

# HAZARDOUS TRAVELS: GHOST ACRES AND THE GLOBAL WASTE ECONOMY

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## HOW RACHEL CARSON BROUGHT DEATH TO EGYPT'S WATER BUFFALOES

Over the course of 1971, Egypt was struck by an epidemic of paralysis in water buffalos. The animals first developed paralysis in their hindquarters. Then they showed difficulty in breathing and trembling in the forelimbs. Over time, they could no longer urinate or defecate. After roughly two months of suffering, the animals had to be put down or died. Approximately 1,200 to 1,300 water buffaloes succumbed to this strange epidemic and many a family fortune vanished with the animals.<sup>1</sup> At the time, water buffaloes represented one of, if not the most important farm animal in Egypt. Farmers used them for ploughing and other forms of labour as well as a source of meat, leather and milk. Epidemiological investigations in 1971 and 1973, after a second smaller case of the same strange epidemic, led to the suspicion that a new pesticide used on cotton had caused the death of the water buffaloes.<sup>2</sup> Supported from a financial loan from U.S. AID, Egypt had bought the pesticide leptophos from a company in the United States that had sought foreign markets for a product unsalable in the United States. Now it seemed to be the cause for the death of Egyptian water buffaloes.<sup>3</sup>

<sup>1</sup> Richard H. Adams, (1986,) 'Development and Social Change in Rural Egypt', Syracuse: Syracuse University Press, pp 62.

<sup>2</sup> Leptophos Advisory Committee, (1976), 'The Report of the Leptophos Advisory Committee to the Administrator United States Environmental Protection Agency', Washington D.C., pp 43-44.

<sup>3</sup> David Kinkela, (2013), 'The Paradox of US Pesticide Policy During the Age of Ecology', in 'Nation-States and the Global Environment: New Approaches to International Environmental History', ed. E. M. Bsumek, D. Kinkela and M. A. Lawrence, pp 115-34. Oxford University Press, pp 175; The company Velsicol only had a per-

"We are not responsible"

mit to export Leptophos. It did not have a registration for the U.S. market. Environmental Protection Agency, (1976), Leptophos Advisory Committee Meeting: Public Session, Washington D.C.: U.S. Government Printing Office, pp 68.

<sup>4</sup> Rachel Carson, (1962), 'Silent Spring', (Fawcett: Greenwich/Conn., 1964) first published in the New Yorker; In the literature, Rachel Carson's Silent Spring is often accredited to have catalyzed the rise of environmentalism in the United States. Most recent scholarship challenges this widely held belief recognizing a long line of overlooked historical actors and other important factors behind the rise of modern

Throughout the 1960s and 1970s, the United States had seen tremendous changes in their consumer health and environmental protection legislation. Through her 1962 publication "Silent Spring", scientist and writer, Rachel Carson, had alerted her readers to the overuse and misuse of chemical pesticides and herbicides with well-told tales of invisible chemical poisons pervading the world and contaminating food.<sup>4</sup> The book brought to public attention concerns over chlorinated hydrocarbons (such as DDT, Aldrin, dieldrin, and chlordane), organophosphates (such as parathion, malathion, or leptophos), and other chemicals. Farmers, among others, had used these substances in the post-World War II decades to control mosquitoes, lice, and insect pests on crops, understanding little about the substances' side effects on human health and the ecosystem. Rachel Carson's Silent Spring pointed out to the public how organophosphates bioaccumulated in the environment and biomagnified in organic systems, until reaching toxic levels in top predators such as the bald eagles, and how exposure to organophosphates, a potent nerve gas, resulted in cholinesterase inhibition by disrupting the normal working of an enzyme critical to normal nerve function.<sup>5</sup> The book fundamentally uprooted U.S. society in its relationship to pesticides and other synthetic chemicals.<sup>6</sup>

Ironically, the book indirectly also established the link between the environments of Egypt and the United States. In the wake of Rachel Carson's publication "Silent Spring", U.S. environmental and consumer health institutions, the EPA and the Consumer Product Safety Commission, started to ban or suspend a series of synthetic chemicals for national use. Among them were the infamous pesticide DDT, but

also less well-known substances such as Kepone or Leptophos.<sup>7</sup> In 1975, the EPA ordered the suspension of the sale of two agricultural pesticides, chlordane and heptachlor, that had been widely used in certain farm crops, including corn and tobacco.<sup>8</sup> Similarly to the EPA, the Consumer Product Safety Commission added more and more substances, such as the chemical flame retardant TRIS, to its list of banned substances to use in consumer products. Over the course of the 1970s, the list grew longer and longer.<sup>9</sup>

