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Global supply chain literature vs. extractivism

My purpose in this brief essay is to formulate the rudiments of a corpus that works against the accumulation of surplus value in supply chains. Increasingly sophisticated – read: exploitative – contemporary supply chains crisscross several continents with exacting precision. While upper management has a perspicuous view of supply chains, views from the ground are partial at best. Indeed, something that allows capitalists to extract hyperbolic margins from unsuspecting producers and consumers is their exploitees' lack of awareness of the scripted paths from raw material to purchased product, where the chain ends, and of its continuation, often unwieldly, from use to waste. I hold no illusion that piecing together stories about traveling goods and their afterlives will spark worldwide revolution. But I do find it salutary, in today's largely post-political world literature criticism, to engage with stuff – literally.

For a working definition of a supply chain, consider a pencil: its supply chain encompasses all logistics from sourcing wood and graphite, through assembly, to the sale that brings it to an end customer (Petroski 1992) (CSCMP 2017). Ecologically responsible manufacturers would factor in their calculations what happens to the object afterwards, notably decomposition or lack thereof, as in the case of plastic. Before globalization – a technosocial process of integration that gained speed around 1989, the spur for the critical revival of world literature – most of those steps happened locally. (Yes, there was trade along the Silk Road centuries ago, but at a radically different order of magnitude). Extractivism has intensified accordingly. It is an economic model where some nations specialize in producing raw goods, while others in manufacturing products (Acosta 2017). Purportedly, this leads to increased overall efficiency, but it in fact solidifies an uneven scheme where profit differentials can never be leveled out. Extractivism and supply chains compound to maintain global inequality even despite net growth.

World literature is not alien to this problematic. Consider *The Communist Manifesto*, Marx and Engel's seminal 1848 work, which provides one of the first notes on record of the term *Weltliteratur*. Famously, the authors describe how "new wants" require satisfaction from distant lands, leading to economic

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interdependence (Marx/Engels 2012: 77). "And as in material, so also in intellectual production", they go on to claim, adding that "National one-sidedness and narrow-mindedness become more and more impossible, and from the numerous national and local literatures, there arises a world literature"[1]. Approaching the passage dialectically requires appreciating its internal contradictions, implied sublations and overall teleology. I read it both as celebration of an unintended favorable consequence of the consolidation of the bourgeoisie at a global level *and* as budding critique of its emerging, integrated culture. It should give us pause that the manifesto should end on the still-unheeded call for proletarians of the world to unite. The international bourgeoisie was already several steps ahead of that. One side of the argument is the invocation of a proletarian world literature, of which the manifesto itself would serve as an illustration; the other a condemnation of world literature altogether. The heights and abysses of later socialist realism can be seen under the light of this contradiction, be they state-sanctioned (Maxim Gorky), anti-state (George Orwell), or stateless (Roberto Arlt).

Others are better suited to dwell on Marxian exegesis or social realist literary historiography. In what follows, I'd like to sketch a different way of building on the parallelism of goods and literature. It is not exactly descriptive, in the way that Bourdieuan sociologies of literature, themselves beholden to the isomorphism of *Weltmarkt* and *Weltliteratur*, are. Rather, salvaging for a different era the fundamentals of socialist realism and adopting them as methodological guidelines, I seek to use cultural production to expose social reality and thereby participate, however modestly, in its transformation. I take my cues from Latin American avant la lettre new materialism (Fernando Ortiz) and from contemporary sources including Bruno Latour, Jane Bennett, Bill Brown and Maurizia Boscagli. Think of this: it is ironic, to say the least, that the seemingly abstract, speculative action of pondering literature and biopolitics should take place on a very concrete laptop computer. The latter is always already a reification of transnational social relations and biopolitical entanglements, including coltan from Congo and lithium from Bolivia. As its nether parts report: "Designed by Apple in California. Assembled in China". As much a product of human ingenuity as the novel is, the computer speaks to the global condition in an entirely different key.

