FROM TRASH DUMP TO DREAMLAND

SOLID WASTE MACHINE: AN ENTANGLED HISTORY OF TOXICITY AND CAPITAL

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"The real is not impossible; it is simply more and more artificial"

Gilles Deleuze and Felix Guattari

Following the prolonged mismanagement of municipal solid waste, garbage and the mundane daily consumption of goods start to manifest as an influential element within the spatial organization of the urban landscape. While large amounts of trash pile up at street corners, are stored along riverbeds, hidden and dumped across forests, valleys, and the seashore, flows of industrial goods and the structure of a city become evidently entangled. As the flow of industrial cycles is interrupted, or breaks, the seemingly distinct spheres of production, distribution, consumption and disposal of waste emerge in a single space. One shits where he eats. Trash no longer migrates beyond the visible spectrum of the city to be buried in distant landfills, but instead decomposes and releases stench fumes a few meters away from where it is consumed. Through the newly sedentary discharge of urban life, it becomes evident that mundane habits, such as shopping for food, have a direct impact on the environment. However, this does not weigh on the industrial process as the flow of production/consumption does not slow down. Instead, it only exhibits its discharge in a momentary relapse until its renewal. The trash, as residuum, carries on with its own production process as it decomposes into smaller particles that infiltrate the ether, the soil, the water, marine species and the human body. It has transformative consequences for the receptive body, which will then again tap into an endless chain of transformations, or production. The receptive body is the body of the earth: the biosphere. Simultaneously, the receptive body is Capital as value is extracted from trash. In the aftermath of the Lebanese trash crisis, the deposits of trash are used as filling material in the construction of new valuable land on the sea. The method of construction bypasses acceptable standards and the environmental consequences are deadly for the sea, marine life and fishermen's livelihood. At the same time, construction workers, engineers and fishermen are exposed daily, throughout the length of the construction works, to serious health threats.

In the heat of the summer of 2015, garbage begins to proliferate across the country[1] following the closure of the *Naameh* sanitary landfill catering to the solid waste management of Greater Beirut. This is not the first trash crisis. From the very onset of conflict in 1975, informal practices of waste dumping in open pits or by the sea were frequent, namely in the notable sites of *Normandy* and *Bourj Hammoud*. The massive *Normandy* dump was transformed in the 1990s after the war, while the *Bourj Hammoud*-site was not granted a similar concern. The *Normandy*-site, located within the perimeter of the city center's post-war reconstruction plans, demonstrates an ostensibly magical transformation from a five million m3 trash dump (Sadek and El-Fadel, 2000) to a 1.7 million m2 plane dubbed the "Beirut waterfront district", estimated at a value of around $10 billion (Azhari, 2017).

Figure 1

A study of the composition of the dumpsite prior to its transformation confirms the content of hazardous waste (Sadek and El-Fadel, 2000: 157). It is believed that Solidere, the private-public consortium in charge of the city center's reconstruction, got rid of (some of) the waste by redistributing it across the country, while it is said that recent studies have shown that the land contains a high level of toxicity.[2] The projected real estate success of this new territory is still in limbo, waiting for the next economic jumpstart.

When garbage collection is halted for weeks on end, the toxic juices of stale fermented trash infiltrate cracks in the asphalt, the soil of the field, the water of the river, and alarming levels of carcinogenic dioxins and polycyclic aromatic hydrocarbons proliferate in the air (Hilal et al., 2015). As a long overdue solution, the government kicks off the construction of sanitary landfills on the sea, extending landmass onto water. Two sites are chosen by the sea: Costa Brava south of Beirut and the site of *Bourj Hammoud*'s old trash mountain north of Beirut. *Bourj Hammoud*'s construction method is based on a simple "cut and fill" concept: it consists of dismantling the old trash mountain and spreading it into the sea, extending the land reclamation further east to the adjacent neighborhood of Jdeideh and into the Mediterranean, reaching a total area of 600,000 square kilometers (Azhari, 2017)..(Figure 1)

The old trash hill of *Bourj Hammoud* was an uncontrolled dumpsite since the beginning of the war in 1975, and then became an official landfill after the war ended in 1990, until its closure in 1997. As it was never built as a sanitary landfill, it leaked "an estimated 120,000 tons of leachate annually" (El Ksayer, 2017: 36) directly into the sea, "destroying sea life within a radius of hundreds of meters" (Harmandayan, 2009: 24), and released methane gas into the atmosphere as a product of the fermentation of solid waste. Dismantled after twenty years of fermentation, the guts of this highly toxic hill are exposed and in close contact with the atmosphere, the sea and construction workers, as dozens of excavator trucks work their way through the belly of a 40-year old history of muck. (Figure 2) An unearthly mixture of dark brown, thin protruding colored plastic film and unidentifiable chunks of different sizes and colors is the "dirty" backfilling material for the landfill. The construction method distinguishes between "dirty" and "clean" backfill, where "clean" backfill is simply sand. The plan for the new land consists of five large plots: two landfill areas of 125,000 m2 each, built with dirty backfilling and expected to become public gardens once stacking saturation of fresh trash is reached; two plots of 110,000 m2 each of clean backfilling for future urban development; and an area of 65,000 m2 dedicated to a long-awaited sewage treatment plant for the city of Beirut. (Figure 3) Prior to gutting out the old trash mountain, the "environmental impact assessment" conducted consisted of a gas study to evaluate the decomposition of the old waste, but did not include an analysis of toxicity. The gas study assumes

