

Zeitschrift: Trans : Publikationsreihe des Fachvereins der Studierenden am Departement Architektur der ETH Zürich

Herausgeber: Departement Architektur der ETH Zürich

Band: - (2022)

Heft: 41

Artikel: Waste-burning-facility

Autor: Nächt, Lauro

DOI: <https://doi.org/10.5169/seals-1037222>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 18.02.2026

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

*«Vermin germ in ruin brewing
Noxious gas in ash and trash
Toxic flow and scummy clot
You are that which we are not:
dump.» (1)*

WASTE-BURNING-FACILITY

Lauro Nächt

Recently at the supermarket, I spotted a bag of salad wrapped in slinky see-through plastic. When reaching for it with my right hand, I felt an unexpected heat transmitted by the bag, causing my hand to snap back. Trusting my common sense, rather than this sudden sensation of heat, I reached for the bag anew when

SSHHHH

I jumped back and screamed — I burnt my skin.

How and why can one possibly be burnt by touching a piece of plastic in a supermarket? Isn't that garbage? And garbage, is that part of the equation?

Yes exactly!

To form a place of departure, let's play a little game. With your eyes closed and a wooden spoon in your hand, go and search for a drum-object, a pot, that in our case is the term of desire. You are surrounded by others giving hints, as simple as «cold» and «warm». The others start spinning you on the spot. As you slow down, everything seems to be moving while you are still feeling dizzy. Driven by the thrill that fluctuates the air, you begin hitting the ground with the wooden spoon. Moving, turning and hitting.

knock knock knock
facility facility facility

The others go: «Cold, so coold!».

Facility — this word alone could mean anything!

knock knock knock

One of them shouts: «Warmer!».

Your spoon comes closer to the pot...

knock knock KLICKKK
burning

«Warm! Warm, warmer!»

A turmoil of shouting, excited voices set you up to put your heightened self-confidence into your heated beats. As your spoon comes closer to the pot, the already wild crowd goes nuts:

«HOT HOT, BURNING HOT, ON FIRE!»
KLIIIIIIIIING
WASTE

In excited relief you breathe out and open your eyes.

Facility, burning, waste. In the English expression «incineration plant», «waste» is absent. Consequently, we have playfully composed the term waste-burning-facility, which is paraphrased from the German «Müllverbrennungsanlage».

One place that this story is told from signifies why «waste» is part of our term: a dystopian New York City in the year

2022, that is beamed onto this paper in between paragraphs. «Soylent Green» is a science fiction movie directed by Richard Fleischer in 1973. Here, overpopulation, housing shortage, water scarcity prevail. The only food accessible to the majority of citizens are «Soylent» chips. The newest one is «Soylent Green», a suspiciously nutritious chip, allegedly made of algae.

Now, back to our game.

When reviewing it, we are going to shift our focus from «facility» to «burning» and then to «waste».

Also, I mentioned a point of departure at the very beginning. The places I am going to describe will be framed by waste-catchment areas. Those can be perceived as a type of territory. A waste bin in the kitchen, carried to a municipal container every other week, spans a small area that crosses other small waste-collection-areas. Coupled with systems of infrastructures they contribute to a much larger apparatus. It can span across the administrative boundaries of a city, including peripheral towns. It is the area from which waste is gathered and carried to treatment facilities such as an incineration plant. We are going to encounter a diverse set of such areas.

knock
knock
knock

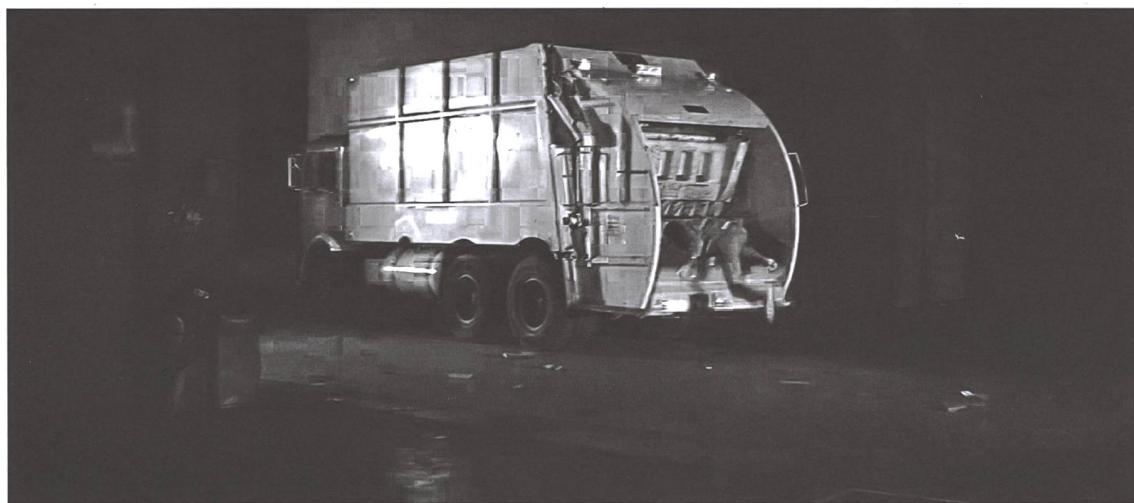
Facility, facility, facility. The broad term «facility» refers to the vast infrastructures that facilitate the burning of waste. Infrastructures that move bodies of waste — things that move waste-things. Rails, streets, oceans, pipes, orbits of planet earth and garbage trucks that move containers, trash bags, food and fuel together form huge apparati. Without starting to spin more cogs, which was necessary in order to touch marginally the liquid nature of correlationism, we will focus on the infrastructures. Their components, such as the cogs, are not only driven by codes programmed by humans. Such a «codex» does not simply re-read to us like a flattened text, which would break the spell of the components' corporeity — rather it actively shapes contexts (2,3,4). Often they operate in silence, thus starkly and underneath the variable thresholds of human perception. When picturing these apparati, essentially, things such as a waste-bin are something different for a fruit fly than for us, and we are entangled with it in differing intensities and conditions. This is a train of thought, that we want to follow.

