

TRANSDISCIPLINARY URBAN RESEARCH

A BIBLIOGRAPHY OF KEY LITERATURE

Emma Lysholm and Andrew Karvonen

June 2025

The following is a bibliography of academic literature on transdisciplinary urban research. It includes journal articles, book chapters, and reports that engage with a wide range of theories, methods, evaluation techniques, and experiences of academic and non-academic stakeholders who conduct collaborative research on or related to cities. Items marked in **bold** are recommended readings.

Angheloiu C (2018) Navigating knowledge systems to address resilience challenges: contributions of communities of practice, *Research Evaluation* 27(2): 177–196. <https://doi.org/10.1093/reseval/rvy004>

Bammer G (2017) Tools for transdisciplinary research, in D. Fam (ed) *Transdisciplinary Research and Practice for Sustainability Outcomes*. London: Routledge, 39–54.

Baxter J-S (2022) From urban living labs towards critical spatial design: decolonising knowledge in urban design and planning using critical reflexivity, *Nordic Journal of Urban Studies* 2(2): 124–140. <https://doi.org/10.18261/njus.2.2.3>

Bergmann M, Brohmann B, Hoffmann E, Loibl MC, Rehaag, R, Schramm E, Voß JP (2005) *Quality Criteria of Transdisciplinary Research: A Guide for the Formative Evaluation of Research Projects*. No.13/English Version. Frankfurt am Main: Institute for Social-Ecological Research (ISOE) GmbH. <http://www.isoe-publikationen.de/fileadmin/redaktion/ISOE-Reihen/st/st-13-isoe-2005-en.pdf>

Biberhofer P, Rammel C (2017) Transdisciplinary learning and teaching as answers to urban sustainability challenges, *International Journal of Sustainability in Higher Education* 18(1): 63–83. <https://doi.org/10.1108/IJSHE-04-2015-0078>

Brandt P, Ernst A, Gralla F, Luederitz C, Lang DJ, Newig J, Reinert F, Abson DJ, von Wehrden H (2013) A review of transdisciplinary research in sustainability science, *Ecological Economics* 92: 1–15. <https://doi.org/10.1016/j.ecolecon.2013.04.008>

Brink E, Wamsler C, Adolffson M, Axelsson M, Beery T, Björn H, Bramryd T, Ekelund N, Jephson T, Narvelo W, Ness B, Ingemar Jönsson K, Palo T, Sjeldrup M, Stålhammar S, Thiere G (2018) On the road to ‘research municipalities’: analysing transdisciplinarity in municipal ecosystem services and adaptation planning, *Sustainability Science* 13(3): 765–784. <https://doi.org/10.1007/s11625-017-0499-0>

Bunders JFG, Broerse JE, Keil F, Pohl C, Scholz RW, Zweekhorst MB (2010) How can transdisciplinary research contribute to knowledge democracy?, in In ‘T Veld RJ (ed.) *Knowledge Democracy*. Berlin: Springer Berlin Heidelberg, 125–152. https://doi.org/10.1007/978-3-642-11381-9_11

Curnier S, Sonia Curnier S, Dahl P-J, Diedrich L, Kahn A (2023) The Urban Forum Dialogue Tool: reflecting on a designerly approach to transdisciplinary research, *The Plan Journal* 8(1). <https://doi.org/10.15274/tpj.2023.08.011>

Doucet I, Janssens N (2011) Editorial: transdisciplinarity, the hybridisation of knowledge production and space-related research, in Doucet I, Janssens N (eds) *Transdisciplinary Knowledge Production in Architecture and Urbanism*. Dordrecht: Springer Netherlands, 1–14. https://doi.org/10.1007/978-94-007-0104-5_1

Eneqvist E, Algehed J, Jensen C, Karvonen A (2022) Legitimacy in municipal experimental governance: questioning the public good in urban innovation practices, *European Planning Studies* 30(8): 1596–1614. <https://doi.org/10.1080/09654313.2021.2015749>

Fam D M, Smith T, Cordell D (2017) Being a transdisciplinary researcher: Skills and dispositions fostering competence in transdisciplinary research and practice, in D. Fam (ed.) *Transdisciplinary Research and Practice for Sustainability Outcomes*. London, Routledge, 77–92.