that the main constituent of the hill is organic matter and thus only studies the decomposition of this inert matter, which is the least toxic component. What the study also shows, without mentioning it in the report, is that almost all of the gases were released into atmosphere, although they should have been captured and burned while the leachates were dumped in the sea.[3] There is no analysis of the chemical composition of the landfill, nor of the solid matter that was extracted or the leachates, of which only the level was measured.[4]

Regardless of the lack of toxicity tests on the old waste, the consequences for sea life are evident, as testified by the fishermen of *Bourj Hammoud*'s port. The fishermen, protesting against the project since its inception, are the ones suffering the direct consequences for their health and livelihood, along with sea and marine life. Chemist Dr. Najat Saliba explains that the most obvious toxic waste in the old mountain consists of metal components, pesticides, oil transformers such as PCB polycyclic biphenyl from industrial plants, and chlorinated substances from the degradation of plastics.[5] She explains that because of leachate leaks, there is an abundance of nitrate in the sea. As a result, there is an ample increase of phytoplankton microorganisms that float on the top layer of seawater, forming a layer that blocks sunlight, ensuing in oxygen depletion of the water body.[6]

Figure 2

The industrial coast of *Bourj Hammoud* has been perpetually subjected to lethal expansive pollution, from untreated sewage discharge for decades, to animal organ remains from the nearby slaughterhouse, to the flushing of oil pipes directly into the sea from nearby hydrocarbon companies, to the illegal smuggling of toxic hazardous waste during the war (Hamdan, 1997). Proponents of the project say that an extra 3.5 million m3 of old waste would not make a major difference to the already ruinously polluted sea. It evidently aggravated the situation, as testified by the fishermen who have engaged with this sea for decades and witnessed the different degradation degrees of marine life (Marsi, 2017). This situation is by no means particular to this specific site, as ecological disaster has inadvertently become a recurrent phenomenon across the globe, to the extent where it is met with a lack of concern.[7]

There is still a general tendency to believe that the ecological faux pas will be redeemed. This false belief operates within a particular perception of a world, one of a capitalist profit economy that predates our understanding of global warming. This would be a world that posits capital and nature as the essence of reality. Timothy Morton (2013: 115) calls it "capitalist essentialism," where the concept of nature is the accomplice of capital, as "both exist in an ethereal beyond. Over here, where we live, is an oil spill. But don't worry. The beyond will take care of it." He gives the example of the aftermath of the BP Deepwater Horizon oil spill and the unsympathetic response of the CEO towards the disaster, saying that "the Gulf of Mexico was a huge body of water, and that the spill was tiny by comparison. Nature would absorb the industrial accident" (Morton, 2013: 115). Morton points to the metaphysics involved in the BP CEO's claim, hinting at the inherent belief that nature would solve the issue by itself. Lebanon's minister of environment reacted in a similarly callous manner, pointing out the inevitability of the situation by way of a divine-like disjunctive syllogism: "The agreement between the contractor and the (governmental) Council for Development and Reconstruction requires reclaiming the sea. Therefore, waste should be buried in the sea" (No Author, 2017). Such a comment can be dismissed as nonsensical, biased and corrupt, but this is exactly how the project was led to fruition: as a disjunctive synthesis.

The chemical breakdown of decades-old trash, whilst discharging toxic leachates and methane gas into the sea and air, led to the creation of a composite material that later formed a substitute for soil in the production of new land. In addition to this new alchemical matter, fresh trash piles from a prolonged solid waste mismanagement were also added to the fill. This new spread onto the sea, whose dismissed lingering toxicity pursues ecological mutations, will be applauded as a successful real estate endeavor and coastal urban regeneration. The production process of this new land undeniably consummates an intimate relationship with flows of toxicity at all stages of its coming into being and into the future. The *Normandy* land reclamation is the precedent and the libidinal drive to the creation of its successor, and could very well keep on fulfilling this role. Ever since its completion, the *Normandy*, through its celebratory evaluation, was essentially becoming anticipatory, in as much as it was being redeemed for its flawed production process.[8] What outlives the *Normandy* disaster is a clean stretch of land praised for its value, while its toxic history is rendered invisible. In order to break away from a potential repetition of the same process, I believe it is important to work on the invisibility of the *Bourj Hammoud*-Jdeideh transformation, where the inscription of the project within the urban narrative should remain connected to its material composition and process.

