

19 JANUARY 2023  
**METABOLIC  
LIFE**

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# Metabolic Life

18-19 January 2023 | Department of Geography, University of Cambridge

This workshop aims to interrogate the concept of **metabolism**. It seeks to examine what the concept offers for understanding the **intersections of urbanicity** and the **industrialization of life**.

This imperative stems from **two broad sets of developments**. **Firstly**, the **intensification of material flows** with growing urbanization and the circulatory dynamics of space they generate in their wake. **Secondly**, the **industrialization of life and the “enhancement” of organisms for purposes of production** that is proceeding with increased velocity and speed. How do these developments **relate** to one another and how might the **social sciences** engage with their intersections?

**Metabolism**, we contend, is one possible **concept for thinking about these relations**. Arising in the **19th century**, the term was first deployed to understand **biochemical processes in living organisms**. It was later extended to **environmental and material transformations induced by industry and agriculture** (von Liebig, 1842, von Liebig, 1847). **Three strands of scholarship on metabolism** stand out.

1 The **first** is **industrial ecology** which, extended to the **urban** via Wolman’s “The Metabolism Cities” (Wolman 1965), views **urbanization as a metabolic process involving inputs of raw materials and the output of sewage and pollutants**. Particularly influential in this regard has been the “**Vienna School**” and its accounts of **socio-economic transitions through materials-flow analyses** (Fischer-Kowalski, 1998).

2 However, as critics note, industrial ecology **naturalizes urban processes** and fails to account for the **power dynamics forging urbanicity** (Gandy, 2006). These dynamics are crucial to a second body of work: **urban political ecology (UPE)**. Taking **metabolism** to be the social, spatial and material transformations of nature (Swyngedouw 2006), UPE pays close attention to how **uneven relations of power forge the circulatory dynamics of urban space**. **Urban flows** are assembled by **dominant orders**, whether such flows entail **water, chemicals, fat or sewage** (e.g. Heynen et al. 2006, Loftus 2012). In an affiliate register, a body of work on the “**metabolic rift**” attends to the **separation of human production and nature**, and the **town and the countryside**, induced by **capitalism** (Bellamy Foster 2000).

UPE, however, has tended to invoke **metabolism as a metaphor** rather than focusing on the **materiality of flows** (Newell & Cousins 2014). As others point out, **new syntheses** also need to be drawn between **metabolism and corporeality** (Doshi 2017).

3 Some of the latter concerns are taken up by a third corpus of work in **anthropology and STS** (Vogel 2018). Focusing on **anthropogenic biologies produced by the industrialization of metabolism** (Landecker, 2013), the **industrial** is brought back as a theme of concern, albeit through histories and ethnographies of scientific practice, rather than analyses of material-flows. This work also attends to the **controversies** metabolic exposures raise (Stassart and Whatmore, 2003). However, and unlike UPE, the **city** remains marginal to these expositions.

**Metabolism**, then, is a concept that needs a “**critical reconfiguration**” (Gandy 2022). In this workshop, we aim to trace various **genealogies of the concept**, their purchase and pitfalls, and critically attend to **what metabolism might offer up for understanding current developments in the urban and life sciences**, and the **ecological crises** that emerge in their wake. Through this workshop, we aim to ask what kinds of departures from the three major strands of social science scholarship addressing metabolism might be possible or desirable.

More specifically, we ask:

- In what ways, and through what genealogies and histories, might we **conceptualize metabolism?**
- How might one engage with metabolism in material, chemical and corporeal terms, but without losing sight of its **political economic purchase?**
- Through what avenues can **STS and anthropological insights** into metabolic life be brought into dialogue with **urban studies?**

## Format

The **format** of the workshop is twofold. The first will entail a **discussion of three readings** that address some of the concerns fleshed out in the workshop's aims. The second involves a series of **short interventions** by participants, addressing **various facets of metabolism**, from its **histories** to **industrial farming and cities**.

## Proposed Readings

We would encourage all participants to read these three articles, **(1) in light of the problematic and questions posed above**, but also **(2) in relation to their own work**:

**Landecker**, Hannah. 2019. "A metabolic history of manufacturing waste: food commodities and their outsides." *Food, Culture & Society* 22 (5): 530-547.

**Moore**, Jason W. 2017. "Metabolic rift or metabolic shift? Dialectics, nature and the world-historical method." *Theory and Society* 46: 285-318.

