detail that colours my view of records. In 2007 by dad bought almost 5000 records for about 50 cents each from an antique store that was going out of business. The experience of carrying my share of 5000 records off a truck and into a basement is partly responsible, I think, for my interest in the materiality of vinyl; before I knew vinyl as a cultural thing—really, before I had even listened to many records—I came to know vinyl as very heavy matter. In the years since my dad acquired those records, we have tried several times, always unsuccessfully, to sell them to some of the biggest record stores in Toronto. While one store bought a few hundred of the more interesting records, the vast majority of the hoard is still in the basement where we unloaded them almost a decade ago. Contemplating the fate of this hoard of records—roughly 600 kg of PVC—has also coloured my perception of records in general. Where will my dad's hoard end up? Where will our collective hoard of unwanted records end up? Moreover, where did this hoard come from? Which record pressing plants? Which petrochemical facilities? Which oil fields? Which oceans? These thoughts lead me to consider vinyl records' deep time: ancient pasts

that built the possibility of the oil-fueled Anthropocene, and distant futures (hopefully of humanity) that will excavate our ruins, contemplating and perhaps listening to our *geological records*. I wonder what they will hear.

## Track 1 - Petromelancholia and Tough Vinyl

> [The] story [of the record] began with a sunrise millions of years ago, and has continued with each sunrise since. The sun shone down on billions upon billions of prehistoric life forms - algae, plants, and animals. Those life forms converted that solar energy into the energy of life. When they died and floated to the bottom of the ocean or were buried under the slow accumulation of layer upon layer of sediment, the energy of the Earth itself took over. In slowly compressing and cooking these tiny bodies over eons, our planet produced the substance we can thank for ushering in modernity itself: petroleum. Every time we burn this fossil fuel we are releasing energy from the sun that shone a million years ago. It is alchemy at its core: the transmutation of matter into a higher state. In this case "black gold" instead of solid gold….
>
> Every time we play a song from a record we are participating in a multimillion-year transference of energy, from the life giving light of the sun to the heartbreaking sound waves of any number of singers. By playing it we unleash another round of life and death.
>
> - Dario Robleto, "Every Record, Everywhere, Is Playing Our Song Right Now"

Audio recording has always been connected to death. As Jonathan Sterne points out, "death is everywhere among the living in early discussions of sound's reproducibility" (Sterne 289). Take, for example, number four on Thomas Edison's list of ten uses for his invention, the phonograph: "The 'family record'—a registry of sayings, reminiscences, etc., by members of a family in their own voices, and the last words of dying persons" (qtd. in Sterne 202). What Robleto points out in the long epigraph, however, is that not only does phonographic technology record dead humans engraved in its grooves, but it also—particularly in the case of vinyl— records a "multi-million year transference of energy" involving uncountable lives and deaths of algae, plants, and

animals. All of those lives, deaths, and sunrises resulted in petroleum, a substance with profound connections to death: pollution, colonialism, war, cancer, habitat loss, etc.; all of those lives are the physical substance on which the "family record" is etched.

As an environmentalist who also loves recorded music and who, as a former record store worker, is very much implicated in the vinyl revival, I have been tempted to excuse the use of petrochemicals in art; I have desired to follow Father John Misty's advice when, in his 2012 song "Now I'm Learning to Love the War," he sings, "try not to become too consumed with what's a criminal volume of oil that it takes to paint a portrait: the acrylic, the varnish, aluminum tubes filled with latex, the solvents and dye" (see Appendix A).[5] Unfortunately, that "criminal volume" has indeed consumed me: I have become determined to identify the contradictions of being an environmentalist and a fan of recorded music, with the hopes that by clearly understanding these contradictions I can then learn to mitigate them and, ultimately, live with recorded music more ethically.

The first contradiction I wish to examine is the following: I am an environmentalist who believes we need to move away from using oil and switch to wind, solar, etc., while simultaneously drastically reducing our consumption levels, and yet I have participated and benefited from the consumption of petrochemicals in several key ways.[6] First, I have purchased quite a few CDs in my lifetime (about 50), some new vinyl (roughly 10), and some used vinyl (roughly 20). I have also obtained for free, as detailed in the introduction, a large number of

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[5] In track 2 I give Father John Misty's song more prolonged attention.

[6] Here I mean only petrochemicals as they relate to music media. I acknowledge, of course, that I participate in and benefit from the consumption of oil and petrochemicals in many ways: through the globalized and oil-fueled food system, through access to economic privileges that allow me to occasionally fly on airplanes, etc.

records (not to mention the equipment required to play them) that have provided immense listening pleasure.[7] Finally, I have worked for capitalists whose profits derive from the exploitation not just of labour but of petrochemical CDs, DVDs, and vinyl records. I have stood at a till for an entire eight hour shift (I am thinking here of Record Store Day 2013), never moving from the till except for work breaks, using my labour to make money from and support the consumption of new, revival-era PVC records. How have I (and many others besides) been able to simultaneously claim to be an environmentalist and a vinylphile? As I will demonstrate below, any ethical "pardoning" of an environmentalist for listening to PVC records involves a fetishization of records and of the oil needed to make them.

In the introduction to the recent essay collection *Oil Culture*, Ross Barrett and Daniel Worden point out that "oil encourages fetishistic representations of its value as a magical property detached from labour" (xxiv-v). Oil, they argue, as a "dirty, sensually offensive, volatile, and transient" thing, must be rendered spectacularly, with symbolic representations that profess its value precisely by obfuscating "its actual material constitution" (xxv). For Barrett and Worden, "oil culture" is most often a hegemonic and fetishistic celebration of petrocapitalism achieved through "semiotic processes" and "promotional discourses," but also includes dissenting voices of protest and resistance (xxvi). While Barrett and Worden acknowledge the importance of "semiotic" representations of oil (images, narratives, discourses, etc.) to the process of fetishization, I think that the very materiality of oil and the networks through which it travels to consumers are themselves part of the fetishization process, a contention bolstered by

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[7] I should also mention here the very generous gift of around 100 records I received from my partner's dad who no longer had use for his collection. Like I said, I have been incredibly lucky in my relationship to vinyl!

other contributors to the essay collection and, indeed, by Barrett and Worden themselves. They write, "oil is not invisible to us as much as it is contained—in our cars' gas tanks, in pipelines, in shale, in tar sands, in distant extraction sites" (xvii). In the same way that commodity fetishism acts to obfuscate the material conditions that make the commodity's appearance to the consumer possible, oil fetishism works by "containing" oil's materiality. In the preface, Allan Stoekl proclaims, "oil is invisible, undetectable, when we 'take it for granted'" (xi). Again, the parallels to commodity fetishism are clear: in the same way the exploitation of labourers is hidden from view by the commodity, the exploitation of oil is rendered "invisible, undetectable" by a complex system that aims to have the material conditions of petrocapitalism taken for granted as an inevitable, "natural" fact. Later in *Oil Culture*, in her chapter, "Imagining Angels on the Gulf," Ruth Salvaggio argues that "[Jacques] Rancière's notion of 'distribution' [. . .] accounts for the selective channeling of access to the sensed world, just as oil itself is channeled in invisible underground pipelines" (392). Salvaggio is referring to Rancière's conception of the "distribution [or partition] of the sensible" (Rancière 85). For Rancière, the partition/distribution of the sensible is the "implicit law governing the sensible order that parcels out places and forms in a common world by first establishing the modes of perception within which these are inscribed." The "implicit law" that governs the sensible order is controlled by what Ranciére calls the "police": the "system of distribution and legitimization" of "the set of procedures whereby the aggregation and consent of collectivities is achieved, the organization of powers, [and] the distribution of places and roles" (28). Effectively, what he means is that oppressed peoples—that is, the majority of people, "the people" themselves—are doomed to "silence" and rendered imperceptible by the police order. It is not that the people are in fact silent or

imperceptible; it is that they are thus rendered by the policing of the distribution of the sensible. What Salvaggio suggests is that the invisibility or containment of oil is an effect of similar police repression. Where for Rancière the political act is one that asserts "the equality of any speaking being with any other speaking being" (30), an assertion that disrupts the police order precisely by rendering the oppressed sensible, for Salvaggio the political act is one that renders oil and its victims perceptible. Among these acts Salvaggio includes the effects of oil-related ecological disasters: most memorably, an oil-soaked pelican after the BP oil spill in the Gulf of Mexico (Barrett and Worden 390). While there have been other attempts to apply Rancière's political philosophy to oppressed nonhumans (see, for example, Jane Bennett, *Vibrant* 104-8), Salvaggio might be the first to suggest that oil, not just its effects on humans and nonhumans, can be considered as something policed out of the distribution of the sensible for the benefit of the ruling elite. In other words, Salvaggio suggests that the petrocapitalist police order actively silences not just oil's victims, but oil itself. Using Rancière's understanding of the political as an assertion of equality through a "speech act," Salvaggio suggests that political challenges to petrocapitalism occur when oil speaks: that is, when it becomes perceptible (Rancière 25).

This track, then, is not so much about listening to records as it is about listening to oil. Though more often than not oil is policed out of perceptibility in the music industry, occasionally it speaks loudly. As in Salvaggio's examples of oil-speak, the example I would like to offer occurs during a "disaster": a moment when the smooth-running infrastructure required to maintain oil's imperceptibility (the oil wells, pipelines, transportation networks, etc., which might themselves constitute "the police order" of petrocapitalism) malfunctioned: the "moment" I am referring to is the OPEC oil embargo of 1973-4. During the "oil shock" that this event

created, record manufacturers were faced with shortages of PVC pellets, whose manufacturers were short on oil-derived ethylene. Subsequently, record companies were forced to reduce the amount of PVC in their records as the cost of the material rose by 20% (Shiver Jr.). They also began recycling more vinyl, adding ominous-sounding "extender" to "dilute the quantity of PVC" while simultaneously reducing the weight of records by about 8% (Osborne 81). When faulty records and subsequent customer complaints multiplied, the search for a less plastic- and oil-intensive medium was on: thus, the CD was born (82). With the average record requiring 120 grams of PVC, the 17 grams of polycarbonate required for a CD meant that industry could use less plastic (and therefore less oil) to produce the same number of albums. Although the polystyrene jewel cases which hold CDs themselves weigh 42 grams, that weight plus the average 17 gram disc is still less than half the plastic used for a single vinyl record.[8] The CD's relatively light weight, moreover, meant less oil was used in transportation. This combination of economies led Tom McIntyre, then chief financial officer of Bertelsmann Music Group (BMG, now owned by Sony) to proclaim in the early 1990s that the introduction of the CD in 1982 had made the music industry "recession-resistant" (Shiver Jr.) In an era of OPEC-induced recessions known as "oil-shocks," the compactness of the compact-disc was not, then, so much a major technical leap forward as it was a solution to oil scarcity.

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[8] Julie's Bicycle, a global charity based in London that focuses on making creative industries sustainable, reports that CD jewel cases are the number one greenhouse gas source in the UK music industry ("Impacts and Opportunities" 4). They recommend moving to purely cardboard jackets which would reduce greenhouse gas emissions from CD packaging by 95% (6). While Julie's Bicycle has campaigned to end PVC usage in other creative industries (see Julie's Bicycle, "Practical Guide"), they have not commented on the vinyl revival.

The numerous changes to music media that took place as a result of this first oil shock are, I think, instances in which oil can be understood as challenging the police order which demands its imperceptibility; when we hold a vinyl record from 1974 and feel its light weight, what we are feeling is the police order malfunctioning. That is, if the machinery and infrastructure of petrocapitalism acts to police oil out of the distribution of the sensible, then when that infrastructure experiences "shocks," so too does the efficaciousness of the police order; in other words, through the oil shock's affects on vinyl records we can sense the oil shock's affects on the global economy and thereby illuminate that economy's over-reliance on fossil fuels. When we listen to a record from this time period with what vinylphiles maintain is an inferior sound to that attained from non-recycled "virgin vinyl," what we are hearing is a sort of "negative-imprint" of oil's voice, negative in the sense that we hear it precisely because of its diminished presence. The sudden perception of oil's role in producing vinyl records provides an opportunity to de-fetishize both oil and vinyl records; these distinct affects on our sensorium caused by oil shortages create minor disruptions in the police order that strive to keep oil "silent" and "invisible" for the benefit of petrocapitalists. Of course, I am not suggesting that some faulty records could lead to the overthrow of petrocapitalism by rendering oil sensible; instead, I offer this example as one instance in which, if one listens closely enough, one can hear the material conditions necessary for the production of vinyl and thereby sense what is usually insensible: the petrocapitalist machinery. It is in moments like this one that the potential for de-fetishization exists; of course, these moments are brief, somewhat rare, and heavily policed themselves as reactionary forces scramble to re-assert the partition of the sensible. The transition to CD can itself be understood as a re-constitution of the police order. Rather than offer any challenge to the

social-material relations that created the crisis—specifically, an over-dependence on oil to stimulate obsessive capitalist growth—the creation of the CD was decidedly reformist and perhaps even reactionary. While I think the "oil shock" of 1973 had some small revolutionary potential to end our reliance on fossil fuels (in the music industry and beyond), the result, of course, was the further entrenchment of the same power dynamics. We are currently in another one of these potentially revolutionary moments, when our over-reliance on fossil fuels is becoming increasingly and painfully obvious to more and more people. The vinyl revival, I argue, is a reactionary force similar to that of the invention of CDs in that it seeks a re-entrenchment of petrocapitalist material-social relations.

Having examined a moment in the past when oil-*qua*-vinyl-records threatened to disrupt the police order, I now turn to oil-*qua*-vinyl-records in the present age. I begin by examining what I call "petronostalgia" as a contemporary technique for the silencing of oil. Before I offer a definition, however, petronostalgia needs to be understood in light of Stephanie LeMenager's book, *Living Oil: Petroleum Culture in the American Century,* wherein she develops a theory of what she calls petromelancholia: in part, "the feeling of losing cheap energy that came relatively easy" (102). In order to fully grasp what petromelancholia is, it is necessary to note that LeMenager's conception of petromelancholia is not derived from the early Freudian understanding of melancholia that to this day colours popular understanding of the psychological phenomenon as pathological; instead, LeMenager situates petromelancholia within a relatively new tradition in queer scholarship, spearheaded by Judith Butler, that attempts a re-reading of Freud's thoughts on melancholia. This "queer melancholia," to use Catriona Sandilands' term for it, is not pathological or antithetical to the mourning process, as Freud originally thought

(Sandilands 339); instead, it is a particular way of "grieving the ungrieveable," where the ungrieveable consists of the ruined and rejected bodies piling up from heteronormative capitalist culture's progressivist history: Benjamin's famous "wreckage upon wreckage" observed by the Angel of History, where among the wreckage are queer and nonhuman bodies such as the algae, plants, and animals who went on to form petroleum (333). Like "regular" melancholia—that is, melancholia as framed in Freud's essay "Mourning and Melancholia"— in queer melancholia "the ego holds on to the [love-]object by devouring it and making it part of itself, substituting narcissistic for cathectic energy" (334). The difference is that, in queer melancholia, the internalization of the love-object is not pathological, but a "potentially politicized" way of preserving the object (333). For queer melancholia, then, the internalization of the love-object is a necessary component of productive mourning.

With her theory of petromelancholia, LeMenager frames conventional oil as precisely one such lost love-object; she begins the chapter on petromelancholia by stating, "loving oil to the extent that we have done in the twentieth century sets up the conditions of grief as conventional oil resources dwindle" (103). Crucial to LeMenager's argument that oil is dwindling is the distinction between easily attainable, cheap oil (what industry calls "easy" or "conventional" oil) and what Michael T. Klare has called "Tough Oil" (Klare). Tough Oil is the "hard-to-reach, hard-to-refine" kind, like shale oil, tar sands, Arctic oil, and ultra-deepwater oil. That we are running out or have already run out of conventional oil is well documented; as far back as a decade ago, even the CEO of Chevron, David O'Reilly, had to admit that "the era of easy oil is over" (Klare). What is important to understand about LeMenager's petromelancholia is that the "conditions of grief" in which it operates are brought about by precisely that era-

ending event: the loss of the very thing that shaped and characterized so much of the American century.[9]

For LeMenager, petromelancholia shares with queer melancholia its ability to preserve the love-object in a politicized way; petromelancholia is a "mode of preserving the happier affects of the U.S. twentieth century and [. . .] an incitement to activism" (LeMenager 103). Yet petromelancholia diverges from the queer melancholia of Butler and Sandilands insofar as the love-object being mourned is decidedly not an undervalued, ruined or rejected thing: rather, it is the very fuel of the ruiner, the American empire. LeMenager writes, "the queer reading of melancholy as 'socially located embodied memory' shadows my own interest in grieving oil, although obviously oil has an extremely high cultural value in the United States and elsewhere" (106). Whereas Sandilands has shown how a queer melancholia can preserve undervalued love-objects like "nonhuman beings, natural environments, [and] ecological processes," LeMenager argues that petromelancholia can preserve the "happier affects" of what was probably the single most valuable and valued thing of the American century: conventional oil (Sandilands 333). The ungrieveable bodies that a queer melancholia is capable of grieving, then, include not only devalued, ruined, and rejected human and nonhuman bodies, but the invaluable and taken-for-granted material conditions that allow for the very structures that normalize unequal relations between bodies. To clarify, by "ungrieveable," scholarship on queer melancholia does not mean literally impossible to grieve; rather, "ungrieveable" is the body that the dominant culture "finds it almost impossible to recognize the value of" (333). What I am

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[9] By "American century," LeMenager means the "last century or so" of American "ideological, stylistic, military, and economic" global dominance (4). For the significance of oil to the character of the American century, see David S. Painter's "Oil and the American Century."

suggesting, building from LeMenager, is that the material conditions that make the dominant culture possible are themselves, in a peculiar way, both invaluable and devalued.

Here, the institution of human slavery helps clarify my thinking. The slave is simultaneously an utterly devalued body—ruined and rejected—and an invaluable body insofar as he/she literally is the material condition that makes possible his/her master's value.[10] The ungrieveable, then, is both the devalued and, as LeMenager's theory seems to suggest, the invaluable material condition that creates the value of the de-valuer: the master, oppressor, capitalist, etc. Oil, like the slave, is the devalued-invaluable on whose ruination the capitalist, like the master, depends; oil is, therefore, included by LeMenager among the ungrieveable.[11]

Petromelancholia, following queer melancholia, is a way to grieve the ungrieveable, but it runs into formidable obstacles that threaten to misdirect its potential counter-hegemonic mourning into mere nostalgic consumption: the all-too-common substitution of "active negotiation of environmental mourning" for "nature-*nostalgia"* (Sandilands 332-3, emphasis in original). Among the nostalgic-nature rituals, Sandilands includes "ecotourist pilgrimages to endangered wildernesses, documentaries of dying peoples and places, even environmentalist campaigns to 'save' particular habitats or species against the onslaught of development" (333). All of the above share in common their inability to challenge the structures of human and nonhuman domination that endangered the peoples, places, and nonhuman beings of which they

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[10] Oil-as-slave-labour is the powerful extended metaphor at the core of Andrew Nikiforuk's *The Energy of Slaves: Oil and the New Servitude*.

