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## Legacies<sup>i</sup>

Angeliki Balayannis<sup>ii</sup>

“Reckoning with the past that we carry in our present involves crafting some way to inventory the ghosts in our bones”<sup>1</sup>

Legacies are material and political inheritances. They collapse the past, the present, and the future, stretching time and space. Unlike the concepts of history or temporality, legacies demand a material attunement to the residual.<sup>2</sup> The legacies of industrial chemistry have particularly unruly residues; their materialities are elusive and uncertain, transgressing borders, boundaries, and bodies. But despite their everywhere-and-when-ness, the legacies of late industrialism always unfold unevenly – their violent effects are racialised, classed, and gendered. These shadow places are sites of dispossession and colonial geographies; toxic geographies.<sup>3</sup> Approaching legacies as residues of toxic infrastructures offers a generative form of critical analysis, but it presents limits for ethical intervention. How can the legacies of late industrialism be conceptualised in a way that makes detoxified futures possible? How can the legacy become a mode of action?

The signed, stamped, and scanned form overleaf is a legal document required for the transboundary movement of hazardous waste. It accompanied the shipment of a chemical stockpile in late 2012 – two hundred and twenty tonnes of banned and expired pesticides – from its dumpsite in Tanzania, to an incinerator in Southern Poland. Through universalised codes and categories the document marks the origins, destinations, carriers, and materialities of wastes. This is a lingering fragment of bureaucratic paper-work which enables hazardous waste to travel smoothly from one site of disposal to the next. The classifications transform messy and leaky shipments into contained and legible objects of management for globalised economies of disposal.<sup>4</sup> However, classifications also perform erasures. The document is part of a vast corporate archive assembled to evidence the successful disposal of hazardous materials. Although this waste was incinerated, its material legacies linger in every site it has encountered: from its origins in Greece; to its dumpsite in Eastern Tanzania; to the air, soils, and water surrounding the incineration plant in Poland.

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<sup>1</sup> Shotwell, *Against Purity*, 23.

<sup>2</sup> Boudia et al., “Residues.”

<sup>3</sup> Liboiron et al., “Toxic politics”; Murphy, “Alterlife.”

<sup>4</sup> Balayannis, “Toxic sights.”

