Projection of marginalised territories as an opportunity for the future of resilient cities

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Waste/ lands

“Urban wastelands unsettle the familiar terrain of cultural landscapes, designed spaces, and the organizational logic of modernity.”

Matthew Gandy, "Marginalia: Aesthetics, Ecology, and Urban Wastelands," Annals of the Association of American Geographers 103, no. 6 (November 2013): 1301–16, https://doi.org/10.1080/00045608.2013.832105. 1311

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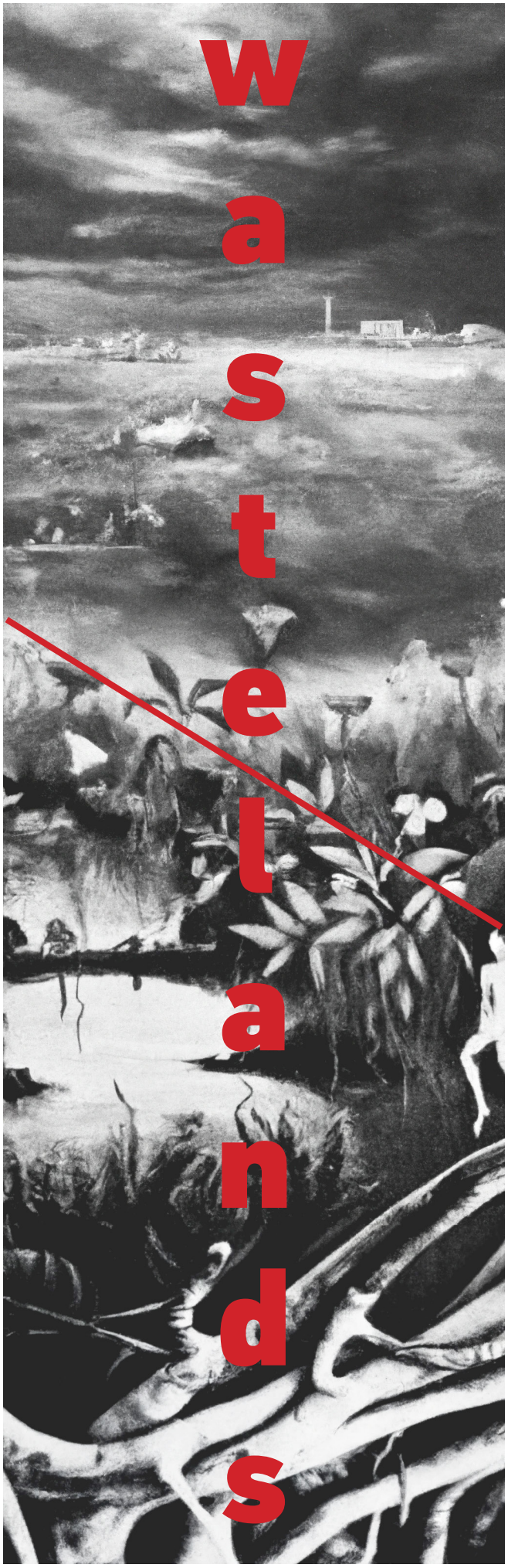
[flows]
[reuse]
[ecology]
[circularity]
[wastelands]
[regeneration]

Keywords

Reseach plan - 13.11.2022
Heterogenous City: London
Architectural Design Crossovers Graduation Studio 2022/2023



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Introduction

1,7 Earths. That's how many planetary resources we would need as a global society if we had to compensate for the ecological damages caused by our current methods of living. If we look more closely at the bigger industrialized nations in Europe this number jumps to 2,6, indicating the even greater **urgency for a change in the way we dwell on this planet**, before our inhabiting patterns become the reason for our end.[1]

1. "How Many Earths? How Many Countries?," Earth Overshoot Day, February 3, 2021, https://www.overshootday.org/how-many-earths-or-countries-do-we-need/.

If we have to simplify the anthropocentric view of the globe in uses, we could divide the Earth into **sites of production, consumption, and waste**. The relationship between those areas has been an integral part of the **territorialisation patterns** related to the **Anthropocene**, with the sites of consumption being the areas of inhabitation and respectively the most prominent link in the chain. In other words, we have created an **unbalanced system**, where urban territories generate their fields of gravity, consuming almost 75% of the world's resources, generating 50%–80% of the world's greenhouse gas emissions and half of all global waste.[2] With the growing degree of urbanisation and the increasing population those numbers are not expected to decline anytime soon, raising worries for our future. The key problem with unlimited growth is that it is based on a **system of limited resources, leading to the depletion of raw materials and the growth of waste**. The spaces of pre- and post-consumption become the sacrificial lamb in the name of growth. Therefore, if we want a better future for us and our environment, we have to **disrupt the current system**, beginning with the operating mechanisms of our cities. Following the path of logic, the act should be preceded by a moment of thinking, in which we try to comprehend the fragments of the puzzle, which we try to solve. The question that I am currently investigating is how to decipher the urban territory if it is characterised by heterogeneity and complexity. In more detail, the aspects that interest me the most are how to improve the self-sufficiency of the urban realm and what is the role of architecture in those processes.

2. Cecilia Furlan et al., "A Refined Waste Flow Mapping Method.," Contesti. Città, Territori, Progetti, no. 1 (December 14, 2020): 74–89, https://doi.org/10.13128/contest-11909. 74

The image of the city as a set up of **mass and flows** is one of the preliminary steps that have to be done to decode the urban palimpsest. Becoming clear with the flows: **in** [e.g. energy, materials, water], **out** [e.g. waste, pollutants, materials] and **within** [stocks] a **given system boundary** [city, metropolitan area, hinterland] could reveal to us the real image of the city and its **dependencies**.[3] In the scope of Europe, it is hard to think of a better place than its largest urban economy, namely **London**, as better place to observe and analyse those patterns. Once the industrial capital of the world, nowadays London aims to become a **leading example for sustainable growth**, with a new approach to globalism, and with **resilience and urban well-being at the core.**[4] Simultaneously, London still heavily **relies on its global hinterland** for the material flow in and out. Therefore, through **reversing, re-connecting, shifting and dismantling particular channels** in the urban fabric London could set its trajectory towards a more sustainable, self-sufficient future. Taking the aforementioned into account, the challenge that the city of London faces is how to **redefine its underused land and available stocks as a potential for its future ambitions**.

