

An introduction to social-ecological urban design

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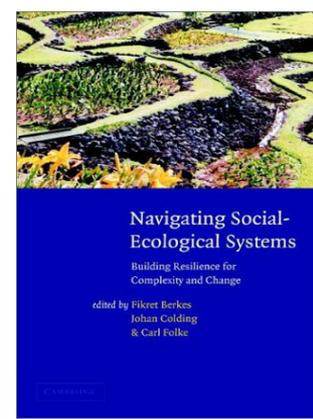
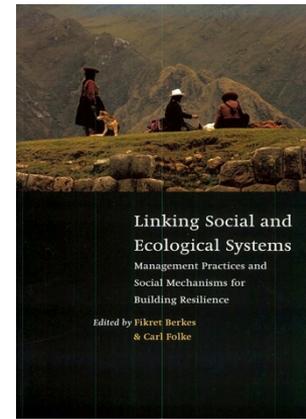
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Outline of presentation

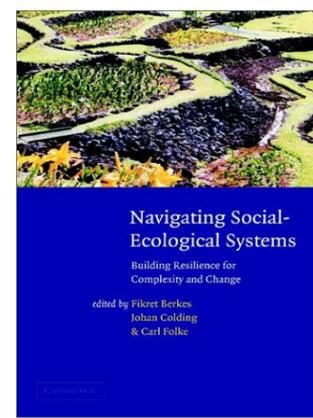
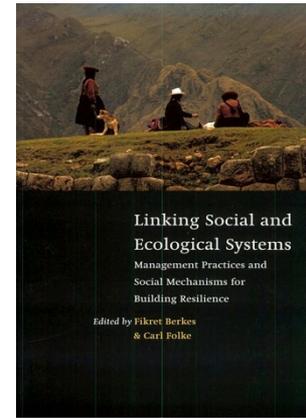
- Social-ecological systems
- Resilience
- Institutions and Property Rights
- Adaptive co-management

Social-ecological systems (SES)



- Social and ecological systems are truly interlinked and inter-dependent and need to be analyzed as one system
- No pristine / “untouched” ecosystems any longer. People are part of ecosystems and shape them, from local to global scales, from past to the future.

Social-ecological systems (SES)

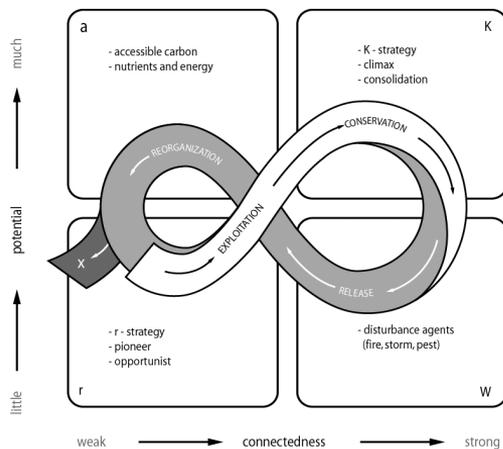


- Ecosystems provide the fundament for social and economic development (Berkes et al. 1998)

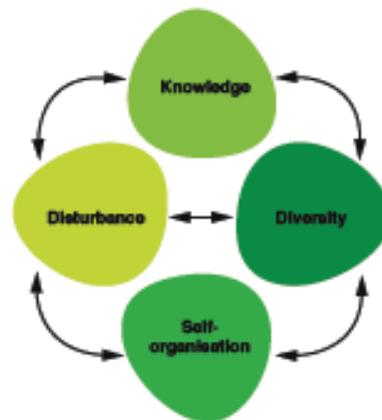
Resilience

The ability of a system to absorb change and disturbance, renew itself and continue to deliver critical functions

(Holling 1973; 1978)



