### Opening the bin 4

La vie en bin: when waste reflects the materiality of societies

December 10-13, 2025 Le Mans Université – ESO CNRS

# Call for papers

While on a global scale, the mass of products resulting from human activity is in the process of exceeding biomass (Elhacham et al. 2020) and 6 out of 9 planetary boundaries have been crossed (Richardson et al. 2023) – due, in particular, to microplastics' proliferation in the detrital soups that our oceans tend to become (Persson et al. 2022) –, it is important to **renew our relationship with the materiality** of societies. If the French concept of *rudologie* (Gouhier, [1] 1985) has historically played a pioneering role, it is necessary to continue this human and social science approach to react to **the unsustainable proliferation of waste in all environments**: land, river, marine, oceanic, atmospheric and even orbital environments. This widespread overflow is currently endangering the habitability of the Earth for human societies.

Waste, rejects resulting from the processes of extraction, production and consumption of human societies, represent the materiality of uselessness, itself resulting from a social construction which is not necessarily a "vie en rose" but a "vie en bin".

Generally defined as the **result of abandonment**, waste theoretically loses all usefulness. This uselessness is the result of practices which can vary according to historical or territorial contexts. Waste is thus marked by projections of its producers, its managers or even its occasional observers. **The human and social sciences** make it possible to "question the attitudes of mind and real behaviors faced with proposals and reflections linked to rejection-waste" (Gouhier, 2000: 21), as the discard studies claim to do (Liboiron 1994, Liboiron & Lepawsky 2022): "the new field of waste studies critically questions the cultural, social, economic and political systems within which waste is created, managed, and circulates" (Gille and Lepawsky, 2022: 6). As the constraint of "scarcity" diminishes in the countries of the Global North (Mullainathan and Shafir, 2013), the **20th century** was built on the waste of materials and the increasing production of waste (Krausmann et al., 2018). This situation is today called into question by the necessary limits imposed by entering the **Anthropocene**, sometimes characterized as "wasteocene" (Monsaingeon, 2017, Armiero 2021) or "civilization of waste" (Cavé, De Pin & Tastevin 2024).

What remains to be seen is who will take charge of the existence of this waste, who will take responsibility for it, and how the evolution of global environmental issues will renew their **management methods** (social, territorial, economic, technical). The first person responsible may seem to be their producer (whether a household, an administration or a company), since their nature "underlines the impossibility for waste producers to dissociate themselves from their waste" (Corvellec, 2019: 217). This is also how they are understood by most **legal frameworks** in Europe and around the world: "it is appropriate that the producer of the waste and the holder of the waste ensure its management in a manner appropriate to ensure a high level of protection for the environment and human health" (European Directive 2008/98/EC). However, the potential health and environmental nuisance that waste represents, the cost of dealing with potential health risk that it represents, and the structuration of recovery sectors, place public authorities at the forefront of the concerned

stakeholders (Uddin, Gutberlet, Ramezani & Nasiruddin, 2020). The challenge is then not to reduce the problem to the individual scale (Welch et al., 2021, Evans, 2012, Cherrier and Ture, 2023) but to consider it in a more structural rationality: "whose bin? » (Liboiron & Lepawsky 2022).

The social sciences approach also makes it possible to show that "what is considered polluting waste in one society may not be so at another time and in another place" (Gregson and Crang, 2010: 1027). This observation invites us to always **contextualize the object of study and understand what is defined as waste** (Gutberlet & Bramryd, 2024). The human and social sciences, in their multiplicity, make it possible to characterize and understand this framework, different for each territory and each society, since "the ideas of waste management travel" (Zapata Campos and Zapata, 2014: 41). Waste has always revealed how societies operate. Their observation through social science methods allows us to understand organization of territories, the structuration of society, economic dynamics, as well as a cultural or even spiritual relationship with both matter and environment. The analysis of a society's relationship with its waste makes, for many researchers, **the basis of support for public policies**, support for populations, and the basis **for critically questioning economic actors' strategies** and involved research.