Fazey I, Bunse L, Msika J, Pinke M, Preedy K, Evelyn AC, Lambert E, Hastings E, Morris S, Reed MS (2014) Evaluating knowledge exchange in interdisciplinary and multi-stakeholder research, *Global Environmental Change* 25: 204–220. <https://doi.org/10.1016/j.gloenvcha.2013.12.012>

Fokdal J, Bina O, Chiles P, Ojamäe L, Paadam K (2021) *Enabling the City: Interdisciplinary and Transdisciplinary Encounters in Research and Practice*. New York: Routledge. <https://doi.org/10.4324/9780429297649>

Frantzeskaki N, Kabisch N (2016) Designing a knowledge co-production operating space for urban environmental governance—Lessons from Rotterdam, Netherlands and Berlin, Germany, *Environmental Science & Policy* 62: 90–98. <https://doi.org/10.1016/j.envsci.2016.01.010>

Fritz L, Binder CR (2020) Whose knowledge, whose values? an empirical analysis of power in transdisciplinary sustainability research, *European Journal of Futures Research* 8(1):3. <https://doi.org/10.1186/s40309-020-0161-4>

Fritz L, Schilling T, Binder CR (2019) Participation-effect pathways in transdisciplinary sustainability research: an empirical analysis of researchers' and practitioners' perceptions using a systems approach, *Environmental Science & Policy* 102: 65–77. <https://doi.org/10.1016/j.envsci.2019.08.010>

Gibbons M, Limoes C, Nowotny H, Schwartzman S, Scott P, Trow M (2010) *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*. London: Sage Publications. <https://doi.org/10.4135/9781446221853>

Glassman M, Erdem G (2014) Participatory Action Research and its meanings: vivencia, praxis, conscientization, *Adult Education Quarterly* 64(3): 206–221. <https://doi.org/10.1177/0741713614523667>

Hansson S, Polk M (2018) Assessing the impact of transdisciplinary research: the usefulness of relevance, credibility, and legitimacy for understanding the link between process and impact, *Research Evaluation* 27(2): 132–144. <https://doi.org/10.1093/reseval/rvy004>

Head BW, Xiang W-N (2016) Why is an APT approach to wicked problems important?, *Landscape and Urban Planning* 154: 4–7. <https://doi.org/10.1016/j.landurbplan.2016.03.018>

Hemström K, Björling N (2022) *Beslutsstöd för Knäckfrågor: En modell för begreppslig ordning och reda*. Kortrapport 2022: 1. Göteborg: Centrum för Management i Byggsektorn. <https://www.cmb-chalmers.se/wp-content/uploads/2022/03/Beslutsstod-for-knackfragor.pdf>

Hemström K, Simon D, Palmer H, Perry B, Polk M (2021) *Transdisciplinary Knowledge Co-production for Sustainable Cities: A Guide for Sustainable Cities*. Rugby: Practical Action Publishing. <https://doi.org/10.3362/9781788531481>

Hoffmann S, Pohl C, Hering JG (2017) Methods and procedures of transdisciplinary knowledge integration: empirical insights from four thematic synthesis processes, *Ecology and Society* 22(1): 27. <https://doi.org/10.5751/ES-08955-220127>

Hoffmann S, Thompson Klein J, Pohl C (2019) Linking transdisciplinary research projects with science and practice at large: Introducing insights from knowledge utilization, *Environmental Science & Policy* 102: 36–42. <https://doi.org/10.1016/j.envsci.2019.08.011>

Ives CD, Schäpke N, Woiwode C, Wamsler C (2023) 'IMAGINE sustainability: integrated inner-outer transformation in research, education and practice, *Sustainability Science* 18(6): 2777–2786. <https://doi.org/10.1007/s11625-023-01368-3>

Jahn T, Bergmann M, Keil F (2012) Transdisciplinarity: between mainstreaming and marginalization, *Ecological Economics* 79: 1–10. <https://doi.org/10.1016/j.ecolecon.2012.04.017>

Jernsand M, Kraff H (2021) *Effektstudie av Mistra Urban Futures Göteborgsplattform (GOLIP)*. Mistra Urban Futures Report 2021:2. Göteborg. https://www.mistraurbanfutures.org/sites/mistraurbanfutures.org/files/jernsand-kraff-2021-2-rapport_1.pdf

Kareem B, McClure A, Walubwa J, Koranteng K, Isolo Mukwaya P, Taylor A (2022) Power dynamics in transdisciplinary research for sustainable urban transitions, *Environmental Science & Policy* 131: 135–142. <https://doi.org/10.1016/j.envsci.2022.02.001>

Karvonen A, Brand R (2022) Expertise, in Harris PG (ed), *Routledge Handbook of Global Environmental Politics, 2nd Edition*. London: Routledge, 239–252. <https://doi.org/10.4324/9781003008873-22>

Karvonen A, Cvetkovic V, Herman P, Johansson K, Kjellström H, Molinari M, Skoglund M (2021) The “New Urban Science”: towards the interdisciplinary and transdisciplinary pursuit of sustainable transformations, *Urban Transformations* 3(1): 9. <https://doi.org/10.1186/s42854-021-00028-y>

Lang DJ, Wiek A, Bergmann M, Stauffacher M, Martens P, Moll P, Swilling M, Thomas CJ (2012) Transdisciplinary research in sustainability science: practice, principles, and challenges, *Sustainability Science* 7(S1): 25–43. <https://doi.org/10.1007/s11625-011-0149-x>

Lawrence RJ (2016) Future directions: a trans-anthropo-logic of transdisciplinarity, in Fam D, Palmer J, Riedy C, Mitchell C (eds) *Transdisciplinary Research and Practice for Sustainability Outcomes*. London: Routledge, p. 277–283.