[11] Oil's status as the devalued-invaluable, the imperceptible omnipresent, is an effect of the police order which keeps the slave silent, hidden, and indiscreet—in this case, in petrocapitalist infrastructure and in spectacular commodity fetishes like the vinyl record.

are nostalgic (356). Sandilands, drawing on Bruce Braun's work on ecotourism, describes nature-nostalgia's political ineffectiveness this way: "by understanding nature as something 'lost' at the hands of modernity, and by witnessing its demise in the fetishized chunks that are offered up to spectacular consumption *by* modernity, the victory of the modernity *responsible* for that loss is confirmed" (337). What is unique about LeMenager's petromelancholia is that it is not entirely an attempt to move away from nature-nostalgia towards politicized environmental mourning (although it is partly that); rather, petromelancholia is primarily concerned, as we have seen, with mourning the very fuel of modernity, oil. With the end of easy oil, it seems, all of the structures that easy oil has supported for the last century, including modernity itself, have been undermined. So, with queer melancholia, we have an attempt to mourn modernity's victims, while with petromelancholia we have both a mourning of modernity's victims and a mourning of modernity itself, among other oil-supported structures (petrocapitalism, the American empire, etc.). It is crucial to understand that petromelancholia does not "miss" the American empire, only those "happier affects" produced (for a relatively small population) by it, any list of which would have to contain vinyl records. Nor is petromelancholia's goal to restore the era of easy oil-fueled American dominance; on the contrary, petromelancholia seeks "a passage forward" (LeMenager 106). Nostalgia, on the other hand, wants the American empire restored—"Make America Great Again," Donald Trump's tagline reads—and primary among the factors causing the inability to mourn America, modernity, or petrocapitalism, is the denial that its very material support has vanished into thin air in a stunning, brief, spectacular carbon-orgy. LeMenager writes:

> What impedes a productive grieving of oil, if we're to follow Freud in supposing that grief should be superseded by the taking of a new object, is that we, by which

> I mean myself and most moderns, refuse to acknowledge that conventional oil is running out and that Tough Oil isn't the same resource, in terms of economic, social, and biological costs. (105)

Critical to this notion of denial is that it is somewhat selective: that is, we simultaneously acknowledge the truth of the lost love-object, while acting as if it were not lost. Indeed, even the CEO of Chevron referenced earlier, David O'Reilly, is acutely aware of the high costs of Tough Oil. He notes, "new energy discoveries are mainly occurring in places where resources are difficult to extract, physically, economically, and even politically" (Klare). Of course, he does not mention "environmentally," but nonetheless, I think most of us intuitively understand—when we look at a picture of a Tar Sands tailings pond, for example, or contemplate the BP deepwater spill—that Tough Oil comes with much higher environmental costs than easy oil. LeMenager's point, I take it, is that conceptually or even intuitively we know that conventional oil is gone, but we practice denial by pursuing Tough Oil.

The question could be asked of proponents of petromelancholia: considering that Tough Oil is indeed a "new object" that we seem to have taken in substitution of our "deceased" former love-object, easy oil, then is the mourning process not complete? The point of queer and petromelancholia, however, is that simply taking a new love-object is not the end-goal of productive mourning. Indeed, as I hinted at earlier, the insistence on taking a new love-object (in the wake of the extinction of a people or species) never succeeds in producing a challenge to the conditions which were responsible for the extinction. In fact, this drive to secure new object-cathexes might itself be unique to mourning in capitalism (Sandilands 338). Queer melancholia, unlike the "social organization of mourning in commodity capitalism" (which is perhaps better

understood as nostalgia, not mourning), seeks to nurture a particular ethics and politics that, unlike nostalgia or "typical" mourning, offers a political challenge to the causes of the lost love-object: it is in part a response to homophobia (Sandilands 339), to genocide, and to ecocide. The point is that what we have lost is irreplaceable; there are no substitutes, no new object-cathexes. LeMenager's point is just that: there are no substitutions for easy oil.

Petronostalgia, to finally offer a definition, is the oil-equivalent of nature-nostalgia: that is, a way of coping with loss (specifically the loss of easy oil) that seeks new object-cathexes (Tough Oil) while failing to offer any political response that might challenge the "relationships that produced the loss in the first place" (Sandilands 333). Petronostalgia is a reactionary movement against the end of easy oil as well as against the various human and nonhumans oppressed by Tough Oil who threaten political "speech acts" denouncing the police order which today silences them. The end of easy oil offers a moment (similar but far bigger in scale to the OPEC "oil shocks" discussed earlier) when the partition of the sensible which renders oil's omnipresence imperceptible might be politically challenged through a petromelancholia that truly understands easy oil's irreplaceability. The BP oil spill, for example, demonstrates perhaps most clearly oil's new visibility in the age of Tough Oil. Where conventional oil's gushing bounty proved somewhat easy to take for granted and police out of sensibility, it is precisely Tough Oil's toughness and our fights with its obstinate refusal to heed our will (fights from which, the Gulf spill reminds us, there are often great casualties and injuries) that makes oil today much more difficult to render imperceptible. Petronostalgia, I argue, functions in this particular historical moment by attempting to reinstate and expand the police order of petrocapitalism by oppressing even more human and nonhuman beings through exploitation of

the new object-cathexis, Tough Oil. In other words, petronostalgic consumption fails to understand the irreplaceability of easy oil and therefore seeks its replacement in Tough Oil while at the same time attempting to re-instate the police order which rendered easy oil and its affects imperceptible. Unfortunately for proponents of Tough Oil, its affects are increasingly perceptible (the Tar Sands are visible from space!) and the "people," human and nonhuman alike, who are affected by it are becoming more and more numerous. We can only hope that the increased magnitude of destruction brought about by Tough Oil encourages a dramatically increased magnitude in volume from Tough Oil's silenced victims; or rather, that Tough Oil's silenced victims are heard before too much more destruction takes place. Petronostalgia, the desire to return to the age of easy oil through the new object-cathexis Tough Oil, is, I think, the single greatest impediment to proper politics today.

While tar sands extraction, ultradeepwater oil drilling, hydraulic fracturing, Arctic oil drilling, etc. are petronostalgic acts *par excellence*, petronostalgia also plays itself out in contemporary practices of consumption. Of course, I am primarily interested in the consumption of vinyl records. In the same way that oil today is not the same as oil in LeMenager's American Century, I think it is important to recognize that vinyl records today are different from records then. To denote the particular status and ontology of vinyl records in the age of Tough Oil, I propose the term *Tough Vinyl*. The ontology of vinyl has changed along with the ontology of oil, and so what makes Tough Vinyl distinct is precisely what makes Tough Oil distinct: that is, their particularly high economic, social, and environmental costs. In the rest of this paper, I will use the term Tough Vinyl in an attempt to give oil "voice" through contemporary vinyl, a conscious attempt to disrupt the petrocapitalist police order whose efficacy, as I have shown, is based on

making oil insensible and voiceless. In the next track I turn to two artists who similarly give oil "voice" through vinyl records; both Father John Misty and Tanya Tagaq release their music on all music formats, including LP, but are notable for their unique evocations of the materiality of Tough Oil and Tough Vinyl.

## Track 2 - Listening to Tough Vinyl

In “Now I’m Learning to Love the War,” from the 2012 album *Fear Fun,* American singer-songwriter Joshua Tillman, aka Father John Misty, exhorts us to “try not to think so much about the truly staggering amount of oil it takes to make a record: all the shipping, the vinyl, the cellophane lining, the high gloss, the tape and the gear” (See Appendix A). Rather like that other paradoxical suggestion, “don’t think about the pink elephant,” Tillman brings to the listener’s mind precisely what he suggests be kept out. Throughout the song, Tillman enfolds the materiality of the vinyl record into the experience of listening, troubling the elision of its underground origins and the fetishistic consumerism required to push vinyl in the age of Tough Oil.

In a later verse, Tillman sings, “try not to dwell so much upon how it won't be so very long from now that they laugh at us for selling a bunch of 15 year olds made from dinosaur bones singing ‘oh yeah’ again and again, right up to the end.” While Tillman tries to distance his 34 year-old self from the laughable teens on vinyl, ironic laughter and the condemnation that comes with it seem equally applicable to adult musicians who ought to know better: that consumption of oil, including via petrochemicals like PVC, needs to stop if we are to avoid runaway climate-change. Misty’s song perfectly captures the painful irony of the coincidence of our climate crisis with the vinyl revival. As we approach peak oil or determinedly avoid it by pursuing ever-more carbon-intensive sources of oil, the sense of oncoming doom is inescapable; apocalypticism is a major component of the zeitgeist and, according to Lawrence Buell, it is “the single most powerful master metaphor that the contemporary environmental imagination has at

its disposal" (285).[12] As atmospheric carbon-concentration soars above the 350 parts per million threshold, as sea levels rise, and as we forge ahead through 2015, thus far the hottest year on record (Erdman), Tillman's image of a record spinning into Armageddon—the frivolity of a pop star's repeated "oh yeah" juxtaposed with the gravity of global annihilation—is truly haunting. Tillman makes a special point of highlighting the buried origins of the record, made as it is, in part, of decomposed "dinosaur bones." Moreover, the extinction of the dinosaurs, Earth's former dominant species, disturbingly echoes our similar, inevitable, though far more despicable because self-imposed, destruction: "the end" that Tillman sings of, right up until which, we—that is, the oil-glutted, Earth-wrecking, colonizing Global North—will enjoy our petrochemical feasts set to our favourite poppy soundtrack. "Oh yeah, oh yeah," on repeat, like Major Kong's "yee-haws" as he gleefully rides the A-bomb to nuclear holocaust in one of the most memorable scenes from Stanley Kubrick's *Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb*. Indeed, Tillman wants us to make that connection: his song title, "Now I'm Learning to Love the War" perfectly parallels Kubrick's title.

In the chorus Tillman sings: "Let's just call this what it is: the gentler side of mankind's death wish. When it's my time to go, gonna leave behind things that won't decompose." The parallel between human annihilation and that of the dinosaurs ends here: unlike dinosaurs, who only leave behind their bodies, humans leave behind plastic and, the *Dr. Strangelove* parallel reminds us, nuclear waste, both of which possess a certain immortality in their obstinate refusal to decompose. Plastic immortality leads Derrick Jensen and Aric McBay to observe in their book

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[12] "Peak oil" is a term coined by M. King Hubbert that denotes the point at which we reach maximum global oil production (Rapier n.p.).

*What We Leave Behind* that there is a link between "this culture's fear of death and its fabrication of plastics," noting that when they began researching plastic, their inaugural Google search, "What is plastic?" only retrieved results divulging information on plastic surgery, that bourgeois procedure which might represent a historical pinnacle of necrophobia. Perhaps, then, vinyl records are not "the gentler side of mankind's death wish." Instead, it seems that vinyl records might be the "gentler side" of humanity's (or at least capitalist consumerism's) drive for immortality. Tillman seems acutely aware of this paradox: that a drive for immortality ("things that won't decompose," like vinyl records) actually accelerates human deaths. Indeed, Jensen, McBay and other environmentalists hold that PVC is the most toxic plastic of all, for humans and nonhumans alike (Jensen and McBay 110; Leonard 68).

Indeed, Thornton claims that the risks of organochlorines are "rivaled only by the hazards associated with climate change, nuclear technologies, and the reduction of biological diversity (itself caused in part by chemical pollution)" (6). Among the major ecological harms imposed by PVC and its organochlorine relations is the phenomenon of bioaccumulation, whereby organochlorines "accumulate in the fatty tissues of living things," increasing in concentration as they move higher up the food chain (4). As a sort of toxic segue, I follow the bioaccumulating organochlorines and dioxins to the Arctic where they pose a well-documented threat to the Inuit whose diet is rich in fish and seal blubber (41). I turn now to the song "Fracking" by Tanya Tagaq, a throat-singing Inuk from Cambridge Bay, Nunavut.

There is a feminist, ecological, Indigenous politics at the core of Tagaq's "Fracking." The album on which it appears, *Animism*, is dedicated to Loretta Saunders, an Inuk murdered while studying in Halifax at St. Mary's University. Tragically, Sanders was writing her thesis on the

crisis of missing and murdered Indigenous women in Canada, to all of whom *Animism* is also dedicated. Assault on Indigenous women has reached epidemic proportions in Canada, and Tagaq is no exception. In an interview with *The Walrus*, she recounts multiple instances of being sexually assaulted as a child growing up in Cambridge Bay, and tells how, after having started huffing solvents and drinking around the age of 11, she attempted suicide when she was 17 (Nelles). Just last year, when Tagaq was in Winnipeg to attend the Royal Winnipeg Ballet's *Going Home Star – Truth and Reconciliation*, a performance centred around the genocidal crimes carried out by Canada's residential school system, she was sexually harassed. She tweeted about the incident: "I was [. . .] walking to lunch, when a man started following me calling me a 'sexy little Indian' and asking to fuck [. . .]. That is why it is creepy and scary. It happens when we are alone. In the day or night. #MMIW [missing and murdered Indigenous women]" (Tagaq qtd. in Sobolewski). Prime Minister Stephen Harper has famously refused the widespread call for an inquiry into the missing and murdered Indigenous women genocide, claiming that each case of a crime against an Indigenous woman is the result of individual criminals and not part of a "sociological phenomenon" (Boutillier). The Toronto Star's Jakeet Singh remarked on the similarity of Harper's response to the MMIW genocide and to so-called terrorism. In an oft-parodied statement on an alleged "terror" plot, Harper said, "we should not 'commit sociology'" and instead should pursue a tough-on-crime agenda (Harper qtd. in Singh). Luckily sociology is not yet criminal in Harper's Canada, because part of this paper's mission has been to "commit" it; specifically, I am attempting a somewhat Latourian sociology that attempts to uncover the hidden (often non-human and buried underground) actors within what I am calling the vinyl-actor-network, or more simply, the vinyl-network. Tagaq's "Fracking," better than any song I

have ever heard, evokes what is arguably the most powerful actor in the vinyl-network: Tough Oil.

As Tagaq says: "Basically, I wanted a song to be unlistenable, so ugly and disgusting, so I imagined my whole body was the Earth and that someone was doing fracking on me" (Tagaq qtd. in Rogers). The violent sexuality of someone "doing fracking on her" is not lost on Tagaq, who refers to hydraulic fracturing as "Earth rape" (Nelles). The antisexual assault slogan, "silence is violence," is one Tagaq would likely endorse; indeed, her response to Earth rape (which I take as a term that encompasses both sexual rape and the violence of mining and fracking for Tough Oil—not to mention mining for other materials) is essentially to be as disturbingly loud as possible. Offering up the fact that her daughters are "four times more likely to be murdered than any other racial demographic in Canada," Tagaq asks rhetorically, "so how do I change this, how do I help? That's what I'm projecting my voice for" (Seabrook). The phrase should perhaps be "silencing is violence," because it is the silencing of would-be projectors like Tagaq that constitutes the police order responsible for the ongoing effects of colonialism. In so-called Canada, Indigenous land defenders (and Tagaq, I think, could be included among that group) are policed out of participating in governing the "common world," a policing achieved primarily by forcing them into the realm of the imperceptible or inaudible. Bruno Latour's program of response to this violent silencing seems to be followed by Tagaq; he argues that all academic disciplines (including avant-garde music like Tagaq's, I think) should be self-defined as "a complex mechanism for giving *worlds the capacity to write or speak*, a general way of making mute entities literate" (*Politics of Nature* 66, emphasis in original).

This attempt to make worlds (or the Earth itself) write and speak seems also to be at the heart of sound artist Will Schrimshaw's "geophonography," the "practice of sonifying the geological record" using "techniques for audifying [. . .] data derived from geological materials" (Schrimshaw). Schrimshaw's method is to take photographs of rock outcroppings and convert them "into a series of waveforms by reading grayscale pixel values as elevation & audio sample magnitudes" (Schrimshaw). Rows of pixels become waveforms and pictures of rocks become "songs," ranging from two seconds long (if all waveforms are played back simultaneously) to 42 minutes (if played back sequentially). While Schrimshaw acknowledges the exercise was "a failure" (he does not specify how so), the result is a series of sonic works he calls *Ur-writings* and is highly "successful" insofar as it allows the listener to speculate on the possibility of audio recordings of geological phenomena inscribed upon the earth itself. If Schrimshaw's geophonography is an attempt at documenting real geological happenings through sound, then Tagaq's "Fracking" is the fictive version thereof. Both attempt to show that the supposedly mute entity called Earth is in fact vocal. In the case of the latter, Earth-song is used to make sonically sensible the violence of "invisible"—or rather, inaudible—Tough Oil.

Tagaq succeeds in giving Earth the capacity to speak through improvised performance. For Deleuze and Guattari, "to improvise is to join with the World, or meld with it" (312). Tagaq's entirely improvised avant-garde music attempts just that Deleuzo-Guattarian earth-melding; recall, in improvising the piece "Fracking," that she was imaging herself as Earth. Tagaq metamorphosizes into Earth in a fictive geophonographical attempt at political ecology, understood in the Latourian sense of assembling the Collective, the "assembly of beings *capable of speaking*" (*Politics of Nature* 62, emphasis added). She asserts what Rancière would call the

properly political: “the equality of any speaking being with any other speaking being” (30). In so doing, her sonic political ecology disrupts the police order that normalizes Earth rape. While Father John Misty might point out the often forgotten fact of the underground origins of vinyl records, Tagaq’s “Fracking” gives us the ecological and political context of that fact, making sensible and rendering sonically affective the traumatic geological/sexual/colonial crime that is hydraulic fracturing. Taken together, both songs deeply problematize the almost ubiquitous and unanimous celebration of the vinyl record’s revival at our critical environmental juncture.

## Track 3 - Vinyl Organicism

> HBN [Healthy Building Network] has learned that at the May meeting of the National Organic Standards Board, the Obama Department of Agriculture (USDA) will announce that some polyvinyl chloride products (also known as PVC or vinyl) will soon carry the USDA Organic label. The designation will be granted to products that have been certified as made from vinyl, a combination of "common salt . . . and . . . natural gas."
>
> - Bill Walsh, "Introducing Organic Vinyl," April Fools Edition

Now that I have considered the part of the vinyl-network that connects vinyl consumers with Tough Oil mega-projects like fracking – and having developed the term Tough Vinyl to denote that connection – I will now turn to other "actors": specifically, those actors associated with the production of PVC.[13] While the task of tracing these associations would be necessary anyway, in part this task is carried out in response to a particular discursive trend that frames the vinyl record as "natural," "organic" (as in the epigraph), "ethical," and so on. I term this discursive trend "vinyl organicism" (see Table 1). Each of those three terms (and more) will be considered in light of PVC's many associations, particularly the latter: ethics. First, I will work towards elaborating a definition of vinyl organicism.

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[13] "Actor," sometimes "actant," are Latourian terms: "an actor is any entity that modifies another entity in a trial; of actors it can only be said that they act; their competence is deduced from their performances" (Latour, *Politics of Nature* 237). In Latourian sociology, the division between humans and nonhumans, subjects and objects, is erased; thus, a new vocabulary is required. Latour therefore avoids terms like "people," "subjects," etc. in an attempt to challenge the above binaries. In this Latourian vocabulary, "association" refers similarly to any "association between humans and nonhumans," in contradistinction to "social" relationships, which denote only relations between humans (237-8, 249).