All these dimensions constitute the daily work of a **network of researchers** in the human and social sciences, across Europe and the world, brought together by the first three editions of the "Opening the bin" conference in Lund – Sweden (2017), Gothenburg – Sweden (2021) and Lancaster – United Kingdom (2023). The fourth edition of this major event will take place in Le Mans – France, from December 10 to 13, 2025. This event also corresponds to the third edition of the annual conference of the French network supported by CNRS "waste, values and societies".

We welcome theoretical and empirical contributions that respond to the above-outlined opportunities and challenges. We suggest five topics - and in no way exhaustive list of possible topics -, allowing everyone to reflect their work. Researchers and doctoral students in human and social sciences, and/or working in interdisciplinarity with the material, technical and life sciences, are invited to express their research results, conceptual reflections or projections. We welcome papers in one of the following topics or crossing several of them.

We aim to question the way in which actors and flows of material are part of, and re-question societal organizations and dominant policies in a finite world (illusion of circularity), in social ruptures (for actors working and living with waste in contexts of increased inequalities – topics 1, 2) as well as in ecological ruptures (for territories supporting, yet threatened by these materials, topics 3 and 4). More broadly, we welcome papers where materiality of societies is questioned (topic 5).

# Ø Topic 1: Waste work and waste livelihoods: contamination-toxicity / waste colonization / humans and non-humans / waste workers

Discarded material, waste is primarily handled by humans, who produce it, collect it, repair it, recycle it or even reuse it, formally or informally (Samson, 2015; Gutberlet, 2008, 2016). These waste workers act voluntarily or constrained, supervised or as self-employed entrepreneurs, with a sometimes rewarding, sometimes denigrated vision of their activity (Corteel and Le Lay, 2011). **The sensorial, embodied and engage approach**, from field agents as well as from researchers, also renews these questions. The view on

human activity aimed at working with waste will be different, based on whether waste is considered as a nuisance, as a resource, or as commons. The communication proposals in this topic will endeavour to describe, understand and analyse the social positioning of **waste workers**, their attachment to their activity, their level of interaction with the rest of the society and their role within the material value chain. It will also include developing a multi-sensory dimension, reflecting the sensorial and embodied connections to waste material. In this area, interventions prepared for two-way field workers/researchers may also be proposed.

Through the prism of waste work and workers, the entire chain of actors involved in their management can be considered, from those who work in the streets with their hands in the waste (Florin and Garret, 2020), to a more institutional approach, whether technical or political (Pierrat, 2021). Apprehending waste work sensorially can also make it possible to consider the **interactions between humans and non-humans**, in a relationship to matter relating to "embodied inhabitation", that is to say "the sum of experiences and bodily emotions of residents (and their representations)" (Stowell and Warren, 2018). It can also allow questioning the "third nature" (Tsing, 2015), which manages to live despite the disasters of capitalism, through a sensitive look at the margins and interfaces of links to waste. Likewise, the theme of war wastes or other disasters could be addressed in this area. Finally, waste, as toxicity, is experienced as the contamination and colonization of territories (Manglou et al. 2022, Fuller et al., 2022, Hird, Predko 2023). This "waste colonialism" (Liboiron, 2021) is also an entry point to understanding the historicity of responses to pollution prevention and management.

# Ø Topic 2: Ordinary environmentalism and *grassroots* citizen innovations

Beyond people whose professional activity is to work with waste, citizen movements are increasingly taking ownership of this material, valorising it in multiple ways (recovery, recycling, composting, resale, etc.). These social groups can then tend to produce "grassroots circular innovations" (Zapata & Zapata Campos, 2022), in other words local initiatives, most often collective, responding to place-base needs, stated by the actors of specific places (Gutberlet & Carenzo, 2020). Thus, it seems interesting to understand the way in which these innovations, whether they are social, political, sociotechnical or even economic, organized or not, are structured and disseminated. These citizen initiatives can implicitly carry "forms of resistance and prefigurative models of democratic life ("prefigurative politics")" (Schlosberg & Coles, 2019), shaping the possibilities for the emergence of new practices of "ecological citizenship" (Anantharaman,2024). If public policies and "municipal voluntarism" (Bulkeley & Betsill, 2013) have a strong importance in taking waste into account, at the local level, "spaces and niches for experimentation" (Kemp et al., 1998) make "possible the development and experimentation of tools and forms of organization" (Smith et al., 2017, p. 27) [2]. However, these groups and places of experimentation\*, if they can be supported or even created by institutional actors, are also largely constrained or even prevented by public policies and dominant economic, spatial and political dynamics.

