

Μάθημα ΣΙ9: Περιβάλλον, Επιστήμη, Τεχνολογία
ΠΜΣ Ιστορία και Φιλοσοφία της Επιστήμης και της Τεχνολογίας (ΙΦΕΤ)
Τμήμα Ιστορίας και Φιλοσοφίας της Επιστήμης (ΙΦΕ)
Σχολή Θετικών Επιστημών (ΣΘΕ)
Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών (ΕΚΠΑ)

Χειμερινό Εξάμηνο
2023-2024
Δευτέρα, 15:00-18:00

e-class: <https://eclass.uoa.gr/courses/PHS542/>

Τέλης Τύμπας (tympas@phs.uoa.gr)
Γιώργος Βελεγράκης (gvelegrakis@phs.uoa.gr)
Γεωργία Φέρμελη (gfermeli@phs.uoa.gr)

Το μάθημα θα εισάγει στη διεπιστημονική περιοχή έρευνας ‘Περιβάλλον, Επιστήμη, Τεχνολογία’, η οποία αξιοποιεί ένα εύρος κλάδων και πεδίων από τις ανθρωπιστικές και κοινωνικές επιστήμες: History and Philosophy of Science and Technology, Science-Technology- Society, Environmental Humanities, Environmental History, Political Ecology, Human and Economic Geography, Environmental/Sustainability Studies, Science and Technology Policy, Innovation Policy/Studies, Sustainability/Transition Studies, Environmental Education. Οι ενότητες του μαθήματος εισάγουν σε μια κριτική προσέγγιση των εννοιών ‘περιβάλλον’ και ‘βιωσιμότητα’, στον τρόπο με τον οποίο η επιστήμη και η τεχνολογία συνδέονται με μια σειρά από περιβαλλοντικά ζητήματα, σε προτάσεις για τη διαμόρφωση της επιστήμης και της τεχνολογίας ώστε να συμβάλουν στην αντιμετώπιση της περιβαλλοντικής κρίσης. Στο πλαίσιο του μαθήματος θα δώσουν διαλέξεις μια σειρά από ερευνήτριες και ερευνητές από την Ελλάδα και το εξωτερικό.

Ενδεικτική Βιβλιογραφία

- Apostolopoulou, E. & Cortes-Vazquez, J. A. (2018). *The Right to Nature: Social Movements, Environmental Justice and Neoliberal Natures*. London: Routledge.
- Beck, S., Forsyth, T., Kohler, P., M., Lahsen, M., & Mahony, M. (2016). The Making of Global Environmental Science and Politics. In Felt, U., Fouche, R., Miller, C. A., & Smith-Doerr, L. (Eds.), *The Handbook of Science and Technology Studies* (4th Ed.), (pp. 1059 – 1086). Cambridge, MA and London: The MIT Press.
- Benson, E. S. (2020). *Surroundings: A History of Environments and Environmentalisms*. Chicago: The University of Chicago Press.
- Braun, B. (2015). From critique to experiment? Rethinking political ecology for the Anthropocene. In Perreault, T., Bridge, G., & McCarthy, J. (Eds.), *The Routledge Handbook of Political Ecology*, (pp. 102 – 114). London and New York: Routledge.
- Breyman, S., Campbell, N., Eubanks, V., & Kinchy, A. (2016). STS and Social Movements: Pasts and Futures. In Felt, U., Fouche, R., Miller, C. A., & Smith-Doerr, L. (Eds.), *The Handbook of Science and Technology Studies* (4th Ed.), (pp. 289 – 317). Cambridge, MA and London: The MIT Press.
- Brittan, G. G. Jr. (2001). Wind, energy, landscape: Reconciling nature and technology. *Philosophy & Geography*, 4(2), 169 - 184.
- Brock, A., Sovacool, B., & Hook, A. (2021). Volatile Photovoltaics: Green Industrialization, Sacrifice, Zones, and the Political Ecology of Solar Energy in Germany. *Annals of the American Association of Geographers*, 111(6), 1756 – 1778.
- Calvário, R., Kaika, M., & Velegrakis, G. (Eds.). (2021). *The Political Ecology of Austerity: Crisis, Social Movements, and the Environment*. London: Routledge.
- Castree, N. (2008). Neoliberalising Nature: The Logics of Deregulation and Reregulation. *Environment and Planning A*, 40(1), 131 - 152.
- Demeritt, D. (2002). What is ‘the social construction of nature’? A typology and sympathetic critique. *Progress in Human Geography*, 26(6), 767 – 790.
- Dörries, M. (2008). The ‘Winter’ Analogy Fallacy: From superbombs to supervolcanoes. *History of Meteorology*, 4, 41 - 56.
- Edwards, P. N. (2010). *Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming*. Cambridge, MA and London: The MIT Press.
- Ensmenger, N., & Slayton, R. (2017). Computing and the Environment: Introducing a Special Issue of Information & Culture. *Information & Culture*, 52(3), 295-303.
- Espinosa, M. I., & Aronczyk, M. (2021). Big data for climate action or climate action for big data? *Big Data & Society*, 8(1).
- Farias, I., & Blok, A. (2016). STS in the City. In Felt, U., Fouche, R., Miller, C. A., & Smith-Doerr, L. (Eds.), *The Handbook of Science and Technology Studies* (4th Ed.), (pp. 555 – 581). Cambridge, MA and London: The MIT Press.