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1 "An die Stelle der alten lokalen und nationalen Selbstgenügsamkeit und Abgeschlossenheit tritt ein allseitiger Verkehr, eine allseitige Abhängigkeit der Nationen voneinander. Und wie in der materiellen, so auch in der geistigen Produktion. Die geistigen Erzeugnisse der einzelnen Nationen werden Gemeingut. Die nationale Einseitigkeit und Beschränktheit wird mehr und mehr unmöglich, und aus den vielen nationalen und lokalen Literaturen bildet sich eine Weltliteratur" (Marx/Engels 1848: 6).

We could ignore it as an externality to "spiritual" production (a misunderstanding best captured in the German agglutination *Geisteswissenschaften*), ruminate humanistically on its role on how we think (à la Friedrich Kittler), or engage it in its own terms. As I see it, literature can turn a blind eye to its conditions of production, or on the other hand, call them into question.

My point of departure is the Chilean Alejandro Zambra's 2008 short story "Historia de un computador", the subject of an earlier piece (Hoyos 2015). The story throbs with desire, as captured in the relationship that a couple, Max and Claudia, establishes with their home's desktop computer. First, it brings them together. It even gets treated as a child, entitled to its own room. Then, a software update leads to deleted memories; passwords unlocked to painful revelations. In one version of the story, digital pornography incites sexual violence. The couple's relationship waxes and wanes as the computer reaches its maximum functionality and integration with their lives. When it becomes obsolete, so does their love. When teaching this story to my students, I ask them, teasingly: "What is your favorite brand of Chilean computers?" "None" is the right answer, as there is comparatively little in the way of Chilean cars, airplanes, or other advanced, high-surplus-value products. And yet Zambra's story, already tinted with nostalgia for a time when daily computation was limited to the living room, has been taken up by avid readers in its successful translations to several languages. If one realizes, moreover, that personal computers are but a chapter in the long history of computation, and that they are ideologically conditioned – computation needs not be "personal", i.e. individualist – then it becomes apparent that Zambra, from Santiago, is driving technological commodity fetishism to its exhaustion.

The computer in that story does not end, as is most often the case in real life, in an e-waste yard, but forgotten in the cellar of a house in Temuco. Max's son, Sebastián, makes an *ex machina* appearance late in the story, pun intended; he lives there with his mom. (A nod to the skeletons in the closet of Chilean patriarchy and dictatorship). The point is well taken that literature can estrange our relationship to computers. In this case, by inscribing them into stories more complex than planned obsolescence, parodied here. I have followed this trail in the work of a more famous countryman of Zambra's: Roberto Bolaño. As you'll recall from the 2004 classic *2666*, toward the end of "The Part About About Fate", on the verge of the long tirade of crime narratives that constitutes the notorious fourth section of the novel, a hard-to-place voice notes that "the secret of the world" lies in the ongoing murders of women along the U.S.-Mexico border. It would be a fool's errand to give a narrow interpretation to this *ars poetica*. Chris Andrews, Osvaldo Zavala, and others have pointed at the enormous economic forces unleashed along the border as the novel's real culprits; Sergio González Ramírez, who wrote the original account of the dead that Bolaño overlays his fictional

narrative on had already done so for the crimes themselves. As it happens, Klaus Haas, a person of interest in the investigations and the nephew of Archimboldi – the lost German classic whose search provides the gargantuan novel unity of action – owns a computer store.

I find this meaningful. Here the wants of the forlorn, well-established European academics of the first part align themselves with the broader wants of the market and, inconclusively, with the wants of one or several killers. They all travel to distant lands to satisfy them. Detective Epifanio Galindo cross-examines women who work for Haas – read Hate. He is flirtatious, belittling, and oddly caring. He investigates the murder of their co-worker, Estrella Ruiz Sandoval, and wants to know if she was an habitué of nightclubs. The intimation and mysoginistic overtone is that somehow she had it coming. A co-worker categorically denies the accusation:

> Estrella wanted to know things about computers, she wanted to learn, she wanted to get ahead, said the girl. Computers, computers, I don't believe a word you're saying, cupcake, said Epifanio. I'm not your fucking cupcake, said the girl. (Bolaño 2008: 469)[2]