3. Pierre Belanger, Landscape as Infrastructure: A Base Primer (Routledge, 2016). 86

4. Greater London Authority, Analysis of a Net Zero 2030 Target for Greater London, 2022. Sourced from: Greater London Authority website.

One of those substances carrying the potential to become accelerators to the transformation of the city is **waste and the wastelands,** which occur as a by-product of the dynamics related to the city. Omnipresent and heterogenous waste/lands are remarkable examples of the paradigms related to modern life and habits of consumption, so pivotal for the growth of the contemporary capitalist economy. Additionally, with its **multitude of backflows, overflows and reflows** present within the urban areas waste ecologies are seen as the best

example for examining the systems of our cities.[5] Clarifying the **key players, processes, and locations** related to waste bears the potential to **reveal invisible externalities tied to the processes of production, distribution, and consumption**.[6]

5. Belanger, Landscape as Infrastructure. 63

6. Furlan, Refined waste. 75

But the notion of waste/lands goes beyond the definition of the landfill. The waste/land is a **category of land, united not by consistent physical qualities but rather, by their absence**.[6] The wastelands provide a space, a**ntithesis to civilisation**. They appear as a **cultural construct** linked with the forces of subjectivity and imagination often lacking in the frame of the modern city. Therefore, in my opinion, the potential of wastelands for the city is hidden exactly in their capability to host usually marginalised elements. The condition under which they operate allows freedom and playfulness to become tools for their regeneration and reconnection with the active urban fabric, without sacrificing their individuality. Additionally, revealing interdependencies between territory, urbanisation, and the flow of resources/waste that could potentially unlock **new architectural, landscape, and urbanistic typologies** that could contribute to a new type of **growth in a more socially progressive, politically inclusive, resilient and ecological way.**

6.Vittoria Di Palma. Wasteland: A History. Yale University Press, 2014. 3

Therefore, through this research, I am seeking to understand:

How could waste/lands emerge as a potential resource for the socially progressive and resilient future of the city?

To answer that question it is important to understand also:
- What defines the wastelands of London?
- Who inhabits the wastelands of London?
- What are the potentials of the wastelands in London?
- What constitutes the flows of waste in London?
- Where does the waste of London originate and where does it end up?
- What are the feedback systems that could be incorporated concerning waste?
- How could the transfiguration of waste flows/wastelands contribute to a greater collective responsibility towards the practices of disposal?

The diagram represents the broadness and the multitude of interpretations related to the theme of waste. The interdisciplinary approach towards the topic can be productive for thinking across or bypassing entrenched or established modes of perception. The diagram is based on frequently used terminology systematised by the UCL Institute of Advanced Studies (IAS) in 2019-20.

Theoretical framework

The idea of waste encompasses a multiplicity of meanings, material origins, and ecological characteristics.[7] Its **polyvalent notion** and construction reflect more on the cultural values of the one giving the definition, rather than the properties of the object itself. Thus to create a complete picture of the waste/lands it has to be positioned within a complex intersection of social, cultural and technological factors, revealing the diversity of perspectives on waste in general.

In the past, they were carefully defined and mapped, as sterile areas, sandy sites, or woodland with wild vegetation and stone not adapted to plantations.[8] After the industrial revolution, the concept of waste drastically changed. From **culture's antithesis**, they become a product of the unsustainable linear growth processes and their spatial consequences within the context of the **urban metabolic flows** and the related infrastructure.[9] The fluidity and ambiguity of wastelands in terms of their size, location and their constituent parts, results also in a variety of terminology in relation, including **"edgelands", "interim spaces", "interstitial landscapes"**, and **"terrain vague"**,[9] but especially the term **"drosscape"** has made its way into the common vocabulary when touching the topic. Alan Berger looks at the adaptive reuse of waste landscape as one of the twenty-first century's great infrastructural design challenges.[10] Seeing waste landscapes as the outcome of healthy urban growth and directly related to the actual meaning of waste, Berger further expands the definition by adding the notion of **wasted places** (such as abandoned and/or contaminated sites) and **wasteful places** (such as oversized parking lots or duplicate big -box retail venues).[11] For him the potential of those territories is the ability to bring together practitioners and researchers from the "big four" design disciplines - landscape architecture, urban design, planning, and architecture, which could improve regional landscape deficiencies of the urban realm. Therefore, to understand the **interdependencies** of waste within the ever more complex, diversified, and diffuse networks,[12] aligned with the view of Lola Sheppard, as architects, urbanists and planners we have to move well beyond an understanding that is primarily locational and **engage in telescopic and stratified analysis** following the flows cascading through the various scales.[13]

The way the urbanistic mechanism in the 19th and especially in the 20th century functioned rested on the capacity of the city to **cast aside** the disposal outcome of its consumeristic practices. Repeating the out-of-sight-out-of-mind mantra the cities' administration handled waste as an outcast product, as 'dirt',[14] and transported it to the **territorial entities beyond the city**'s jurisdiction. As a consequence, unwanted stuff and contaminated or corrupted places have been metaphorically punished and purified, stigmatising not only waste but also its derivatives. By looking at the acts of **prohibition, transgression, and punishment** we are provided with a platform for exploring the role of the built fabric as a reflection of, or an instrument in the production of, individual, social, or cultural ordering systems.[15] Positioning the wastelands as **territories on the margin, of the economy, of the city, of what is proper**, has been seen also as a potential for a new type of urbanity. The spaces seen as "useless" might nonetheless be spaces of adventure, imagination, and self-discovery for artists, children, filmmakers, and other explorers of the urban realm.[16] They become home for those banished from the modern, including plants, animals, people and architecture. Furthermore, these vernacular spaces of "new wilderness" tend to be concentrated in precisely those areas that often have the least access to more formal elements of designed nature.[17] Above all, **wastelands are "islands," in cultural, material, and political terms**, which pose an ideological as well as a practical challenge to the utilitarian impetus of capitalist urbanization.

