



SESYNC Feedbacks

News from the National Socio-Environmental Synthesis Center



UPCOMING WEBINAR | Use of Archetypes in Systems Thinking

Join Our Next Modeling Webinar: Use of Systems Thinking Archetypes in Socio-Environmental Modeling

WED. 15 FEB. 2023, 13:00 – 14:30 (EDT UTC -5)
WED. 15 FEB. 2023, 19:00 – 20:30 (CET UTC +1)
THUR. 16 FEB. 2023, 05:00 – 06:30 (AEDT UTC +11)

Solving problems of sustainability requires understanding social and environmental systems as being tightly coupled. Each system's individual components or parts interact in complex ways, and feedbacks—or how change in one part of the system affects other system parts—determine the dynamics of socio-environmental systems (SES). Archetypes are a useful tool that can provide insights into a system's dynamics and facilitate development of formal system models. Archetype analysis can reveal patterns that commonly plague SES, as well as strategies for achieving sustainability across heterogeneous contexts. With its particular focus on using feedback loops as the leverage point for solving sustainability problems, the use of archetypes is growing in research and management.



Sondoss Elsayah
Presenter



**Laura Schmitt
Olabisi**
Panelist



Juan Rocha
Panelist



Renee Obringer
Panelist

This webcast will introduce the concept of archetypes, discuss some of the most common archetypes including their application in research, and describe how the use of archetypes can facilitate the socio-environmental modeling process. It is the next installment in a series of webinars focused on **socio-environmental modeling**. View the event's flyer [here](#).

Registration is required.
[Register HERE.](#)

WEBINAR BACKGROUND | What Are Archetypes?



Before the Event—Want to Learn More about Archetype Analysis?

Check out this **brief explainer article** written by SESYNC's Dr. Margaret Palmer, providing a brief overview of what archetypes are and how their application to socio-environmental systems can help researchers understand and find solutions to sustainability problems. [Learn more.](#)

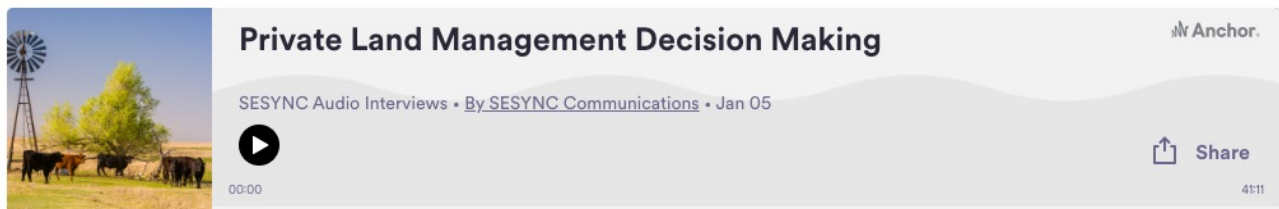
TALKING RESEARCH | Decision Making & Private Lands



New Audio Interview: SESYNC Researchers Discuss Their Efforts to Understand the Decision Making behind Private Land Management

Did you know that most of the land in the United States is privately owned? Approximately 60% of it, in fact. Therefore, how this land is managed has vast implications for the overall health of our environment—including our air and water. But, who makes a majority of those decisions and how do they go about doing it?

In [this episode](#), SESYNC's Erin Duffy talks with Dr. Robyn Wilson and Dr. Rebecca Epanchin-Niell about their teams' efforts to model private land-management decision making using theories from economics, sociology, and psychology. The goal is that with a greater understanding of the decision-making processes of landowners, we can better design programs, incentives, and policies that benefit all. [Listen here](#).



NEW LESSONS AVAILABLE | Advancing Sustainable Development

SESYNC Resources: Lessons on Advancing Sustainable Development Goals

This series of lessons looks at some of the United Nations' (UN's) 17 Sustainable Development Goals (SDGs) that broadly address the critical interdependencies between human well-being and environmental health. These goals include such human-centered priorities as poverty, hunger, education, job opportunity, and gender equity, as well as environmental concerns like climate change, freshwater quality and quantity, and the health of aquatic and terrestrial ecosystems.