The woman's self-assured, defiant stance is met with the patronizing, derogatory "tortita" (translated here as cupcake), Mexican slang for "fatty", "vagina", or "lesbian" (nuances the translation misses). Women in the computer store are defying gender roles. Estrella herself used to work in a maquiladora: by working for Haas, she has moved up in the world. In Epifanio's eyes, Madonna-whore Manicheism becomes butch-victim. Hence the disdain for his interviewee. Meanwhile, when Haas is thrown to prison, justly or not, he introduces himself to the hardened *narcos* there as "a computer expert who started his own business" (Bolaño 2008: 484)[3]. Bolaño has a knack for making the most mundane phrase seem eerie, and this is one such occasion. The self-defined computer expert, pardon the prison slang, makes bitches of them all. Computation then provides the link between several compounding factors: the aspirations for social mobility that drive women from the Mexican countryside to a lawless, chauvinist, desert town; a geography ripe for both impunity and deregulation; a global desire for gadgets of all ilk that reshaped northern Mexico in the wake of NAFTA. Scores of brown women sit in a maelstrom of power differentials.

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2 "Estrella quería saber cosas de computadoras, quería aprender, quería progresar, dijo la muchacha. Tanta computadora, tanta computadora, no me trago una palabra de lo que me dices, tortita, dijo Epifanio. Yo no soy su pinche tortita, dijo la muchacha" (Bolaño 2004: 588).
3 "Un experto en informática que ha levantado su propio negocio" (Bolaño 2004: 606).

2666 sits somewhere between the all-knowing evil computer in Stanley Kubrik's *2001: A Space Odyssey* and the fascist propaganda screens in George Orwell's *1984*. Much has been said about its narrative arc from European universities and high culture to its plunge into the depths of Bordertown femicide. I am characterizing this movement, tendentiously, as taking us, knowledge workers par excellence, from the spiritual achievements that software like Microsoft Word make possible to hardware and the social conditions of its production. For its part, *Maquilápolis*, Vicky Funari and Sergio de la Torre's eye-opening 2006 documentary, shows a different facet of these same workers. In the haunting opening sequence, we see their disciplined bodies casting shadows on the desert as they replicate the movements they would do in the factory. Uniformed women wave their hands in the air rhythmically, as if carefully operating machinery, miming their daily routine. The film quote from Charlie Chaplin's famous *Modern Times* (1936) sequence is apt. In the silent cinema classic, the conveyor belt is a central element; here it is absent, for the cogs and wheels of these women's employment extend themselves along an invisible assembly line.

What drives goods around the world is added value. More than the sum of its parts, a computer derives profit from every link in the supply chain. The company makes a killing at each transaction, from the mining of mercury and gold in Africa and South America; through the aluminum foundries for the computer's frame and motherboard assembly in China; to its rote software coding in India and its design in Cupertino; to its glorified commercialization in all of these locales. Think of rubber trees coming back to the Amazon, many times more expensive, as truck tires. To get a sense of the magnitude of modern extractivism, multiply this by each of the numerous components in a tech gadget – then bundle and copyright them. Each additional level of accumulation makes the human labor involved in the process more abstract and harder to grasp. As Chellis Glendinnig notes in her 1990 "Notes towards a Neo-Luddite Manifesto", "all technology is political" (Glendinnig 1990). Any computer reflects social relations of production at a global level.

Addressing this requires us to venture beyond the boundaries of Latin Americanist literary criticism, narrowly construed, far beyond auteur documentaries like *Maquinápolis*, across media, genres, and locales. Consider, for the sake of simplicity, the two other crucial moments in computer supply chain literature: mineral extraction and artifact disposal. Regarding the former, prolific genre writer Alberto Vásquez-Figueroa, something of a Spanish Simenon, gives us the 2008 *Coltán*. It is a hard-boiled rewrite of Christie's *Ten Little Indians* (1939) with the board of Dall & Houston, an ersatz Haliburton, as the dying Indians. The premise is smart: Aarohum Al Rashid, a mysterious figure evocative of Islamist insurgents, starts murdering them one by one for not

paying a Robin Hoodesque ransom: re-building Iraqi infrastructure. Coltan comes into play because Dall & Houston has sought to rein back its trade (Vásquez-Figueroa 2008: 79). This leads to plot twists and a chase across the continents that results, unsurprisingly, in the revelation that Al Rashid was a board member all along.