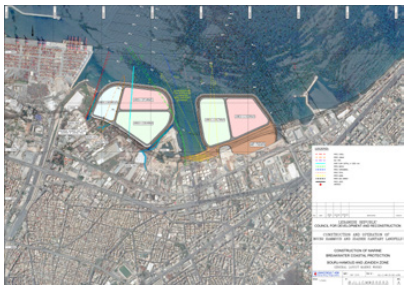

Figure 3

FOOTNOTES

1. See Solidere's comment on that in The Chronicle, Solidere Annual report 2012, 26. http://www.solidere.com/sites/default/files/attached/ar2012.pdf.

2. This is mentioned in Lea Nassif El Ksayer's master's thesis (2017: 30), however I was not able to find evidence.

3. Elias Azzi, expert in waste management systems and PhD-candidate in industrial ecology at KTH Sweden, e-mail exchange where he kindly shared his personal analysis and remarks on the gas and geotechnical reports, August 2017.

4. ibid.

5. Najat Saliba - AUB Chemistry department, notes taken during a meeting and email exchange, August 17, 2017.

6. ibid.

7. See Saskia Sassen's "Expulsions…" on the extent of dead land and dead water due to pollution of all sorts, on a scale our planet has never seen before, and in relation to a systemic deepening of advanced capitalism.

8. For evaluation as anticipation, see Gilles Deleuze and Felix Guattari (2013).

FIGURES

Figure 1. Illustration source: Google earth. Name of copyright holder: Google earth. Caption: Bourj Hammoud-Jdeideh land reclamation in process

Figure 2. Illustration source: "Dreamland" video still, 2017. Name of photographer or artist: Fadi Mansour. Name of copyright holder: Fadi Mansour. Caption: Dismantling the Bourj Hammoud trash mountain

Figure 3. Illustration source: Lebanese Republic Council for Development and Reconstruction. Name of copyright holder: Lebanese Republic Council for Development and Reconstruction. Caption: Plan of the Bourj Hammoud-Jdeideh sanitary landfill and land reclamation project

BIBLIOGRAPHY

Azhari, T. (2017). The lucrative history of land reclamation. *The Daily Star,* 19 July. Available at: https://www.dailystar.com.lb/News/Lebanon-News/2017/Jul-19/413250-the-lucrative-history-of-lebanese-land-reclamation.ashx#.

Deleuze, G. and Guattari, F. (2013).,7000 BC: Apparatus of Capture. In *A Thousand Plateaus: Capitalism and Schizophrenia* (pp. 493-550). London: Bloomsbury.

El Ksayer, L. N. (2017). *Can co-production partnerships lead to new forms of sustainable urban governance? Waste management under conditions of enduring political crisis in Beirut.* MA Thesis, Technische Universität Berlin, Germany.

Hilal N., Fadlallah, R., Jamal, D. and El-Jardali, F. (2015). K2P evidence summary: approaching the waste crisis in Lebanon: Consequences and insights into solutions. Beirut: Knowledge to Policy (K2P) Center. Available at: https://www.aub.edu.lb/k2p/products/Documents/K2P%20Evidence%20Summary%20Waste%20Management_Final_%20Dec%2014%202015.pdf.

Hamdan, F. (1997). Toxic attack against Lebanon, case one: Toxic waste from Italy. Available at: http://www.fouadhamdan.org/cms/upload/pdf/ItalianToxicWasteInLebanon_GreenpeaceChronology1987_1997_FouadHamdan_ENGLISH_May1997.pdf.

Harmandayan, D. (2009). Bourj Hammoud brief city profile. APEC, prepared for the Municipality of Bourj Hammoud. Available at: http://www.bourjhammoud.gov.lb/sites/default/files/public/SBH-REPORT-F-shrinked.pdf

Marsi, F. (2017). Fishermen sound alarm over waste in sea. *The Daily Star*, July 10.

Morton, T. (2013). *Hyperobjects: Philosophy and Ecology after the End of the World.* Minneapolis: University of Minnesota Press.

No author (2017). This Lebanese minister's solution to the garbage crisis? Dump in the sea. *The New Arab*, June 14. Available at: https://www.alaraby.co.uk/english/blog/2017/6/14/video-lebanon-admits-to-dumping-garbage-into-the-sea.

Sadek, S. and El-Fadel, M. (2000). The Normandy landfill: A case study in solid waste management. *Journal of Natural Resources & Life Sciences Education* 29: 155-161.

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