

## **HGO4302 – Transformations to Sustainability**

This course explores theories, policies, and practices associated with transformations to sustainability. It provides students with an in-depth overview of concepts, theories and approaches for understanding the relationship between individual change, collective change, and systems change. The course contextualizes research on transformation within the Anthropocene, an epoch where global environmental changes are challenging models of socio-economic organization and the mental models and worldviews associated with them. Readings and lectures will consider the drivers and dynamics of transformative change from multiple perspectives and paradigms, including those that embrace alternative ways of thinking about humanity's relationship with the environment. Seminars will focus on the transformation in practice, including how we individually and collectively actualize large-scale change. "Transformations to Sustainability" introduces broader and deeper understanding of both the challenges of and potentials for generating equitable and sustainable transformations at the rate and scale called for by global change research.

### **Lecture 1: Welcome to the Anthropocene (79 pages)**

(Lynch and Veland 2018) – Chapter 1: Whose Anthropocene? (pages 1-32) – 32 pages

(Lövbrand et al. 2015) – (8 pages)

(Miller and Wyborn 2018) – (8 pages)

(K. O'Brien 2019) – (19 pages)

(Tàbara et al. 2019) – (12 pages)

To come: Article on corona virus and sustainability

### **Lecture 2: Social Tipping Points (45 pages)**

(Bentley et al. 2014) – (7 pages)

(Centola et al. 2018) – (4 pages)

(Lenton 2020) – (9 pages)

(Milkoreit et al. 2018) – (13 pages)

(Otto, Donges, et al. 2020) - (12 pages)

(Westley et al. 2011) – (19 pages)

### **Lecture 3: Concepts and Theories of Transformative Change - (79 pages)**

(Adloff and Neckel 2019) – (11 pages)

(Feola 2015) – (14 pages)

(Meadows 1999) – (12 pages)

(Moore et al. 2014) – (10 pages)

(Sharpe et al. 2016) – (15 pages)

(Waddock and Kuenkel 2019) – (17 pages)

**Lecture 4: Deep Transformations: Linking Capacities and Human Agency (91 pages)**

(Berzonsky and Moser 2017) – (9 pages)

(Otto, Wiedermann, et al. 2020) – (9 pages)

(Schlitz, Vieten, and Miller 2010) – (19 pages)

(Wamsler 2018) – (15 pages)

(Ziervogel, Cowen, and Ziniades 2016) – (20 pages)

Optional: (Hedlund-de Witt 2011) – (19 pages)

**Lecture 5: Deeper Transformations: What is real? (87 pages)**

(Alaimo 2012) - (7 pages)

(Geels 2010) – (16 pages)

(Joronen and Häkli 2017) – (19 pages)

(Müller 2015) – (15 pages)

(K. L. O'Brien 2016) – (9 pages)

(Shotter 2014) – (21 pages)

**Lecture 6: The Politics of Transformation (75 pages)**

(Beckman 2008) – (15 pages)

(Bennett et al. 2019) – (18 papers)

(Blythe et al. 2018) – (18 pages)

(Schlosberg 2004) – (24 pages)

**Lecture 7: Critical Approaches to Transformation (81 pages)**

(Brand 2016) – (23 pages)

(Feola 2019) – (10 pages)

(Schmid and Smith 2020) – (23 pages)

(Wright 2013) – (25 pages)

**Lecture 8: Transforming the Commons – (97 pages)**

(Pereira et al. 2020) – (18 pages)

(Nightingale 2019) – (20 pages)

(Nikolaeva et al. 2019) – (15 pages)

(Radywyl and Biggs 2013) – (12 pages)

(Nieto-Romero et al. 2019) – (11 pages)

(Barkin and Sánchez 2019) – (21 pages)

**Lecture 9: Governing Transformations (88 pages)**

(Biermann 2018) – (13 pages)

(Hölscher, Frantzeskaki, and Loorbach 2019) – (15 pages)

(Kuenkel 2019) – (16 pages)

(Patterson et al. 2016) – (16 pages)

(Waddell 2016) – (28 pages)