7. Matthew Gandy, "Marginalia: Aesthetics, Ecology, and Urban Wastelands," Annals of the Association of American Geographers 103, no. 6 (November 2013): 1301–16, https://doi.org/10.1080/00045608.2013.832105. 1302

8. Cecilia Furlan and Bruno De Meulder, "Leftover as a Resource. A Systemic Design Approach to Re-Cycle a Diffuse Territory.," unknown, May 15, 2014, https://www.researchgate.net/publication/290195381_Leftover_as_a_resource_A_systemic_design_approach_to_re-cycle_a_diffuse_territory. 3

9. Libera Amenta and Arjan van Timmeren, "Beyond Wastescapes: Towards Circular Landscapes. Addressing the Spatial Dimension of Circularity through the Regeneration of Wastescapes," Sustainability 10, no. 12 (December 12, 2018): 4740, https://doi.org/10.3390/su10124740. 1

9. Gandy, Marginalia. 1302

10. Alan Berger, Drosscape: Wasting Land Urban America (Princeton Architectural Press, 2007). 199

11. Berger, Drosscape. 203

12. Belanger, Landscape as Infrastructure. 83

13. Lola Sheppard, "'From Site to Territory' in Bracket [Goes Soft]," Lola Sheppard - Academia.edu, March 24, 2015, https://www.academia.edu/11632344/_From_Site_to_Territory_in_Bracket_goes_Soft_.

14. Dirt is the anti-symbol of the cultural practices, norms, and values of the modern society.
Iris van der Tuin and Nanna Verhoeff, "Dirt" in Critical Concepts for the Creative Humanities (Littlefield, 2021). 78-80

15. Ben Campkin, "Placing 'Matter Out of Place':Purity and Dangeras Evidence for Architecture and Urbanism," Architectural Theory Review 18, no. 1 (April 2013): 46–61, https://doi.org/10.1080/13264826.2013.785579. 51

16. Matthew Gandy, "Marginalia: Aesthetics, Ecology, and Urban Wastelands," Annals of the Association of American Geographers 103, no. 6 (November 2013): 1301–16, https://doi.org/10.1080/00045608.2013.832105. 1302

17. Ghandy, Marginalia. 1310

For example in the introduction of the collective work focused on Urban Wastelands, Di Pietro positions **wastelands as an alternative model of ecology** that has great potential for the integration of nature in contemporary cities.[18] For Gilles Clement neglected areas and wasteland are synonymous. It is seen as a reserve land, which is defined not so much by what is, but by what it is not. Defined as the "Third Landscape" he sees those areas as a subtraction from the **anthropized territory**. But the neglection of those areas brings something more. They become home to fast-cycling pioneer species, which in contrast with the traditionally maintained green areas in the urban fabric, have significantly higher rates of flora and fauna diversity. The most important factors for this diversity are the size of the area and more importantly the **interconnectedness** between those areas. Their scale varies from the microscopic to the global level and therefore he states that "The third landscape is scale-free".[19] The Third Landscape appears culturally about the organised territory and in opposition to it. Bakshi & Gallagher[20] express a similar view on the wastelands but under the definition of "Fourth nature" described by the ecologist Ingo Kowarik in the 1990s. In their paper nature is connected with sites of historical meaning such as Duisburg-Nord Landscape Park or Schöneberger Südgelände Park in Berlin. In these examples, ecology and design are brought together to recognize and celebrate novel vegetative communities while creating places for human use. Nature is introduced as part of the tools dealing with the **nostalgia and abandonment** of architecture. Ecology and designing are seen as mutually contributing elements for establishing an experience, in which unpredictability and surprise play an important role. We are referring to the systemic field of biophysical resources, socio-technological services, and exchange spaces, held together by a **mesh of hardware and software** that calibrates and conditions urban economies. And although spontaneous, case studies show that those areas can be seen as an integrated part of the urban context only after years of intense scientifical and political lobbying in connection with extensive public support.[21] Therefore, the wastelands should be read not as a natural feature of the environment but as a **"synthetic" matter,** a composition of man-modified spaces superimposed on the face of the land. Functioning and evolving to serve as infrastructure or background for our collective existence the wastelands have been one of the most fundamental sites, resulting from the consumption behaviour of modernity.[22]

With the expansion of the global network, the organisation and proximity of production and disposal now operates at a **planetary scale** and becomes entangled in the broader scope of geopolitics and socio-economic relations.[23] Very little is known, and even less is documented, on the geography of the waste stream, in part because it is not as tied to origins as sites of extractions. But pollution knows no national barriers - the ecosystem which goes way beyond the political anthropogenic understanding of the world suffers on a global scale from unevenly distributed pollutants. Any external **environmental costs** are borne by society – not the consumer or producer directly. The research conducted by Sarah Damery et al.[24] explores the inequalities which may arise in waste management. Their study on environmental justice includes not only **health-related factors** but also **nuisance impacts** [e.g. odour, visual intrusion, noise, vermin, etc.]; **economic impacts** [e.g. the potential reduction in housing value for housing stock close to waste sites, employment]; **geographical or community impacts** such as blight and stigmatisation; political impacts in terms of the ability of communities to mobilise against future siting decisions or engage in recycling. Their research indicated among other factors that stigmatisation that comes about waste facilities, could lead to changes in business infrastructure and the availability of neighbourhood services. On the other hand, they also conclude that although there is a higher percentage of

18. Francesca Di Pietro, Urban Wastelands (Cham: Springer International Publishing, 2021), http://dx.doi.org/10.1007/978-3-030-74882-1.