All of these considerations will be mobilized in this topic, in order to examine the **challenges and opportunities** posed by collective initiatives: the study of recycling cooperatives, reintegration companies reusing scrap wood, collectives of local residents launching a collective composting project, promoters of alternative and reduced consumption, repair and reuse movements, etc., \*can, among other things, be the subject of proposals. This topic may also include a focus on social movements and mobilization articulating around waste, especially those led by waste workers. The articulation (or not) of these solutions with more conventional methods (in particular supported by public policies) of taking into account waste, can be

highlighted (support, prioritization, instrumentalization, conflictuality, circumvention, etc.). The aim could thus be, ultimately, to explain different empirical modalities of **"ordinary" ecology** or environmentalism (Blanc et al., 2022; Billen, 2023, Schlosberg, 2020).

# Ø Topic 3: Waste as power issue and expression of unequal and conflictual relationships

Starting from the actors who produce, transform, regulate or simply live with the "waste" object, in ways that a more or less produce suffering, we see that contact with these materials can reflect strong inequalities between populations: inequalities in the capacity to access to suitable socio-technical infrastructures, inequalities in the impact of nuisances linked to waste discharge or treatment, or even inequalities in access to materials that can be reused or recycled. **These unequal situations regarding waste** management are coupled with an inequality in the very capacity to consume, leading to a differentiated production of waste depending on the standard of living, and therefore a variable ecological footprint depending on lifestyle, place of residence, and socio-economic level (Durand, 2024).

These **environmental inequalities** (Emelianoff, 2010) reflect situations of environmental and social injustice (Paddeu, 2016; Cutter, 2006), and aggravate them. Indeed, they affect social groups that are most often already precarious on an economic, social or even racial level, but also on a gender level: thus, women suffer more strongly from this unequal relationship with waste (McLean, 2021), for example when it comes to promote virtuous practices such as zero waste. Beyond health and economic issues, inequalities are also symbolic in the frequent conflation between populations in contact with dirt and their negative representation (Douglas, 1966). Finally, structuring public waste management service can itself accentuate these environmental injustices, particularly when the service is co-produced by multiple intermediaries (Mitlin, Bartlett, 2018).

Inequalities and injustices linked to waste issue can thus be expressed in ways and on multiple scales, global as well as local, in the Northern territories as well as in the Southern, even if their modalities, always different, must be put to the day (Sholanke & Gutberlet, 2021). Various proposals are therefore expected on the subject, which may focus on the global phenomena of inequalities and their expressions among the **most vulnerable populations** affected by the presence of waste, or by practices linked to these situations of vulnerability, as well as mobilizations against injustice. On the contrary, it may be useful to observe the postures and lifestyles of the most advantaged populations, who often over-demand cleanliness infrastructures, potentially threatening the proper functioning of public services.

On another scale, waste also reveals **geopolitical balance of power** with the various controversies linked to its export, which opens up legal sciences issues (Lepawsky, 2012) in connection with international legislation (for example the Basel Convention on toxic waste movements and the Hong Kong convention for end-of-life ships) or the consideration of wartime waste and ruins of multiple disasters.