Perhaps the finest primary source document that illustrates vinyl organicism is Dominik Bartmanski and Ian Woodward's recent *Vinyl: The Analogue Record in the Digital Age* (2015). To be clear: I call the book a "primary source" because it is not an examination of the phenomenon of vinyl organicism, but an example of it. When Bartmanski and Woodward write that "vinyl signifies heritage, cutting-edge club scenes, high-fidelity format, and is tied up with narratives that position it as 'other' to digital mediums and the corporate technologies and networks through which they are managed and enabled," they are not merely identifying aspects of vinyl organicism; they are acting as that discursive trend's celebrants and propagators (4468). From the outset of the book they establish themselves (conspicuously) as vinyl consumers by noting their love for "crate digging," a practice that in their lexicon refers to more than a passing interest in (especially used) record collecting; diggers are committed to the practice "as either a hobby or a professional practice" (i.e., in the case of DJs) and are most often "highly knowledgeable" or at least aspire to be (40; 1361).[14] Bartmanski and Woodward set out to examine the "institutional means, *material* affordances and properties, economic and cultural agents, and cultural-economic logics which sustain the vinyl in the current era" (376, my emphasis). They situate their work within the field of material culture studies, and repeatedly stress vinyl's "materiality" as a major concern of the book; indeed, they provide an excellent analysis of vinyl's "tactile and visual qualities amenable to sensually charged uses and pleasures" (a subject taken up in track 6). However, despite their emphasis of vinyl's materiality, Bartmanski and Woodward remain almost entirely silent on vinyl-*qua*-vinyl—that is, PVC (or vinyl-*qua*-oil, or vinyl-*qua*-plastic, for that matter). Indeed, PVC is only mentioned three times

[14] Conspicuous consumption within vinyl culture is a subject taken up in track 7.

in the entire book, and only once in relation to environmental concern: an interviewee of theirs, a record store worker, expresses a similar conundrum to mine in that his environmental ethics are contradicted by his job "'selling PVC'" (2178; 2397; 3685). The inability or refusal to engage vinyl records as toxic PVC (or as plastic or oil)—in other words, the obfuscation of the material and social relations responsible for the creation of vinyl records—needs to be understood as a key characteristic of vinyl organicism; that is, the discursive trend is characterized as much by what it does not say as by what it does.

| Vinyl | Digital (CDs, MP3s, etc.) |
|---|---|
| Organic/Dirt | Inorganic/Clinical Clean |
| Natural | Unnatural/Artifical |
| Art | Capital/Industry |
| Authentic | Inauthentic |
| Independent/DIY/Artisanal/Unique | Corporate/Mass-produced/Standardized/ Consumerist |
| Local | Global |
| Alive | Dead |
| Timeless | Modern |
| Green | Grey(?)Silver? |
| Subaltern/Countercultural | Bourgeois/Mainstream |
| High-quality/Warm | Low-quality/Cold |
| Human | Alien |
| Slow | Fast |

**Table 1.** Key binaries of vinyl organicism. This table is inspired by Donna Haraway's chart in "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century" wherein she charts dichotomies between "the comfortable old hierarchical dominations to the scary new networks I have called the informatics of domination" (164).

Moreover, what vinyl organicism "says" serves as a way to cover up what it does not say; that is, its focus on framing the record as "natural," "organic," and "ethical" is a means of eliding the material and social relations of production. Vinyl organicism, then, refers to the particular way in which vinyl is fetishized today. In his book *Vinyl: A History of the Analogue Record*, Richard Osborne theorizes the origins of vinyl organicism (though he does not call it that), arguing that it was only in the context of the rise of digital media, beginning with the CD, that vinyl took its status as something natural: "'warm' and 'organic'" (82).[15] For Osborne, it was only with the introduction of the CD that vinyl "could be elevated from assembly-line product towards something approaching an art object" (83). In order to document vinyl's discursive makeover, Osborne first gives the reader a clear "before" picture of vinyl's previously well-understood though uneasy relationship to standardization and the assembly-line. In addition to providing a wonderful litany of the many parallels between record production and the production of automobiles (70-1), one of the most iconic assembly-line products, Osborne briefly refers to two great artworks wherein record and record player production are villainized as examples of capitalist exploitation of workers and the land: René Clair's 1931 film, *À Nous la Liberté* and George Orwell's 1933 poem, "On a Ruined Farm near the His Master's Voice Gramophone Factory." I offer a brief synopsis of the former as it is an excellent illustration of an older perspective on record culture that is antithetical to the contemporary operation of vinyl fetishism.

*À Nous la Liberté* begins with the two main characters in jail. Louis and Émile—who at this point do not have names, only numbers sewn onto their uniforms—are being scrutinized by

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[15] Indeed, PVC is "organic" in the sense that it is a carbon-based chemical (see Thornton 2), but the word as it is used to describe vinyl records, I will demonstrate, does not carry this meaning.

prison guards as they, alongside other prison labourers, build toy horses on an assembly line. Later that night, they attempt to execute their planned jailbreak, but only Louis is successful in escaping. Louis rather quickly goes from prison rags to riches with his gramophone factory in which working conditions parallel those in the prison: workers manufacture record players on an assembly line, are policed by managers instead of prisoner guards, and are given employee numbers (this time on small black record-like circles on their employee uniforms) instead of prisoner numbers. Émile, after managing to escape prison, finds himself shackled yet again, this time by wage-slavery in his old friend's factory. Ultimately, Louis realizes that through his pursuit of "liberty"—capitalist accumulation—he has re-produced for others the prison system his liberty was predicated on fleeing; he hands over ownership of the means of production to the workers, including Émile, and the factory's machines are put towards the effort of reducing labour and increasing leisure time and collective wealth. While I have excluded many plot elements, what is important to glean from this synopsis is that the film is radically anti-capitalist and, as such, serves the contemporary viewer enmeshed in vinyl organicism with a bold de-fetishization of the commodity (record players, that is) precisely by depicting the prison-like conditions of labourers. In what is one of the most memorable scenes, Émile, having just escaped prison, is lying in a field over which Louis' gramophone plant looms ominously (see figure 3). A police officer approaches him and says, "Not at work? Don't you know that . . .," before the scene cuts to a teacher instructing his pupils that "Work is mandatory because work means liberty," which his pupils chime back to him in unison. The irony of this scene is, as Émile soon finds out, that work under capitalism is not liberating, but imprisoning. Moreover, the scene has unmistakeable parallels with the experience Orwell describes in his poem wherein he is caught

"like Buridan's donkey" between a farm ruined by industry on the one hand, and on the other the "soaring towers" of a record pressing plant in London, for whose capitalist owners they symbolize a "glittering world" of freedom but for Orwell only alienation (135). Indeed, aside from the relatively healthy looking grass depicted in the film, it is not hard to imagine Émile as Orwell, and vice versa. Both experience the immensity of the capitalist music industry (which works metonymically for both artists and capitalist industry in general) as imposing upon their liberty. The only difference is that, for Orwell, the record industry also destroys the land: "The acid smoke has soured the fields, / And browned the few and windworn flowers" (135).

**Fig. 3** Émile enjoying a brief moment of liberty in between stints in prison in René Clair's, *À Nous la Liberté*. 28 July 2015. <http://worldscinema.org/2012/06/rene-clair-a-nous-la-liberte-1931/>

For Osborne, the diminished popularity of vinyl in the 1990s is precisely what allowed it to "escape the taint of industrialization" (84). Thus major record labels shifted to CDs (for

reasons described above), the masses followed, and all of a sudden record production seemed "like a cottage industry" (83). During its period of low popularity (the late eighties until the start of the revival in 2008), vinyl was incubated and kept "alive" by four key groups of people: John Davis calls these people the "vinylphiles" and lists among them indie rock fans, analog audiophiles, and collectors (225-6). Via Bartmanski and Woodward, I add the DJ to Davis' list (Bartmanski and Woodward 1020). For these vinylphiles, vinyl is the "quintessential" and most "authentic" format (Davis 225). For indie rock fans, acquisition of vinyl marks them "as a sophisticated consumer not beholden to the commodification of music practiced by the corporate recording industry—as well as that industry's emphasis on CDs" (226-7). Yet, despite some record labels that offer a "clear and specific critique of the mainstream system of popular music production," Davis acknowledges that most "indie" record labels "follow (on a much smaller scale) the models of production, promotion, and distribution applied by the major conglomerate-owned record labels" (227). Thus, I am inclined to argue that what we see within this particular group of vinylphiles is a fetishization of the small. Independent record labels are not so much an ontologically separate thing from major labels; the difference is quantitative, not qualitative. The same can be said for the difference between independent record stores (including The Store I worked at) and corporate-owned chain stores; both ultimately uphold capitalist relations of production and distribution.[16]

Though vinyl today has managed to escape the "taint of industrialization" and is positioned as "'other' to digital media and corporate technologies," the holders of the largest US market share for vinyl are now two corporations: Amazon and Urban Outfitters, with 12.3% and

[16] I explore the fetishization of "independent" record stores in track 6.

8.1% each respectively (Burchell). Combined with the three holders of the next largest market shares (Hastings Entertainment, Hot Topic, and Trans World Entertainment), these corporations hold over 27.8% of the vinyl market share in the US, which equates to over one-eighth the global market. Where Bartmanski and Woodward intentionally avoid discussing corporate record stores, using the justification that such stores "tend to capitalize on, instead of contributing to, the narrative of coolness derived from the independent scenes," my approach is concerned with all vinyl: whether it was purchased on Amazon or at The Store (3959). Bartmanski and Woodward's elision of corporate involvement in the vinyl industry is an all too common effect of vinyl organicism; the result, as I will make clear, is a blindness to the ways in which vinyl records are always already "corporate," from their connection with Tough Oil to their origins in the petrochemical industrial-complex.

One of the things that makes Tough Vinyl so interesting is the way in which it seems—because it is discursively established as such—like the organic or ethical choice of music consumption and yet, materially speaking, vinyl can never be localized, de-corporatized, organic, ethical (despite Ezra Levant's insistence to the contrary), etc.[17] Nonetheless, vinyl is firmly entrenched within a constellation of consumptive practices that emphasize all of the above: "Whether it is vintage or handmade fashion, organic foods, handmade jewelry or independent clothing boutiques, or other manifestations of slow and ethical consumption cultures, vinyl seems to be a logical counterpart *even though its ecological footprint as a product might be relatively big*" (Bartmanski and Woodward 4761, my emphasis). Indeed, many people draw the connection between the slow food movement and the vinyl revival (Osborne 58; Bartmanski and

[17] See Levant's *Ethical Oil: The Case for Canada's Oil Sands.*

Woodward 1882; Paphides; Harris). Not coincidentally, then, Whole Foods Market, a (corporate) supermarket that specializes in "the highest quality natural and organic products available," began selling vinyl records in 2013 ("Our Core Values"). According to the executive coordinator of Whole Foods, Mike Bowen, "this launch [is] about listening to our shoppers and giving them access to the things they want—whether it's their favourite cheese or their favourite way to enjoy music" ("Whole Foods Market"). According to Bowen, then, people who eat organic food (at least those who shop at Whole Foods) choose vinyl as "their favourite way to enjoy music." If the principles of the organic and slow food movements include dedication to "stewardship of the land and ecologically sound food production," then it is only with a great deal of self-contradiction that we "locavores" and consumers of organic foodstuffs choose the vinyl record as our preferred sonic medium ("Slow Food Manifesto" qtd. in Bennett, *Vibrant* 50). Most often vinyl is framed as "slow food" by emphasizing its inconvenience: "precisely because vinyl does not lend itself to perfect portability, but invites special attention, it can function as a more demanding, ritualistic and thus reflective medium" (Bartmanski and Woodward 1882). While this certainly is an accurate parallel to slow food's emphasis on avoiding the consumption of convenient "fast foods," and celebrating the "kitchen and the table as centres of pleasure, culture, and community," I think ultimately the widespread insistence that vinyl is somehow an ethical form of consumption equivalent to slow food is a fetish; it is the example *par excellence* of vinyl organicism ("Slow Food Manifesto" qtd. in Bennett, *Vibrant* 50). Having traced the origins of and elaborated the theory of vinyl organicism as that which covers up the often violent social and ecological relations inherent in vinyl record production, I now turn to a closer examination of that (corporate) violence.

First, I would like to point out an obvious fact that vinyl organicists generally fail to mention: that the PVC economy can never be localized. Case in point: the most local vinyl pressing plant to me in my home in Toronto is the now defunct RIP-V (RIP are the first initials of the three co-owners, but also act here as "rest in peace," with V meaning vinyl) in Montréal, which I had the chance to visit before they sold their presses to a much larger American company. The PVC pellets RIP-V used came from the Thai Plastic Company, the "Asian PVC leader" (TPC). The oil to make the Thai PVC might have come from the Tar Sands, or the Bakken Shale, or the Central Sumatra Basin. Who knows? (See figure 4).

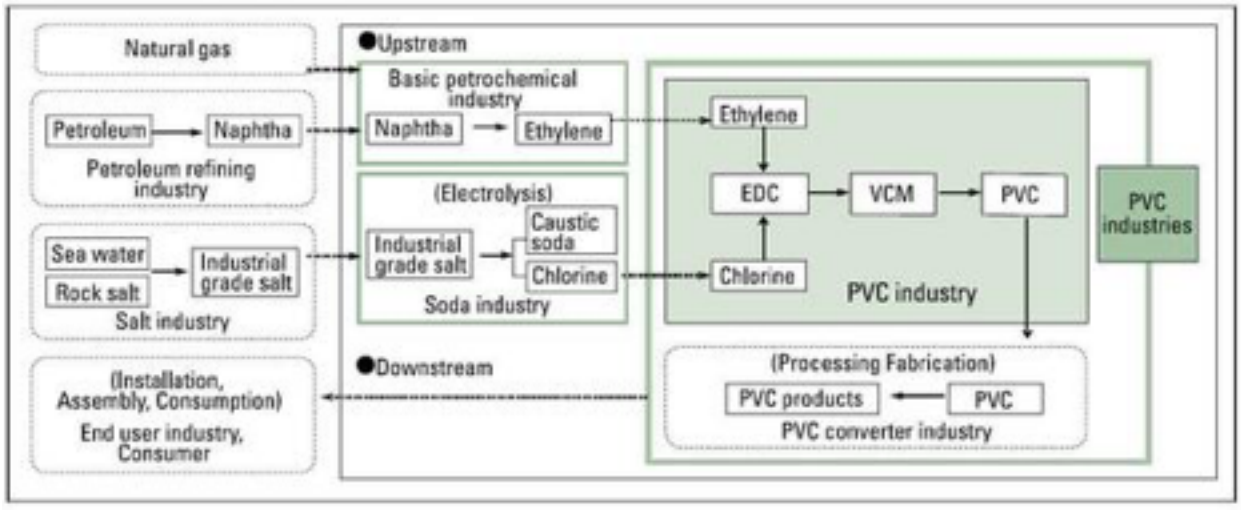


**Fig. 4** An upstream/downstream chart of material flows in PVC production only hints at the complex non-locality of the vinyl-network. Tracing the "inputs" (petroleum, sea water, and rock salt) alone could take an entire research project, let alone the material actor-networks that make up the infrastructure and enable the transformation of inputs into PVC ("How is PVC Made?")

Perhaps in the past records have been made using PVC produced in Calcasieu Parish, Louisiana—North America's "unofficial PVC capital" (Belliveau and Lester 19). In a town there called Mossville, the predominately African American community has all but vacated after, at the

behest of citizens there, the EPA in 1999 tested their air and discovered that it had over 120 times the ambient air standard of vinyl chloride; that ethylene dichloride, a PVC feedstock, had polluted the waterways; and, later, that blood tests showed that the average Mossville resident is polluted with three times as much dioxin as the average American (19). As a result, "cancer mortality rates for Calcasieu are 1.6 times the national average" (19). The citizens of Mossville, however, have been successful in several attempts to attain some semblance of environmental justice. They have provided scientific data, gathered using the Bucket Brigade program wherein citizens test their own air (a process depicted in the film *Blue Vinyl*), that showed benzene levels 231 times that of the Louisiana standard, a finding which resulted in industry being fined over $300,000 (19). The celebrants of the vinyl revival, as far as I can tell, have yet to deal with this sort of environmental racism at the core of the material economy supporting their beloved medium.

The profound link between the vinyl record and the oil industry—one I have been trying to stress throughout—means that the production of records is always already bound up with and mediated by corporate technologies: from the world's biggest dump trucks in the Tar Sands to the technologies for treating (and, in places where health care is privatized, thereby extracting corporate profits from) "ailments [of workers and residents] associated with vinyl chloride exposure, including damage to the liver, lungs, blood, nervous system, immune system, cardiovascular system, skin, bones and reproductive system" (18); and from your brand new turntable to the two major PVC production facilities in cancer alley, owned by PPG Industries and Condea Vista (now Sasol), both of which are publicly traded corporations directly responsible for the above diseases impacting residents of Mossville (see fig. 3).