**Lecture 10: The Art of Transformation – (71 pages)**

(Lynch and Veland 2018) – (7 pages)

(Hawkins et al. 2015) – (12 pages)

(Galafassi et al. 2018) – (9 pages)

(Tyszczyk and Smith 2018) – (9 pages)

(Whyte 2018) – (19 pages)

(Hendersson and Wamsler 2020) – (15 pages)

**To be included in compendium:**

Lynch and Veland (2018)

O'Brien (2019)

**Complete reading list H20:**

- Adloff, Frank, and Sighard Neckel. 2019. "Futures of Sustainability as Modernization, Transformation, and Control: A Conceptual Framework." *Sustainability Science* 14 (4): 1015–25. <https://doi.org/10.1007/s11625-019-00671-2>.
- Alaimo, Stacy. 2012. "Sustainable This, Sustainable That: New Materialisms, Posthumanism, and Unknown Futures." *PMLA* 127 (3): 558–564.
- Barkin, David, and Alejandra Sánchez. 2019. "The Communitarian Revolutionary Subject: New Forms of Social Transformation." *Third World Quarterly*, July, 1–23. <https://doi.org/10.1080/01436597.2019.1636370>.
- Beckman, Ludvig. 2008. "Do Global Climate Change and the Interest of Future Generations Have Implications for Democracy?" *Environmental Politics* 17 (4): 610–24. <https://doi.org/10.1080/09644010802193500>.
- Bennett, Nathan J., Jessica Blythe, Andrés M. Cisneros-Montemayor, Gerald G. Singh, and U. Rashid Sumaila. 2019. "Just Transformations to Sustainability." *Sustainability* 11 (14): 3881. <https://doi.org/10.3390/su11143881>.
- Bentley, R. A., Eleanor J. Maddison, P. H. Ranner, John Bissell, Camila C. S. Caiado, Pojanath Bhatanacharoen, Timothy Clark, et al. 2014. "Social Tipping Points and Earth Systems Dynamics." *Frontiers in Environmental Science* 2. <https://doi.org/10.3389/fenvs.2014.00035>.
- Berzonsky, Carol L., and Susanne C. Moser. 2017. "Becoming Homo Sapiens Sapiens: Mapping the Psycho-Cultural Transformation in the Anthropocene." *Anthropocene*, Challenges of the "Anthropocene," 20 (December): 15–23. <https://doi.org/10.1016/j.ancene.2017.11.002>.
- Biermann, Frank. 2018. "Global Governance in the 'Anthropocene.'" In *The Oxford Handbook of International Political Theory*, by Frank Biermann, edited by Chris Brown and Robyn Eckersley, 466–78. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780198746928.013.34>.
- Blythe, Jessica, Jennifer Silver, Louisa Evans, Derek Armitage, Nathan J. Bennett, Michele-Lee Moore, Tiffany H. Morrison, and Katrina Brown. 2018. "The Dark Side of Transformation: Latent Risks in Contemporary Sustainability Discourse." *Antipode*. <https://doi.org/10.1111/anti.12405>.
- Brand, Ulrich. 2016. "How to Get Out of the Multiple Crisis? Contours of a Critical Theory of Social-Ecological Transformation." *Environmental Values* 25 (5): 503–25. <https://doi.org/10.3197/096327116X14703858759017>.
- Centola, Damon, Joshua Becker, Devon Brackbill, and Andrea Baronchelli. 2018. "Experimental Evidence for Tipping Points in Social Convention." *Science* 360 (6393): 1116–19. <https://doi.org/10.1126/science.aas8827>.
- Feola, Giuseppe. 2015. "Societal Transformation in Response to Global Environmental Change: A Review of Emerging Concepts." *Ambio* 44 (5): 376–90. <https://doi.org/10.1007/s13280-014-0582-z>.
- . 2019. "Capitalism in Sustainability Transitions Research: Time for a Critical Turn?" *Environmental Innovation and Societal Transitions*, February, S2210422418301576. <https://doi.org/10.1016/j.eist.2019.02.005>.
- Galafassi, Diego, Sacha Kagan, Manjana Milkoreit, María Heras, Chantal Bilodeau, Sadhbh Juarez Bourke, Andrew Merrie, Leonie Guerrero, Guðrún Pétursdóttir, and Joan David Tàbara. 2018. "'Raising the Temperature': The Arts on a Warming Planet." *Current Opinion in Environmental Sustainability* 31 (April): 71–79. <https://doi.org/10.1016/j.cosust.2017.12.010>.
- Geels, Frank W. 2010. "Ontologies, Socio-Technical Transitions (to Sustainability), and the Multi-Level Perspective." *Research Policy*, Special Section on Innovation and Sustainability Transitions, 39 (4): 495–510. <https://doi.org/10.1016/j.respol.2010.01.022>.
- Hawkins, Harriet, Sallie A. Marston, Mrill Ingram, and Elizabeth Straughan. 2015. "The Art of Socioecological Transformation." *Annals of the Association of American Geographers* 105 (2): 331–41. <https://doi.org/10.1080/00045608.2014.988103>.
- Hedlund-de Witt, Annick. 2011. "The Rising Culture and Worldview of Contemporary Spirituality: A Sociological Study of Potentials and Pitfalls for Sustainable Development." *Ecological Economics* 70 (6): 1057–65. <https://doi.org/10.1016/j.ecolecon.2011.01.020>.