U.S. consumer health and environmental protection came with a hazardous twist, however. Little did the U.S. agencies realize at the time, that their bans also created a host of serious problems far extending beyond consumer health and environmental protection. Stored in massive amounts all over the United States, at farms, town shops, and within the premises of the U.S. chemical businesses, synthetic chemicals such as DDT, Aldrin, Dieldrin, but also a full range of consumer products, such as TRIS treated children sleepwear were no longer legal to sell or use. The EPA and the Consumer Product Safety Commission had turned a large number of chemicals, drugs, pesticides, and consumer products technically speaking, into hazardous waste. At the same time, legislation did not allow them to put a stop to the production of these chemicals, let alone ban their export abroad. As an immediate result, Leptophos, instead of being disposed of as hazardous waste in the United States, resurfaced in Egypt where less strict laws were in place and where the pesticide was legal. Meaning to protect U.S. consumers and environment, the agencies were complicit in creating an unequal system of global hazard distribution.<sup>10</sup>

environmental thinking and protest. Montrie, Chad (2018), 'The myth of silent spring: Rethinking the origins of American environmentalism', Oakland, California: University of California Press.

<sup>5</sup> Frederick R. Davis, (2014), 'Banned: A history of pesticides and the science of toxicology'. New Haven: Yale University Press, pp 187.

<sup>6</sup> Carolyn Merchant, (2007), 'American Environmental History: An Introduction', New York: Columbia University Press, pp 194.

<sup>7</sup> Environmental Protection Agency, (December 31, 1972), 'DDT Ban Takes Effect: EPA Press Release', news release; Davis, Banned.

<sup>8</sup> Ingo Walter, (1982), 'Eco-

conomic Repercussion of Environmental Policy', in 'Environment and trade: The relation of international trade and environmental policy' (1982), ed. Seymour J. Rubin and Thomas R. Graham, 22-45. Totowa, NJ: Allanheld Osmun, pp 36.

<sup>9</sup> Frederick R. Davis, (2014), 'Banned: A history of pesticides and the science of toxicology', New Haven: Yale University Press; On TRIS see also Committee on Energy and Commerce, (1981), 'Regulation of TRIS-treated sleepwear: Hearings before the Subcommittee on Oversight and Investigations 1981', Washington D.C.: U.S. Government Printing Office; Ninety-Seventh Congress, First Session.

<sup>10</sup> Sociologist Stephan

## THE MANY FACES OF "HAZARDOUS TRAVELS"

The story of Egypt's water buffaloes is one of the many faces of *hazardous travels*.<sup>11</sup> It is the first episode in the history of the global waste economy and the commodification of toxic waste material within a global system of externalization and material mutability that commenced in the 1970s. As industrial nations strove towards greener and healthier environments, they unwittingly and yet acceptingly pushed their hazards outwards. It is the paradox of modern environmentalism that it created a world of global environmental inequity. To this day, the same materiality is not hazardous waste everywhere around this planet at the same time.<sup>12</sup> Hardly a material does invite so many different perspectives and practices as that which we commonly call *toxic*. Hardly a material is subject to so many territorial understandings of what it takes to protect a country's citizens' health and environment and at the same time so oblivious to the political and scientific borders we erect and create.

The international trade with hazardous substances, to employ a broad term for a global trading network that moves globally items ranging from hazardous waste to banned pesticides and non-marketed consumer products, has received considerable attention from environmental, health and human rights activists, investigative journalists, administrators, and policy makers throughout the 1970s, 1980s, and up to the mid-1990s. Initially, the focus lay on the international marketing of restricted or banned pesticides, such as Kepone, DDT, or Leptophos or suspended consumer products, such as TRIS-treated children's sleepwear. Stories were driven forward by high-profile US media actors, such as PBS or the

Center for Investigative Reporting publishing award-winning material.<sup>13</sup> Over the course of the 1980s, practices fabricating the global waste economy shifted from out-dated pesticides and suspended consumer products to actual waste coming from disposal sites.<sup>14</sup>