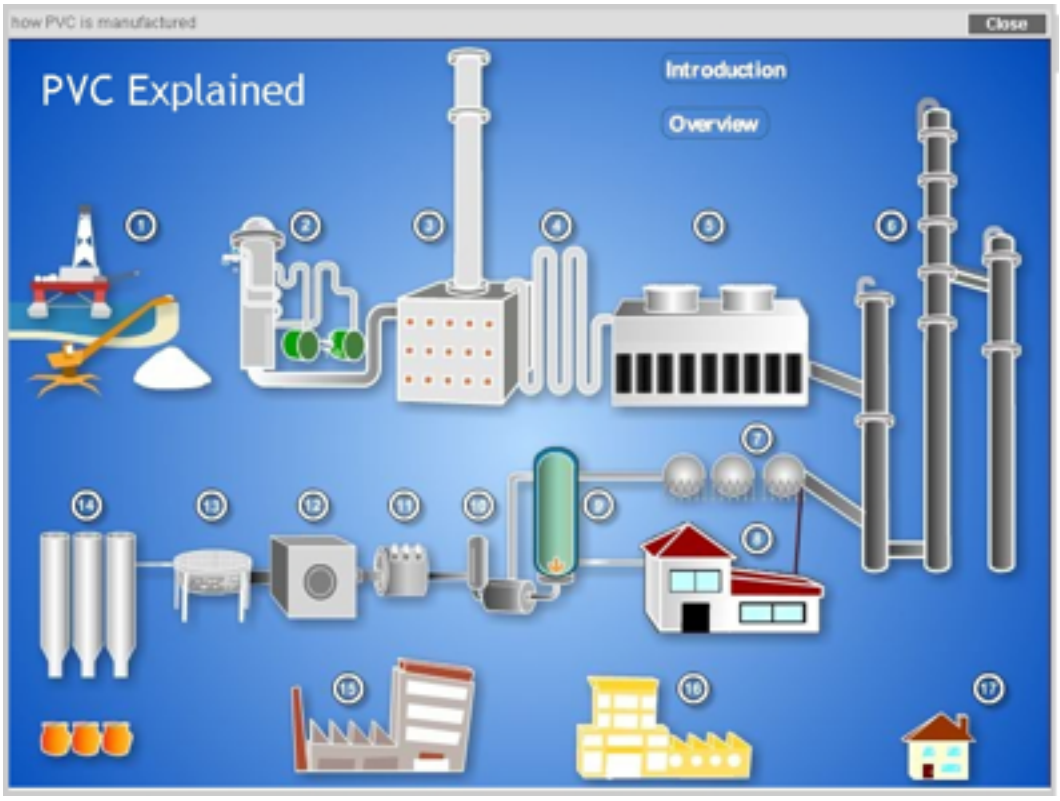


**Fig. 5** Another glimpse at the vinyl-network: the network of corporate-owned infrastructure and technologies required for PVC production. In chronological order, depicted are: oil and sodium chloride industries producing ethylene and chlorine, chlorination reactor, cracking furnace, quenching tubes, cooling units, distillation columns, storage spheres, control rooms, autoclaves, stripper, centrifuge, dryer, sieve, (large) storage spheres, distribution silos, warehouses, home (probably also corporate-owned, by a bank!). ("The PVC production process explained")

Clearly, far from being a medium for "subaltern"(!) peoples, as Bartmanski and Woodward claim (715), the vinyl record is enmeshed in networks of a decidedly corporate character that actively perpetuate life-risking environmental racism. Indeed, it seems that if we are to discuss vinyl in terms of speed (as a sonic slow food, for example) we must realize that there are many temporalities at play. Sure, vinyl is slow in some regards (the anti-convenience ethic embodied by the effort required to acquire knowledge about records, find them, purchase, play, and care for

them), but when it comes to vinyl's affects in other ecologies, vinyl is an accelerant: most notably, it accelerates habitat loss and global warming due to its greater oil use and it accelerates (perpetuates and amplifies would be better terms) the oppression of African Americans through environmental racism. Having documented these various accelerations, it is clear that framing the vinyl as sonic slow food is dangerously reductionist. Indeed, the broader discursive trend of which that framing is a part, vinyl organicism, needs to be understood in Rancière's terms as a crucial aspect of the music industry's police order. Vinyl organicism's framing of the record as anti-corporate, even anti-capitalist (see Harris), "slow," etc. is a way of hiding the corporate, capitalist, "fast" actors crucial to the production of PVC. In a strange twist, vinyl organicism polices precisely by pretending not to; that is, vinyl organicism pretends that records give voice to the "subaltern," to the ecological ethics of slowness, etc., and precisely by pretending to give voice to the political, it constitutes the police order of the vinyl record industry. In other words, vinyl organicism denotes the lie that vinyl records and the cultures that surround them constitute political challenges to capitalism. In fact, as I have shown, vinyl organicism is a sort of anti-politics, a discursive technique for silencing the lives ruined by dioxin and by Tough Oil; vinyl organicism is therefore akin to what Rancière calls the police. So, in addition to illuminating petronostalgia's role in constituting the police order of the petrocapitalist music industry, I have now established another police-actor: vinyl organicism. Both constitute unique but interrelated ways in which Tough Vinyl is fetishized.

## Track 4 - Sonic Embalming and Immortality

> When I die I want a vinyl-shaped tombstone paying thanks to my family and my records that made my life so beautiful.
> - Record Collector, *Vinylmania*

This track is dedicated to what I only briefly touched on in a previous track: plastic immortality. The track is structured by an attempt to illuminate a singular irony: that inherent in the drive to preserve the dead through phonography (recall number four on Edison's list of uses for the phonograph) is the creation of more deaths, both human and nonhuman. In order to make this irony clear, in this track I explore the status of vinyl as plastic and examine various human and nonhuman deaths caused by plastic production and pollution.

The irony of using fatal plastic to preserve the dead is not unlike the irony of embalming: we fill our dead with toxic preservatives like formaldehyde that both keep the dead from beginning their decay and actively poison the living. These links have been made before; Jonathan Sterne has even argued that phonography, insofar as it is "a modification of the relations between life and death," is a type of biopower (294). In *The Audible Past: Cultural Origins of Sound Reproduction*, Sterne claims that the specific "modification of the relations between life and death" made by phonography precisely paralleled those made by the practice of embalming (293-4). He writes, "recording was the product of a culture that had learned to can and embalm, to preserve the bodies of the dead so that they could continue to perform a social function after life" (292). What is crucial about Sterne's point is that, according to him, people did not always want to see and hear preserved bodies and voices of the dead: that desire "had to be learned" (293). As Sterne shows, the desire to preserve dead bodies and voices grew out of

Victorian necrophobia as a means by which people could be "protected from the experience of decay" (294). Older techniques of preservation (refrigeration, metal caskets, etc.) were not effective at keeping the body intact for the long periods of time required to ship the bodies of Civil War soldiers around the Union, and so government invested heavily in developing techniques of embalming (296). While the older techniques failed at preserving the exteriority of the body, it was felt that the preservation of the interiority of the body was necessary to allow the soul to go to heaven; embalming, as a process which preserves the exterior appearances of the body precisely by chemically reconstituting the interior, was initially met with some hostility (296). After some high-profile public viewings of embalmed corpses, however,—most notably that of Lincoln—the desire to open the casket to public viewings in funeral homes as opposed to the private home had been "learned" (296). Sterne's point, that embalming is an important part of the "prehistory of sound recording," rests precisely on the notion that both embalming and phonography—what I am inclined to call "sonic embalming"—attempt to reconstitute the specimen (body and voice, respectively), not so that the body or voice as such might be preserved, but so that the new body and the new voice might continue to "perform a social function" (297). Just as in embalming the body is chemically reconstituted in order to preserve the performance of social function, in phonography the voice is reconstituted by the recording studio, which Sterne compares to the "cosmetic touch-up of corpses" (297).

For me, Sterne's analysis of the parallels between embalming and phonography are illustrated beautifully in Jeroen Diepenmaat's installation *Pour des dents d'un blanc éclatant et saines* (Fig. 1). The piece seems to build from Sterne's concern with dead human bodies and dead human voices toward the illumination of deep parallels between the "embalming" of

nonhumans—what we call "taxidermy"—and the sonic embalming of their voices. As Sterne notes, early in its history, sound recording became a tool to "preserve the voices of dying *cultures*" (311, emphasis added). What Diepennmaat points out is that dying *natures* also underwent both types of embalming.

**Fig. 6.** Photograph of Jeroen Diepenmaat's *Pour des dents d'un blanc éclatant et saines*, 2005. Record players, vinyl records, stuffed birds, sound; dimensions variable; rpt. in *The Record: Contemporary Art and Vinyl*, ed. Trevor Schoonmaker, The Nasher Museum of Art at Duke University. 5 June 2015. < http://nasher.duke.edu/therecord/index.php>.

Despite what critic Piotr Orlov says of this work, a record and a stuffed bird are not "juxtaposed" here—"nature" with "culture"; they cannot be juxtaposed because they are actually parallel phenomena ("Jeroen Diepenmaat"). Both involve techniques of preservation advanced and perfected by Victorian "death culture" (Sterne 291). The vinyl recordings of bird sounds in this work (which somehow manage to play through the birds' beaks which act as the tone arm and

stylus) do the same thing in the sonic realm that taxidermy does in the visual/haptic: preserve chemically reconstituted versions of the dead so that their social functions might continue to be served.

In order to understand what that social function might be, it is important to situate Diepenmaat's piece in the context of the Anthropocene extinction event. First, the "Anthropocene," I should note, refers to the current geological epoch; it is a term famously proposed by Paul Crutzen to denote a transition from the Holocene—the last 10 to 12 millennia —to the contemporary time period, beginning in the late eighteenth century when carbon dioxide concentrations began to grow as a result of human activity (Crutzen). Somewhat horrifyingly, the term frames humankind as the major geological force on Earth. With the increasing acceptance of Crutzen's term, many have renamed the Holocene extinction event the "Anthropocene extinction event." The Anthropocene extinction event is the most recent mass extinction event, the last being the one that took out the dinosaurs. As the name suggests, what makes the Anthropocene extinction event unique is that humans are the cause. Among the devastating figures of loss, it is estimated that 26% of all mammals, 33% of all reef-forming corals, and 13% of all birds are threatened with extinction ("Summary Statistics").[18] In the context of such dramatic endangerment of bird species, with over 150 already having gone extinct since 1500, a "stuffed bird" can be seen as doubly dead: on the individual and species level.

What, then, is the "social function" of stuffed birds in general in the context of such loss? I am inclined to suggest it is precisely a form of nature-nostalgia. To paraphrase Sandilands'

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[18] These figures come from the International Union for Conservation of Nature (IUCN), where "threatened species" are categorized in three ways, listed here in descending order of severity: they are either "Critically Endangered," "Endangered," or "Vulnerable" ("Summary Statistics").

thoughts on nature-nostalgia explored in track 1: modernity's presentation and preservation of fetishized objects that are in fact modernity's victims, is a way of expressing nostalgia for the past while re-instituting the social-material relations of the same modernity which caused the loss initially. A stuffed bird of an extinct species, then, is a part of the police order which kept the endangered species "silent" in life and so, in order to protect moderns from the profound experience of species-death, the police order must finally render the species (though chemically reconstituted) perceptible. The stuffed bird's social function is to inaugurate nature-nostalgia; it is the new object-cathexis that a queer melancholia insists cannot exist. That is to say, a queer melancholia understands the bird's irreplaceability and in so understanding, offers a political challenge to the modernity responsible for the extinction. In short, a stuffed bird is a nature fetish offered up as a victim of modernity precisely in order to perpetuate modernity. It is anti-political —another form of policing— and does not threaten anything but more loss. And yet, I would suggest that Diepennmaat's piece is not practicing nature-nostalgia, but what is perhaps a meta-nature-nostalgia; *Pour des dents d'un blanc éclatant et saines*, I think, holds a mirror up to nature-nostalgia, if not outright parodies it. By combining two major techniques of preservation (taxidermy and phonography) into a single effort to reconstitute the being of some dead birds, Diepennmaat comically portrays the ineffectiveness of this Frankenstein-esque preservation effort. The piece, I think, offers a challenge to nature-nostalgia essentially by inviting us to laugh at this hyperbolic and clunky rendering of it.

In preserving chemically and sonically reconstituted bodies and voices, both taxidermy and phonography cause additional human and nonhuman deaths. In the case of embalming, exposure to formaldehyde (a key ingredient in embalming fluids) has been shown to significantly

increase the likelihood of cancer in anatomists, pathologists, and funeral industry workers (Hauptmann et. al). It is, however, much more than a labour issue; concern has developed about the toxicity of burial sites to their surrounding ecologies, including soils and waterways (see Spongberg and Becks). In response, a "green burial" movement has developed, with perhaps the most interesting and innovative method being the so-called "Infinity Burial Suit." The suit is worn at burial and is "infused" with mushroom spores that will work to cleanse the body of toxins and will "facilitate" decomposition rather than resist it with yet more toxins ("Frequently Asked Questions"). As of yet, though, there has not developed a "green burial movement" for unwanted vinyl records or audio recordings (though in track 9 I suggest the possibility of one developing). On the contrary, the production of vinyl records actively kills humans and nonhumans, providing in the latter's case no burial at all (let alone a "green" one), only a nightmarish immortality. I spend the rest of this section discussing works of art that illustrate the irony I am attempting to highlight: that the drive to preserve the voice's "social function" results in some fundamentally anti-preservationist practices, specifically the creation of death-dealing plastic.

Recalling Diepennmaat's anonymous "stuffed birds"—they act metonymically, then, as no birds and all birds—I cannot help but think of plastic's relationship to the albatross at Midway Atoll. They travel there every year for the winter. *En route* they fly over the North Pacific subtropical gyre which, as Charles Moore discovered in the 1990s, is filled with over three million tons of swirling plastic debris. Until recently it was thought that plastic cannot biodegrade in the ocean—that is, that nothing has evolved the capacity to eat it. However, it seems this is no longer true (see track 9). Nonetheless, most ocean plastic photodegrades before

it biodegrades. That is, “sunlight breaks [plastic] into progressively smaller pieces, all of which are still plastic polymers” (Moore). While it is unlikely that many vinyl records have found their way (either in full or photodegraded form) to the ocean, the plastic pellets (called nurdles) used as feedstock in the formation of PVC products and other plastics have been found in most of the world’s oceans (“Plastic Debris in the World’s Oceans”). If the albatross manage to avoid the ghost nets and live to breed once they arrive, the plastic they will have swallowed—having mistaken it for food—will be regurgitated when feeding their chicks. Subsequently, 40% of all chicks born on the Atoll each year will die: about 200,000 of them (Eidt). Here is what their decomposing bodies look like:

**Fig. 7.** One of many photographs of plastic-ridden albatross corpses taken by American photographer Chris Jordan as part of his work, *Midway: Message from the Gyre*. 6 June 2015. <http://www.chrisjordan.com/gallery/midway/#CF000313%2018x24>.

Shortly after seeing Chris Jordan’s photographs I had the desire to travel to Midway, pick out the polyvinyl chloride from their bellies, and use it for some project or other: a vinyl record

of someone reading Coleridge's "The Rime of the Ancient Mariner," for example. Or maybe just a limited run of the latest release from the famous metal band, Municipal Waste, called *Fatal Feast*. Or perhaps I would not make any records at all. I could just make a bunch of necklaces instead: give them out to friends so we can haunt weddings (or shopping malls), explaining to strangers the horror of these ghosts on our necks.

Jordan's photo series captures a perverse sort of accidental embalming. Importantly, the accidental form has all of the ironies of the intentional form embedded in it (literally): embalming preserves *and* destroys. If we are what we eat, and if that goes for birds too, then the bird pictured above is between 25 and 50% plastic. As such, between 25 and 50% of this bird will live forever. As Weisman notes, "polymers *are* forever" (1, emphasis added).

Writing on polyvinyl chloride in *The Petroleum Manga*, Ruth Ozeki plays a plastic-eater; unlike the albatross on Midway, Ruth-the-plastic-eater intentionally eats plastic. Edited by Valerie Vogrin and Marina Zurkow, *The Petroleum Manga* is inspired by Zurkow's use of manga —Japanese for "whimsical drawing"—to explore the subject of petrochemicals. Originally an art installation, Zurkow's piece is comprised of 50 banners hung in a gallery space, with each banner featuring objects made from specific plastics, including PVC. Later, the drawings were featured in a book of the same title; a wide variety of writers took Zurkow's visual cues and composed short pieces riffing on a specific banner and the petrochemical it features. In the section on PVC, novelist Ruth Ozeki, as I have said, plays a plastic-eater. Her rationale for eating plastic illuminates beautifully plastic's troubling of the dialectic between death and life, mortality and immortality:

> I do not like to eat organic matter. I do not like to eat big living things. Big living things are gross because they go rotten. Vegetables, like stinky broccolis, are big living things, even if they are as small as squishy peas. Meats are not living things, but they are only recently dead. Not dead enough. I only like eating things that are small and hard and have been dead for long enough to be purified by the forces of heat and time and pressure. Plastic falls into this category. Plastic comes from tiny, precise organisms—zooplankton and algae—that have been dead for a long long time. That's perfectly dead, in my book. Safe. Super-clean. Pure. Immortal. (118)

For Ruth-the-plastic-eater, Victorian necrophobia is taken to its (il)logical conclusion: ultimately, fear of death is fear of life. The life-giving capacity of dead or dying things is refused by the plastic-eater, for these things can get rotten, stinky, and squishy. The dead-for-millennia—the "perfectly dead"—who have no life-giving capacity by themselves, however, are safe, super-clean, and pure: simply, the further from death, the safer, cleaner, and purer a thing is. But of course, the further from death, the further from life too. The absence of both is Victorian perfection: immortality of voice and body, a stuffed bird and a recording of its past calls.

While the immortality of the voice captured on a record is often described as a ghost-like phenomena (see, for example, Reynolds, 312; and Eisenberg, 46), the immortality of the plastic body of vinyl evoked by Jordan and Ozeki suggests a different monster metaphor: the zombie. The supposed difference between a ghost and a zombie—that the first is a bodiless soul and the latter a soulless body (Cohen 273)—gets at the heart of what Latour has identified as the Modern practice of "purification," the creation of two "entirely distinct ontological zones: that of human beings on the one hand; that of nonhumans on the other" (*We Have* 10-1). According to Latour, a Modern considers the soul and determinedly shuffles it off to the ontological zone of the *cultural* human. To purify the soul, the body must be considered as belonging to that other ontological

zone: the *natural* nonhuman. But what if body and soul cannot be separated into these distinct ontological zones? What if the soul can never be purified?

## Track 5 - Zombie Vinyl

> For certain, nothing made by contemporary humanity will be left at the surface that far in the future, even stone edifices like the pyramids or Mount Rushmore will be wiped away, though the fine imprints of plastic objects, like say a vinyl record, may be legible —and even perhaps listenable—in the rock like the fronds of a fern.
>
> - David Biello, "Nuclear Blasts May Prove Best Marker of Humanity's Geologic Record"

Monster theorist and ecocritic Jeffrey Jerome Cohen's expansion of object-oriented ontology into what he calls "zombie-oriented ontology" is precisely an attempt to show that Modern purification is impossible. In his chapter "Grey," in the edited collection *Prismatic Ecology: Ecotheory beyond Green*, Cohen sets about the Latourian task of disproving the existence of the soul—that is, "the principle of intelligence, thought, or action in a person (or occas. an animal), typically regarded as an entity distinct from the body; the essential, immaterial, or spiritual part of a person or animal, as opposed to the physical" ("Soul," def. 2a). A ghost, then, —an "entity distinct from the body"—is really just a soul: both are fictions upheld by the Modern ontology. To purify souls from bodies (ghosts from zombies, culture from nature, etc.), is to render the body (and nature) inert; that is, if the soul is the "principle of intelligence, thought, or action in a person," than the body is left unintelligent, unthoughtful, and inactive. A plethora of new ontologies—loosely collected under the heading new materialisms—attempts to finally dispel our belief in inert matter/nature and in so doing vanquish our belief in ghosts too. That is, for new materialism, if there are such things as ghosts and zombies, souls and bodies, they cannot be ontologically separated; there are only ever ghost-zombies and body-souls, or what Donna Haraway has famously called "naturecultures" (*Companion Species* 1). Cohen's zombie-oriented

ontology, which "makes evident the objectal status of the body as a heterogeneous concatenation of parts, working in harmonious relation, or exerting their own will, or entropically vanishing, or willfully relating to other forces, other things," is precisely an attempt at resisting the Modernist practice of purification which has resulted in this belief in bodiless soul (282-3). In other words, zombies show how bodies (the bodies of humans and nonhumans, those who in the Modernist ontology were considered "nature," including women, Indigenous peoples, children, animals, plants, rocks, etc.), also act. While it is important to consider the phantom-quality of audio recordings, too often, I think, we take the lack of a human body to mean there is no body at all. An emphasis on the zombie-like quality of the vinyl record, however, emphasizes the recording artist's new "immortal" plastic body and its various affects in the world.