19. Gilles Clément, Manifest Der Dritten Landschaft (Merve Verlag Berlin, 2010). 22

20. Anita Bakshi and Frank Gallagher, "Design with Fourth Nature," Journal of Landscape Architecture 15, no. 2 (May 3, 2020): 24–35, https://doi.org/10.1080/18626033.2020.1852690.

21. Ghandy, Marginalia. 1306

22. Pierre Belanger, "Is Landscape Infrastructure?," in Is Landscape... ?: Essays on the Identity of Landscape (Routledge, 2015), 190–227. 214

23. Lola Sheppard and Mason White, "States of Disassembly," in Imminent Commons: The Expanded City: Seoul Biennale of Architecture and Urbanism 2017 (Actar D, Inc., 2017). 407

24. Sarah Damery, "Addressing Environmental Inequalities: Waste Management," July 2008, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/291065/scho0507bmrv-e-e.pdf.

waste treatment facilities in more deprived areas it is difficult to deduce that this impacts the health of the ones living there. This guides us that waste/lands could be broken into components and characteristics,[25] which could help us to define **patterns** or lack of such. Those findings would become a necessary step for any future possible interventions.

25. Waste/lands components could be divided into 2 groups - natural [vegatation, water, soil, etc.] and manmade [infrastructure, buildings, etc.].
Waste/lands characteristics could also be splited into 2 sub-groups - objective [pollution, vacancy, rates of biodiversity, etc.] and non-objective [space quality, noise, odour, etc.]

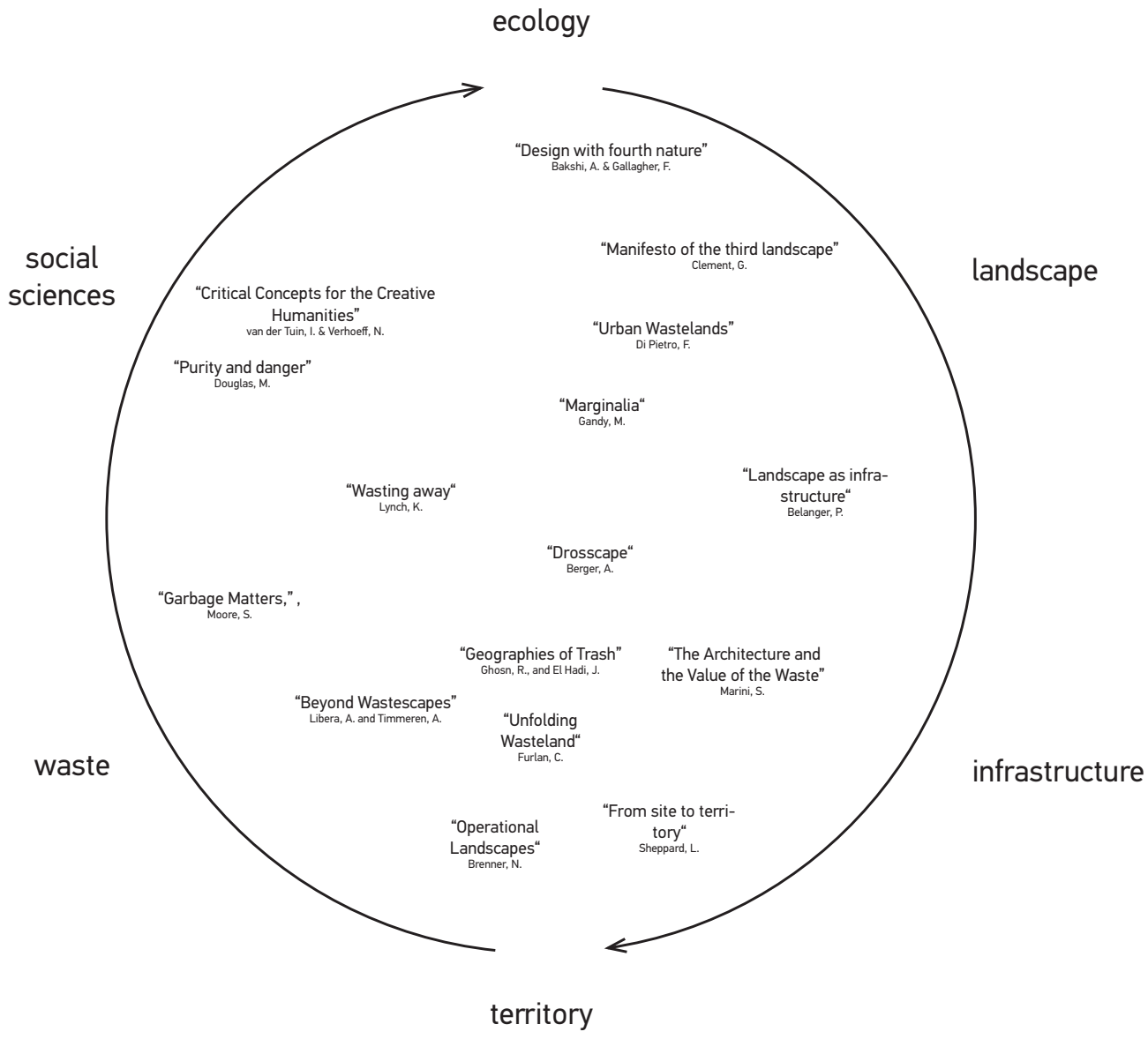
However, the potential of waste and wastelands is not exhausted with its relation to nature and the social realm. In the context of depleting raw materials, waste carries the potential to become a key resource for the sustainable functioning of our production and consumption chains. If we can transform the **surplus** that our societies generate as a qualitative resource for the further growth of the same structures, the city's logistics could eventually reach a point where they **barely make a distinction between the cycles of supply and the cycles of waste**. Additionally, reintroducing the waste flows back at the stream on the level of the city could become an opportunity for shifting the **unbalanced relationship** between the urban and its hinterlands, lifting the exploitative ghost of modernity.[26] Therefore considering waste not only as a social construct, but as a material flow could lay grounds for the assessment of environmental, social, spatial, and economic impacts caused by the transportation and treatment of the (waste) materials. Additionally, it would also reveal how territories relate with each other in terms of (waste) material exchange, and who are the involved actors in the systems of flow, giving us a better understanding of **how, where and when the system could be disrupted and remodelled.**