Lawrence RJ (ed.) (2023) *Handbook of Transdisciplinarity: Global Perspectives*. Cheltenham: Edward Elgar Publishing.

Lawrence MG, Williams S, Nanz P, Renn O (2022) Characteristics, potentials, and challenges of transdisciplinary research, *One Earth* 5(1): 44–61. <https://doi.org/10.1016/j.oneear.2021.12.010>

Mitchell C, Ross K (2017) Transdisciplinarity in action: four guidelines, a reflexive framework and their application to improving community sanitation governance in Indonesia, in Chris Riedy C, Mitchell C, Fam D, Palmer J (eds) *Transdisciplinary Research and Practice for Sustainability Outcomes*. London: Routledge, 172–189.

Mobjörk M (2010) Consulting versus participatory transdisciplinarity: a refined classification of transdisciplinary research, *Futures* 42(8): 866–873. <https://doi.org/10.1016/j.futures.2010.03.003>

Moore G (2023) Learning from transdisciplinary research–Workshop reflections by Dr Gemma Moore, https://www.ucl.ac.uk/bartlett/environmental-design/sites/bartlett_environmental_design/files/23_11_08_learning_from_tdr_0.pdf

Müller DB, Tjallingii SP, Canters KJ (2005) A transdisciplinary learning approach to foster convergence of design, science and deliberation in urban and regional planning, *Systems Research and Behavioral Science* 22(3): 193–208. <https://doi.org/10.1002/sres.655>

Norris PE, O'Rourke M, Mayer AS, Halvorsen KE (2016) Managing the wicked problem of transdisciplinary team formation in socio-ecological systems, *Landscape and Urban Planning* 154: 115–122. <https://doi.org/10.1016/j.landurbplan.2016.01.008>

Nowotny H (2003) Democratising expertise and socially robust knowledge, *Science and Public Policy* 30(3): 151–156. <https://doi.org/10.3152/147154303781780461>

Patorniti NP, Stevens NJ, Salmon PM (2018) A sociotechnical systems approach to understand complex urban systems: a global transdisciplinary perspective, *Human Factors and Ergonomics in Manufacturing & Service Industries* 28(6): 281–296. <https://doi.org/10.1002/hfm.20742>

Perry B, Patel Z, Bretzer YN, Polk M (2018) Organising for co-production: local interaction platforms for urban sustainability, *Politics and Governance* 6(1): 189–198. <https://doi.org/10.17645/pag.v6i1.1228>

Perry B, Russell B (2020) Participatory cities from the 'outside in': the value of comparative learning, in Simon D, Palmer H, Riise J (eds) *Comparative Urban Research From Theory To Practice*, Bristol: Policy Press, 133–154. <https://doi.org/10.51952/9781447354093.ch007>

Pohl C (2011) What is progress in transdisciplinary research?, *Futures* 43(6): 618–626. <https://doi.org/10.1016/j.futures.2011.03.001>

Pohl C, Hadorn GH (2021) *Principles for Designing Transdisciplinary Research Proposed by the Swiss Academies of Arts and Sciences*. Munich: Oekom Verlag.

Polk M (2014) Achieving the promise of transdisciplinarity: a critical exploration of the relationship between transdisciplinary research and societal problem solving, *Sustainability Science* 9(4): 439–451. <https://doi.org/10.1007/s11625-014-0247-7>

Polk M (2015) Transdisciplinary co-production: Designing and testing a transdisciplinary research framework for societal problem solving, *Futures* 65: 110–122. <https://doi.org/10.1016/j.futures.2014.11.001>

Ranhagen U, Dahlstrand A, Ramstedt A (2017) *Samskapande i det urbana stationssamhället – erfarenheter från arbetsseminarier med transdisciplinär aktörssamverkan 2015-2016*. Mistra Urban Futures Report 2017:1. Göteborg. <https://urn.kb.se/resolve?urn=urn:nbn:se:trafikverket:diva-11962>

Räuchle C (2021) Social encounter by experiment? potentials and pitfalls of real-world labs for urban planning, *Urban Planning* 6(1): 208–220. <https://doi.org/10.17645/up.v6i1.3475>

Riedy C (2023) Transdisciplinary teams as discourse coalitions: building transformative narratives for transdisciplinary inquiry, in Lawrence R (ed) *Handbook of Transdisciplinarity: Global Perspectives*. Cheltenham: Edward Elgar, 230–246. <https://doi.org/10.4337/9781802207835.00023>