Following media theorist Jussi Parikka, the vinyl record can be understood as a zombie medium (141).[19] For Parikka, zombie media are "the living dead of media history, and the living dead of discarded waste that is not only of inspirational value to artists but signals death in the concrete sense of nature through its toxic chemicals and heavy metals" (141). In *A Geology of Media*, Parikka examines media in the context of Earth's deep time: from prehistoric fossils to "zombie media *future fossils*" (114, emphasis added). The concept of zombie media is developed with the Anthropocene in mind; Parikka essentially asks, if humankind is indeed a geological force, what does the layer of sediment corresponding to it look like? The term "zombie media future fossils" is intended to spur those types of questions, encouraging the practice of what Parikka calls "media archeology": "a method for excavation of the repressed, the forgotten, or the past" (142). Parikka reminds us that modernity is not only built on the ruined and rejected

[19] Thanks to Kyle Devine for this point.

bodies of peoples and "natural" ecologies, but on the ruined and rejected "cultural" creations of modernity itself. In fact, over-production, rampant consumerism, and built-in obsolescence mean that most media do not even get as far as the "ruined" stage; two-thirds of consumer electronics that are rejected in the U.S.—that is, thrown away—still function (EPA qtd. in Parikka 142). Parikka's media archeology involves an in-depth look at those ruined and rejected bodies: the "slow stratification of a synthetic layer of technological rubbish" (121).


**Fig. 8.** Photograph of one in a series of four similar pieces by Dario Robleto. The collected works are called *The Sad Punk (Named Extinction)*, 1998. Casts of 45 rpm and 12-inch singles made from hand-ground fossil dust of a *Discocaphites gulosus* (Cretaceous period), polyester resin, velvet, frames, brass labels; Each 30" x 24". 6 June 2015. <http://www.dariorobleto.com/works/277>.

Parikka's notion of zombie media demonstrates the importance of an emphasis on bodily agency—the focal point of Cohen's zombie-oriented ontology—and is a theoretical parallel to the artistic practice of Dario Robleto, whose wonderful passage on the geological and alchemical origins of vinyl opened track 1. His piece, *The Sad Punk (Named Extinction)* contextualizes the vinyl record within Earth's deep past and deep future (Fig. 3). Robleto's work helps us de-fetishize the record and comprehend its "natural" past and future. He skips the petro-(al)chemical industry's role in vinyl production, and makes records literally and directly made from disc-like fossils: *Discocaphites gulosus*, a species of ammonite. The fossil-fuel origins of even the best records (like The Beatles' "Revolution") are here indisputable and, for the modern subject/object of ecological calamity, even painfully obvious. But the work also evokes the status of vinyl records as future fossils. Indeed, in a way, the record in Fig. 3 seems to come from the future, or what Parikka calls the "future-present in which media and residues of waste might be the only monument we left behind": like the dinosaurs, we have suffered the fatal blow of the sad punk (named extinction), and among the detritus we have left behind is a 45 of "Revolution" (Parikka 135). ("Well, you know, we all wanna change the world"—and, the Anthropocene proves, change it we have.) Having seen the deep past and future through Robleto's work, our perspective on the present framed and fetishized record is changed; we cannot help but see records and other petro-cultural products as (future) fossils "piling up slowly but steadily as an emblem of an apocalypse in slow motion" (119). In other words, both Parikka's theory of zombie media and Robleto's *The Sad Punk (Named Extinction)* force upon the reader/viewer the realization that vinyl records are destined to become part of the Anthropocene's geological record. It is precisely at the moment of this realization that the possibility of a radical ecological

politics and ethics is generated; as Haraway says, contemplating the horror of humanity-as-geology and fathoming the future-present of an Anthropocene boundary line, "I think our job is to make the Anthropocene as short/thin as possible" (Haraway, "Anthropocene" 159).

# Track 6 - Nature-nostalgia, Petronostalgia, and Endangered Vinyl(scapes)

Save Endangered Music!
- *Empire Records*

I begin this track, which is a sustained examination of a subject already touched on, extinction, by looking at two conservation efforts; one has to do with land conservation and the other with species conservation, but in both instances vinyl records and what Sandilands has called "nature-nostalgia" (described earlier) play an integral role. After examining nature-nostalgia "on record," so to speak, I turn to what I have called petronostalgia. I look at the discursive status of the vinyl record and record stores as "endangered species" and showcase the particular conservation efforts that have developed around them as illustrations of the theory of petronostalgia.


**Fig. 9** The album art for Manfred Mann's Earth Band's 1974 album *The Good Earth*. 25 July 2015. <https://itunes.apple.com/us/album/the-good-earth/id276977616>.

While filing CDs at The Store, I came across *The Good Earth* (1974) by Manfred Mann's Earth Band and was intrigued by the image on the front (see figure 9). (Coincidentally, I would later find an LP copy while rummaging through my dad's basement hoard.) On the top left of both the record and CD covers, a faux-stamp reads, "the owner of this album is entitled to rights over one square foot of the earth situated at Llanerchyrfa in the County of Brecon, Wales in Great Britain, subject to registration on or before 31st December, 1975." The back of the record sleeve is itself the land deed. Manfred Mann, so the story goes, had purchased 10-acres of land in Wales and this was his way of ensuring its conservation. He would divide it up and give the deeds to each tiny piece away to fans and thereby prevent the possibility of the land being altogether sold and developed: not death, but life by a thousand cuts. Apparently, the land remains undeveloped to this day ("Sitting on a Slice"). Of course, contradictions abound in this conservation scheme (as they do with all environmental/political activism on vinyl); while Mann seemingly managed to preserve 10-acres of good Welsh earth, he poisoned the good air (and other things) to do so by producing PVC.

The legacy of Mann's record is not just the preservation of some small piece of land, but also includes the persistence of the organochlorine pollution released by PVC production. A particularly dubious organochlorine is likely to last as long (if not longer) than the successful preservation of that land: 2,3,7,8-tetrachlorodibenzodioxin (TCDD, or simply "dioxin"). As Thornton points out, dioxin is released in immense quantities by the chlorine industry (an "upstream" industry of the record industry) and does "not break down to any appreciable degree in the environment; virtually all the TCDD released into the environment will remain there, in one place or another, more or less indefinitely" (24). In addition to being a known carcinogen,

dioxin has well-documented adverse affects on reproductive systems: “a dioxin dose that produces a body burden of just 5 parts per trillion in pregnant rats—below the range for the average human—reduces the sperm count of their sons by 25 percent” (123). So, while the Good Earth might stay “good” in some small part of Brecon, part of the legacy of Mann’s efforts is likely still being played out in the reproductive and endocrine systems of any number of humans and nonhumans.

The same contradictions evident in Mann’s efforts are evident in those of Alaskan indie-rock band Portugal. The Man (*sic*.). For Earth Day 2014, Portugal. The Man sent 400 polycarbonate records to music journalists, conservationists, and actors as part of a collaborative project with the Smithsonian’s National Zoo and Conservation Biology Institute; the project was called the “Endangered Song.” The project’s website explains: it is “a song manufactured to go extinct unless it is reproduced” (“The Endangered”). The song, called “Sumatran Tiger,” faces its own extinction—made as it is out of polycarbonate and therefore more prone to degradation than vinyl—to draw attention to the endangerment of the Sumatran tiger, of whom there are only 400 left. The 400 “influential” people and organizations who received a copy of the record were told that unless they digitize the record using an analog-to-digital record player and software, the song would go “extinct.” While palm oil plantations are largely responsible for the deforestation causing the critical endangerment of the Sumatran tiger, Tough Oil is responsible for other endangerments. The destruction of boreal forest caused by Tar Sands development has already decreased woodland caribou populations by 50% in Alberta and it is expected that, if currently planned Tar Sands projects go ahead, the species will become extinct (“Tar Sands and Boreal Forest”). To protect the woodland caribou, the Alberta government has sponsored the murder of

over 1000 wolves (a growing number), who are either poisoned with strychnine-laced bait or are shot from (oil-fueled) helicopters (Penty). The next 50 years of Tar Sands extraction, moreover, will result in as "few" as an estimated six million dead birds to as many as 166 million. So, while Portugal. The Man's "Sumatran Tiger" and Manfred Mann's *The Good Earth* might be well intentioned attempts at conservation and species protection, their dissemination of their music through petrochemical media complicates their efforts. In the case of Mann's efforts, nature-nostalgia is at play insofar as the relations which produced the threat of lost land—which, from a Marxist perspective would include the institution of private property—remain in tact while the preserved bit of "nature" is commoditized as a nature-vinyl fetish. Portugal. The Man's efforts, however, are slightly more complicated, in part because there is no commodification that takes place: the "extinct record" is given away for free to 400 individuals who then gave it away for free to the world, not through a petrochemical medium, but through digital streaming. Because Portugal. The Man's scheme did not primarily involve a petrochemical medium, I consider it only a minor form of petronostalgia.

In Michael Chabon's 2012 novel *Telegraph Avenue*, the main character (Archy Stallings, co-owner of the used record store Brokeland Records), is described as a "sole survivor, the last coconut hanging on the last palm tree on the last little atoll in the path of the great wave of late-modern capitalism, waiting to be hammered flat" (108). In Oakland, where other used records stores are all but gone, Brokeland is "the last of its kind, Ishi, Chingachook, Martha the passenger pigeon" (33). Ishi (d. 1916) was the last member of the Yahi (a people who lived in so-called California); Chingachook is a fictional character in James Fenimore Cooper's novel *The Last of the Mohicans*; and Martha was the last passenger pigeon. Notably, Ishi's songs and

stories were recorded on wax cylinders between 1911 and 1914 at the University of California Museum of Anthropology and are now stored at the Library of Congress (Anwar); Chingachook has been immortalized on-screen by Oglala Lakota activist and actor Russell Means; and after her death, Martha was promptly stuffed. Dying people(s) and dying species, Sterne reminds us, always make excellent subjects for taxidermy and sonic embalming (311). Interestingly, what we see in *Telegraph Avenue* is a framing of vinyl records and the people/professions associated with their "-scapes" (like Archy Stallings) as endangered.[20] The narrative (set in 2004) has us rooting for Archy and his best-friend/business-partner Nat Jaffe to stave off their profession's extinction —that is, their way of life—by overcoming the threat (as neither Ishi, Chingachook, nor Martha could) of capitalist growth, in this case represented by Gibson Goode, the owner of the mega-music-store Dogpile Thang whose proposed second Dogpile location threatens to put Archy and Nat out of business. Chabon's nostalgic longing for the independent used record store took on an extra-textual aspect too: for the launch of the novel, HarperCollins dipped into their massive

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[20] For Bartmanski and Woodward, who coined the term, "vinylscapes" are "types of spaces where analogue records perform communicative and aesthetic roles in urban contexts" (3889). While they acknowledge that vinyl circulates in often "mundane" places too—rural places, musty basements, charity shops, etc.—they "privilege" record stores (which tend to be located in urban places) as the quintessential vinylscape as they believe it is the place where people interact with vinyl in the "most intimate manner" (3926). Thus, what constitutes a vinylscape for them is inextricably linked to the aesthetics, politics, and ethics of record stores themselves. Though I explore the symbolic/semiotic communications of vinyl in record stores, I do not consider record stores to be the quintessential vinylscape. For me, vinyl is equally important wherever it goes: an "indie" record store, an Urban Outfitters, a collector's house, the lungs of a Mossville resident, etc. Note: the difference between the concept "vinylscape" as it is used in this paper and the term "vinyl-network" is that vinylscapes are limited to where the vinyl record appears as such; the vinyl-network, then, includes but is not limited to vinylscapes. As I have shown, the vinyl-network extends well beyond vinyl-*qua*-vinyl-records, into sites of hydraulic fracturing, the Great Pacific Garbage Patch, petrochemical facilities, landfills, house fires, sites of "green consumerism," and more.

marketing budget and converted an Oakland bookstore into a pop-up store selling used jazz LPs (Chai). They called it Brokeland Records.

But Chabon's novel is not the only example of vinylscapes framed as endangered. Record Store Day, an annual celebration of "independent" record stores held on every third Saturday of April since 2007, has several films—all once selected as the Official Film of Record Store Day—that approach vinyl and its associated people and places as endangered.[21] A particularly sorrowful example is *Sound it Out*. Directed by Jeanie Finlay, the film chronicles the day-to-day lives of the workers and patrons of the last remaining record shop in the entirety of the northeast region of England known as Teesside. The shop, called Sound it Out, is in Stockton-on-Tees, a city of under 100,000 where, as one patron remembers, there used to be at least seven places to get records. The summary of the film on the website begins by quoting this fact, a presumably unconscionable injustice: "Over the last five years an independent record shop has closed in the UK every three days."[22] Usually facts presented in such a manner concern the frequency of death among infants with malnutrition in the Global South, the pace of biodiversity loss, or the loss of peoples and languages: "of the 6,700 extant languages—already reduced by two-thirds since precolonial times—experts estimate that three thousand *will have gone silent* within thirty years," for example (Miller qtd. in Sodikoff 1). *Sound it Out* takes the zeitgeist-feeling of unfathomable loss and makes the claim, much like Chabon, that among the things lost to modernity is the "independent" record shop. Supposedly, this issue deserves our attention and we

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[21] If it was not clear already that Record Store Day (RSD) is simply an annual celebration of music consumerism, in 2013 RSD began holding a second annual event—a sort of RSD-lite—on Black Friday.

[22] A fact true in the year 2011 when the film was released.

ought to organize: rally our fellow consumers and prevent this terrible trend from progressing into the total destruction of that particularly hallowed vinylscape.[23]

With a plot very similar to that of *Telegraph Avenue*, the 1990s box office flop *Empire Records* frames the turn away from "independent" music retailers and away from vinyl as a matter of loss of biodiversity, ironic given that the production of oil, petrochemicals, and plastics all pose major threats to biodiversity, especially the former as it requires the destruction of immense swaths of nonhuman habitat.[24] Similarly threatened by the destruction of their "independent" record shop—a still heavily-hierarchical and gendered work space—the workers of Empire Records rally around the manager in an attempt to regain the lost money he had intended to use to buy the store from the somewhat absentee, musically philistine store owner. The store owner was set on selling off Empire Records to a mega-chain, but the workers' fundraiser is successful enough to enable the manager to buy the store, thereby saving the store's "independent" status. During that fundraiser, the store's small selection of vinyl records are offered for sale with a sign advertising them that says, "Save endangered music!" (the epigraph of this track). With Marx, we might understand the framing of vinyl as endangered as an objectification of the endangered *social* relations between store owner, store manager, and the workers; that is, what is really endangered is not the music, but the lower middle class shop manager-turned-owner. Threatened with the loss of their "independent" store at the hands of a "corporate" store, the nostalgic drive to preserve their "independence" needs to be understood as

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[23] An in-depth discussion regarding the importance of the record store follows in track 8.

[24] The Tar Sands alone are on track to destroy a piece of the Boreal forest the size of Florida (Nikiforuk, *Tar Sands* 4).

reactionary. In yet another example of one of this paper's theses, (petro)nostalgia takes the place of productive mourning to allow for the re-institution of the social-material cause of the initial loss: capitalism.

I put quotation marks around the word "independent" because part of what I am attempting is precisely a de-fetishization of the so-called "independent" record store. I do this from a Marxist perspective in that I am unwilling to celebrate any form of a classed economy. As Marx and Engels note in *The Communist Manifesto* (interestingly using the word "extinction"), "the lower middle class, the small manufacturer, the shopkeeper, the artisan, the peasant, all these fight against the bourgeoisie, to save from extinction their existence as fractions of the middle class. They are therefore not revolutionary, but conservative [. . .]. If by chance they are revolutionary, they are so only in view of their impending transfer into the proletariat" (231). The lamentation of the loss of "independent" record stores is a *cri de couer* of the lower middle-class, propertied shop-owner. In fact, Record Store Day, often credited with playing a large role in the development of the vinyl revival, was started in the U.S. by independent record store owners (*Record Store Day – The Documentary*). In *Record Store Day – The Documentary*, one store owner describes the creation of Record Store Day in the following way:

> Everything you were reading at the time about record stores, it was all the story of them going out of business. Let's take a day where folks come to the store and we'll give them a bunch of free stuff. Initially a lot of it was to counteract this [. . .] negative story arc that had worked its way into the culture about the place of record stores. (*Record Store Day – The Documentary*).

Record Store Day, then, needs to be understood as originating from and benefiting a particular class of people: primarily, middle-class store owners and their middle-class (and higher) patrons.

The attempt to preserve this "endangered" vinylscape and, indeed, vinyl itself, can be understood in light of the concept developed at the outset of this paper: petronostalgia. Facing a moment in which a beloved object and its -scapes have become among the ruined and rejected bodies on which progressivist history is built, vinylphiles may seem to resist said progress by holding on to the love-object and recognizing its irreplaceability. Indeed, in the case of "used" vinyl, I think that is partly the case: there are aspects of used record collecting that I would indeed deem petromelancholic.[25] But let me be clear: the production and selling of Tough Vinyl is exactly what I mean by petronostalgic consumption. In *Telegraph Ave*., *Empire Records*, *Sound it Out*, and with the phenomena of Record Store Day and the vinyl revival, what we are witnessing (admittedly, to a lesser extent in *Empire Records*, simply because it is set during the era of easy oil), is the attempt to reconstitute the social-material order that led to the demise of the LP and its -scapes in the first place. The thing that "caused" the loss of the LP (the CD) was, I have shown, created precisely because of the industry's over-reliance on oil exploitation. The transference of cathectic energy toward the new love-object (the CD) was, as discussed above, a way re-establishing the police order that keeps oil "silent" and contained within global petrocapitalist infrastructures. But just because the switch to the CD was, for the reasons discussed above, a largely reactionary trend, it does not follow that the "return" to vinyl is political, in Rancière's terms. The point I am trying to make is that, in fact, there can be no return to vinyl; the consumption of Tough Vinyl, as ontologically distinct from easy oil era vinyl—Easy Vinyl—is not a holding onto the old love-object, but the illusion of doing so. Tough Vinyl is a new, sinister

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[25] This subject is taken up more fully in track 7 wherein I show how record collecting culture both challenges and upholds different aspects of petrocapitalism.

love-object dressed in the appearance of the old. Easy Vinyl is dead and there is no bringing it back to life; it is irreplaceable. The attempt to replace it, I argue, is a petronostalgic failure to mourn both the material and the social relations that made its production and consumption possible.

## Track 7 - Vital Vinyl

> The thing about a good record is it grabs you. It grabs you and it doesn't let go. It shakes you to your core. It becomes a part of you. And once you find that? You hold on tight and never let go.
>
> - Curt Pires, *LP*

While vinyl culture obviously has problematic sexual politics, it seems there is some other, potentially less dubious eroticism at work in vinylphiles' *philia*; I think it's what Jane Bennett would call, following Mario Perniola, "'the sex appeal of the inorganic'" (Perniola qtd. in Bennett, *Vibrant* 61).[26] Bennett explains Perniola's theory as the idea that humans have a "neutral sexuality" (in conjunction, presumably, with the non-neutral kind) that "draws human bodies to apparently dead things—to objects, stones, bits of matter" (61). Ultimately, Bennett only briefly draws on Perniola's theory, her point being that Perniola's work is useful for those attempting to think through the agency of nonhuman things. Just as she quickly segues from her brief discussion of the sex appeal of the inorganic back into her broader project of developing the theory she calls "vital materialism," I too will use Perniola to a similar end (x). In this track, I explore the "sex appeal of the inorganic"—that is, the sex appeal of vinyl—and introduce the

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[26] In the interest of space, a full analysis of the sexual politics of vinyl is not possible, but what follows are a few observations gleaned from the research process: 1) the majority of record store workers and record collectors are white males; 2) this is corroborated by my experience working at The Store as well as by almost every film, book, and article I have encountered about vinyl culture; 3) most scholarship and journalism on record culture is done by white males; 4) vinyl itself is often gendered female by featuring scantily clad women on the covers (far more frequently than scantily clad men, an observation developed at The Store as well as in rummaging through my dad's basement hoard); 5) with such gendering, the fetishization of "virgin vinyl" begins to seem, though it might not inherently be the case, like a sexual fetish embedded in a commodity fetish: patriarchal control of the female body-*qua*-vinyl record. Having observed all of the above, it is clear to me that, in addition to de-toxifying itself, the future of "authentic" music recording consumption needs a radical feminist intervention (Bartmanski and Woodward 930).

reader to Bennett's philosophy of vital materialism. The question I am attempting to answer, without yet adopting the theoretical language of vital materialism, is something like this: Is the record collector's intimacy with and recognition of vinyl's sensuousness a potentially anti-consumerist stance that promotes an ethic of caring for commodities, unlike consumerism which drives people to consume and discard in an endlessly self-repeating cycle?