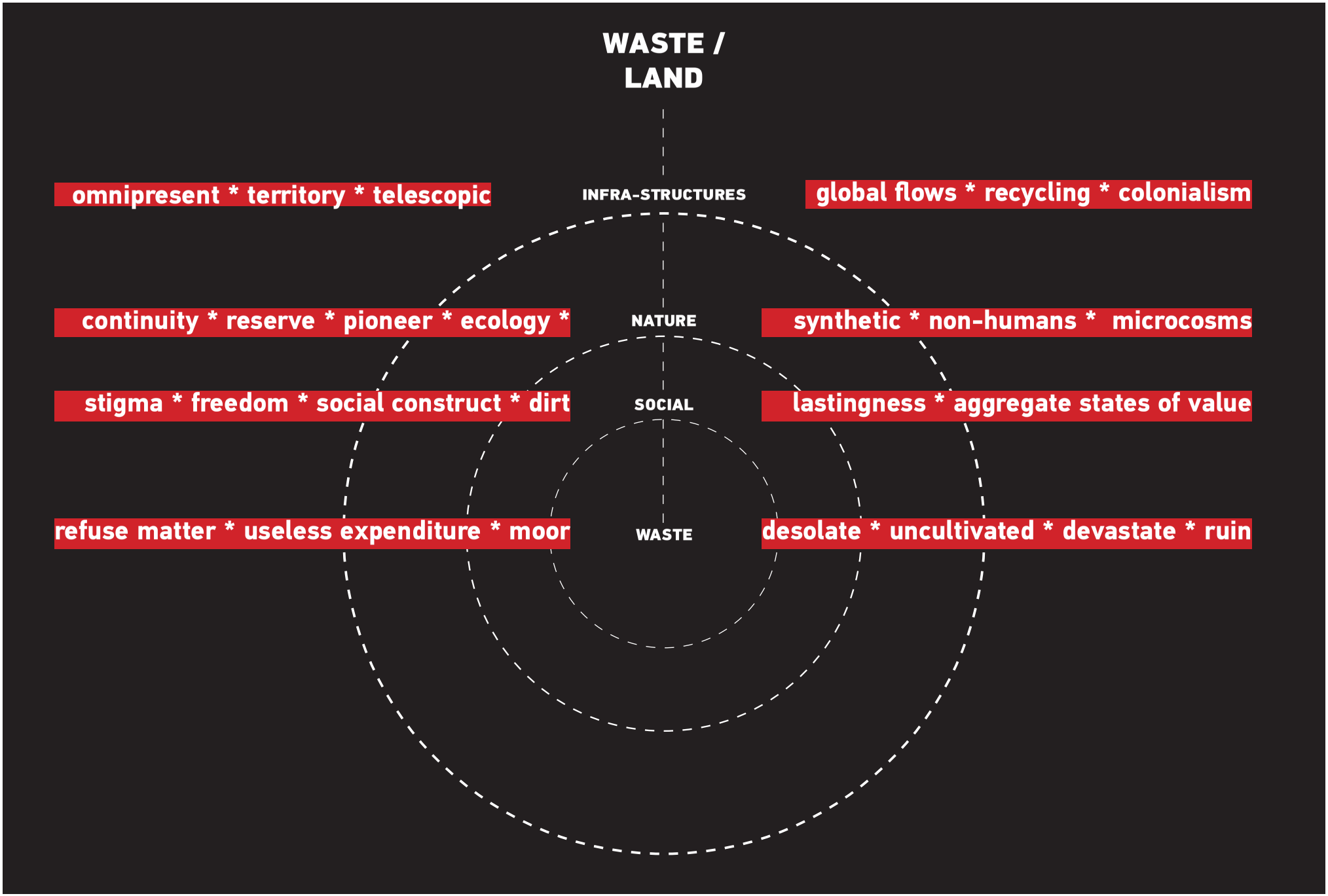
26. Neil Brenner and Nikos Katsikis, "Operational Landscapes: Hinterlands of the Capitalocene," Architectural Design 90, no. 1 (January 2020): 22–31, https://doi.org/10.1002/ad.2521. 125

All of those theoretical perspectives show us that expanding the notion of waste/land defines a n**ew realm of possibilities**, allowing us to blur the **boundary between waste and resource**. So I agree with Sarah Moore, when she writes: "whether viewed as hazard or risk, fetish or commodity, abject or affect, waste evokes conversations about development, justice, sustainability, and progress".[27] The opportunities that **intersection between waste flows and waste/lands** present to us in form of **potential sites, users, program and material**, could help us to go beyond the established dichotomy between the technological apparatus and the natural hardware. Time and space could become mediums through which tensions [nature/mankind, poor/rich, waste/resource] generated in our society could be resolved in a balanced manner. And waste/lands could become the space in which the urban heterogeneity becomes the greatest potential of the modern megapolis.