# Ø Topic 4: Waste and productive systems: (re)structuring territories and urban metabolism

Finally, waste can be considered through its material dimension: waste flows, spatialization and

territorialization (Gandy, 2022). The analysis of a territory "material" processing reflects the **exchanges of resources between societies and the environment**, positioning waste as a stakeholder in these flows (Behrsin, De Rosa, 2020; Savini, 2023). If the circulation of flows is projected by many actors as moving towards circularity, it remains essentially linear: "the challenge of **territorial metabolism** is thus to follow the energy and matter flows in order to know their trajectories, to understand what the withdrawals are, from nature and the discharges towards it, that urban socio-ecological regimes imply" (Bahers and Giacchè, 2019). It questions what is "Outside the bin", that is to say the waste which does not fit in the bin but which represents a paroxysmal flow such as rubble, slag heaps, industrial residues, space waste or nuclear, etc... The theme of terraforming waste (Kampala 2024) (backfilling, landslides, polders, dike ruptures, oceanic vortices, etc.) can also be observed.

This fourth topic will therefore include papers in territorial metabolism, in both a quantitative and qualitative approach to a "government of flows" (Barbier, 2021). The urban metabolism waste is thus a notion with very diverse approaches, whether it is mobilized by supporters of urban political ecology (Ernston et al., 2021; Guibrunet et al., 2017), political-industrial ecology (Pincetl, Newell, 2017) or ecological economics (Schaffartzik, 2014). It also re-politicizes the urban metabolism beyond techno-centrist solutions, and examines its contests (Demaria, 2023). Attention to metabolism also makes it possible to reveal the non-findable circularity by articulating quantitative metabolic studies with qualitative empirical research, which allows for the circularity unthought in terms of actors and the invisibles which escape. The proposed papers could make it possible to "open the box" of the urban system in order to embrace the complexity of detrital materials circulation to characterize the **non-findable circularity**.

# Ø Topic 5: Life around the bin: waste, as both an epistemological and material phenomenon

We welcome papers that open new spaces of reflection, understanding and critique, regardless of their theoretical sources of inspiration and methodological approaches. Innovation in writing and composing style are also welcome. In addition to scholars working in organization and management studies, we welcome contributions from anthropology, sociology, psychosocial studies, geography, philosophy, politics, art history, administration, communication, film, gender and cultural studies, among other fields.

[1] "Rudologie" is the systematic study of waste, goods and decommissioned spaces. It was created in 1972 by Jean Gouhier, geographer at the University of Maine, France.

[2] Observations from the project DUT Circular Grassroots

### **Important dates:**

- Submission of abstract, in English (approx. 3000 characters incl. spaces): March 31, 2025
- Acceptance decision: Avril 30, 2025
- Sending full paper or work-in progress: September 30, 2025
- Registration date: by September 30, 2025
- Main conference at Le Mans University, France: 11 (2pm) to 13 (12am) December, 2025
- PhD workshop: 10 (2pm) to 11 (noon) December, 2025 (with PhD students taking part in the conference)

#### Website:

https://eso.cnrs.fr/fr/actualites/22952/19742/3/opening-bin-4-la-vie-en-bin

#### **Contact:**

otb4@univ-lemans.fr

#### **Social Media:**

Twitter: @OpeningtheBin

Facebook: https://www.facebook.com/openingthebin

Instagram: @openingthebin

# **Organisation**

#### Core organizing and steering committee:

- Adeline Pierrat, Le Mans Université, ESO-CNRS
- Aline Le Failler, ESO-CNRS, Le Mans Université, Université de Nantes
- Alison Stowell, Lancaster University
- Hervé Corvellec, Lund University
- Jean-Baptiste Bahers, ESO-CNRS
- María José Zapata Campos, University of Gothenburg
- Marta Ferri, Lancaster University
- Mathieu Durand, Le Mans Université, ESO-CNRS
- Muriel Fischer, Le Mans Université
- Patrik Zapata, University of Gothenburg

#### Additional organizing committee:

- Baptiste Monsaingeon, Université de Reims, ESO-CNRS, Regards
- Bénédicte Florin, Université de Tours
- Christine Gonzalez, Le Mans Université, ArguMans
- Emilie Guitard, PRODIG-CNRS
- Francisco Valenzuela, Universidad de Chile
- Jéremie Cavé, GET-IRD
- Jutta Gutberlet, University of Victoria
- Katarina Dimitrijevic, Loughborough University
- Lucy Wishart, St Andrews University
- Manisha Anantharaman, Science Po, CSO-CNRS
- Rémi De Bercegol, PRODIG-CNRS
- Sarah Surak, Salisbury University