Early on in Bennett's influential *Vibrant Matter*, she asks rhetorically, "why advocate the vitality of matter? Because my hunch is that the image of dead or thoroughly instrumentalized matter feeds human hubris and our earth-destroying fantasies of conquest and consumption" (ix). From the beginning of the book, then, the reader is made to understand that ecological politics and anti-consumerism are the sort of ethical backbone of Bennett's philosophical and political project of elaborating vital materialism. The influence of Latour on Bennett's project should be noted as well; Bennett too is interested in actants, not subjects (ix). Her effort to establish a non-vertical ontology, where there are no subjects and no objects, only things and actants, situates her project within the body of work loosely cobbled together under the heading new materialisms. In their essay "Introducing the New Materialisms," Diana Coole and Samantha Frost similarly stress the need for an "ontological re-orientation" that, like Latour and Bennett, moves away from the view that the world is comprised of human subjects acting in and on a world of nonhuman objects; they cite the need, for similar ethical and ecological reasons that Bennett does, to re-conceptualize "matter itself as lively or as exhibiting agency" (Coole and Frost 6-7). For Coole and Frost, this re-conceptualization is an effort to combat the Cartesian ontology that, by rendering matter "inert" in contradistinction to the "thinking [human] subject," endowed humanity with a "sense of mastery" over matter, nature, and even other humans who were

imagined to be "closer" to nature: women, Indigenous peoples, etc. (8). Yet Coole and Frost acknowledge that, while the new materialisms are defined in opposition to Cartesian ontology, the new materialist project is "more positive and constructive than critical or negative: it sees its task as creating new concepts and images of nature that affirm matter's immanent vitality" (8). Bennett's vital materialism is one among many new materialist concepts that attempts such affirmation.

Central to the vital materialist project is the concept of "thing-power": the "curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle" (Bennett, *Vibrant* 1, 6). Bennett's concept of thing-power gets particularly interesting when she argues that humans also have thing-power; that is, as opposed to simply saying that "objects" also have agency and act in the world, Bennett goes on to say that so-called "subjects" are in fact assemblages of thing-power (10). In other words, in order to work towards a flat ontology, Bennett takes (at least) two steps: first, she shows how "objects" are a lot more like "subjects" than the Cartesian ontology would care to admit; second, she shows how "subjects" are a lot more like "objects." The result is a redundancy of the very language I just used to describe the logical process by which the subject/object dualism (essential to a vertical or hierarchical ontology) is replaced with Bennett's ontological monism: the opinion that the world is comprised only of actants, all of which possess "thing-power" (10). One of the remarkable things about this theory is not only its suggestion that humans do not have mastery over the world, but that we do not even have mastery over our own bodies. Food provides an excellent example of this lack of mastery; Bennett dedicates an entire chapter to the subject, "Edible Matter." Therein she writes of weight gain in a way that renders food as a Latourian actant: when "food coacts with the hand

that places it in one's mouth, with the metabolic agencies of intestines, pancreas, kidneys, [. . .] food can generate new human tissue" (40). Bennett is prepared for the critique that would point out that a person could "tell" their hand to simply stop putting food in their mouth, thereby preventing weight gain; she comically and, ultimately convincingly, demonstrates that in many circumstances the hand is not a tool of the "subject" but of the food itself. She writes, "in the case of some foods, say potato chips, it seems appropriate to regard the hand's actions as only quasi- or semiintentional, for the chips themselves seem to call forth, or provoke and stoke, the manual labour" (40). For Bennett, "chips challenge the idea [. . .] that what people 'want' is a personal preference entirely of their own making" (40). Moreover, she demonstrates that who and what people are is not entirely of their own making either; when the chip calls, more often than not we will answer, and the result will be a changed (fatter) "we." Bennett then turns to fats other than those found in potato chips and notes recent studies which have demonstrated how increased consumption of omega-3 fatty acids "can make prisoners less prone to violent acts, inattentive schoolchildren better able to focus, and bipolar persons less depressed" (41). After citing America's relatively low per capita consumption of fish (a major source of omega-3 fatty acid), she provocatively asks, "Did the American diet play any role in engendering the widespread susceptibility to the propaganda leading up to the invasion of Iraq" (107)? In this way, Bennett transfers our attention from food's thing-power as it affects the body, to food's thing-power as it affects the body politic. But vital materialism's examination of thing-power is not only concerned with the affects of various forms of food consumption; it is concerned with the affects of consumption—rather, consumerism—in general. Bennett reiterates the environmental ethics at the core of vital materialism, writing, "if [. . .] an image of inert matter

helps animate our current practice of aggressively wasteful and planet-endangering consumption, then a materiality experienced as a lively force with agentic capacity could animate a more ecologically sustainable public" (51).

In an article published after *Vibrant Matter*, "Powers of the Hoard: Further Notes on Material Agency," Bennett offers hoarders as model practitioners of the anti-consumerist politics and ethics of vital materialism. Drawing heavily from A&E's hit show "Hoarders," Bennett considers them as people with a "special sensory access to the call of things" (Bennett, "Powers" 244). In other words, hoarders are especially attuned to thing-power. She notes how the show relies on a binary between agentive humans and non-agentive or inert nonhumans; the show puts the "blame" for the hoard squarely on the "subject," the hoarder (251). Bennett's innovative view is that perhaps we ought to at least partially blame the hoarded, the stuff; as she points out, that's exactly what the hoarders do. She quotes hoarders who insist, "'things just took over,' got out of hand, and 'overwhelmed' them" (252). In a similar way to the thing-power of chips, the hoard offers a challenge to the idea that humans have mastery over the world and of themselves; human intention is overtaken by what most would consider junk. In the same way that chips "stoke" the human labour of moving hand-to-mouth, the hoard seems to "stoke" the manual labour required to accumulate things. The hoard, moreover, like food, becomes a part of the hoarder: "the things with which they live, and which live with them in close physical proximity, are less 'possessions' (a term rarely used by hoarders) than pieces of self" (255). Bennett quotes one hoarder who claims her VHS tapes (thousands of home-recordings of TV shows that have aired every day of her life since the 1980s) are "a part of" her; another hoarder, after the A&E-hired cleaning crew cleaned out her fridge of moldy food, said the experience was like ripping off "layers of

skin" (255). For Bennett, that hoarders are apparently conscious of their own lack of mastery over their worlds and bodies and are open to answering the call of thing-power, suggests that hoarders might be proto-vital-materialists. She writes, "a therapeutic discourse would say that hoarders have lost the ability to distinguish between person and thing. A vibrant materialist would say that hoarders have an exceptional awareness of the extent to which all bodies can intertwine, infuse, ally, undermine, and compete with those in its vicinity" (256). Ultimately, for Bennett, hoarders are of interest precisely because of this prodigious attentiveness to thing-power. The question I hope to unravel an answer to now, finally returning to the subject of vinyl records, is this: Does Bennett's understanding of hoarders hold true for vinyl record collectors? In other words, are record collectors proto-vital-materialists attuned to thing-power and resistant of consumerism's drive to endlessly buy and discard?

In her excellent MES paper, "The Thrill and the Thrall of the Thing," Anne Wordsworth answers in the affirmative: She argues that collecting can be "an alternative way of acknowledging and caring for, valuing and prizing things. It can be a recognition and appreciation of the power of things, a submission to their vital materiality" (52). For Wordsworth, like Bennett with hoarders, the "ethic of the collector" is ecological because it involves a revaluation of "things that already exist"—used commodities—as opposed to consumerism which calls for the production of new things and the disposal of the old (52, 72). Indeed, Wordsworth's contention is supported by the practices of many record collectors. In the film *Vinyl*, Toronto-based director Alan Zweig interviews dozens of record collectors about why they collect; one collector explains simply, "It's that I wanted them; it's that I couldn't leave them there." For this collector, his desire to purchase vinyl is a result of his concern over the fate

of the records should they not fall into his possession; collecting is a sort of rescue mission. The sense that collecting objects is in a way rescuing them has perhaps its most famous example in Walter Benjamin's essay "Unpacking My Library." Therein he writes, "one of the finest memories of a collector is the moment when he rescued a book to which he might never have given a thought, much less a wishful look, because he found it lonely and abandoned on the market place and bought it to give it its freedom" (64). Benjamin's examination of the phenomenon of collecting (which he participates in as a book collector) is used by Wordsworth to develop her thesis that the "ethic of a collector" is ecological. Indeed, Benjamin's study depicts numerous anti-consumerist behaviours in collectors. For example, he writes that "a collector of older books is closer to the wellsprings of collecting than the acquirer of luxury editions" (61). For Benjamin, the "wellsprings of collecting" are desires to "renew the old world" (61). Elaborating on the importance of "the old world," he goes on to say that "dates, place names, formats, previous owners, bindings, and the like: all these must tell him something—not as dry, isolated facts, but as a harmonious whole; from the quality and intensity of this harmony he must be able to recognize whether a book is for him or not" (63-4). Wordsworth points out that this historian-bent to collectors—the preference of older things and a keen interest in dates, place names, etc.—is anti-consumerist insofar as it does not require the production of any new objects, but she also points out, again following Benjamin, the ways in which certain types of collecting might be construed as anti-capitalist (Wordsworth 72). While space prohibits an examination of record collecting as a potentially historical materialist practice *à la* Eduard Fuchs, whose art collecting Benjamin celebrated as such in his essay "Eduard Fuchs: Collector and Historian," I do imagine that certain types of record collecting could be understood as attempts to

recover the "tradition of the oppressed," which Benjamin considers the highest goal of a Marxist approach to history (Benjamin, "Theses on the Philosophy of History" 257). I recall, for example, a record collector interviewed in the film, *I Need that Record! The Death (or Possible Survival) of the Independent Record Store*, whose most prized possession was a little-known anarchist punk band whose vinyl included (either on the sleeve or as an insert, I cannot recall) information that would connect the collector with other anarchist and environmental groups like the Earth Liberation Front. Many other examples like this one could be produced, but so too could examples of anti- or non-historical materialist collecting practices. For example, one interviewee in the film *Vinyl* has collected roughly 600 LPs, 300 45s, 30 box sets, and 140 CDs of music by Elvis Presley. I am unconvinced that this man's obsession has anything to do with uncovering the tradition or histories of the oppressed; in fact, given Elvis' appropriation of black music, the opposite might be true. As such, I am inclined to say that record collecting's capacity to be a historical materialist practice is entirely dependent on whether or not the collector is a historical materialist. But to return now to the particularly anti-consumerist aspects of collecting.

Certainly, record collectors keep vinyl out of the landfill. In a show very similar to "Hoarders," MavTV's "Pack Rats," Jerry Weber, owner of one of the largest collections of vinyl in the world (over 2 million pieces) says, "I can't use the words dumpster and record in the same sentence" (jerrysrecords). Jerry owns a record store in Pittsburgh (Jerry's Records) and recounts how he would buy records that he knew would not sell just because otherwise the owner was going to take them to the dump: "people were actually going to throw them away, and I couldn't

let that happen."[27] Other record collectors express their attentiveness to vinyl's thing-power in an almost identical way to hoarders—that is, by blurring the distinction between themselves and their collections, between the "subject" and their "objects." For example, the fictional record collector quoted in the epigraph from Curt Pires' comic book *LP* says that a good record "shakes you to your core. It becomes a part of you," echoing the hoarders who considered their hoard to be like layers of skin. Another collector, also interviewed in the film *Vinyl*, discusses how her collection began with the life-changing acquisition of Dionne Warwick's "Paper Mache." For her, that record "has a way of [. . .] carving a space for itself in your brain and it makes you just wanna get more and more." In another particularly fascinating example of the collecting "subject" becoming one with their "objects," a collector interviewed in the film *Sound it Out* feels so attached to his records that when he dies he is determined that so too will his collection. In his will he has stipulated that he would like his records melted down and formed into a vinyl coffin, a process his undertaker friend assures him several companies in town would be entirely capable of. So close is his attachment to his collection (and vice versa) that to be buried without his records would be an incomplete burial: the equivalent of leaving some limbs above ground. As Benjamin has written, "the phenomenon of collecting loses its meaning as it loses its personal owner" (67). Determined that his records do not wander meaningless without him, the collector in *Sound it Out* insists on a proper burial: he is vinyl, vinyl is him, and so they must return to

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[27] According to him, thrift shops like Goodwill and the Salvation Army no longer take records in Pittsburgh (apparently because they were not selling and so ended up being landfilled).

their inorganic state together.[28] So, while it does seem that collectors, like hoarders, are receptive to thing-power and acknowledge the "porosity" of human and nonhuman bodies, there are several reasons why I am not willing to fully commit to the idea that this is necessarily an anti-consumerist stance or that, if it is, that it is one held by all collectors equally (Bennett, "Powers of the Hoard," 257). In what remains of this track, I demonstrate how in the case of vinyl record collectors, it is clear that their attunement to thing-power is limited in scope.

While I have not studied hoarding beyond Bennett's essay, my sense of the practice is that it involves the indiscriminate and unfiltered intake of almost anything subject to the limitations imposed by time and space. Collecting, on the other hand, is narrowed to the acquisition of one type of object and so always already involves a significant narrowing in the scope of a collector's receptivity to thing-power. But what I would like to suggest is that collectors are not even fully attuned to the multiple agencies of the objects they do focus on. Before elaborating on the agencies of vinyl records that collectors are clearly ignorant or dismissive of, I would like to suggest that this lack of awareness might be the result of the practice of collecting itself, specifically the rituals of acquisition that serve to "sacralize" and "recontextualize" the collectable (Davis 229). Wordsworth describes recontextualizing as theorized by Brenda Danet and Tamar Katriel: it is "the process of taking things out of their original context of usefulness and reconfiguring them in a grouping that is typical of collecting. Stamp collectors, for example, remove stamps from sent letters and place them in special

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[28] Interestingly, Bennett suggests that the "sex appeal of the inorganic," or what she elsewhere calls "inorganic sympathy" might be akin to the Freudian death drive. The complimentary impulse to Eros (or the drive of all living things to go on living), the death drive (also known as Thanatos) describes the desire of all living things to return to an inorganic state (Freud qtd. in Bennett, "Powers of the Hoard" 259).

albums" (58). Wordsworth also notes how Danet and Katriel sometimes refer to this process as "recycling" and notes a parallel between the "recycling" that is recontextualizing and the "recycling" that we typically think of when we hear the word: taking what others deem to be junk and turning it into something useful, even sacred, is indeed what many collectors do (58-9). In this respect I am reminded of one collector in *Vinyl* who buys 50 records a week "just to sort through, even if they're junk." However, record collectors also buy a lot of new records and their desire for records in general fuels the production of new vinyl. Indeed, record collectors are the very people credited with keeping vinyl alive during its nadir of popularity, where "alive" partly means in production (Davis 226). Record Store Day, moreover, is all about the release of new limited pressings of collectables. Obviously, then, the recycling described by Danet and Katriel as a process of recontextualization is not always recycling in the sense of a waste product made useful (and Wordsworth says as much) (Wordsworth 58). Indeed, as I will show, recontextualization can often have the effect of promoting consumerism.

This possibility becomes clear when we look more closely at what recontextualization achieves. Discussing recontextualization as it concerns record collectors, Davis writes that it helps to "divest an artifact of past associations, including its status as a commodity or as something once owned by others" (229).[29] For Davis, recontextualization is the process whereby an object is "transformed from its profane commodity state" by entering the "life world" of the

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[29] The desire to disassociate the artifact from previous owners is so strong in some collectors that they feel similarly about both past and future owners. One collector in *Vinyl* lost the ability to store his 2000 records and so, rather than donate them to a thrift store (he claims record stores at that time were not buying used vinyl), he decided to dispose of them. Because the thought of the collection being separated from him and dissected by other collectors deeply bothered him, he chose the dumpster he thought was least likely to be searched by others and threw out his entire collection, just "so no one would ever own them but me."

collector and thereby becoming sacralized by its unique position within the collection. While I cannot in the interest of space offer a conclusive answer, I ask the question nonetheless: Is the de-commodification of a commodity the ultimate form of commodity fetishism? Indeed, Wordsworth draws a parallel between Danet and Katriel's theory of recontextualization and Susan Stewart's scholarship on collecting wherein she writes that "stones and butterflies are made cultural by classification, and coins and stamps are naturalized by *the erasure of labor and the erasure of context of production*" (Stewart qtd. in Wordsworth 59, my emphasis). While Wordsworth acknowledges this problematic erasure of labour and the context of production (which really is the textbook definition of Marx's commodity fetishism), she emphasizes instead the ways in which, by preserving things as prized possessions, collectors can be said to be "honouring labour and production." While Wordsworth focuses on used things, she ultimately concludes that collecting in general "is an act of defiance to the popular discourse that directs us to shop and throw away" (72). My suggestion, on the other hand, is that the recontextualization of artifacts that is a part of all collectors' acquisition process is indeed a form of commodity fetishism that, in the case of vinyl records, has disastrous ecological and social costs. To recontextualize and thereby erase the context of production of vinyl records is to erase the angiosarcoma of PVC workers; however, as I will show, it is also an erasure of the other nonhuman and human actors who caused the angiosarcoma (Belliveau and Lester 18).

It is a poignant coincidence that when describing recontextualization Davis uses a Latourian term, saying that it is a way to "divest an artifact of past *associations*" (my emphasis). This divestment is what Latour would call "blackboxing," a sort of science and technology studies equivalent to commodity fetishism wherein a "scientific and technical work is made

invisible by its own success" (Latour, *Pandora's Hope* 304). For Latour, "when a machine runs efficiently [. . .] one need focus only on its inputs and outputs and not on its internal complexity. Thus, paradoxically, the more science and technology succeed, the more opaque and obscure they become" (304). What Latour's theory of blackboxing suggests is that not only does the commodity form erase the presence of labour, but also the presence and operations of machinery. The vinyl record, then, as the output of a vast network of efficient machinery, acts to blackbox (or blackdisc?) said network. The machinery I am concerned with, of course, is the petrochemical infrastructure which, when running efficiently, is made opaque and obscure. If record collectors were truly attuned to the thing-power of records, would they not attempt to trace its associations back to this very machinery instead of doing the opposite? As Bennett says, for vital materialism "all bodies are kin in the sense of inextricably enmeshed in a dense network of relations" (*Vibrant* 13). While record collectors are attuned to their kinship with the vinyl record (see above), they are clearly not embracing vital materialism's radically expanded conception of selfhood wherein "to harm one section of the web may very well be to harm oneself." Indeed, record collectors' recontextualization of vinyl within their life space enacts commodity fetishism and blackboxing, which combined serve to erase labour and the various actors within petrochemical machinery, including chlorine and all of its deadly thing-power. Thus, while I am inclined to agree with Wordsworth concerning the anti-consumerist stance of, say, used stamp collectors, until the production of new vinyl records is banned entirely I think record collectors will be complicit with the creation of new vinyl and so cannot be considered anti-consumerist. While I do imagine the possibility of collectors in a post-PVC world acting as

custodians of toxins and thereby putting forth an ecological politics, in what follows I show how even the ethic of the collector as it is applied to used records actively perpetuates consumerism.