*Hazardous Travels* took on another face, when the ghost ships appeared.<sup>15</sup> As of the late 1980s, in particular, a fleet of hazardous waste barges, such as the infamous Khian Sea, the Bark, the Karen B., or the Mobro, roamed the world's oceans in search for a dumping ground for their cargo. Ships and trucks moved hazardous waste from the United States to Haiti, Panama, the Bahamas, or Guinea, from Italy to Nigeria, from West Germany to East Germany, Turkey, or Rumania.<sup>16</sup> Given the differences in waste regimes – a true cacophony of irreconcilable thresholds, definitions, and visions of health, purity, and safety – the material transformed once it crossed the border. From incinerator ash to fertilizer. From hazardous waste to brick building material. From waste to recycling. From highly guarded toxic material to anonymous barrels of unknown substances. Often, the ships were turned away, however. The sentiment spread particularly among African nations that they would not accept the role as the world's garbage dump. They took up the fight against what they perceived as garbage imperialism, a re-colonization of the world through trash, or simply U.S. (and other nations') toxic terrorism.<sup>17</sup>

In the late 1980s and early 1990s, Greenpeace ran a big international campaign against the trade with hazardous waste that was crucial for the "Basel Convention on the Transboundary Movement on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal", a 1989 UN treaty that

Lessenich describes the broader phenomenon as the externalization of society 'Die Externalisierungsgesellschaft. Ein Internalisierungsversuch' (2015), *Soziologie* 44, pp 1-12.

<sup>11</sup> 'Hazardous Travels' is a research group at the Rachel Carson Center for Environment and Society funded by the German Research Foundation investigating the dynamics and structures of the global waste economy since the late twentieth century. <https://www.hazardoustravels.carsoncenter.uni-muenchen.de/index.html>, accessed March 5, 2019.

<sup>12</sup> Simone M. Müller, (2016), 'Cut Holes and Sink 'em': Chemical Weapons Disposal and Cold War History as a History of Risk', in 'Historical Social

Research 41', no. 1, pp 263-284; J. Daven and R. Klein, (2008), 'Progress in Waste Management Research', New York, pp 95.

<sup>13</sup> David Weir and Mark Schapiro, (1981), 'Circle of Poison: Pesticides and People in a Hungry World' (Oakland, Calif.); Ruth Norris et al., eds., (1982), 'Pills, Pesticides & Profits', Croton-on-Hudson, N.Y.; Jane H. Ives, ed., (1985) 'The Export of Hazard: Transnational Corporations and Environmental Control Issues', Boston.

<sup>14</sup> Bill D. Moyers, (1990), 'Global Dumping Ground: The International Traffic in Hazardous Waste', Washington; Jennifer Clapp, (2010), 'Toxic Exports: The Transfer of Hazardous Wastes and Technologies from Rich to

entered into force in 1992. Public, activist, and policy attention faded after the negotiations of the "Bamako Convention on the Ban of the Import into Africa and the Control of the Transboundary Movement of Hazardous Wastes within Africa" by the Organization of African Unity in 1991, which entered into force in 1998.<sup>18</sup> Discussion resurfaced in the 2000s with a new focus on e-waste and recycling. It received another considerable push after China's most recent ban on plastic imports from abroad starting January 2018.<sup>19</sup>

*Hazardous Travels*, finally, is more than just the movement of what one party in the transaction might consider waste. Alongside actual trade in toxic material, industrial countries relocated their hazardous waste by *re-labeling* it according to different national standards as a resource fit for recycling. Starting in the 1970s, coastal regions in China, Taiwan, and South Korea, and then in India and Bangladesh, became the world's largest shipbreaking yards. At Alang, in Gujarat, India, for instance, the ships' body parts, often containing toxins such as PCBs or Asbestos, are reintroduced into the local economy.<sup>20</sup> The amount of light dead tonnage in scrap metal makes up over 10 percent of scrap for India's emerging economy. Moreover, almost everything from the ship's steel to the fixtures and furniture, to pieces of sanitary ware or kitchen utensils, ended up in local markets.<sup>21</sup> Finally, multinational companies, like the U.S.-based company Texaco, made millions by relocating dirty technologies not complying with OECD standards to non-OECD production sites. At their oil-production site in Lago Agrio in the Ecuadorian Amazon, Texaco left roughly 1,700 square miles of rainforest said by environmentalists to be one of the world's most contaminated industrial sites. Since

1993 30,000 Amazonian settlers and indigenous people, the Huaorani, who call themselves Los Afectados – the Affected Ones fight for clean-up and compensation.<sup>22</sup>

*Hazardous Travels* has many faces and you can find episodes of its stories all over the globe.

