

Landscape Ecology

Brief Preparation Instructions:

- Master the Basics: Solidify your foundation in Ecology and land Landscape Ecology, using the recommended literature. Review the basic concepts of population and community ecology, habitat quality and connectivity, landscape metrics, ecotones, and core habitats.
- Understand the concepts of landscape structure, function and dynamics: review the theory in recommended books and scientific journals, find examples in landscapes in your area and online.
- Get acquainted with the main current issues in Landscape Ecology, as discussed in scientific journals. Examples: changes in landscape pattern and process due to farmland abandonment, intensification of agriculture with larger fields and less woody vegetation, changes in ecotone length per hectare, changes in ecotone width.
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Recommended Resources:

Books:

- Begon, M., Harper, J.L. and Townsend, C.R., 1996. Ecology: individuals, populations and communities.
- Forman, R.T., 1995. *Land Mosaics: The Ecology of Landscapes and Regions* (Vol. 652). Cambridge University Press.
- Forman, R.T., 1995. *Land Mosaics: The Ecology of Landscapes and Regions* (Vol. 652). Cambridge University Press.
- Dramstad, W, Olson, J. and Forman, R.T. 1996. *Landscape Ecology Principles in Landscape Architecture and Land-Use Planning*. Island Press.
- Turner, M., and David Mladenoff. 2007. *Foundation Papers in Landscape Ecology*. Columbia University Press.
- Farina, A. 2006. *Principles and Methods in Landscape Ecology: Toward a Science of Landscape*. Springer.

Online Resources:

Google Scholar is a useful tool for the initial search of scientific articles

- Journal of Environmental Management:
<https://www.sciencedirect.com/journal/journal-of-environmental-management>

- Science of the Total Environment:
<https://www.sciencedirect.com/journal/science-of-the-total-environment>

The two journals listed above are examples of good quality journals with a relevant scope. However, there are many other good journals focusing on these topics in the Web of Science and Scopus databases. While some articles are Open Access (meaning that you can access them for free), others are Subscription Only. However, schools and public science/technical libraries often have the Web of Science subscription.

Land Management and Landscape Planning

Brief Preparation Instructions

- Review Core Concepts: land as a resource, land registers, land and landscape stewardship.
- Focus on different Land Management and Landscape Planning practices, as described in the recommended literature. Find examples of good practice in literature and in your area.
- Get acquainted with the main current issues in Land Management and Landscape Planning as an interdisciplinary profession as discussed in applied and scientific journals. Examples: transition to landscapes of energy, mining activities and post-mining reclamation, suburbanization, land tenure as a driver of land use change.
- Become familiar with landscape architecture and how a practitioner and scholar approach the design and planning for public spaces in cities and town, the use of parks and greenspace, preservation of historic and cultural icons in your community, and how this profession works to mitigate the impacts of climate change.

Recommended Resources:

Books:

- Zimmermann, A., 2015. Planning landscape: dimensions, elements, typologies. Birkhäuser.
- Bieling, C. and Plieninger, T. eds., 2017. The science and practice of landscape stewardship. Cambridge University Press.
- Simonds, J.O., and Starke, B.W. 2006. *Landscape Architecture: A Manual of Environmental Planning and Design*. McGraw Hill.
- Benedict. M.A. and McMahon, E.T. 2006. *Green Infrastructure: Linking Landscapes and Communities*. Island Press.
- Marsh, W.M. 1991. *Landscape Planning: Environmental Applications*. John Wiley and Sons.
- Waldheim, C. 2006. *The Landscape Urbanism Reader*. Princeton Architectural Press.

Online Resources:

Google Scholar

- Landscape and Urban Planning:
<https://www.sciencedirect.com/journal/landscape-and-urban-planning>
- Journal of Environmental Management:
<https://www.sciencedirect.com/journal/journal-of-environmental-management>
- Journal of Cleaner Production:
<https://www.sciencedirect.com/journal/journal-of-cleaner-production>