Holding on to one of the rotating cogs, we are spinning back in time, departing at Basel on 26.3.1974. A freight train is rolling by, carrying loads of coal to the nearby gasworks. We watch it convey molds of not-yet-fires. Attached to the coal train, a slogan-poem pervades the industrialized landscape. As a precursor of petro-capitalism itself, it proudly propagates the power of this industry:

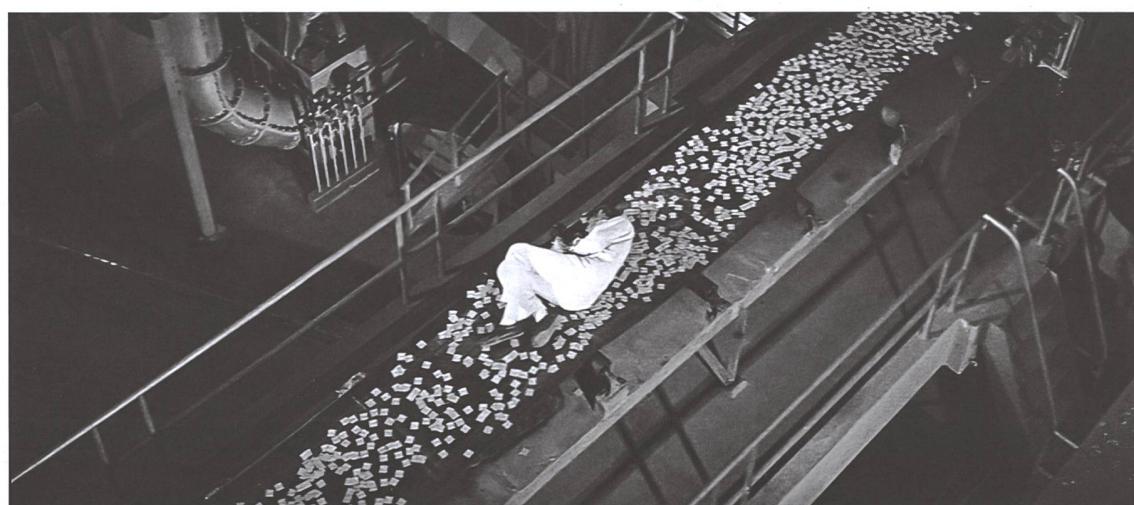
«This is the last train of coal,
that to the gas plant will roll.
Remember: as the future is near,
gas from mother earth will come here.» (5)



(fig. a) Human Condition — but wait a second! Do these people get scooped up by a garbage truck?
«Soylent Green», United States 1973. Film stills: Richard Fleischer



(fig. b) Desperately trying to dig up the truth of Soylent Green's source, Thorn dumps himself into a garbage truck full of dead human corpses. «Soylent Green», United States 1973. Film stills: Richard Fleischer



(fig. c) Sniff sniff — what? Human flesh?! Are you kidding? Hold on folks! Another «we», the people, are the Soylent Green! «Soylent Green», United States 1973. Film stills: Richard Fleischer

This proclaimed future is manifested in a deeply contaminated post-industrial site in the Klybeck-area of Basel. The contamination is caused by so-called « industrial byproducts» such as heavy metals and toxic gases. However, «by-product» is decidedly not an appropriate term, for it is part of the thermo-industrial rationale to generate waste-outputs in tandem with the ones that are sold. The value of one is established through the devaluation of the other.