Rizzo A, Galanakis M (2015) Transdisciplinary urbanism: three experiences from Europe and Canada, *Cities* 47: 35–44. <https://doi.org/10.1016/j.cities.2015.01.001>

Russell AW, Wickson F, Carew AL (2008) Transdisciplinarity: context, contradictions and capacity, *Futures* 40(5): 460–472. <https://doi.org/10.1016/j.futures.2007.10.005>

Schauppenlehner-Kloyber E, Penker M (2015) Managing group processes in transdisciplinary future studies: How to facilitate social learning and capacity building for self-organised action towards sustainable urban development?, *Futures* 65: 57–71. <https://doi.org/10.1016/j.futures.2014.08.012>

Schneider F, Giger M, Harari N, Moser S, Oberlack C, Providoli I, Schmid L, Tribaldos T, Zimmermann A (2019) Transdisciplinary co-production of knowledge and sustainability transformations: three generic mechanisms of impact generation, *Environmental Science & Policy* 102: 26–35. <https://doi.org/10.1016/j.envsci.2019.08.017>

Scholz RW (2011) *Environmental Literacy in Science and Society: From Knowledge to Decisions*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511921520>

Schön DA (2017) *The Reflective Practitioner*. London: Routledge. <https://doi.org/10.4324/9781315237473>

Seydel H, Huning S (2022) Mobilising situated local knowledge for participatory urban planning through storytelling, *Urban Planning* 7(3):242–253. <https://doi.org/10.17645/up.v7i3.5378>

Stenberg J, Fryk L, Bolin E, Borg P, Castell P, Evenås U, Larberg V (2012) *Urban Empowerment: Cultures of Participation and Learning*. Chalmers University, https://publications.lib.chalmers.se/records/fulltext/175736/local_175736.pdf

Stigendal M, Novy A (2018) Founding transdisciplinary knowledge production in critical realism: implications and benefits, *Journal of Critical Realism* 17(3): 203–220. <https://doi.org/10.1080/14767430.2018.1514561>

Talwar S, Wiek A, Robinson J (2011) User engagement in sustainability research, *Science and Public Policy* 38(5): 379–390. <https://doi.org/10.3152/O30234211X12960315267615>

Thapa K, Vermeulen WJV, Deutz P (2022) Science with society: challenges of early-stage researchers engaging with transdisciplinary research in sustainability science, *Sustainable Development* 30(6): 1562–1572. <https://doi.org/10.1002/sd.2328>

Thompson MA, Owen S, Lindsay JM, Leonard GS, Cronin GS (2017) Scientist and stakeholder perspectives of transdisciplinary research: early attitudes, expectations, and tensions, *Environmental Science & Policy* 74: 30–39. <https://doi.org/10.1016/j.envsci.2017.04.006>

Valencia SC, Simon D, Croese S, Nordqvist J, Oloko M, Sharma T, Taylor Buck N, Versace I (2019) Adapting the Sustainable Development Goals and the New Urban Agenda to the city level: initial reflections from a comparative research project, *International Journal of Urban Sustainable Development* 11(1): 4–23. <https://doi.org/10.1080/19463138.2019.1573172>

Viable Cities (2019) *Mo-Bo | Mobilitetstjänster banar väg för nytänkande arkitektur*. Viable Cities Report 2019:2. https://viablecities.se/wp-content/uploads/2023/11/Viable-Cities-report-2019_2_Mo-BoMobilitetstjansterbanarvagfornytankandearkitektur.pdf

Wahl D (2023) *Experimenting with Sustainability Transformations: A Study of Urban Living Labs in the Food, Water and Energy Nexus*. Doctoral Thesis, Lund University. <https://portal.research.lu.se/en/publications/experimenting-with-sustainability-transformations-a-study-of-urba>

Wiek A, Talwar S, O'Shea M, Robinson J (2014) Toward a methodological scheme for capturing societal effects of participatory sustainability research, *Research Evaluation* 23(2): 117–132. <https://doi.org/10.1093/reseval/rvt031>

Williams S (2017) *Evaluating Societal Effects of Transdisciplinary Co-production Processes*. Mistra Urban Futures Report 2017: 5. Gothenburg: Mistra Urban Futures

Zhou W, Pickett STA, McPhearson T (2021) Conceptual frameworks facilitate integration for transdisciplinary urban science, *npj Urban Sustainability* 1(1): 1. <https://doi.org/10.1038/s42949-020-00011-9>

About

Emma Lysholm and Andrew Karvonen are researchers in the Department of Architecture and the Built Environment at Lund University (<https://www.abm.lth.se>). This report was produced as part of the Lund University Thematic Collaboration Initiative titled 'Urban Arena Testbeds', 2019 to 2024.