#### **OTB Social media team:**

- Marta Ferri, Lancaster University, UK: m.ferri@lancaster.ac.uk
- Katarina Dimitrijevic, Loughborough University: K.Dimitrijevic@lboro.ac.uk
- Sarah Surak, Salisbury University, USA: <u>SMSURAK@salisbury.edu</u>

### **Participation Fee:**

#### Before October 1st, 2025

€150. PhD Students, CNRS DVS members, scholars from middle-low income countries €80. Le Mans University students and staff can apply for free release.

#### After October 1st, 2025

€250. PhD Students €150.

Thanks to the generous financial support of the Lancaster University Waste and Circular Economy Hub in the Pentland Centre for Sustainability in Business, a few bursaries are available for participants from low-and middle-income countries to cover part of the costs of visa, travel, and accommodation. Please send a one-page application with motivations, budget, and timeline for visa application to Alison Stowell <a href="mailto:a.stowell@lancaster.ac.uk">a.stowell@lancaster.ac.uk</a>

### References

- Armiero (2021) Wasteocene: Stories from the Global Dump
- Anantharaman, M. (2024). Recycling class: the contradictions of inclusion in urban sustainability. MIT Press.
- BAHERS Jean-Baptiste, GIACCHÈ Giulia (2019). Towards a metabolic rift analysis: The case of urban agriculture and organic waste management in Rennes (France), *Geoforum*, vol. 98, p.97-107.
- BARLES S. (2005). L'invention des déchets urbains, Seyssel, Champ Vallon, 297p.
- BARLES Sabine (2014). L'écologie territoriale et les enjeux de la dématérialisation des sociétés : l'apport de 9 l'analyse des flux de matières. Développement durable et territoires, Vol. 5, n°1).
- Behrsin, I., & De Rosa, S. P. (2020). Contaminant, Commodity and Fuel: A Multi-sited Study of Waste's roles in Urban Transformations from Italy to Austria. *International Journal of Urban and Regional Research*, 44(1), 90-107.
- BILLEN L. (2023). L'écologie ordinaire pour lutter à la fois contre les inégalités sociales et la crise écologique. *Les Cahiers Du DSU*, *N*° *77(1)*, 7–9.
- BLANC N., EMELIANOFF C., ROCHARD H. (2022). Réparer la terre par le bas, manifeste pur un environnementalisme ordinaire, Le bord de l'eau, 240p.
- BULKELEY H., BESTILL M. (2013). Revisiting the urban politics of climate change *Environmental Politics*, 22(1), p.136-154
- Cavé, De Pin & Tastevin (2024) La Civilisation du déchet : tout savoir sur le recyclage... et ses limites, Les Arènes.
- CORTEEL D., LE LAY S. (2011). Les travailleurs des déchets, Érès, Clinique du travail, 336p.