27. Sarah A. Moore, "Garbage Matters," Progress in Human Geography 36, no. 6 (March 13, 2012): 780–99, https://doi.org/10.1177/0309132512437077. 793

Mapping of concepts and primary references




WASTE / LAND
INFRA-STRUCTURES
omnipresent * territory * telescopic
global flows * recycling * colonialism
NATURE
continuity * reserve * pioneer * ecology *
synthetic * non-humans * microcosms
SOCIAL
stigma * freedom * social construct * dirt
lastingness * aggregate states of value
WASTE
refuse matter * useless expenditure * moor
desolate * uncultivated * devastate * ruin

Methodological framework

The topic of wastelands is already tackled in scientific fields, such as urban planning, geography, social sciences, and more recently urban ecology and soil science.[28] Nevertheless, what remains under-researched is how could we as architects and urban planners can react to those findings and how could design tools become 1capable of tackling the vast flows of waste in a non-destructive way, while reviving the potential of the waste/land. Therefore for my research, I would rely on **tools** with v**arying scale levels** and **analytical capacities**. Divided into **micro** (the area of the potential site and the city), **meso** (regional scale), and **macro** (global scale), the tools become useful for the telescopic analysis of flows and space.

28. Francesca Di Pietro, Urban Wastelands (Cham: Springer International Publishing, 2021), http://dx.doi.org/10.1007/978-3-030-74882-1. 5

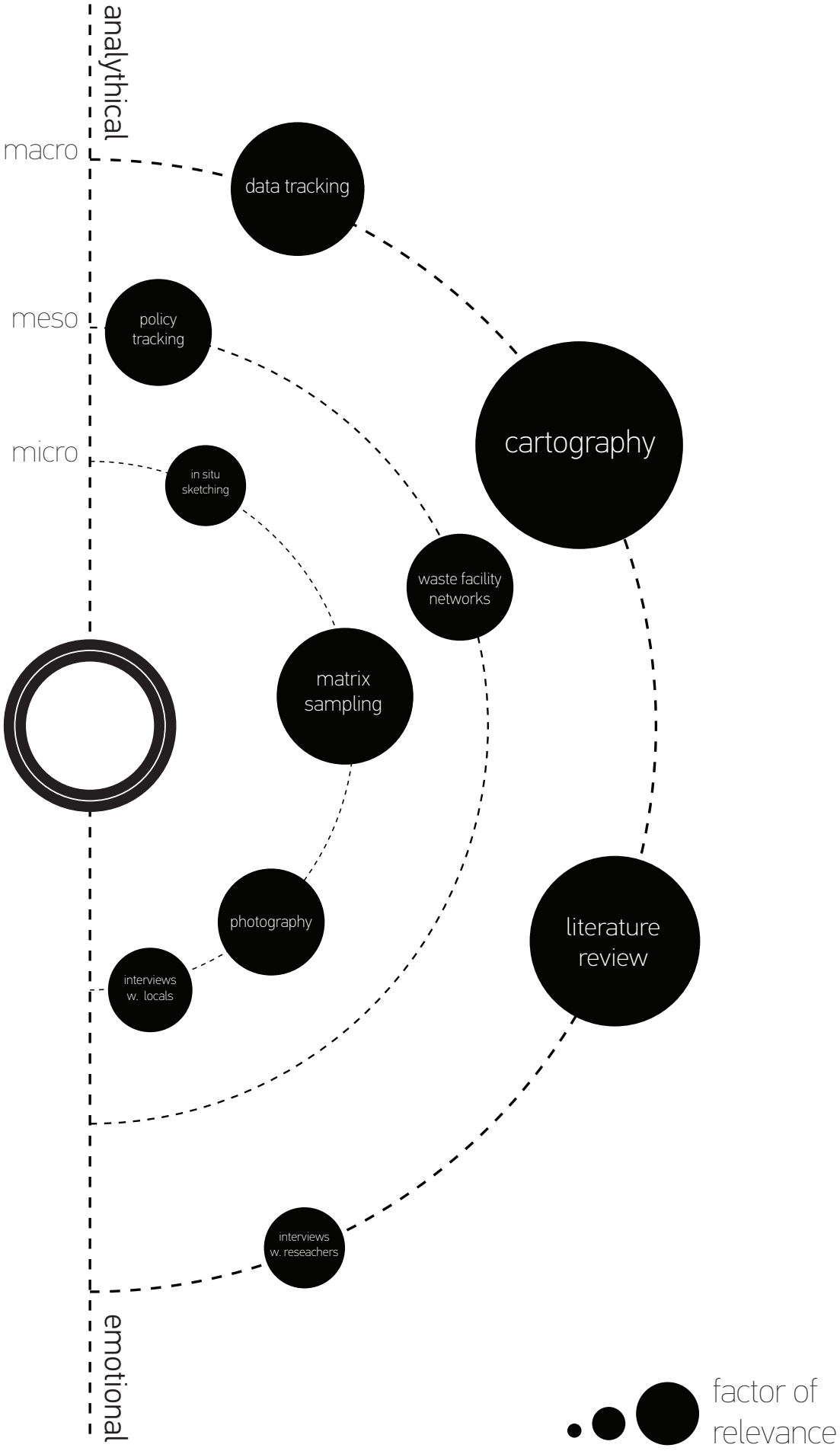
On the macro level, followings Berger's concept of **systemic design**, merging the existing **territorial dynamics** with multi-layers strategies and historical transformations, I plan to track the **flows of waste** and the involved actors and locations.[29] Unfortunately, my preliminary research shows that up-to-date information about most of those in- and outputs is difficult to find, meaning that for some occasions outdated data has to be linked with the available information, generating speculative assumptions. The compiled information will be communicated through **maps, diagrams, aerial photos, and charts.** Translating flows into space has the potential of revealing the pattern of qualitative or quantitative information otherwise invisible on the ground.[30] The aforementioned maps would play a key role in that only after going through case-specific operations such as **selecting, synthesising, combining and processing existing features.** Additionally, reaching out to researchers, public partnerships and private companies could give me a more balanced view on the topic of waste.