What interests me in this cultural product is how it both denounces and symbolically exploits the coltan trade. Take a character, the Belgian swindler Marcel Valerie. We see though his eyes Congolese child coltan miners for the first time, covered in dust and always at risk of being buried alive in mine shafts, like an "army of ghosts" (Vásquez-Figueroa 2008: 42). Valerie learns from his Kazakh guide that their day shift is worth 20 cents of a Euro; he's amazed, but not appalled. Seizing a business opportunity, he purchases the mine from the Kazakh for a bargain thirty million euros. With a heavy hand, here Vásquez-Figueroa communicates the mind-bending scalability of modern profit. Yet he is also complicit in what he denounces, for he builds a European bestseller upon sensationalist myths about coltan. As Michael Nest shows in an eponymous 2011 study, it is false that eighty percent of the world reserves are under control of mass rapists in Congo, a legend that once prompted a well-meaning Democratic U.S. senator to say that, "Without knowing it, tens of millions of people in the United States may be putting money in the pockets of some of the worst human rights violators in the world simply by using a cellphone or a laptop computer" (Nest 2011: 2). Alas, if only systemic responsibility were so simple. *Coltán*, the novel, serves as cautionary tale against a certain kind of simplification.

Ironically, simplicity in form can convey ideological complexity. Colombian conceptual artist Antonio Caro presents a powerful, straightforward work of art that comments on mineral extraction: "Minería" (2012). It looks as if the Colombian flag – a stripe of blue sandwiched between two parts of yellow above and one of red below – had forgone its yellow stripe in favor of the word "MINERIA". Achieving the not-insignificant task of seeing his country's flag as *objet trouvé*, Caro nods to the color yellow in the flag representing riches, that is, gold. The viewer is reminded that gold does not happen spontaneously, but through laborious, indeed toxic, extraction. The blue of oceans and the red of founders' blood look orphaned when the yellow of gold retreats into the sans-serif, bulky all caps of the title word, forcefully presiding over the piece. The artwork puts in stark relief that national identity hinges on surrendering natural resources to foreign powers: then for mercantilist, now for digital accumulation. This revisits familiar motifs in Caro's lifelong, playful rumination on names, symbols, and catchphrases, which includes the pop-art gesture of writing the name "Colombia" in unmistakable "Coca-Cola" font. It solidifies the impression, cultivated throughout his oeuvre, that the country is for sale. Caro extracts and transfers the gold

from the nation's symbolic reserves onto the fraught terrain of contemporary debates on nature and culture.

Carolina Caycedo, born in 1978, pursues similar goals with her *Be Damned* series, notably the piece 2014, "Yuma, or the Land of Friends". Commissioned for the Berlin biennale, it documents, in Jacques Louis David-like grand format, the construction of a river dam in El Quimbo, Colombia. It is a dizzying experience to stand in front of the work, as if carelessly soaring above the terrain, while also being reminded of one's smallness *vis-à-vis* the towering flat image. High definition depiction, paradoxically, gains the qualities of abstraction. A different kind of found object, the piece originates in a satellite photograph from the exact coordinates of the construction site, seemingly a click away, yet shrouded in lush tropical nature – if not for long. Yuma is the Muisca name for the river. Heidegger famously observed how a dam on the Rhine river turned nature into standing-reserve; Caycedo would agree, with the added component of turning entire displaced, meagerly compensated indigenous and mestizo populations into the same. This is the contemporary, Latin American instantiation of the biopolitics of neoliberalism that Michel Foucault discussed in his late opus, *The Birth of Biopolitics*. It bears noting that all this scarring of the earth happens in the name of the electricity that fuels our gadgets.

Fig. 1: Carolina Caycedo: YUMA, or the Land of Friends, 2014. Digital prints on acrylic glass, satellite images. 580×473 cm, 100x100 cm. Photo: 8th Berlin Biennale for Contemporary Art, Museen Dahlem. Courtesy of the artist.