- Hendersson, Heidi, and Christine Wamsler. 2020. "New Stories for a More Conscious, Sustainable Society: Claiming Authorship of the Climate Story." *Climatic Change* 158 (3): 345–59. <https://doi.org/10.1007/s10584-019-02599-z>.
- Hölscher, Katharina, Niki Frantzeskaki, and Derk Loorbach. 2019. "Steering Transformations under Climate Change: Capacities for Transformative Climate Governance and the Case of Rotterdam, the Netherlands." *Regional Environmental Change* 19 (3): 791–805. <https://doi.org/10.1007/s10113-018-1329-3>.
- Joronen, Mikko, and Jouni Häkli. 2017. "Politicizing Ontology." *Progress in Human Geography* 41 (5): 561–79. <https://doi.org/10.1177/0309132516652953>.
- Kuenkel, Petra. 2019. *Global Transformation as a Collective Leadership Challenge: An Emerging Theory and Practice of SDG Implementation*. Cham: Springer.
- Lenton, Timothy M. 2020. "Tipping Positive Change." *Philosophical Transactions of the Royal Society B: Biological Sciences* 375 (1794): 20190123. <https://doi.org/10.1098/rstb.2019.0123>.
- Lövbrand, Eva, Silke Beck, Jason Chilvers, Tim Forsyth, Johan Hedrén, Mike Hulme, Rolf Lidskog, and Eleftheria Vasileiadou. 2015. "Who Speaks for the Future of Earth? How Critical Social Science Can Extend the Conversation on the Anthropocene." *Global Environmental Change* 32 (May): 211–18. <https://doi.org/10.1016/j.gloenvcha.2015.03.012>.
- Lynch, Amanda H., and Siri Veland. 2018. *Urgency in the Anthropocene*. Cambridge, MA: MIT Press.
- Meadows, Donella H. 1999. "Leverage Points: Places to Intervene in a System." The Sustainability Institute. <http://donellameadows.org/archives/leverage-points-places-to-intervene-in-a-system/>.
- Milkoreit, Manjana, Jennifer Hodbod, Jacopo Baggio, Karina Benessaiah, Rafael Calderón-Contreras, Jonathan F Donges, Jean-Denis Mathias, Juan Carlos Rocha, Michael Schoon, and Saskia E Werners. 2018. "Defining Tipping Points for Social-Ecological Systems Scholarship—an Interdisciplinary Literature Review." *Environmental Research Letters* 13 (3): 033005. <https://doi.org/10.1088/1748-9326/aaaa75>.
- Miller, Clark A., and Carina Wyborn. 2018. "Co-Production in Global Sustainability: Histories and Theories." *Environmental Science & Policy*, February, S1462901117306366. <https://doi.org/10.1016/j.envsci.2018.01.016>.
- Moore, Michele-Lee, Ola Tjornbo, Elin Enfors, Corrie Knapp, Jennifer Hodbod, Jacopo Baggio, Albert Norström, Per Olsson, and Duan Biggs. 2014. "Studying the Complexity of Change: Toward an Analytical Framework for Understanding Deliberate Social-Ecological Transformations." *Ecology and Society* 19 (4). <https://doi.org/10.5751/ES-06966-190454>.
- Moser, Susanne C. 2020. "The Work after 'It's Too Late' (to Prevent Dangerous Climate Change)." *Wiley Interdisciplinary Reviews: Climate Change* 11 (1). <https://doi.org/10.1002/wcc.606>.
- Müller, Martin. 2015. "Assemblages and Actor-networks: Rethinking Socio-material Power, Politics and Space." *Geography Compass* 9 (1): 27–41. <https://doi.org/10.1111/gec3.12192>.
- Nieto-Romero, Marta, Sandra Valente, Elisabete Figueiredo, and Constanza Parra. 2019. "Historical Commons as Sites of Transformation. A Critical Research Agenda to Study Human and More-than-Human Communities." *Geoforum* 107 (December): 113–23. <https://doi.org/10.1016/j.geoforum.2019.10.004>.
- Nightingale, Andrea. 2019. "Commoning for Inclusion? Commons, Exclusion, Property and Socio-Natural Becomings." *International Journal of the Commons* 13 (1): 16–35. <https://doi.org/10.18352/ijc.927>.
- Nikolaeva, Anna, Peter Adey, Tim Cresswell, Jane Yeonjae Lee, Andre Nóvoa, and Cristina Temenos. 2019. "Commoning Mobility: Towards a New Politics of Mobility Transitions." *Transactions of the Institute of British Geographers* 44 (2): 346–60. <https://doi.org/10.1111/tran.12287>.
- O'Brien, Karen. 2019. "Taking Climate Change and Transformations to Sustainability Seriously." In *What Next for Sustainable Development? Our Common Future at Thirty*, edited by James Meadowcroft, D. Banister, E. Holden, O. Langhelle, K. Linnerud, and G. Gilpin, 200–218. Cheltenham: Edward Elgar.