## Track 8 - Conspicuous (Sonic) Consumption

> The hard briskness of the phonograph contented them; their store of jazz records made them feel wealthy and cultured; and all they knew of creating music was the nice adjustment of a bamboo needle.
>
> - Sinclair Lewis, *Babbitt*

The core argument of Thorstein Veblen's *The Theory of the Leisure Class* is that leisure and consumption are not only done for enjoyment or use-value: they are also done with the aim of accruing "reputability," which itself is something immaterial but nonetheless requires material resources to attain and therefore functions as a symbol of material superiority (75). In other words, social reputability attained through leisure and consumption serves as a symbol for one's class. As he puts it, "a life of leisure is the readiest and most conclusive evidence of pecuniary strength, and therefore of superior force" (38). Vinyl collecting, I argue, needs to be understood in Veblenian terms as a conspicuous form of leisure and consumption that excludes the lower classes entirely and awards the highest reputability to those with the greatest pecuniary strength (see figure 11). There is the conspicuous leisure inherent in acquiring knowledge about, listening to, and caring for records, and the conspicuous consumption inherent in acquiring the records themselves as well as the wide variety of related objects required to enjoy and care for them. Bartmanski and Woodward, despite locating vinyl within the realm of the subaltern, do acknowledge the luxurious exclusivity of vinyl collecting: "It can be interpreted as something too time- and money-consuming. But if one makes time and money, the experience makes itself palpable" (94). The logic is something like this: "Yes, yes, vinyl collecting *is* bourgeois; luckily all of us in this room are at least middle class!" Ultimately, they snobbishly claim the price of a

turntable to be a “surmountable limitation” (98). Obviously, they are excluding the world’s 836 million people living in “extreme poverty,” defined by the UN as living on less than $1.25US a day (“The Millennium Development Goals Report 2015,” 4). And, of course, Bartmanski and Woodward must realize that the turntable is far from a “surmountable limitation” for the 1.6 billion people living in multidimensional poverty, or the 87% of employed people in the “developing regions” who make less than $13USD/day (“The Millennium Development Goals Report 2015,” 18).[30] I now turn to an examination of the dollars and cents required to participate in the vinyl revival to see for whom the financial and temporal limitations to participation are “surmountable”; it is through this sort of economic analysis that the classed nature of vinyl culture becomes clear.

[30] “The Global MPI [Multidimensional Poverty Index] complements measures based on income and reflects the overlapping disadvantages poor people can face across different areas of their lives all at the same time. They include poor health, a lack of education and low living standards. If people are deprived in at least one-third of ten weighted indicators, they are identified as multidimensionally poor” (“Are We Measuring the Right Things?”).

**Fig. 11** "The two things that really drew me to vinyl were the expense and the inconvenience." A cartoon by Gregory from the May 25th 2015 issue of *The New Yorker*. The objects depicted here —records, turntable, record cleaning equipment, hi-fi stereo equipment—form a quintessential assemblage of vinylphiles' conspicuous consumption (expense) and leisure (inconvenience). (Knausgaard)

On the Vinyl Factory's list of "The 8 Best Budget Turntables That Won't Ruin Your Records," the cheapest one goes for just under $300CAD (almost the entire annual earnings of one of 836 million people living in extreme poverty) while the most expensive "budget" turntable on the list goes for just under $800CAD (enough to lift about two people out of extreme poverty for one year) (Rigby). While the middle-class consumer on a "budget" spends at least $300CAD on a turntable, higher classes can choose from a wide variety of models worth thousands, even tens of thousands of dollars, with the most expensive models coming in at over $100,000CAD. The single most expensive turntable in the world is priced at $653,374 USD ("The World's 21 Most Expensive"). An individual capable of purchasing this turntable could singlehandedly lift 1300 people out of extreme poverty for an entire year by giving them each $1.25USD/day. Contemplating the conspicuous consumption of vinylphiles, I am reminded of Peter Singer's pond parable wherein he asks the listener to imagine they see a child who they could save drowning in a pond. Singer says, however, that the saviour's shoes will be destroyed in doing so. The unanimous response to the story is that the child should be saved and damn the shoes. Yet, as Singer points out, many of us in the affluent West are confronted with the exact same question—do we save a life or not?—on an almost daily basis; the money we spend on unnecessary things (like turntables and LPs) could be used instead to save lives should we donate the money to, say, Oxfam or UNICEF ("Peter Singer - The Pond Paradox"). Singer's point is

that, despite the geographical distance of these "drowning" children (they might be starving or riddled with preventable diseases, not actually drowning), and despite the fact that there are many people besides the listener who could also save a life but who nonetheless do not act, a person in a position to save a life is ethically bound to do so. I would have to agree with Singer; those capable of affording luxurious conspicuous consumer goods like $1000 turntables ought to be re-directing that money towards any number of ethical causes, like saving some of the approximately 29,000 children under the age of five that die ever day (almost 11 million a year) from mostly preventable causes ("Goal: Reduce Child Mortality").

So far I have only discussed the higher end, decidedly luxurious turntables. There are, of course, much cheaper turntables available, but their low cost comes with equally low social repute in the vinylphile community. Crosley, for example, the most popular manufacturer of low-cost turntables, is universally admonished within record culture. Their turntables start at about $100CAD and their popularity can be explained, in part (in addition to their low cost), by their ability to capitalize on retromania. The design of every Crosley record player is taken straight from older products whose copyright has expired, giving each turntable a distinctly retro aesthetic (Puckett). A newspaper based in Louisville, Kentucky (where Crosley's headquarters is

also located) calls the business practice of Crosley "mining nostalgia"[31] (Puckett).[32] Unfortunately, these charming (most often portable) machines are poorly made and so are frequently chided in vinylphile communities. On Vinylengine, a website for audiophiles that is home to an archive of "owner's manuals, service manuals, schematics and brochures" for hi-fi equipment, the user "dantenatarelli" starts off a forum with a "newbie question," asking if his Crosley record player can be improved in any way (dantenatarelli). Responding to the unasked question on any vinylphile reader's mind, "dantenatarelli" admits, "yes I know they're bad, but it was free and I'm broke." A senior member of the forum, "tubewade," was the first to respond and his sentiments regarding Crosley players are exemplary of most vinylphiles: "Please do not think I am being rude when I tell you that you cannot get decent performance from it. You will spend less money buying an older Pioneer or similar and be far better off in the end" (dantenatarelli).[33]

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[31] This "mining" of nostalgia is paralleled by the archaeological connotations of phrases like "record digging," wherein a particularly interesting find is often referred to as a "goldmine," hence the name of probably the most famous record collector magazine, *Goldmine*. While Bartmanski and Woodward (and others) address "mining" and "digging" as metaphors, I would point out that "digging" and "mining" are not only metaphors, but real industrial processes located upstream in the vinyl-network. That is, to "mine" for records is actually to mine in the world.

[32] Though Crosley is headquartered in Louisville, the turntables are manufactured in China. When I inquired about working conditions at their factories, a representative of Crosley replied: "Regarding labor conditions in our factories… we actually do frequent audits to make sure labor conditions are good in factories that produce our products. This also ensures that there is no child labor in our factories. Unfortunately, I am unsure how much workers get paid, etc. We have several different factories producing our goods in China." How this representative can be sure labour conditions are "good" without knowing the wages and hours of the factory workers remains a mystery.

[33] Note that tubewade's online username establishes him as an audiophile by making reference to an iconic piece of conspicuous consumption within vinyl culture: the tube amp, which can cost anywhere from $40USD (Guttenberg) to, again, tens and hundreds of thousands of dollars ("World's 64 Most Expensive").

More hilarious reviews of Crosley record players come from the non-vinylphile purchasers of the product. For example, commenting on an article called, “Crosley Turntables - a Resurgence of Retro?,” on Best Turntables (another vinylphile website), John Gomez says, “i had a crosley turntable like a year ago. in 3 months for me the shitty turntable broke. had to throw the shit away. NEVER EVER AM I GONNA BUY CROSLEY TURNTABLES. **** CROSLEY.” Similarly, in a podcast discussing the revelation that Urban Outfitters is among the largest retailers of vinyl in the US, co-host Zack Zarillo briefly mentions the lacklustre quality of the ultimately very disposable Crosleys (the only record players sold at Urban Outfitters). Zarillo’s podcast episode, co-hosted with Jesse Cannon, has the excellent title, “Stage Diving Into A Landfill Of Crosley Record Players.” These reviews and sentiments are consistent with my experience, having sold many Crosley record players at The Store.

When workers at The Store saw someone hovering around the turntables, it was customary to ask them if they needed help or had any questions. Whenever this was my job, I would bluntly deride the Crosley make, and suggest that the customer go with the only non-Crosley model we carried—the Audio-Technica AT-LP60 which sold for about $100—or I told them to go buy a used player. During my time there, at any given point The Store had a pile (ranging from, say, 5 to 25) broken Crosleys ready to be sent back to the manufacturer because they had been returned by customers. Who knows if the manufacturer even fixed them; they might have just ended up in the landfill like John Gomez’s “shitty turntable.” Notably, I cannot recall a single instance in which an Audio-Technica turntable was ever returned in the year and a half I worked there. And yet, despite my direct, explicit denunciations of Crosley in front of consumers, I probably sold Crosleys and Audio-Technicas in a ratio of about 10:1. Though sales

figures for Crosley are very difficult to obtain (I asked the company but they refused to divulge any information), the CEO of Crosley Radio, Bo LeMastus, said in a 2013 interview that their most popular model, The Rochester, had sold over one million copies in the previous 10 years (Puckett). Though Pro-Ject is often considered the largest turntable manufacturer in the world (they produce between 100,000 and 120,000 turntables a year),[34] it seems Crosley very likely holds that title considering one model alone (and they make 22 models) sold 100,000 units/year for an entire decade (Kessler). So, in addition to the millions of PVC records, a proper examination of the vinyl-network must also consider the hundreds of thousands of (often very disposable) turntables being produced as a result of the revival.

One of the ironies of record collecting is that, while it might seem as though collectors exhibit an ecological ethic of care towards their objects that challenges consumerism, that ethic of care is a very expensive one that, as we have seen, actually accelerates particular forms of consumption. Moreover, as I have said, the record collector's recognition of vinyl's vitality is limited to the record *for them*, as opposed to the recognition of PVC's often dubious vitality across the entire vinyl-network. The limited recognition of vinyl's vitality results, as I have suggested, in more conspicuous consumption. This process is particularly evident in the seeming vendetta of vinylphiles against mold. Record Revirginzer, for example, is one of many products designed to rid one's records of mold and other detritus from the living: "dust, oils, skin, smoke," etc. (*Record Revirginizer*). There is also the investment in plastic as opposed to paper inner sleeves, like Mobile Fidelity's esteemed "Original Master Record Sleeves" that ensure your

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[34] Notably, Pro-Ject's best-selling model is not their cheapest model, which comes in at $400CAD (Kessler).

records never touch paper (which mold prefers to plastic), but instead only ever come in contact with high-density polyethylene (HDPE), admittedly a far more benign plastic than PVC, but an oil-derived plastic nonetheless. Each pack of 50 sleeves costs $20USD, a potentially very expensive investment depending on how large one's collection is ("Original Master"). Even used records are not the entirely ecologically-friendly thing we would like them to be; many record stores, The Store included, will put a brand new plastic outer sleeve on particularly collectable records.

Another line of products, winner of "The Stereo Times Most Wanted Component Award for 2005," Audio Intelligent Vinyl Solutions uses "purpose-designed cleaning enzyme components to gently and effectively dissolve record contaminants, including protein-based contaminants, bacterial growth, and other contaminants commonly found on records" ("Product Information"). The triple use of the word "contaminants" hints, I think, at the anxiety with which records are cared for: a sweaty-palmed, obsessive quest for pure virgin vinyl. This same company even sells their own brand of water: "Ultra-Pure Water," which retails for $20CAD for about one litre (the most expensive water I have ever heard of). The water is "filtered and de-ionized" and "meets the exact standards that we have found through laboratory research to be best suited for cleaning phonograph records." Apparently, the goal of destroying mold with products like Record Revirginizer and Ultra-Pure Water is to produce a more "lifelike" sound. The paradox of embalming established in track 4, then, is at work not just in the production of records, but also in their preservation and care; that is, a desire for "lifelike" appearances (in the case of corpses) and "lifelike" sound (in the case of records), necessitates the destruction of life

(through anti-decomposition embalming fluids which kill bacteria in the body and through pro-(musical)composition, anti-decomposition products that attack molds and bacteria on records).

Amazingly, Ultra-Pure Water is marketed to people who already own record cleaning machines—it "is also perfect for rinsing brushes and record cleaning machine pickup tubes"—adding redundancy to the product's numerous egregious characteristics. Ultra-Pure Water, moreover, is an example of what I am inclined to think of as ecological irony: on the one hand there is a blatant disregard for the "purity" or health of waterways, as I will show is evidenced by the pursuit of Tough Vinyl, and on the other hand we see an obsessive pursuit of Ultra-Pure Water. The Athabasca River, for example, is drained of 2.3 billion barrels of fresh water a year by industry in the Tar Sands (Nikiforuk, *Tar Sands* 65). It takes 12 barrels of water to produce one barrel of bitumen, a tradeoff that is shocking now but that will likely be seen as unforgivable as future generations are thrust into water wars (63). In return for the river's bounty, industry pumps up to 150 pounds of cancerous arsenic into the river every year (97), poisoning fish and humans downstream; in Fort Chipewyan, for example, where the Athabasca River and the Peace River meet and flow into Lake Athabasca, fishermen have been pulling up deformed fish since the early 2000s and rare bile duct cancers have been abnormally prevalent amongst the predominantly Dene population (97). While the Indigenous land- and water-defenders of the Athabasca River Basin (the Cree, Dene, and Métis) profess the sacredness of water and battle to defend it against the onslaught of the mega-corporations, vinylphiles profess the profanity of the world in order to sacralize their precious plastic and all it touches.

Admittedly, many of the products described in this track (Ultra-Pure Water, HDPE Mobile Fidelity record sleeves, and high-end turntables), not to mention other products like

multi-thousand dollar hi-fi systems and record cleaning machines, are clearly the province of an exclusive, relatively small group of people: the Global North's middle-class (and higher), typically male consumer. One could argue that I have unfairly covered only the most scandalously priced commodities in order to falsely characterize the entirety of vinyl culture as inherently bourgeois. And yet, that is precisely why I included in this discussion the cheapest turntables on the market: the Crosleys. Even if a consumer were to follow the audiophile advice and, instead of buying a Crosley, buy a used turntable, used speakers, and a used receiver, she could not escape the expense of buying vinyl itself, even if one is determined to buy the cheapest available copies of the records one wants.

Of course, vinyl can be bought dirt cheap, and often acquired freely: just check the dollar bins at any store.[35] But let's assume this new collector wants to listen to the "canon": let's take Patti Smith's *Horses*, Fleetwood Mac's *Rumours*, and Joni Mitchell's *Blue*, all of which appear in the top 50 records of all time as determined by *The Rolling Stone* ("500 Greatest Records of All Time"). Used copies of both *Rumours* and *Blue* can be purchased online for as little as $5CAD each through the popular website discogs. *Horses*, on the other hand, will cost $25CAD used on discogs and about the same new on Amazon. Even if this collector decided to buy a different album and just download or stream *Horses*, $5 a record adds up pretty quickly: $250 for fifty records that, being canonical and also cheap, are very likely in poor condition and perhaps even of worse sound quality than an MP3 download. One is less likely to find $5 records like *Blue* and *Rumours* if one wants the full "brick and mortar" experience celebrated by vinylphiles; the

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[35] Many of the stores I talked to had special crates in their store full of "freebies": used stock that isn't selling.

internet takes away the problem of local scarcity and so improves one's capacity to find deals by comparing prices across the globe. $250, then, for 50 canonical records is probably about as cheap as they come.

## Track 9 - Fungal Futures

While so far I have documented many of the serious life-taking consequences of PVC production, I would like to focus on other lives taken that, at first, might seem less significant or less deserving of ethical consideration. That is, I think we have to take seriously for a moment the life of the fungi that collectors kill with disdain through their various conspicuously consumed technologies and gadgets like cleaning machines and Ultra-Pure Water. In a recent essay, Donna Haraway poses a challenge to what she sees as the anthropocentric individualism of the term Anthropocene; her point echoes one of my concerns—no doubt partially inspired by Haraway herself, particularly her *Companion Species Manifesto*—with the celebration of individualism within vinyl and DIY culture. As she puts it, "no species, not even our own arrogant one pretending to be good individuals in so-called modern Western scripts, acts alone; assemblages of organic species and of abiotic actors make history, the evolutionary kind and the other kinds too" (159). The essay, "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin," opens with a de-emphasis of the individual human and focuses instead on humble bacteria, the "greatest planetary terraformers (and reformers) of all." Bacteria are celebrated by Haraway for their anti-individualism (selflessness?): for their "inter/intra-action of myriad kinds (including with people and their practices, technological and otherwise)." Could it be that the terra-reforms within the contemporary vinyl-network that we so desperately need could be actuated by one of vinyl's notorious and much maligned intra-acting companion species (see figure 12): fungus? Indeed, recent findings show that bacteria have begun colonizing and consuming bits of plastic from the Great Pacific Garbage Patch (Zaikab). Could our collective hoard of vinyl one day share that same fate?