- CORVELLEC H. (2019). Waste as scats: For an organizational engagement with waste, *Science of The Total Environment*, 743, p.217-235
- CORVELLEC H., BÖHM Steffen, STOWELL Alison, VALENZUELA Francisco (2020). Introduction to the special issue on the contested realities of the circular economy, *Culture and organization* n°26, p.97-102
- CORVELLEC H., HULTMAN Johan (2012). Waste Management Companies: Critical Urban Infrastructural Services That Design the Sociomateriality of Waste, in Zapata M.J., Hall M., *Organising waste in the city: International perspectives on narratives and practices*, Policy Press.
- CUTTER S. (2006). Hazards, vulnerability and environmental justice, Londres: Sterling, 418p.
- DOUGLAS M. (2002\*), Purity and danger: an analysis of concepts of pollution and taboo, Routledge, 272p.
- DURAND M. (2024). De la déchetterie à la ressourcerie : approche internationale de rudologie, Volume inédit de l'Habilitation à Diriger des Recherches, 242p.
- EMELIANOFF C. (2010). Connaître ou reconnaître les inégalités environnementales ?, dans Djellouli Y., Emelianoff C., Bennasr A., Chevalier J., *L'étalement urbain, un processus incontrolable* ?, Rennes : PUR, p.221-234.
- Ernstson, H., Lawhon, M., Makina, A., Millington, N., Stokes, K., & Swyngedouw, E. (2021). Turning livelihood to rubbish?: The politics of value and valuation in South Africa's urban waste sector. In *african cities and collaborative futures* (pp. 96-120). Manchester University Press.
- FLORIN B., GARRET P. (2020). Les récupérateurs de ferraille : Entre tolérance et interdits. *Revue Projet*, 376, 24-29.
- Fuller, S., Ngata, T., Borrelle, S. B., & Farrelly, T. (2022). Plastics pollution as waste colonialism in Te Moananui. *Journal of Political Ecology*, 29(1), 534-560.
- Gandy, M. (2022). Urban political ecology: A critical reconfiguration. *Progress in Human Geography*, 46(1), 21-43
- GILLE Z., LEPAWSKY J. (2022). The routledge handbook of waste studies, Routledge, 356p.
- GOUHIER J. (2000). *Au-delà du déchet, le territoire de qualité, Manuel de rudologie*, Rouen : PURH, 240p.
- GREGSON N., CRANG M. (2010). Materiality and Waste: Inorganic Vitality in a Networked World, *Environment and Planning A: Economy and Space*, 42/5, p.1026-1032
- GREGSON N., (xxxx) The Waste of the World
- Guibrunet, L., Calvet, M. S., & Broto, V. C. (2017). Flows, system boundaries and the politics of urban metabolism: Waste management in Mexico City and Santiago de Chile. *Geoforum*, 85, 353-367.
- GUTBERLET, J. (2016) Urban Recycling Cooperatives: Building Resilient Communities. London, New York: Routledge Taylor & Francis Group. 183 pp.
- GUTBERLET, J. (2008). Recycling Citizenship, recovering resources: Urban poverty reduction in Latin America Ashgate, Aldershot, 163 pp.

- GUTBERLET, J. & CARENZO, S. (2020) Waste Pickers at the Heart of the Circular Economy: A Perspective of Inclusive Recycling from the Global South. Worldwide Waste: Journal of Interdisciplinary Studies, 3(1): 6, 1–14.
- HECHT, G. (2024) Residual Governance: How South Africa Foretells Planetary Futures, Duke University Press.
- KEMP R., SCHOT J., HOOGMA R. (1998) Regime shifts to sustainability through processes of niche formation, *Technology analysis & strategic management*, 10(2), 175-198
- Hird, M. J., & Predko, H. (2023). Extracting Reconciliation: Indigenous Lands, (in) human Wastes, and Colonial Reckoning. Taylor & Francis.
- Krausmann, F., Lauk, C., Haas, W., & Wiedenhofer, D. (2018). From resource extraction to outflows of wastes and emissions: The socioeconomic metabolism of the global economy, 1900–2015. *Global environmental change*, *52*, 131-140.
- Lepawsky, J. (2012). Legal geographies of e-waste legislation in Canada and the US: Jurisdiction, responsibility and the taboo of production. *Geoforum*, 43(6), 1194-1206.
- Liboiron, M. (2021). *Pollution is colonialism*. Duke University Press.
- Liboiron & Lepawsky (2022), Discard Studies: Wasting, Systems, and Power, MIT Press.
- Manglou, M., Rocher, D. L., & Bahers, D. J.-B. (2022). Waste colonialism and metabolic flows in island territories. *Journal of Political Ecology*, *29*(1). Retrieved February 14, 2022, from <a href="https://journals.librarypublishing.arizona.edu/jpe/article/id/2836/">https://journals.librarypublishing.arizona.edu/jpe/article/id/2836/</a>
- McLEAN H. (2021). Spaces for Feminist Commoning? Creative Social Enterprise's Enclosures and Women Possibilities. *Antipode 3*, no. 1 (2021): 242-259.
- MITLIN D., BARLETT S. (2018). Editorial: Co-production key ideas, *Environment and Urbanization*, 30/2, p.355-366
- MONSAINGEON Baptiste (2017). Homo detritus, critique de la société du déchet, Seuil, 288p.
- MULLAINTHAN S., SHAFIR E. (2013). *Scarcity: Why Having Too Little Means So Much*, Henryholt, 288p.
- PADDEU F. (2016). D'un mouvement à l'autre : des luttes contestataires de justice environnementale aux pratiques alternatives de justice alimentaire ?, *Justice spatiale* | *spatial justice*, n°9, Janvier 2016
- PIERRAT A., MARCHADOUR F., COLOMBIER R. (2021). Quand les déchets bousculent la politique locale d'une ville intermédiaire en crise (Dolisie, Congo), *Géocarrefour* [Online], 95/1
- Pincetl, S., & Newell, J. P. (2017). Why data for a political-industrial ecology of cities?. *Geoforum*, 85, 381-391.
- SAMSON M. (2015). Accumulation by dispossession and the informal economy Struggles over knowledge, being and waste at a Soweto garbage dump, *Environment and Planning D: Society and Space*, 33(5), p.813-830.