In the master's thesis of Julian Meier supervised by the chair of Prof. Dr. Elli Mosayebi, completed in fall 2020, the intoxicated history of this place was researched carefully to develop a proposal based partly on the excavation and further the remediation of the soil in the Netherlands⁽⁶⁾. For remediation, here, thermal desorption is employed. Thermal desorption claims to clean soil by applying high temperatures through burning petroleum gas. We will examine this relatively little known form of geoengineering later. The part that is remediated ex-situ, in the Netherlands, will in this case be shipped via the Rhine to the ports where the soil remediation plants are located. Meaning that at the base of our waste-enquiry we are dealing with not-yet-fires.

Recontextualizing facility, here, it maps out an origin starting at the extraction of petroleum. This is then floating to a gas plant powering the pharmaceutical industry, «by-products» contaminate the ground, a market starts orbiting around earth as waste, it is excavated in the Klybeck-Area and shipped northward. This frayed example of a facility knows neither a clear-cut beginning, nor an end.

In essence, waste that leaves a kitchen, a city or, for that matter, an industrial plant, is never just «gone». Here it is part of the soil realm, leaching through layers and layers of strata, while reversing the instant manner in which petroleum from deep down is pumped upwards through millennia and eons of geo-history.⁽⁷⁾ As a result, the catchment-areas that have been introduced earlier, are in no way horizontally thought discs, but rather intangibly shaped and intertwined formations.

Ultimately, the meaning of «infra» in infrastructure evolves into a novel state that includes the earth itself as it is hosting toxic elements and adapted life forms and formations. What is steadily surfacing in return is the necessity of coping with waste as part of the human condition. Or should we say that wasting pertains to the human condition per se?

You are invited to orient your antennae in all directions, inward and outward, to sense a spectrum of itchy, «unrund»⁽⁸⁾ feelings when reading this text. As indeed, what's developing here is expanding a solely itchy feeling, it's a feeling of ambiguity — that is resembling one of the core feelings within the «wirrwarr»⁽⁹⁾ of «being ecological».⁽¹⁰⁾

KLICKKK

Burning. Different kinds of fuels enter the waste-burning-facilities as forms of not-yet-fires. More specifically, two fuels that ensure a certain control over the burning procedure are flammable chemicals or previously separated

plastic waste. Meaning, at times, waste itself and its highly inflammable plastic components are a kind of fuel. Crucially, they enter the waste-burning-facility among other bodies of waste as parts of an environment. An environment that itself is veering.⁽¹¹⁾ Steaming from the transformative forces of the industrial-fires, the output-particles of former waste will queer within multiple media. Sticking onto other particulate matter in the atmosphere, floating through the stomata of a leaf, they take on their own lives. They are swirling within, sticking onto and made of other bodies — including yours and mine, and that of a sand particle.

For the thermal desorption of soils, we are dealing with a huge, horizontally lying, slightly tilted steel cylinder that itself emerged from the «forges and kilns of industrial pyrotechnology»⁽¹²⁾, with tons of earth-material within. Applied from two sides at once, the burning of hydrogens from fossilized hydrocarbons will spawn flames of abstruse heat, while the liquified earth floats down the cylinder.⁽¹³⁾

In our context, a question emerges: Can the «chains of pyric transitions»⁽¹⁴⁾, both at the scale of combustion-engine cylinders and the mega combustion cylinders, used for thermal desorption, be disrupted?

Being able to adapt to their environments, the single-celled, prokaryotic organisms of soil bacteria capture flames in most elegant ways. Navigating the realm of the ground while generating uncountable, tiniest «open flames»⁽¹⁵⁾, «their redox reactions are accounted for the chemical basis of biotransformation and detoxification».⁽¹⁶⁾ So indeed, other lifeforms might guide us along to an alternative understanding of industrial fires. This more-than-human investigation of extra-industrial flames probes to be receptive to the sensations of the subterranean.

While Throne is sneaking into a suspicious incineration plant, following the dead corpse of his friend, we find ourselves at an inconspicuous composting site in Kassel, Germany.

KLIIIIING

W A S T E. Contributing to the dOCUMENTA⁽¹³⁾ with «Untilled», Pierre Hugyhe worked with a composting site. Among others, the idea of composting is fuelled by adding composting-entities, as an uncurated act on different scales. He pointedly describes this circumstance at one scale with the «you do not curate the way you throw the banana on the pile, [...] you just throw the banana on the pile»⁽¹⁷⁾ gesture. While this uncanniness in the emergence of waste, or waste piles, is one intrinsic spatial trait of it, certainly waste has just as well spatial agency that is flat-out designed. We do design waste.

As much as we design waste, we also design not-yet-waste. Plus, different scales on which we think to design waste, can be assessed. Then, how do composting, the thermo-industrial infrastructures of control and being sensitive for waste-sensations relate to each other on a larger scale?