Vásquez-Figueroa's coltan, Caro's gold, and Caycedo's hydropower stand to gain when set in conversation with each other. The Spaniard might sensationalize more than elucidate, uproot problems in the name of localization, and contribute very meagerly to the genre of the novel, his chosen art form. But he also reveals, by contrast, a certain nationalistic myopia in his Colombian conceptual artist interlocutors. How many nations' flags could, in how many languages, replace their colors with the word "mining"? How many "natural resource" exploitation sites be photographed and exhibited in German galleries? *Coltán*, for better or for worse, reaches out to those other *other* locales. Similarly, what I am attempting to do here is deploy the resources of world literature to fill the vacuum of story-telling in supply chains that, in turn, make world literature even possible. Consider, heuristically, that Zambra's tale about computation does not begin nor end where its plot does. It belongs to a single cultural assemblage with the maquila pre-history and e-wasteyard future of its title gadget; it informs the articles that frequent flying intellectuals, threats of a U.S. aviation authority laptop ban notwithstanding, produce.

Consider computer waste. A quasi-foundational work is the 2008 Pixar animation blockbuster *Wall-E*. The title character is a post-apocalyptic rubbish-sorting robot that, after many adventures, becomes instrumental to the rebirth of planet earth. Much as I regard the film as a masterpiece of the genre, if the medium is the message and the medium is mass entertainment, then the message here is just further commodification. I am moved by the robot's romantic loneliness and his built-up encounter with a feminine, more advanced robot, EVE, endowed with fertility in a barren world. But the extreme embellishment of actual e-wasteyards is hyperbolic (NPR 2017). Particularly when coupled with highly mediated aesthetic practices, dependent on powerful computing, such as corporate computer animation and 3D rendering. (Eric Herhuth has explored this aspect, along with the movie's heteronormalizing thrust, in a seminal 2014 *Cinema Journal* article). There are different, more productive responses, such as the South Korean poet Kim Hyesoon's suitably entitled 2011 collection, *All the Garbage of the World, Unite!* Kim finds gods among the refuse and expresses their divinity with jarring effect, building up to garbled words on the page: "Do you know all the dearest gods that are hanging onto our limbs?/On the seat you left, a wet towel, a wad of gum, a crushed tomato. [...] Yournostrilssingle-dropofapricklynosehairearth god!" (Hyesoon/Choi 2017: n.p.). One could also think of the Zambian Ellen Banda-Akku's witty children's short story "E is for E-Waste" (2013) and the instructive San Francisco activist video "The Story of Electronics" (2011).

On disposal, however, the most thoughtful works I know are Brazilian. Consider Jorge Furtado's 1989 avant-garde documentary, *Ilha das Flores*. Throughout

the thirteen-minute short, a Guy Debord-inspired science documentary sounding voiceover describes the logic of consumerism. Meanwhile, the film follows a tomato from the plot of a Nisei farmer, to a petty bourgeois family kitchen in Porto Alegre, to the namesake wasteland on the outskirts of the city. Crude, iterative images of money changing hands splice the already-staccato sequences, themselves introduced by rudimentary computer graphics. At one point, piles of corpses from Nazi factories of death are shoveled into graves. To a jarring electric-guitar riff, the tomato ends up in a pile of organic waste that feeds the homeless denizens of the garbage dump – though not before a makeshift farmer's pigs get the first pick.

Clearly, Furtado does not film for the faint of heart. However, his work retains a playful lyricism, lost in Eduardo Coutinho's later, grittier portrait on a similar subject, *Boca do lixo* (1993), and beautified in Vik Muniz's paintings with trash and their accompanying documentary, *Waste Land* (2010). (See Ernesto Livon-Grossman for a survey of Brazilian cinema on garbage). Be this as it may, the important links established here are, on the one hand, between freedom and the control of life – Foucault's dyad – and, on the other, between supply chains and exploitation. The script's envoi interrupts the by-then established repetition of brain and opposable thumbs as human traits. It introduces freedom as a third, unexpected trait, precisely in the moment when the subject depicted would be, at least in the eyes of the well-to-do, most thoroughly de-humanized. The final lines are a tautology by the modernist poet Cecília Meireles: "Free is the state of one who has freedom. Freedom is a word nourished by human aspirations, that no one can explain, and no one can understand" (my translation)[4]. Rather than a late-romantic invocation of the ineffable or merely an ironic *épater les bourgeois*, the operation at hand is rigorously dialectic. Shopper "freedom" and obscene differentials in value extraction are of a piece.