- Savini, F. (2023). Futures of the social metabolism: Degrowth, circular economy and the value of waste. *Futures*, *150*, 103180.
- SHOLANKE, D. & GUTBERLET, J. (2021) Call for Participatory Waste Governance: Waste Management with Binners in Vancouver. Journal of Environmental Policy & Planning, 24 (2): 94-108.
- Schaffartzik, A., Mayer, A., Gingrich, S., Eisenmenger, N., Loy, C., & Krausmann, F. (2014). The global metabolic transition: Regional patterns and trends of global material flows, 1950–2010. *Global Environmental Change*, 26, 87-97.
- Schlosberg, D. (2020). From postmaterialism to sustainable materialism: the environmental politics of practice-based movements. *Environmental Politics*.
- SMITH A., FRESSOLI M., ABROL D., AROUND E., ELY A. (2017). *Grassroots Innovation Movements: Pathways to Sustainability*. Earthscan, 240p.
- Tsing, A. L. (2015). *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton University Press. Retrieved April 29, 2019, from http://www.jstor.org/stable/j.ctvc77bcc
- STOWELL A., WARREN S. (2018), The Institutionalization of Suffering: Embodied Inhabitation and the Maintenance of Health and Safety in E-waste, *Recycling, Organization Studies* n°39
- Uddin, S. M. N., Gutberlet, J., Ramezani, A. & Nasiruddin, S. M. (2020) Experiencing the everyday of waste pickers: A sustainable livelihoods and health assessment in Dhaka City, Bangladesh. Journal of International Development.
- Welch, D., Swaffield, J., & Evans, D. (2021). Who's responsible for food waste? Consumers, retailers and the food waste discourse coalition in the United Kingdom. Journal of Consumer Culture, 21(2), 236-256
- Evans, D. (2012). Beyond the Throwaway Society: Ordinary Domestic Practice and a Sociological Approach to Household Food Waste. Sociology, 46(1), 41-56
- Cherrier H, Türe M. Tensions in the Enactment of Neoliberal Consumer Responsibilization for Waste. Journal of Consumer Research. 2023;50(1):93-115
- ZAPATA CAMPOS M.J., CARENZO S., CHARLES G., GUTBERLET J., KAIN J.H., OLOKO, M.O., REYNOSA J.P., ZAPATA P. (2022). Grassroots innovations in extreme urban environment. The inclusive recycling movement, *Environment and Planning C*
- ZAPATA CAMPOS M.J., ZAPATA P. (2014). The travel of global ideas of waste management: the case of Managua and its informal settlements, *Habitat International*, 41, p.41–50.