Movement document for transboundary movements/shipments of waste

1. Corresponding to notification No: TZ 2012 03		2. Serial/total number of shipments: 04 / 100	
3. Exporter - notifier Registration No: 101 -190 -145 Name: National Environment Management Council. Address: Regent Estate, Migombani, Plot No. 29/30 P.O. Box 63154, Dar-es-Salaam, Tanzania Contact person: Mr. Bonaventure Baya Tel: 00255 22 277 4852 Fax: 00255 22 277 4901 E-mail: dg@nemc.or.tz		4. Importer - consignee Registration No: SR-II-6618/08/13/07 Name: SARPI DĄBROWA GÓRNICZA Sp. z o.o. Address: Koksownicza 16, 42-523 Dąbrowa Górnicza, Poland Contact person: Karina Szafranek - Braś Tel: 0048 (0) 639 50 00 Fax: 0048 (0) 639 50 20 E-mail: kbras@sarpi.pl	
5. Actual quantity: Tonnes (Mg): 12,260 kg m <sup>3</sup> : 16		6. Actual date of shipment: 02-10-2012	
7. Packaging Type(s) (1): 1,5 Number of packages: 16 Special handling requirements: (2) Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>			
8.(a) 1 <sup>st</sup> Carrier (3): Registration No: Name: <i>ARAB-ALY</i> Address: <i>DAR-ES-SALAAM</i> Tel: Fax: E-mail:		8.(b) 2 <sup>nd</sup> Carrier: Registration No: Name: <i>MSC(Geneva)</i> Address: Tel: <i>0041 2270 3 888 8</i> Fax: E-mail:	
8.(c) Last Carrier: Registration No: Name: Address: Tel: Fax: E-mail:		More than 3 carriers (2) <input type="checkbox"/>	
Means of transport (1): <i>20 ft Container</i> Date of transfer: <i>02-10-12</i> Signature: <i>[Signature]</i>		Means of transport (1): <i>MSCANFI</i> Date of transfer: <i>21.10.2012</i> Signature: <i>[Signature]</i>	
9. Waste generator(s) - producer(s) (4,5,6): Registration No: 101 -190 -145 Name: National Environment Management Council Address: Regent Estate, Migombani, Plot No. 29/30 P.O. Box 63154 Dar-es-Salaam, Tanzania Contact person: Mr. Bonaventure Baya Tel: 00255 22 277 4852 Fax: 00255 22 277 4901 E-mail: dg@nemc.or.tz Site of generation (2): African Stockpiles Programme - Tanzania		12. Designation and composition of the waste (2): Obsolete Pesticides packed in various packaging and contaminate packaging with pesticides listed in Annex 2	
10. Disposal facility <input checked="" type="checkbox"/> or recovery facility <input type="checkbox"/> Registration No: SR-II-6618/08/13/07 Name: SARPI DĄBROWA GÓRNICZA Sp. z o.o. Address: Koksownicza 16, 42-523 Dąbrowa Górnicza, Poland Contact person: Karina Szafranek - Braś Tel: 0048 (0) 639 50 00 Fax: 0048 (0) 639 50 20 E-mail: kbras@sarpi.pl Actual site of disposal/recovery (2) DĄBROWA GÓRNICZA Poland		13. Physical characteristics (1): 2 - Solid	
11. Disposal/recovery operation(s) - Incineration on Land D-code / R-code (1): D10		14. Waste identification (fill in relevant codes) (i) Basel Annex VIII (or IX if applicable): A403D Not relevant (ii) OECD code (if different from (i)): (iii) EC list of wastes: 020108* (iv) National code in country of export: C3 + C13 + C14/D10/Y54 + L4/W26 + C43 + C34/H3 + H8.1 + H12/A100 (v) National code in country of import: 020108* (vi) Other (specify): (vii) Y-code: Y4, Y37, Y45 (viii) H-code (1): H3, H6, H8, H12 (ix) UN class (1): 3, 6, 1, 8, 9 (x) UN Number: See Annex 2 (xi) UN Shipping name: See Annex 2 (xii) Customs code(s) (HS): 3808999000	
15. Exporter's / notifier's / generator's - producer's (4) declaration: I certify that the above information is complete and correct to my best knowledge. I also certify that legally enforceable written contractual obligations have been entered into, that any applicable insurance or other financial guarantee is in force covering the transboundary movement and that all necessary consents have been received from the competent authorities of the countries concerned. Name: <i>SMA CERNING</i> Date: <i>02-10-2012</i> Signature: <i>[Signature]</i>			
16. For use by any person involved in the transboundary movement in case additional information is required			
17. Shipment received by importer - consignee (if not facility): Date: Name: Signature:			
TO BE COMPLETED BY DISPOSAL / RECOVERY FACILITY			
18. Shipment received at disposal facility <input checked="" type="checkbox"/> or recovery facility <input type="checkbox"/> Date of reception: 2012 -12- 04 Accepted: <input checked="" type="checkbox"/> Rejected*: <input type="checkbox"/> Quantity received: Tonnes (Mg): 12,600 Approximate date of disposal/recovery: 10.12.2012. Disposal/recovery operation (1): V10 Name: Stypa Barbara Date: 2012 -12- 04 Signature: <i>[Signature]</i>		19. I certify that the disposal/recovery of the waste described above has been completed. Name: Stypa Barbara Date: 2012 -12- 10 Signature: <i>[Signature]</i>	
SARPI Dąbrowa Górnicza Spółka z ograniczoną odpowiedzialnością 42-523 Dąbrowa Górnicza, ul. Koksownicza 16 tel. 032 639 50 00, fax 032 639 50 20 Regon 272 300 754, NIP 629-10-03-353		SARPI Dąbrowa Górnicza Spółka z ograniczoną odpowiedzialnością 42-523 Dąbrowa Górnicza, ul. Koksownicza 16 tel. 032 639 50 00, fax 032 639 50 20 Regon 272 300 754, NIP 629-10-03-353	

(1) See list of abbreviations and codes on the next page

(2) Attach details if necessary

(3) If more than 3 carriers, attach information as required in blocks 8 (a,b,c).