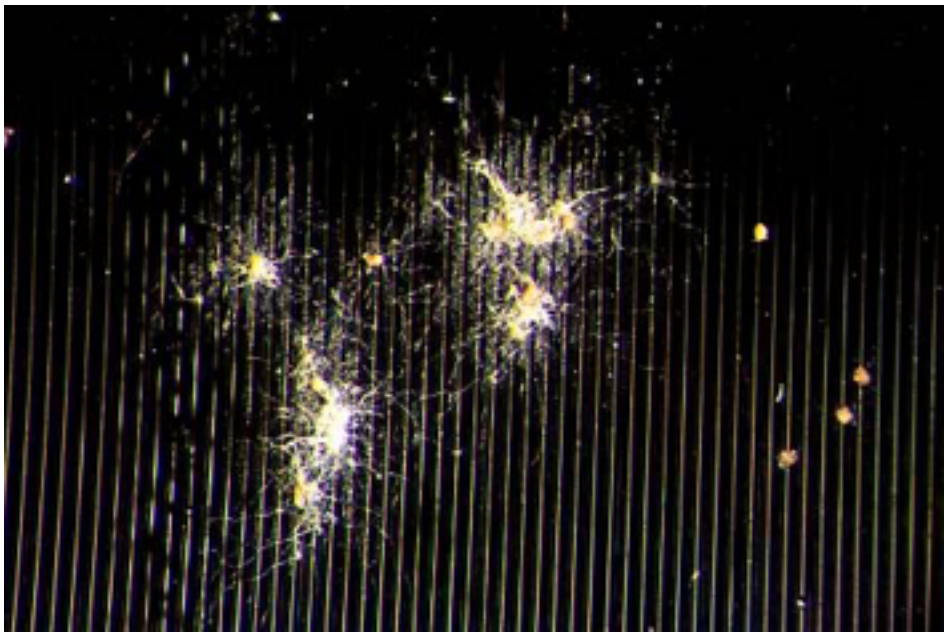

**Fig. 12** Anonymous fungal growth on a vinyl record, magnified x35 <http://www.micrographia.com/projec/projapps/viny/viny0200.htm>

In a 1959 Library of Congress study called *Preservation and Storage of Sound Recordings*, A.G. Pickett and M. M. Lemcoe conducted what seems to be the first scientific examination of the vinyl record's kinship with fungus. Paving the way for a war against PVC's fungal kin whose legacy persists in products like Ultra-Pure Water, Pickett and Lemcoe observed that, while the basic resin of PVC is resistant to fungus, the various additives (plasticizers, stabilizers, etc.) are not (11). They observed fungi hyphae etching themselves onto the discs they tested and noted that during playback these new inscriptions would create sounds similar to that of disc scratches: a sort of fungal phonography. After pursuing a candidate for the ideal fungicide to be blended into the PVC, they finally had to give up, unsuccessful: they could not find a fungicide that would not degrade the medium itself, smell too bad, or be toxic to humans (12). Yet their biggest concern was with the paper sleeves, jackets, and labels that fungi seemed to

love so much. They recommend replacing all of the above with “fungus-resistant” materials which, although they do not clarify which materials ought to be used instead, at least for the adhesive gluing the label onto the record, requires the introduction of yet more plastic: polyethylene (45). Ultimately, Pickett and Lemcoe recommend moisture control as the best way to prevent mold growth (12).

Despite Pickett and Lemcoe’s insistence that the basic resin of PVC is fungus-resistant, some recent and very exciting studies suggest otherwise. Having learned in the journal *Nature* that a team of scientists had discovered CD-eating fungus, I promptly e-mailed one of the researchers: Javier Garcia-Guinea (Bosch). I asked him if anyone was attempting to use their discoveries to solve our CD and DVD waste problem (sadly, no one is) and whether or not he knew of anyone working with fungi and PVC waste. He insisted, contrary to everything I had read on the subject up to that point, that "polyvinyl is a good carbonous food for fungi and bacteria in adequate conditions of temperature and relative humidity” (Garcia-Guinea).

Before one can understand why Garcia-Guinea’s response was somewhat shocking to me, it is necessary to review current PVC waste management systems. Notably, none of the entities most concerned with PVC waste (neither environmentalists, industry, nor governmental regulating bodies) seem to be aware of what Garcia-Guinea claims is fact. The only PVC waste “solutions” that are ever discussed by these entities are landfill, incineration, and recycling. Environmentalists argue that none of the above are genuine solutions and so demand a complete sunset on PVC production (Thornton 15; Belliveau and Lester 3; Leonard 265). PVC in landfills —no matter how state-of-the-art the landfill—produces BPA (bisphenol A) and phthalate-filled leachate that poisons groundwater (Belliveau and Lester 37). Another risk of disposing of PVC

in landfills is the surprisingly common occurrence of landfill fires: an average of 8,400 annual landfill fires in the US alone. In these fires, PVC releases dioxins, furans, carbon dioxide, carbon monoxide, and hydrogen chloride (38).[36] Incinerators, however, are even worse; the third greatest source of dioxin in the US is medical waste incineration, with PVC comprising up to 15% of that waste (29). Including medical and non-medical trash incinerators, up to 500 million pounds of PVC are incinerated each year, accounting for between 35 and 66% of all chlorine content in incinerator waste streams (28).[37] The second greatest source of dioxins in the US is backyard fires (typically in rural areas where waste collection systems are often non-existent) (32). Again, the greatest source of chlorine in the household waste stream is PVC (32). Meanwhile, recycling vinyl is rendered almost impossible because of the wide variety of additives required to make PVC the versatile product it is; each product has its own unique ratio of plasticizers, stabilizers, and fillers, making the chemical constitution of each PVC product distinct (42). Separating each PVC product within the recycling process is practically impossible;

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[36] House fires, it should be noted, also pose the risk of releasing these gases. Hence, the International Association of Firefighters opposes the use of PVC in building materials (Belliveau and Lester 22). Many record collections, moreover, have been lost to house fires (see Appendix B). A particularly fascinating anecdote about vinyl records posing a fire hazard is worth recounting briefly. In 2011 firefighters in Madeira, Ohio became concerned over Ralph Blackwelder's massive record collection, which was being stored in an abandoned factory right across from the fire station. Because the roughly 1 million records represented a significant health hazard should the building catch fire, the county judge ordered Blackwelder to either install a sprinkler system in the abandoned factory, dispose of the records, or face 2 years probation and house arrest. Blackwelder, unable to produce the $100,000(USD) required to purchase the sprinkler system, chose house arrest (Price). No additional news has been released since 2011 about the story of Ralph, but it is known that during his house arrest he was attempting to sell as many of the records online as he could so that he could eventually purchase the sprinkler system (Price).

[37] Dioxin formation requires the presence of chlorine (Belliveau and Lester 28).

instead, the very limited amount of PVC that does end up being recycled (0.1 to 3%) is downgraded into a lower-quality material used for speed bumps, park benches, and the like (41-2). Unlike recycling, this sort of "downcycling" means that the demand for "virgin" PVC is never diminished (42).

Industry, on the other hand, represented by trade organizations like The Vinyl Institute (in the US) and PVC Europe, claims PVC to be an ideal material for recycling. PVC Europe's "Sustainability" webpage, for example, contains the bold claim that PVC is "100% recyclable." Aside from being demonstrably false, PVC Europe's claims about the recyclability of PVC derive from a skewed conception of what recycling means. As CHEJ points out, the European Council of Vinyl Manufacturers (a member of PVC Europe), in response to the growing public outcry against PVC, began in the early 2000s considering incinerated PVC waste "recycled," citing the fact that some of the hydrochloric acid released at some incinerators was recovered to help power other industrial operations (Belliveau and Lester 43). Ultimately, though, environmentalist groups who are most concerned about public health and PVC (like CHEJ), have not discussed the capacity of PVC to be eaten; neither have industry-friendly government regulators. Perhaps most bizarrely, the same PVC industry that dedicates its time and energy to greenwashing its product has somehow failed to pick up on the possibility that PVC is biodegradable. If they knew what Garcia-Guinea seems to know, it would represent a greenwashing goldmine.

Having only familiarized myself with what environmental groups and, to a lesser extent, what industry and government have to say about PVC waste, I was convinced that PVC was

absolutely non-biodegradable.[38] I had to ask Garcia-Guinea to prove his bold claims. He promptly sent me an article called, "Isolation and molecular characterization of polyvinyl chloride (PVC) plastic degrading fungal isolates" (Ali et. al). The article begins by very briefly reiterating similar arguments to the ones detailed above regarding the toxicity of current PVC waste management systems: landfill, incineration, and recycling. Ali et. al note that, "despite the fact that the backbone structure of PVC is considered to be intrinsically resistant [to biodeterioration], there are studies reporting on partial degradation of PVC by white rot fungi under elevated oxygen levels" (19). Ali *et al* set out to identify other fungi that might represent potential solutions for PVC waste. They cut thin films of PVC and buried them in soil soaked in sewage sludge (19). Ten months later, they examined the films and observed that the PVC was "heavily colonized with fungal strains" (21). They were able to identify 5 fungal strains: *A. niger, Cladosporium herbarum, P. chrysosporium, L. tigrinus*, and *A. sydowii* (23). Though not yet fully colonized after ten months, the PVC had begun to biodegrade. Slowly.

This study set off many questions, questions that will have to wait for further research to answer. Could it be that the anonymous fungus in figure 7 is actually *A. niger*? Or *L. tigrinus*? Have vinylphiles, with their record cleaning machines and Ultra-Pure Water, been fighting off more than fungal phonography? Have they unwittingly been killing vinyl's chthonic companion species capable of de-toxifying PVC's after-life? Could it be that vinyl is mortal, after all?

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[38] I had talked to several vinyl collectors about the issue and had scanned many online forums discussing mold on records; the consensus was that the mold was not eating the vinyl, but merely attaching itself to the vinyl in order to feed off of the paper inner-sleeve or "contaminants" on the record itself, like dust and oils from fingerprints. This contention is supported by companies that sell mold fighting record cleaning products (see, for example, the "Product Description" of Bugtussel Enzyme).

## Hidden Track - The Broken Record

While I have identified a substantial waste stream of vinyl (see Appendix B), much more empirical research could be done to discern how many records are being landfilled, down-cycled into speed bumps, up-cycled into eyeglasses, etc. More importantly though, further research needs to continue examining the possibilities of fungal waste management. While fungi cannot solve the problems of PVC associated with production (and for that reason we still need a ban on it), fungi might be able to de-toxify the vinyl record waste stream which, as the vinyl revival surges ahead, is only getting bigger. Furthermore, more research is urgently needed on alternatives to vinyl. As Davis points out, "the quintessential qualities of the vinyl record include its size (7 or 12 inches), its cardboard sleeve, cover art, enclosed materials such as liner notes, and even the colour and shape of the record itself" (225). We need to find a way to capture these quintessences, which I must admit are very pleasurable, without killing humans and nonhumans while producing them. We need to find the real slow food equivalent of music listening, develop localized music economies, and kick petrocapitalism out of art and then the world (or probably vice versa). Indeed, it is high time we packed in our record collections. Yes, it is. We ought to smash the broken record that is petrocapitalism and feed it to a hungry colony of *L. tigrinus* and its fungal relatives.

# Appendix A - Gatefold Sleeve (Left Side) - Father John Misty's

# "Now I'm Learning to Love the War"

Try not to think so much about
The truly staggering amount of oil that it takes to make a record
All the shipping, the vinyl, the cellophane lining, the high gloss
The tape and the gear

Try not to become too consumed
With what's a criminal volume of oil that it takes to paint a portrait
The acrylic, the varnish, aluminum tubes filled with latex
The solvents and dye

Lets just call this what it is
The gentler side of mankind's death wish
When it's my time to go
Gonna leave behind things that won't decompose

Try not to dwell so much upon
How it won't be so very long from now that they laugh at us for selling
A bunch of 15 year olds made from dinosaur bones singing oh yeah
Again and again
Right up to the end

Lets just call this what it is
The gentler side of mankind's death wish
When it's my time to go
Gonna leave behind things that won't decompose

I'll just call this what it is
My vanity gone wild with my crisis
One day this all will repeat
I sure hope they make something useful out of me

## Appendix B - Gatefold Sleeve (Right Side) - The Afterlife

This hidden track documents the results of my phone interviews and e-mail exchanges with record stores and thrift shops regarding vinyl record disposal. In the correspondence I was seeking rough estimates of how many records get disposed of and how often. Often, estimates were not possible, and even more often the estimates could not be rendered in numbers but in other metrics: "boxes" or "bins," for example. Obviously, the point of these interviews is not to obtain a scientifically derived estimate of the frequency or quantity of vinyl record disposal globally, nationally, or locally. Instead, the impulse to conduct this type of research came from a desire to corroborate what I knew from personal experience with my dad's hoard: that many records are unwanted and have dubious futures. The results give substantial empirical evidence that, contrary to the contention that records are eco-friendly because they are rarely disposed of (see Alpha Vinyl), many records end up in the waste stream. The biggest obstacle to achieving accurate results with this type of inquiry is that most thrift stores I contacted were unable to provide estimates of how many records get put into landfill. Presumably because they deal with such a plethora of goods, places like Value Village, Goodwill, and the Salvation Army were almost entirely unable to provide even a ballpark figure. Out of the tens of thrift stores I called, only two were able to provide data: YWCA Thrift Store in Vancouver, and Goodwill Industries of Alberta.

Also included in this Gatefold Sleeve are instances in which records enter the waste stream through "natural" causes like house fires and floods. I also incorporate several examples of what I call "vinyl kitsch," the practice of making crafts from vinyl records: book covers, bowls, hats, earrings, lampshades, clocks, plant-pots, etc. While you will likely run into vinyl kitsch at any arts and crafts fair these days, some folks are turning the practice into big business (see Vinylize and Wrecords by Monkey). Taking as inspiration Parikka's theory of the geology of media, I advise the reader to contemplate the following data with a non-anthropocentric temporality. That is, these data should be contemplated not with one or two generations in mind, but with the temporality of vinyl itself. Because vinyl records have not existed long enough for us to know how long they remain playable if kept in ideal conditions, this exercise is speculative in that we simply do not know how long the lives of records are. We do not know how long it keeps being a vinyl record in the landfill before it becomes something else, for example. Contemplating vinyl in relation to this sort of deep time, the up-cycling of a vinyl record is revealed to be far from an environmental solution to vinyl waste. Sure, the useless record is now a "useful" bowl, but unless it is passed down the line indefinitely for generations, it is completely non-consequential. Even if some vinyl record eyeglasses are (bizarrely and improbably) made into an heirloom that is handed down for 5 generations, eventually they will have to "return to the earth." Therefore, I encourage the reader to not consider thrift stores, up-cycling or down-cycling as "green" solutions to vinyl waste; instead, they are simply prolonging vinyl's inevitable toxic return to the soil and water.

**Beat Street Records (Vancouver)**

- occasionally sells bulk collections of unwanted records to movie companies for props
- other unwanted records are given to artists who use them as "canvasses"
- the only records that get thrown out are moldy ones (no estimate)

**Black Buffalo Records (Halifax)**

- between 50 and 100 unwanted records a year destined for various purposes: used as dividers in record bins to sort specific artists, sent to the Salvation Army, or given away for free (either to play or for vinyl kitsch)

**Blackbyrd Myoozik (Edmonton)**

- very rarely (no specific estimate provided) they give away unsellable records

**Cheap Thrills (Montréal)**

- throws out less than a dozen records a year because discs are broken or without covers
- they also have a free box in-store (estimate not provided)

**Gary's flood**

- Over 1,000 records lost in flood, presumably landfilled ("THE DELL'ABATE VINYL COLLECTION")

**Goodwill Industries of Alberta**

- There are 10 Goodwill stores in Alberta and it is estimated that each one throws out 10-20 records a week; plus, many more records get disposed of when they take in large collections (no estimate provided). In Alberta alone, then, Goodwill throws into the landfill between 5,200 (plus a variable) and 10,400 (plus a variable) records annually.

**High Life World Music (Vancouver)**

- all unwanted records (no estimate provided) go to a box in-store where they are free to anyone who wants them; if still unwanted, they go to the Salvation Army

**John Sanchez's Fire**

- lost about 800 records in a house fire, presumably landfilled (Payne)

**Listen Records (Edmonton)**

- roughly "a few hundred" every six months sent to landfill; call it 500 a year

**The Olompali Fire**

- 93 discs owned by folks who lived with the Grateful Dead at their commune in Olompali, California were burnt in a house fire in 1969 (see figure 13)

**Fig. 13** Records found at an archeological excavation of the Olompali house fire site: The Beatles' *Rubber Soul* (left) and Bill Cosby's *Why is Their Air?* (right). <**https://www.teamrock.com/features/2014-10-01/hippie-archeology-the-lost-vinyl-of-olompali**>

**Ortelio Bello's Fire**

- resident of The Bronx, Ortelio Bello's collection numbering in "the thousands" was lost to a house fire, presumably landfilled ("Reunited with Vinyl Collection")

**Q-Tip's Fire**

- member of famous hip-hop group A Tribe Called Quest lost his entire record collection in 1998; no estimate of how many (Drake)

**Radio Active DJ Brenden Robertson's Fire**

- lost $60,000 worth of records and musical instruments (Hunt, O'Neill, and Shadwell)

**Recordland (Calgary)**

- only throws out records if they're moldy or broken
- gets rid of most exhausted records through the dollar bin[39]

**Red Cat Records (Vancouver)**

- has several boxes of new records that are not selling; pressing plants are apparently not allowing new unsellable vinyl to be returned to them to be re-pressed as they had done pre-vinyl-revival
- 5 or 6 boxes of exhausted used records are sent to YWCA Thrift Shop (see below). where each box has roughly 70 records. Between 4,200 and 5,040 records a year go to thrift shop

**The Storage Facility Fire**

- a friend of HMXHENRY's lost 15,000 records when the storage facility they were being kept in caught fire (HMXHENRY)

**The Store (Toronto)**

- Roughly 65 milk crates a year get sent to a recycling depot in Toronto, where each crate holds between 50 and 60 records
- Between 3,250 and 3,900 records a year are recycled
- The recycling depot down-cycles the records into things like speed bumps and traffic cones
- These data are important because, unlike most record stores who gradually give their records away to thrift stores or patrons and so lose track of how many exhausted records they have, The Store recycles all unsellable vinyl (whether moldy, excessively scratched, broken, or just very unpopular) and only brings them to the recycler once a year, making it very easy to count. While I acknowledge that stores vary greatly in the

[39] For media theorist Will Straw, "exhausted commodities" is a term designed to spark attention towards the moment when "musical recordings become cultural waste, as their meanings and value are exhausted."

size of their used record stock (there are many smaller and many bigger than The Store's), I do not think these numbers would prove wildly misrepresentative of the "average" record store's vinyl waste stream should the scientific work ever be done.

**Taz Records (Halifax)**

- all unwanted records (no estimate provided) go to a box in-store where they are free to anyone who wants them (estimated 200 records a week, 10,400 a year).

**Vinylize (Budapest)**

- specializes in up-cycling vinyl records into eyeglasses
- they sell 500 of their regular frames a month, with prices starting at 395 euros, or $550(CAD); one vinyl record can make 3 glasses frames; (500 x 12) / 3 = 2000 records annually

**Vortex Records (Toronto)**

- they have boxes with free records (no estimate provided)

**Wrecords by Monkey (Brooklyn)**

- the premier exploiters of the vinyl kitsch market (what we might call, preferably using American pronunciation, the kitsch niche), Wrecords by Monkey produces iPhone covers, money clips, cuff links, and many other knick knacks including some very expensive jewelry: a $580(CAD) chain and a $910(CAD) pendant
- Wrecords by Monkey up-cycles an astonishing 500 records a week, or 26,000 records a year
- they estimate they have up-cycled somewhere around 250,000 records since they began the business in 2004
- they insist they use 90 percent of every record (which means that they have landfilled 25,000 records in their history and landfill about 2,600 a year).

**YWCA Thrift Shop (Vancouver, Main St. location)**

- Roughly 50 records a year are thrown out because they are moldy or broken.
- Once a month a "couple boxes" of records go to other thrift stores

**Zulu Records (Vancouver)**

- Zulu throws out records but was unable to give an estimate of how many or how often; the reasons for throwing out records were exhaustion and mold

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