The Adaptive Cycle

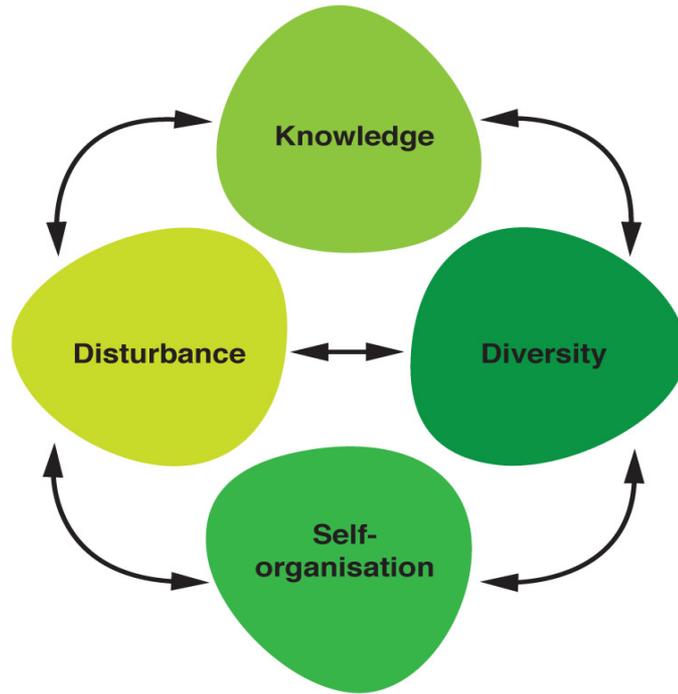


Factors promoting resilience

Resilience

Resilience focuses on “the ability to *persist* and the ability to *adapt*” (Adger, 2003).

Resilience principles



Berkes et al. 2003

(Manage **Connectivity**, and **Slow variables** and feedbacks!)

Why is resilience important for sustainable urban development?

3 major challenges

1. The scale of Urban growth and demographic change
2. Global warming and climate change
3. Extinction of species and loss of ecosystem services

The role of *institutions* in urban planning and design

Institutions

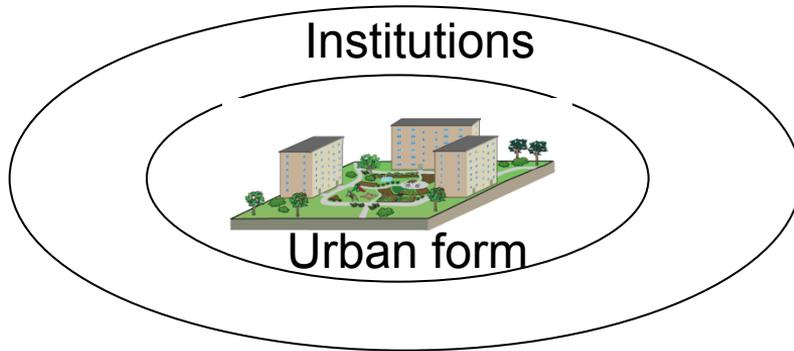
Rules and norms and their enforcement characteristics

North (1990)



Institutions

Frame and determine the shape and function of *urban form* (buildings and the spaces between)



Examples of institutions

- Building codes
- Detail and comprehensive plans
- Environmental legislation

Property-rights regimes



(Ostrom and Schlager, 1996)

Property-rights regimes

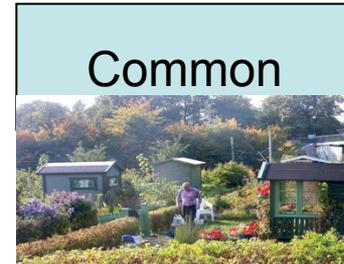


Institutional theory suggests that a diversity of PRR promotes resilience in social-ecological systems

(Hanna, 1996)

Privatization of urban public space is a global phenomenon (Lee and Webster 2006)

Property-rights regimes



Privatization of public space tends to reduce civic access to and use and management of urban land (reduce participation)

(Colding 2009; Colding & Barthel 2013)

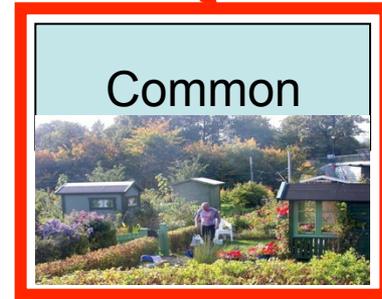


Privatization of public space often runs contrary to sustainability goals of *justice*, *participation*, *sense of place* (Dempsey et al. 2011)



Property-rights regimes

Alternative to privatization?



Common Property Systems

(Ostrom 1990; 2008)

- A group of people manage land and resources

Common Property Systems

(Ostrom 1990; 2008)

- A group of people manage land and resources
- The group can develop their own management institutions
- The group holds the right to exclude non-members

Urban Green Commons

Green-areas (e.g. parks) that are organized by civic society groups and managed by way of local informal institutions

(Colding & Barthel 2013)



City garden in Berlin

Adaptive management

A systematic process for continually improving management policies and practices by learning from past outcomes.

Management is treated as *experiments* for the purpose of learning.

Berkes et al. 2001

Adaptive Co-management

A governance system involving a multitude of stakeholders and their knowledge that together are involved in adaptive management.

(Folke et al. 2002)

**Campus Albano is a result of adaptive
co-management**

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