Required by the Basel Convention

(5) Attach list if more than one

(6) If required by national legislation

Figure 1. Scanned copy of hazardous waste movement document. 2012. Veolia digital archive, Wales

The lingering residues of this stockpile in seemingly distant and disconnected bodies are the legacies of 20th century industrial chemistry and the hubris of science. They are also legacies of toxic waste colonialism – biopolitical geographies which privilege some lives over others. Now, it is easy to stay with the violence and toxicity; researchers concerned with environmental injustices have an epistemological habit of telling stories of damage. But damage stories can compound the violence at contaminated sites by reducing places to their toxic capacities.<sup>5</sup> How might this story be told differently? How can legacies become sites of repair? More specifically, what can this mundane waste movement document do aside from erase the violent afterlives of industrial chemicals? Geographers are demonstrating how such ordinary bureaucratic materials can be subverted to perform more critical work.<sup>6</sup> This requires a shift in the understanding of legacies from toxic residues to situated practices of care.<sup>7</sup> A pivot from noun to verb – from name to action. From legacy to archive.

The legacy as archive has three primary objectives: first, to acknowledge the power of representations in the production and endurance of shadow places. Archives attend to pollutants beyond their molecular formations, incorporating the informational dimensions of chemical regulatory systems such as hazardous waste bureaucracies. Legacies as archives are therefore multiple and multi-sited; they are ‘situations’<sup>8</sup> or situational experiments,<sup>9</sup> rather than territorially bounded sites. Second, archives demand ongoing maintenance and repair – more care-full modes of relating that assemble incommensurable data; are attentive to routine procedures and practices; and stretch the temporalities of ethical obligations. And third, archives can enable the messy interdisciplinary work that is necessary for making sense of, and intervening in, toxic situations.<sup>10</sup> Earth scientists indeed routinely invoke the archive as a spatiotemporal imaginary for telling stories of residues and traces.

Archives are of course also entangled in their own geographies of violence. Archival interventions require ‘tidying things up’<sup>11</sup> and run the risk of performing systematic erasures of memory – particularly in colonial archives.<sup>12</sup> The classifications central to the hazardous waste shipment document archived by Veolia, are indeed a key method through which (neo)colonialism takes form – a toxicity that is more than a matter of chemistry. The legacy as archive then, must be a decolonial intervention. This is not just a call to assemble subaltern stories of legacies. The starting point is an ontological and epistemological concern for the archive’s ‘compositional logics’; the conditions which enable something to become archivable.<sup>13</sup> To enable detoxified futures, the legacies of shadow places must ultimately extend beyond concerns around material inheritance, towards an ongoing and careful process of remembering.

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<sup>5</sup> Murphy, *Alterlife*.”

<sup>6</sup> Balayannis, “Toxic sights”; Krupar, *Hot Spotter’s Report*; Rosenfeld et al., “Hazardous Aesthetics.”

<sup>7</sup> see Beckett and Keeling, “Rethinking remediation.”

<sup>8</sup> cf. Hinchliffe et al., “Biosecurity and the topologies of infected life.”

<sup>9</sup> Balayannis & Garnett, “Chemical kinship.”

<sup>10</sup> Fortun et al., “Experimental ethnography online.”

<sup>11</sup> Houston, “Junk into urban heritage,” 110.

<sup>12</sup> Stoler, “Along the Archival Grain.”

<sup>13</sup> Povinelli, *Geontologies*, 149.

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<sup>i</sup> Balayannis, Angeliki. "Legacies." *An A to Z of Shadow Places Concepts* (2020).  
<https://www.shadowplaces.net/concepts>

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