**Swyngedouw**, Erik. 2006. "Circulations and metabolisms: (hybrid) natures and (cyborg) cities." *Science as Culture* 15 (2): 105-121.

## Programme & Venue

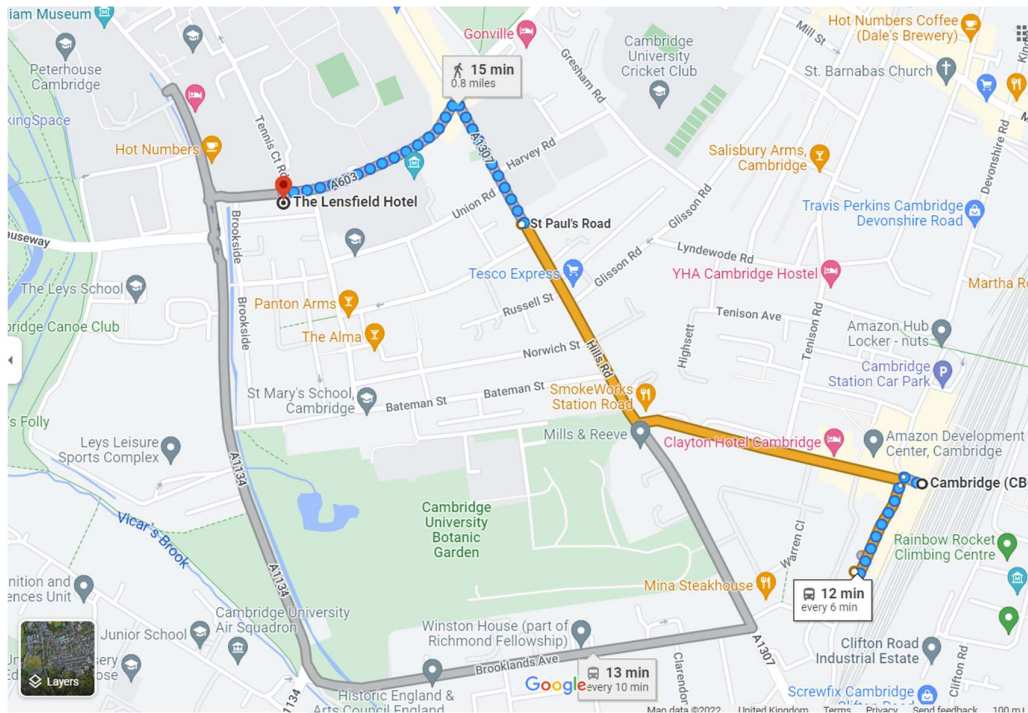
The workshop will take place in the **Seminar Room**, Department of Geography, Downing Place, Cambridge, CB2 3EN (see map below).

<b>18 January 2023</b>	
19:00	Dinner (venue TBC)
<b>19 January 2023</b>	
09:30	Arrive at Seminar Room; tea and coffee
10:00 – 10:15	Participant Introductions
10:15 – 11:00	<b>Workshop Introduction</b> Maan Barua (University of Cambridge) & François Thoreau (University of Liege)
10:30 – 12:30	<b>Discussion of Readings</b> Introductions to articles by Eline van Oosten (University of Amsterdam), Jenske Bal (University of Liege) and Tom Fry (University of Cambridge)
12:30 – 13:00	<b>Lunch</b>
13:00 – 13:30	<b>Anthropology of Life and Metabolic Cities</b> Perig Pitrou (CNRS and Maison Française d'Oxford)
13:30 – 14:00	<b>Revisiting Urban Metabolism</b> Matthew Gandy (University of Cambridge)
14:00 – 14:30	<b>Caring for digestion: the metabolic politics of dairy farming in the Netherlands</b> Else Vogel (University of Amsterdam)
14:00 – 14:30	<b>Break</b>
14:30 – 15:00	<b>The City and its Metabolic Bodies: an ecology</b> Maan Barua (University of Cambridge) & Aditya Ranjan Pathak (National Institute of Advanced Studies, India)
15:00 – 15:30	<b>Metabolic Frontiers</b> Roxane Gabet (University of Liege) & François Thoreau (University of Liege)
15:30 – 16:00	<b>Metabolic Remediation: metabolism, mediation, planetarity</b> Adam Searle (University of Nottingham)
16:30 – 17:00	<b>Wastewater: a material politics</b> Rebeca Ibáñez Martín (KNAW, Amsterdam)
16:30 – 17:00	<b>Discussion</b>
18:00	<b>Dinner</b> (Venue TBC)