- O'Brien, Karen L. 2016. "Climate Change and Social Transformations: Is It Time for a Quantum Leap?" *Wiley Interdisciplinary Reviews: Climate Change* 7 (5): 618–26. <https://doi.org/10.1002/wcc.413>.
- Otto, Ilona M., Jonathan F. Donges, Roger Cremades, Avit Bhowmik, Richard J. Hewitt, Wolfgang Lucht, Johan Rockström, et al. 2020. "Social Tipping Dynamics for Stabilizing Earth's Climate by 2050." *Proceedings of the National Academy of Sciences* 117 (5): 2354–65. <https://doi.org/10.1073/pnas.1900577117>.
- Otto, Ilona M., Marc Wiedermann, Roger Cremades, Jonathan F. Donges, Cornelia Auer, and Wolfgang Lucht. 2020. "Human Agency in the Anthropocene." *Ecological Economics* 167 (January): 106463. <https://doi.org/10.1016/j.ecolecon.2019.106463>.
- Patterson, James, Karsten Schulz, Joost Vervoort, Sandra van der Hel, Oscar Widerberg, Carolina Adler, Margot Hurlbert, Karen Anderton, Mahendra Sethi, and Aliyu Barau. 2016. "Exploring the Governance and Politics of Transformations towards Sustainability." *Environmental Innovation and Societal Transitions*, September. <https://doi.org/10.1016/j.eist.2016.09.001>.
- Pereira, Laura, Niki Frantzeskaki, Aniek Hebinck, Lakshmi Charli-Joseph, Scott Drimie, Michelle Dyer, Hallie Eakin, et al. 2020. "Transformative Spaces in the Making: Key Lessons from Nine Cases in the Global South." *Sustainability Science* 15 (1): 161–78. <https://doi.org/10.1007/s11625-019-00749-x>.
- Radywyl, Natalia, and Che Biggs. 2013. "Reclaiming the Commons for Urban Transformation." *Journal of Cleaner Production*, Special Issue: Advancing sustainable urban transformation, 50 (July): 159–70. <https://doi.org/10.1016/j.jclepro.2012.12.020>.
- Schlitz, Marilyn Mandala, Cassandra Vieten, and Elizabeth M. Miller. 2010. "Worldview Transformation and the Development of Social Consciousness." *Journal of Consciousness Studies* 17 (7–1): 18–36.
- Schlosberg, David. 2004. "Reconceiving Environmental Justice: Global Movements And Political Theories." *Environmental Politics* 13 (3): 517–40. <https://doi.org/10.1080/0964401042000229025>.
- Schmid, Benedikt, and Thomas SJ Smith. 2020. "Social Transformation and Postcapitalist Possibility: Emerging Dialogues between Practice Theory and Diverse Economies." *Progress in Human Geography*, February, 030913252090564. <https://doi.org/10.1177/0309132520905642>.