*Hazardous Travels* is the story of the global waste economy as a system of global externalization mechanisms through which one country dumps that which it calls toxic, that which it deems unwanted on another country. These externalization mechanisms are integral part to an economic system that sustains its growth through the appropriation of cheap *waste land* – or *ghost acres* as we call these lands in our research group – all around the world.<sup>23</sup> In the end, *Hazardous Travels* creates a global geography of unequal valuations of environments and life.

## BEARING WITNESS TO A WORLD OF EPISTEMIC CONTRADICTIONS

Travelling with the hazards, if only with a finger on a map, buried with one's nose in books and articles, or pulled in through the visuals of (moving) images from far-away lands, is challenging – both systemically as well as personally. *Hazardous Travels* lives in the shadows and equally plays according to the rules of *out of sight* – *out of mind* or *NIMBY* (not in my backyard), both standard attitudes in humanity's dealing with what we consider waste. The system banks on the invisible – also because we are complicit.

Usually, scholars, journalists, or artists investigating the international trade with hazardous waste encounter several dead-ends. Potentially always on

Poor Countries', Ithaca, N.Y. ; Dr. Kofi Asante-Duah and Imre V. Nagy, (1998), 'International Trade in Hazardous Wastes', Abingdon; Christoph Hilz, (1992), 'An Investigation of the International Toxic Waste Trade', New York, N.Y.

<sup>15</sup> Simone M. Müller, (2016), 'The Flying Dutchmen: Ships Tales of Toxic Waste in a Globalized World', in 'RCC Perspectives 1', pp 13-19.

<sup>16</sup> For a full list of waste trade schemes consult Vallette, Jim, and Heather Spalding, (1990), 'The International Trade in Wastes: A Greenpeace Inventory', Washington D.C.: Greenpeace USA.

<sup>17</sup> The term garbage imperialism is mentioned in William Tuohy, (March 23, 1989), '116

Nations Adopt Treaty on Toxic Waste', in Los Angeles Times. The term toxic terrorism is coined by congressional representative John Conyers during a subcommittee meeting of the U.S. Congress on the International Trade with U.S. Hazardous Waste, Washington D.C., July 14, 1988, 6.

<sup>18</sup> Katharina Kummer, (1995), 'International Management of Hazardous Wastes: The Basel Convention and Related Legal Rules', Oxford, New York; Jonathan Krueger, (1999), 'International Trade and the Basel Convention' London; Alan Andrews, (2009), 'Beyond the Ban: Can the Basel Convention adequately Safeguard the Interests of the World's

the verge of illegality, hazardous waste dealers avoid opening their archives – if some of the small-scale trading businesses kept one at all. In addition to such oafishness from traders, trade data is also difficult to compile otherwise. For the pre-Basel era, data on the amount of U.S. hazardous waste produced let alone traded, for instance, was lacking or inadequate. For much of what was traded, contemporaries, ranging from industry, the EPA, and the Department of Justice to members of US Congress and administrators, struggled whether to classify and regulate it as hazardous waste or hazardous substance.<sup>24</sup> The EPA and the U.S. General Accounting Office each provide numbers of hazardous waste produced in the United States that differ by 150 million tons.<sup>25</sup> Similarly, the EPA did not start record keeping on U.S. exports of hazardous waste prior to 1986; and unfortunately, they state, they do not keep those records longer than five years.<sup>26</sup>

It is when traders, such as the Colbert brothers, are brought to trial or when a waste shipment gets into the focus of activists, court proceedings, media reports, EPA investigations, and NGO documentations bring to light what otherwise remains hidden. The Greenpeace archive in Amsterdam, for instance, hosts a multitude of material that only waits for us to uncover its meaning – or at least acknowledge its existence. Environmental journalism, witness' interviews, and activists' whistle blowing is also key for scraping beneath the surface of macro analyses as are more unusual avenues of inquiry, such as leaked material or private photo collections on the web. When we turn to our own body, finally, we might also find traces of the hazard's global travel.