In this sense, a computer is very much like a tomato. Electronic waste yards in rural China and Bangladesh are smoldering no man's lands where day laborers "cook" motherboards to scavenge minerals (NPR 2017). Nurturing effective forms of solidarity for our present biopolitical conjuncture must cut across facile oppositions: local-global, digital-analog, producer-consumer, human-nonhuman, organic-inorganic. Mobilizing cultural production to illuminate different moments in exploitative global supply chains, as I have strived to do here, may contribute to this task. The next logical task remains to extend these insights from cultural products that relate mimetically to actual production and consumption to those

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4 "Livre é o estado daquele que tem liberdade. Liberdade é uma palavra que o sonho humano alimenta, que não há ninguém que explique e ninguém que não entenda".

that allude to them only in subtle ways. The wheels of commerce will be there still, covered by a very thin veil. As of late, their movement subsumes more and more of human activities, literature being no exception. Arguably, sharply differentiated accumulation of surplus value will continue to occur whether we describe it or not, challenge it or not. But so will a cognate literary corpus continue to exist, brought about by its own internal logic. Examining it will, at the very least, raise important questions about the autonomy of literature.

Alternatives include addressing a corpus of world literature as handed down to us by critical consensus or by the culture industry. The latter offers fine representatives of literary genres, the former a snapshot of today's society and values; they overlap, partially. But neither necessarily speaks to, borrowing Sheila Jasanoff's term, sociotechnical imaginaries. These vary widely among locales and have significant impact. The harmonizing agenda of world literature may fail to appreciate those aspects. They do not always emerge in a single work but, as I have shown, in a host of works that revolve around a singular object. Heuristically, again, the object in focus has been a computer, including some of its parts and some aspects of its afterlife. It bears noting, in passing, that I write from a place known by the moniker "Silicon Valley", named after the eponymous semiconductor. Most service workers here speak Spanish at home, are more likely to come across a movie like *Wall-E* than any work of highbrow Latin American fiction, and could not afford engineering or literary criticism careers. In more ways than I intuit, the present essay reflects this.

Now, for all that a computer may reflect global social relations of production in its hardware and software, a skeptic might say, the act of *writing* "with" one is free from that backstory. I would disagree, obviously, at various levels, ranging from my understanding of what writing *is* (here I do side with Kittler), to, more importantly, my commitment to recognizing and engaging with the materiality of cultural production. The goods and literature debate has been framed in terms of parallelism, to various degrees of proximity. I regard it, rather, as a matter of imbrication. To my mind, the question is not whether they are imbricated, but how. Computation is an interesting starting point because it is becoming the sine qua non of literary culture, as it is of cinematic culture: a purportedly disembodied process that is in fact very tangible; a seemingly gratuitous affair with vast economic consequences. The most brilliant algorithm has little effect without supply chains and all they entail. Should one ignore this epoch-defining phenomenon? (For its part, "applying" the tools of digital humanities raises the question of who is the agent and who, alas, the tool). Projecting the stories of objects into their real-world material entanglements cultivates a different ethos – one of thinking with literature wherever it may take us. It has been the path charted here, and it is but one of several ways of thinking with, not past, the imbrication.

Paradoxically, reconnecting material and intellectual production may serve well those who seek to "liberate" the former from the latter, as bourgeois piety dictates. "Art for art's sake" is not achieved by fiat. Of course, it may also rekindle a political streak that the Marxist tradition of world literature has lost to the more tepid Goethean vein. In either case, it is a sensible measure, lest the debate on the global autonomization of literature happen in a denial of historicity. There is similarly much work to do, self-consciously, to not replicate extractivism by plucking from the cultures of the world to build upon them conceptually, thereby adding value, and then shipping them back to their places of provenance as theory. If my essay has, unavoidably, skirted this position, it has done so as a necessary moment in throwing a wrench into ever-expanding forms of accumulation.

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