In Sumerian cities, 6000 years ago, waste pits were found that stored organic matter to be eventually applied on agricultural fields.⁽¹⁸⁾ Microbial activity is underway beyond the pit of a compost heap, including the soils of the city. Further steps towards waste management infrastructures have been taken for instance in pre-Renaissance Florence, where in a daily routine, farm wagons carried food to the town at dawn and departed the city filled with garbage at sunset.⁽¹⁹⁾ Waste is not only a product of the hygiene-obsessed, smoothed out modernity that co-created large parts of our contemporary cities. Waste is a parody of modernity. And thus the waste management infrastructures, such as those for composting, embody ancient memory.

Can we think of the city as a fluffy pancake, swimming in the oil of a heated pan? Picture the tiny, quirky air and fat bubbles, as they are vigorously squeezing their way through the dough, from the hot pan bottom to the top, creating an odd beat of various bubbly-emergences.

These elusive emergencies are caused by the microbial activity of decomposing carbon, a redox reaction. I fancy these microbes as subterranean fireflies, mystically breezing within and swirling through bodies. Enabled by the literal reading of the German word for firefly, «Glühwürmchen» — a worm, a creature of the soil realm, that is attributed the ability to fly — they evoke a mystical Dasein free from the illusory dichotomy of subterranean and superterranean.

Emma Marris compares the sentient act of smelling «geo-smell» to «the oracle at Delphi breathing in mysterious fumes from a crack in the earth before divining».⁽²⁰⁾ For contemporary citizens this could simply imply that being sentient toward waste can mean to recognise occurrences of a crack in the pavement and to breathe in the smell of «the fluffy pancake», grounding oneself, as the geo-smell slows the brain waves.

Throughout this paper, we examined how waste moves through certain places and bodies. Now we can read those as houses — Greek for «οἶκος» — the «eco» in the term ecology. You might want to try reading «ecology» instead of «waste» in this text, exploring novel states or feelings of «being ecological».

The waste-catchment-areas were brought up as territories in search of ways to relate to waste. When juxtaposed against bioregionalism⁽²¹⁾, the catchment areas of waste can be recognised as spatially linked to the systems of watersheds. A watershed, or a water divide, separates waters flowing from high ridges that divide the assemblage of water, downwards to low points, resulting in rivers, lakes and basins. The watershed of the Rhine, as dealt with in Klybeck, spans across northern central Europe. The waste-burning-facility, in the manner that we've composed it, is nascent of this very watershed. As we need to take into consideration how «the watershed is beyond the dichotomies of orderly/disorderly for its forms are free, but somehow inevitable. And the life that comes within it is the first kind of community»,⁽²²⁾ we reboot the fundamental meanings of the catchment area.

When scanning the contaminated grounds of Klybeck, we realized how earth itself has become waste. This generates a shifting turbulence in contemporary urbanism.

Presently, the ground is not merely examined with regards to mechanical properties to ensure the static performance of future buildings, but also the chemical properties are investigated. Consequently, norms for the intensity of contamination, which neglect the ever changing, vibrant quality of the soils, were introduced into the building legislation.

At this very moment, I am calling into question the possibility of examining the grounds' «biological» properties. We will pursue an ultra-scientific approach. Informed by «tentacular thinking»,⁽²³⁾ that is pre-adapted for immediacy with various throwing-bananas-onto-a-pile occurrences — non-technocratic, anti-normative, post-materialist — modes of «doing design» evolve.

Imminently, when putting out our feelers, we can cross the «out» and «in» — leaving just the «ward». Thus performing a sentient mode that is simultaneously multi- and non-directional.⁽²⁴⁾ As we are about to outline other possible conclusions of this text, the waves of an urgent call tingle our sensors. It is spoken in a low and serious, robotic voice:

«Planetary protection requirements for this mission will focus on ensuring that the spacecraft will not inadvertently crash into one of the target moons and thereby risk melting ice and possibly contaminating liquid water. Planetary protection standards recommended [...] for missions to Europa (Preventing the Forward Contamination of Europa) would limit the probability of contaminating liquid water on Europa with a viable terrestrial organism to less than 10–4 per mission.»⁽²⁵⁾

This is an excerpt of a mission statement of NASA to seek out one of Jupiter's icy moons named «Europa». Germinated from post-cold-war mentality, exobiologists, at the margin of science-fictionists, research and speculate on it to possibly host microorganisms.⁽²⁶⁾ The nineteen-seventies produced controversial attitudes toward environmentalism and ecology, that are resembled here by the exobiologists. Public debates of ecology and environmentalism, led by individual and collective activism, started shaking up political agendas, such as the testing of atomic missiles, conducted by the military.^(27, 28)

Well then, let's play another round of «blind waste's buff», with the mission statement and the rest of our endeavor in mind.

Except that meanwhile, the pot has morphed into a spaceship and the floor transformed into outer space — both of which appear hard to hit with a wooden spoon.

WOOOOOHM