- Fortun, K., Knowles, S., G., Choi, V., Jobin, P., Matsumoto, M., De la Torre III, P., Liboiron, M., & Murillo, L., F. (2016). Researching Disaster from an STS Perspective. In Felt, U., Fouche, R., Miller, C. A., & Smith-Doerr, L. (Eds.), *The Handbook of Science and Technology Studies* (4th Ed.), (pp. 1003 – 1028). Cambridge, MA and London: The MIT Press.
- Gabrys, J., Pritchard, H., & Barratt, B. (2016). Just good enough data: Figuring data citizenships through air pollution sensing and data stories. *Big Data & Society*, 3(2).
- Hardin, G. (1968). The Tragedy of the Commons. *Science*, 162(3859), 1243 – 1248.
- Hecht, G. (2003). Globalization meets Frankenstein? Reflections on terrorism, nuclearity, and Global technopolitical discourse. *History and Technology*, 19(1), 1 - 8.
- Hecht, G. (2007). A Cosmogram for Nuclear Things. *Isis*, 98(1), 100-108.
- Heymann, M. (1998). Signs of hubris: The shaping of wind technology styles in Germany, Denmark, and the United States, 1940 - 1990. *Technology and Culture*, 39(4), σ. 641 - 670.
- Heymann, M., Gramelsberger, G., & Mahony, M. (Eds.). (2019). *Cultures of prediction in atmospheric and climate science: Epistemic and cultural shifts in computer-based modelling and simulation*. London: Routledge.
- Hornborg, A. (2015). Conceptualizing ecologically unequal exchange - Society and nature entwined. In Perreault, T., Bridge, G., & McCarthy, J. (Eds.), *The Routledge Handbook of Political Ecology*, (pp. 378 – 388). London and New York: Routledge.
- Iles, A., Graddy-Lovelace, G., Montenegro, M., & Galt, R. (2016). Agricultural Systems: Co- producing Knowledge and Food. In Felt, U., Fouche, R., Miller, C. A., & Smith-Doerr, L. (Eds.), *The Handbook of Science and Technology Studies* (4th Ed.), (pp. 943 – 972). Cambridge, MA and London: The MIT Press.
- Jones, O. (2009). After Nature: Entangled Worlds. In Castree, N., Demeritt, D., Liverman, D., & Rhoads, B. (Eds.), *A Companion to Environmental Geography*, (pp. 294 – 312). Oxford, UK: Wiley - Blackwell.
- Khandekar, A., Beumer, K., Mamidipudi, A., Sekhsaria, P., & Bijker, W., E. (2016). STS for Development. In Felt, U., Fouche, R., Miller, C. A., & Smith-Doerr, L. (Eds.), *The Handbook of Science and Technology Studies* (4th Ed.), (pp. 665 – 693). Cambridge, MA and London: The MIT Press.
- Latoufis, K. & Tympas, A. (2021). The Craft of Small Wind Turbine Making: The Windmills of Scoraig and the Alternative Technology Movement in the UK. *Digital Culture & Society*, 6(1), 187 - 192.
- Martinez-Alier, J. (2021 in press). Mapping ecological distribution conflicts: The EJAtlas. *The Extractive Industries and Society*.
- Miller, C. A., & Edwards, P. N. (2001). *Changing the Atmosphere: Expert Knowledge and Environmental Governance*. Cambridge, MA and London: The MIT Press.
- Ottinger, G., Barandiaran, J., & Kimura, A. H. (2016). Environmental Justice: Knowledge, Technology, and Expertise. In Felt, U., Fouche, R., Miller, C. A., & Smith-Doerr, L. (Eds.), *The Handbook of Science and Technology Studies* (4th Ed.), (pp. 1029 – 1057). Cambridge, MA and London: The MIT Press.
- Raman, S. (2013). Fossilizing Renewable Energies. *Science as Culture*, 22(2), 172-180.

- Robbins, P. (2015). The trickster science. In Perreault, T., Bridge, G., & McCarthy, J. (Eds.), *The Routledge Handbook of Political Ecology*, (pp. 89 – 101). London and New York: Routledge.
- Rockström, J., Steffen, W., Noone, K., Persson, A., Chapin, F. S. III., Lambin, E., ... Foley, J. (2009). Planetary Boundaries: Exploring the Safe Operating Space for Humanity. *Ecology and Society*, 14(2).
- Schlosberg, D. (2004). Reconceiving Environmental Justice: Global Movements and Political Theories. *Environmental Politics*, 13(3), 517 – 540.
- Siamanta, Z. C. (2021). Conceptualizing alternatives to contemporary renewable energy development: Community Renewable Energy Ecologies (CREE). *Journal of Political Ecology*, 28(1), 47 – 69.
- Sovacool, K. (2010). The importance of open and closed styles of energy research. *Social Studies of Science*, 40(6), 903-930.
- Stine, J., K., & Tarr, J., A. (1994). Technology and the Environment: The Historians' Challenge. *Environmental History Review*, 18(1), 1 - 7.
- Tympas, A. (forthcoming in 2023). Technological black boxing versus ecological reparation: From encased-industrial to open renewable energy. In Papadopoulos, D. (Ed.), *Ecological Reparation: Repair, Remediation and Resurgence in Social and Environmental Conflict*. Bristol, UK: Bristol University Press.
- Watts, M. J. (2015). Now and Then: The origins of political ecology and the rebirth of adaptation as a form of thought. In Perreault, T., Bridge, G., & McCarthy, J. (Eds.), *The Routledge Handbook of Political Ecology*, (pp. 19 – 50). London and New York: Routledge.
- Yearly, S. (2008). Nature and the Environment in Science and Technology Studies. In Hackel, E. J., Amsterdamska, O., Lynch, M., & Wajcman, J. (Eds.), *The Handbook of Science and Technology Studies* (3rd Ed.), (pp. 921 – 947). Cambridge, MA and London: The MIT Press.
- Yenneti, K., Day, R., & Golubchikov O. (2016). Spatial justice and the land politics of renewables: Dispossessing vulnerable communities through solar energy mega-projects. *Geoforum*, 76, 90 -99.