## Accommodation

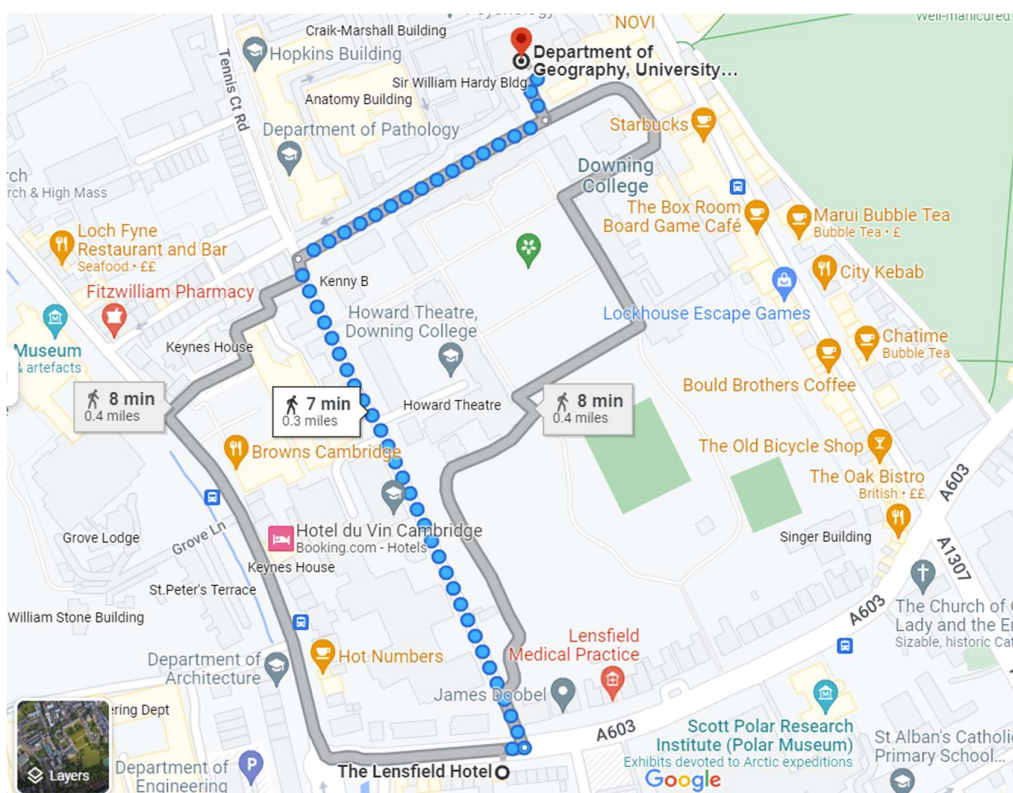
For those accommodation is provided for, rooms have been booked at **The Lensfield Hotel**. This also includes breakfast. The hotel on Lensfield Road, is a 15 minute walk from the Cambridge train station. Taxis are available at the station as well.

The Lensfield Hotel, 53-57 Lensfield Road, Cambridge, CB2 1EN, Ph: +44 1223 355017



## Workshop Venue

The workshop will take place in the **Seminar Room**, Department of Geography (Main Building), Downing Place, CB2 3EN. The Department of Geography, located in the Downing Site, is a 10 minute walk from the Lensfield Hotel. The Seminar Room is located to the right, up the first flight of stairs when entering the Geography building through its main entrance.



This map shows the Downing site and the main Geography building:



### Travel Reimbursement

For those whose travel is being covered (i.e. train/bus to Cambridge), you will need to fill in the attached Excel form and include scanned copies of receipts.

The form and receipts should be **emailed** to [accounts@geog.cam.ac.uk](mailto:accounts@geog.cam.ac.uk), copying in Dr Maan Barua ([maan.barua@geog.cam.ac.uk](mailto:maan.barua@geog.cam.ac.uk)) and the Research Office ([research.administrator@geog.cam.ac.uk](mailto:research.administrator@geog.cam.ac.uk)), Department of Geography, University of Cambridge.