29. Alan Berger, Systemic Design Can Change the World (Sun Architecture, 2009).

30. Cecilia Furlan et al., "Territorialising Circularity," in Regenerative Territories (Cham: Springer International Publishing, 2022), 31–49, http://dx.doi.org/10.1007/978-3-030-78536-9_2.

Understanding that the existing database only provides an **ephemeral snapshot of reality**, the meso analysis of the data, **quantitative and qualitativ**e, would focus mostly on the areas, which are included in the future ambitions of the city. Additionally, as part of the meso analysis using data by the city administration could supposably reveal dominant **material categories and flows** in the defined territory; **economic activities** and **actors** that are involved in the material flow system; and the **locations** where is a **concentration** of flows related to waste in the city. It is important to look at and incorporate in the analysis the official plans related to the ambitions that the city has in terms of its self-sustaining capabilities. This could reveal **potential sites** for the design, which would be aligned with the urban development plans. Concerning the opportunity for using the wastelands as a system for encouraging the diversity of flora and fauna in the city, maps and images would be used to identify the already existing green spaces and brownfields. This will be overlayed with the potential green corridors that the city has set in its agenda, revealing the possible areas for exploring that opportunity.

Since waste is directly related to **production**, part of the further analysis will be the research of London as part of the global and local **industrial chains** in the past, present and the eventual future. This could happen by looking at historical texts, research from multiple disciplines, such as economics, politics and logistics, and of course through data sets. The change of **economic cycles**, that London has gone through can show through maps and diagrams, how production-related buildings and areas associated with different stages of development overlap or change. It could also answer the question, of whether there is a tendency to use existing sites rather than start new ones and what circumstances lead to one or the other. The **"choreography"** of the earlier phases of capitalist urbanisation could also play an important role in the analysis of contemporary **urban and material ecologies.**


analytical
macro
meso
micro
data tracking
policy tracking
in situ sketching
cartography
waste facility networks
matrix sampling
photography
interviews w. locals
literature review
interviews w. reseachers
emotional
factor of relevance

Outline of potential

Juxtaposing, hybridising, reintroducing, recycling; the ecological, economical and social crisis, vividly intensified in the past years, require a new, **post-modern, post-anthropogenic approach** towards the patterns of inhabitation. Therefore, at the beginning of this research, I asked myself how, where, and when could our problems become a potential for the future of the city. Taking into consideration the heterogeneity of the urban realm, waste/lands can be seen as flexible structures and a point at which we shift relations and dependencies between land, actors and program. Additionally, with their **porous boundaries, and layers of history and events, waste/lands can play a role as a mediator between polarised actors and concepts present in the urban network.** Perceived through a holistic system perspective, waste/lands carry the potential to become a tool for **shifting future relations in a more socially progressive, politically inclusive, resilient and ecological direction.**

In the research of what waste/lands are, and what could they potentially become, especially interesting might be the focus on the flows of waste and how it can be deflected through and incorporated as part of the urban waste/lands. This could allow to strategic introduce a **new open feedback mechanism**, which could generate **material and work opportunities** for local communities and businesses. Combining the fast and slow, flows and space, can be seen as an opportunity to explore new types of architectural, urbanism and landscape crossovers and typologies. Integrating various voices and using design as soft power to mediate social justice, the design can shift the pivotal point from the production of autonomous objects to the **generation of directed fields in which program, event, and activity can play themselves out**.[30]

30. Stan Allen, Points and Lines: Diagrams and Projects for the City (Princeton Architectural Press, 1999). 52

Nowadays the problems lie not only in the accumulated social stigmas around waste but are often related to the lack of knowledge or technology necessary to transform the waste into a resource. **Therefore we need new envisions, of rituals and technology, that could develop an alternative economic and social model for production and consumption, avoiding natural resource depletion and focusing on processes of cycles and reflows.** Potentially, waste could become the ingredient giving the jump-start to the post-industrial economy of the twenty-first century. Incorporated in a design project which seeks to interact with the economic, social, environmental, and programmatic stresses across local and regional territories, the **intersection of waste/lands with waste flows** could potentially generate a spillover effect achieving larger systematic benefits, going beyond the scale of the city. An intersection that could result in a **project based on evolutionary, rather than revolutionary design. A project that amplifies life, part of an open mosaic habitat. A project that re-generates what we already have.**

Initial fascination

14 Waste/lands

"A building is not something you finish, a building is something you start."
stewart brand

time-based architecture

use and re-use of buildings through time

"All buildings are predictions. All predictions are wrong."
stewart brand

Buildings as terrestrial events, processes, artifacts

"Unless"
Moe, K.