- Sharpe, Bill, Anthony Hodgson, Graham Leicester, Andrew Lyon, and Ioan Fazey. 2016. "Three Horizons: A Pathways Practice for Transformation." *Ecology and Society* 21 (2). <https://doi.org/10.5751/ES-08388-210247>.
- Shotter, John. 2014. "Agential Realism, Social Constructionism, and Our Living Relations to Our Surroundings: Sensing Similarities Rather than Seeing Patterns." *Theory & Psychology* 24 (3): 305–25. <https://doi.org/10.1177/0959354313514144>.
- Tàbara, J. David, Jill Jäger, Diana Mangalagiu, and Marco Grasso. 2019. "Defining Transformative Climate Science to Address High-End Climate Change." *Regional Environmental Change* 19 (3): 807–18. <https://doi.org/10.1007/s10113-018-1288-8>.
- Tyszczyk, Renata, and Joe Smith. 2018. "Culture and Climate Change Scenarios: The Role and Potential of the Arts and Humanities in Responding to the '1.5 Degrees Target.'" *Current Opinion in Environmental Sustainability*, Sustainability governance and transformation 2018, 31 (April): 56–64. <https://doi.org/10.1016/j.cosust.2017.12.007>.
- Waddell, Steve. 2016. "Societal Change Systems: A Framework to Address Wicked Problems." *The Journal of Applied Behavioral Science* 52 (4): 422–449.
- Waddock, Sandra, and Petra Kuenkel. 2019. "What Gives Life to Large System Change?" *Organization & Environment*, May, 108602661984248. <https://doi.org/10.1177/1086026619842482>.
- Wamsler, Christine. 2018. "Mind the Gap: The Role of Mindfulness in Adapting to Increasing Risk and Climate Change." *Sustainability Science*, January, 1–15. <https://doi.org/10.1007/s11625-017-0524-3>.

- Westley, Frances, Per Olsson, Carl Folke, Thomas Homer-Dixon, Harrie Vredenburg, Derk Loorbach, John Thompson, et al. 2011. "Tipping toward Sustainability: Emerging Pathways of Transformation." *Ambio* 40 (7): 762–80.
- Whyte, Kyle P. 2018. "Indigenous Science (Fiction) for the Anthropocene: Ancestral Dystopias and Fantasies of Climate Change Crises." *Environment and Planning E: Nature and Space* 1 (1–2): 224–42. <https://doi.org/10.1177/2514848618777621>.
- Wright, Erik Olin. 2013. "Transforming Capitalism through Real Utopias." *American Sociological Review* 78 (1): 1–25. <https://doi.org/10.1177/0003122412468882>.
- Ziervogel, Gina, Anna Cowen, and John Ziniades. 2016. "Moving from Adaptive to Transformative Capacity: Building Foundations for Inclusive, Thriving, and Regenerative Urban Settlements." *Sustainability* 8 (10): 955. <https://doi.org/10.3390/su8090955>.