In the end, each of the items that those searching painstakingly uncover tells us its own narrative. It

is imperative that we listen to all of them. Narratives are important elements to order reality and they unfold the potential to frame the way members of an organization or citizens of a nation see the world.<sup>27</sup> In the case of the global waste economy, the existing narratives create a system full of epistemic contradictions. In 1991, for instance, world bank vice president Lawrence Summers became infamous when he suggested the World Bank support the movement of dirty industries to Africa, since the continent was “*vastly under-polluted*”. He violently clashed with those taking his views as the extreme economization of life. At the same time, the controversy suppressed that Summers' proposal was legal given the territorial legislation of labour, environment, and health. Waste – whatever it may be – was and is still not conceptualized on a planetary scale.<sup>28</sup>

We find these epistemic contradictions not only within the system of the global waste economy, but – if we listen closely – also within us. For the convenience of our modern, western lifestyle, as well as our health and environmental protection, we choose to close ears and eyes on all the ties that we have with people and environments beyond our borders. Every time we fly, every time we buy a new electronic gadget and discard the old one, we are making those connections. We cannot untie the knot, but we can choose the kind of quality these connections have. In 1988, the U.S. Congress discussed the issue of the waste barges, such as the Khian Sea. Bugged by the legal limitations of U.S. hazardous export policy, congressional representative John Conyers cried out: “We know that you don't have the power to stop a transaction, but for goodness sake, we are all on the same planet.”<sup>29</sup>

Poor in the International Trade of Hazardous Waste?', in 'Law, Environment and Development Journal' 5, no. 2.

<sup>19</sup> L. Bisschop, (2016), 'Governance of the Illegal Trade in E-Waste and Tropical Timber: Case Studies on Transnational Environmental Crime', London/ New York; M. Kojima and E. Michida, (2013), 'International Trade in Recyclable and Hazardous Waste in Asia', Cheltenham; John Reed and Lesli Hook, (2018), 'The Global Recycling Crisis: Why the World's Recycling System Stopped Working', Financial Times.

<sup>20</sup> Puthucherril, (2010), 'From Shipbreaking

to Sustainable Ship Recycling', pp 11; Kanthak and Bernstorff, (1999), 'Ships for Scrap. Steel and Toxic Wastes for Asia', pp 5.

<sup>21</sup> Julie McElroy-Brown, (2006), 'Shipbreaking at Alang, India', in 'Library Research Award for Undergraduate Submission, University of Washington', pp 15; Frederico Demaria, (2010), 'Shipbreaking at Alang-Sosiya (India)', in 'Ecological Economics', pp 1-11; Annegret Ebner, (2005) 'Knotenpunkt der Globalisierung', Hamburg.

<sup>22</sup> Kimerling, (2012), 'Remarks by Judith Kimerling', in 'Proceedings of the Annual meeting American Society of International Law', pp 416-419, 417; Allen Gerlach, (2003), 'Indians, Oil, and Politics', Wilmington, Delaware.

<sup>23</sup> On the concept of ghost acres see Georg Borgström, (1965), 'The hungry planet. The modern world at the edge of famine', New York/ London, Chapter 5; Kenneth Pomeranz, (2000), 'The great divergence. China, Europe, and the making of the modern world economy', Princeton.

<sup>24</sup> Jacob S. Scherr, (1987), 'Hazardous Exports: U.S. and International Policy Developments', in 'Multinational Corporations, Environment, and the Third World', ed. Charles S. Pearson, Durham, pp 129-148.

<sup>25</sup> Joshua Karliner, (undated), 'Backyard Dumping: Toxic Waste Export to the Third World', Delaware Valley Toxic Coalition Records (Environmental Project on Central America, Temple University Urban Archive).

<sup>26</sup> EPA Letter to the author, (August 8 2018), 'Freedom of Information Act Request EPA-HQ-2018-009879'.

<sup>27</sup> Per H. Hansen, (2012), 'Business History: A Cultural and Narrative Approach', in The Business History Review 86, pp 693-717.

<sup>28</sup> Simone M. Müller, (2016), 'Rettet die Erde vor den Ökonomen', in 'Archiv für Sozialgeschichte 56: Sozialgeschichte des Kapitalismus', pp 353-71.

<sup>29</sup> John Conyers to EPA representative Sheldon Meyers, House Government Operations environment, energy, and natural resources subcommittee, Washington D.C. July 14, 1988.