What happen to buildings after they are built?

material cycles

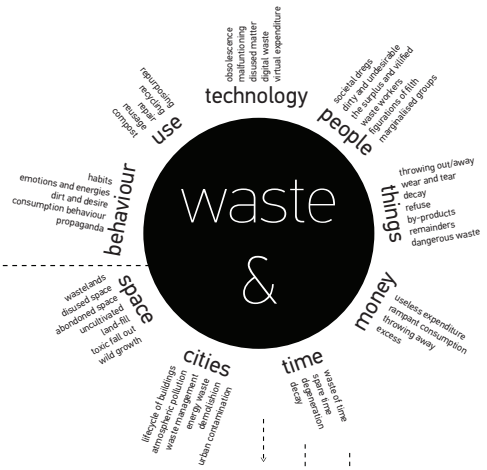
construction waste

Outline of potential

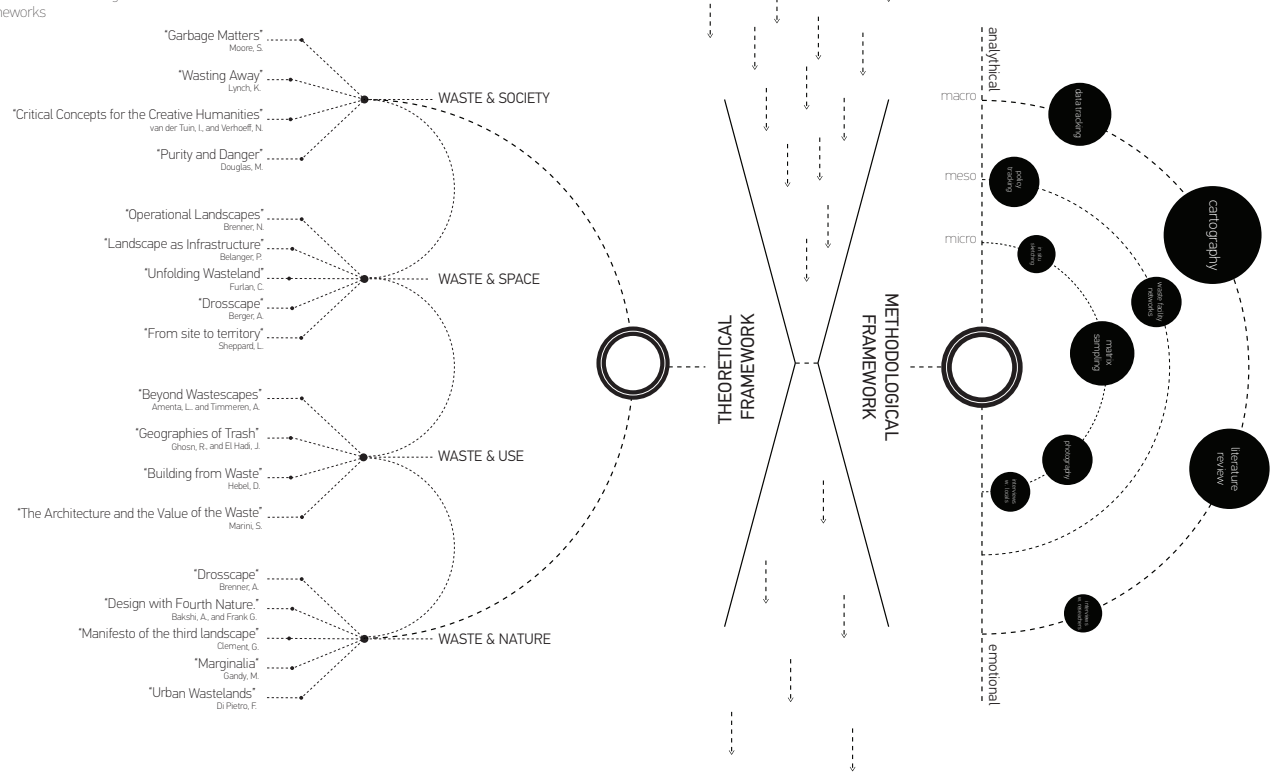
What is waste?
Where is the waste?
When does waste occurs?
Who is related to waste?
How is waste generated?

Problematisation

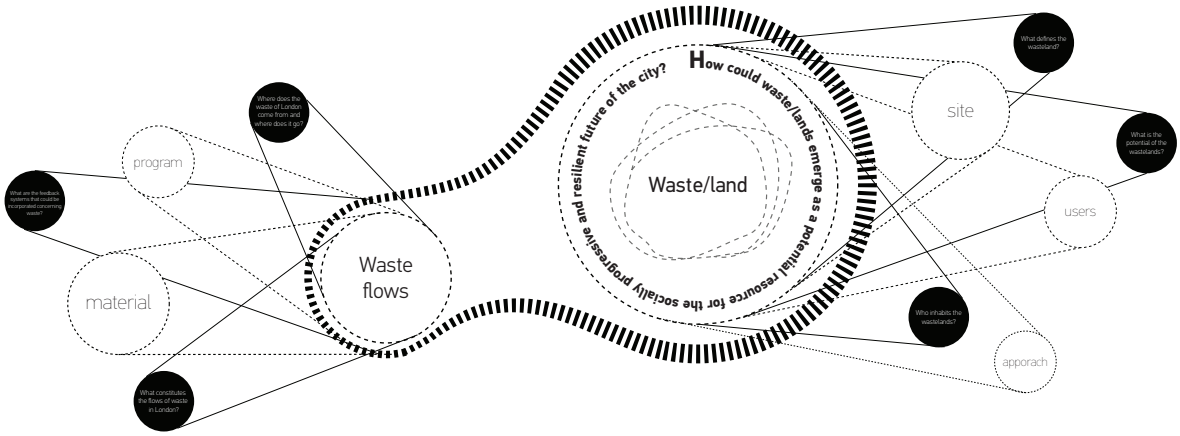
The waste/lands provides a space, antithesis to civilisation. They appear as a cultural construct linked with the forces of subjectivity and imagination often lacking in the frame of the modern city. Freedom and playfulness can become tools for their regeneration and reconnection with the active urban fabric, without sacrifising their individuality. Additionally, revealing interdependencies between territory, urbanisation, and the flow of resources/waste that could potentially unlock new architectural, landscape, and urbanistic typologies that could contribute for a new type of growth in a more socially progressive, politically inclusive, resiliant and ecological way.



Theoretical & Methodological Frameworks



Research question



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circular economy, resource scarcity

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