Urban Agrobiodiversity

[This lesson](#) delves into the theory and science around urban agrobiodiversity—the variety and quality of food products made available to city dwellers across the globe. It explores how better systems of food production, distribution, diversity, and inclusive cultural representation can raise nutrition standards for urbanites and make progress toward other SDGs like sustainable

cities, reduced inequality, and decent work and economic opportunities.



Systemic Change to Reduce Consumer Impact

This lesson takes a look at the Sustainable Development Goal of Sustainable Consumption and Production (SCP). Learners consider several advised systemic interventions—such as paid labor, good quality public services, support for cooperatives, worker-owned companies, community ownership, etc.—and then design a local strategy for engaging participation in one such intervention.

Gender Equality and Environmental Health

This lesson uses a recent literature review by Call and Sellers (2019) to detail the most effective women's empowerment initiatives to achieve more sustainable methods in the three environmental occupations of agriculture, fishing and aquaculture, and forestry. Learners will investigate the challenges to sustainable development in the three sectors and develop innovative initiatives with gendered needs in mind.



Looking for Supplemental Materials for Your Courses?

SESYNC's learning resources are perfect for **use in the classroom**. Whether you're seeking supplemental literature, illustrative case studies, explanatory video tutorials, or full lesson plans, **SESYNC offers a variety of open-access resources on sustainability topics designed for undergraduates and above**—perfect for integrating into both new and existing courses.

Have suggestions for resources you'd like to see? Contact us at communications@sesync.org.

Be sure to subscribe to **SESYNC's YouTube channel** to receive notifications whenever we add new videos!

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NEW PUBLICATIONS | SESYNC in the Journals

"Continental synchrony and local responses: Climatic effects on spatiotemporal patterns of calving in a social ungulate." Published in *Ecosphere* by former SESYNC

postdoc Ophélie H. Couriot, and colleagues Matthew D. Cameron, Kyle Joly, Jan Adamczewski, Mitch W. Campbell, Tracy Davison, Anne Gunn, Allicia P. Kelly, Mathieu Leblond, Judy Williams, William F. Fagan, Anna Brose, Eliezer Gurarie.

Civic Engagement in American Climate Policy: Collaborative Models. Report published by Civic Green and Tisch College of Civic Life, Tufts University, written by Carmen Sirianni Carmen. This report resulted from the SESYNC Foundation, [Non-State Actors in Environmental Governance](#).

"Paleolimnological responses of Ecuadorian páramo lakes to local and regional stressors over the last two millennia." Published in *Journal of Paleolimnology* by Melina Luethje, former SESYNC postdoc Xavier Benito, Tobias Schneider, Pablo V. Mosquera, Paul Baker and Sherilyn C. Fritz.

"Collaborative Watershed Modeling as Stakeholder Engagement Tool for Science-Based Water Policy Assessment in São Paulo, Brazil." Published in *Water* by former SESYNC Postdoc Se Jong Cho, with colleagues Claudio Klemz, Samuel Barreto, Justus Raeppele, Henrique Bracale, Eileen Andrea Acosta, Carlos Andres Rogéliz-Prada, and Bruna S. Ciasca.

"Building blocks of polycentric governance." Published in *Policy Studies Journal* by Tiffany H. Morrison, Örjan Bodin, Graeme S. Cumming, Mark Lubell, Ralf Seppelt, Tim Seppelt, and Christopher M. Weible. This article resulted from the SESYNC project, [Testing Ostrom's Frameworks](#).

"Economic Cost of Drought and Potential Benefits of Investing in Nature-Based Solutions: A Case Study in São Paulo, Brazil." Published in *Water* by former SESYNC postdoc Se Jong Cho, Bruna Stein Ciasca, Claudio Klemz, Justus Raeppele, Timm Kroeger, Eileen Andrea P. Acosta, Samuel Barreto, Henrique Bracale, and Fernando Cesário.

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