

RUHR-UNIVERSITÄT BOCHUM

**Session 7 - Developing visions and scenario storylines (hands on)** 

Dr. Blal Adem Esmail
Institute of Geography | Transformation Metropolitaner Regionen | @PlacesLab | @blal\_adem

EUP - Session 7: Developing visions and scenario storylines (hands on)

## Content

- Reflection on the presentation session
- Framework for Alternative Future by Steinz
- Ecological planning model by Steiner.
- Co-design of the hands-on process: discussing next tasks
- Visions and scenario storylines Urban Nature Futures Framework (UNFF)
  - Nature for Nature
  - Nature for Society
  - Nature as Culture



# Peer evaluation





RUHR-UNIVERSITÄT BOCHUM

JOINT PROBLEM ANALYSIS IN SKARPNÄCK

ovironmental Urban Planning 2024



CASE STUDY SKARPNÄCK-DISTRICT

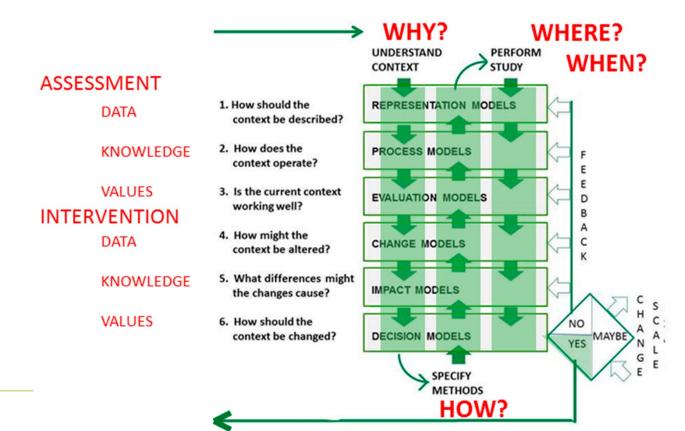
attack Constant

	4. The presenters delivered the material in a clear and structured manner.	$_{\rm P}$ o o $_{\rm G}$ $_{\rm A}$ $_{\rm A}$ $_{\rm A}$ $_{\rm B}$ . The presenters were knowledgeable about the topic and any related issues.	a $\omega$ o $\omega$ b b entire presenters maintained my interest during the entire presentation.	<ul> <li>b c c b c b d. The presenters answered questions effectively</li> </ul>	5. The presenters were enthusiastic about the topic.	α σ σ σ α α α α α α α α α α α α α α α α	$_{\rm F}$ c $_{\rm G}$ = $_{\rm N}$ > $_{\rm N}$ The presentation contained practical examples and useful lechniques that applied to current work.	$\mathbf{r}$ σ σ $\mathbf{r}$ $\mathbf{r}$ $\mathbf{c}$ $\mathbf{c}$ $\mathbf{g}$ . The visual aids were effective.	A + σ α ω ω + 10. Overall, I would rate this presentation as:	Total
Average	3.7	4.1	3.6	3.9	4.1	4.0	3.0	3.7	3.7	3.8
Group B - Nils Magin et al.	3	3	3	4 2	5 2	4 2	3 2	4 2	4 2	
	4	3	3	4	4	4	4	4	4	1
	3	4	4	4	4	4	3	3	4	1
	3	3	1	3	3	2	4	1	3	ŀ
	5	5	5	5	5	5	5	5	5	ŀ
	5	4	3	4	5	5	3	2	4	ŀ
Average	3.7	3.6	3.1	3.7	4.0	3.7	3.4	3.0	3.7	3.5
Average	3.1	3.6	3.1	3.1	4.0	3.1	3.4	3.0	3.1	3.5
Group C - Richard Joseph Cullen et al.	4	4	5	5	5	3		3	4	<del></del>
Group C - Richard Joseph Cullen et al.	3	3	3	4	3	3	4	2	4 3	ŀ
	3	3 4		3	4	3	4	2	3	
	5		4							
		5	5	5	5	5	5	5	5	ļ
	1	3	4	2	5	4	3	3	3	
Average	4 2	4	3 2	5 4	4	4 3	3 4	3 2	4 3	ļ
Atorago	3.1	3.9	3.7	4.0	4.3	3.6	3.9	2.9	3.6	3.7





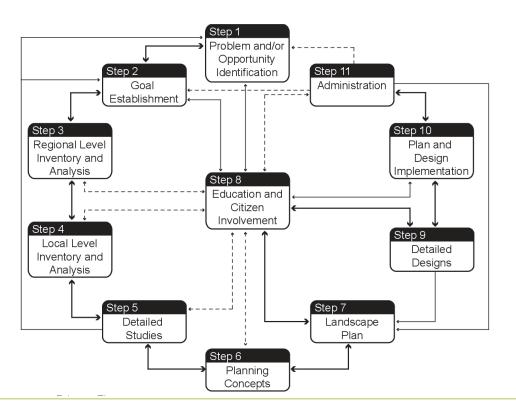
## Framework for Alternative Future Studies







# **Ecological planning model (Steiner 2008)**



←→ Primary Flow

→ Feedback Loops

←--> Additional Feedback Loops



# Suggested reading

Theories, methods and strategies for sustainable landscape planning

Jack Ahern'



The objective of this paper is to review briefly the theory of contemporary sustainable landscape planning, to present a typology of landscape-planning methods and apply the typology to several landscape-planning frameworks and methods. Sustainability is an international policy goal with multiple dimensions and implications for planning. Landscape planning prescribes alternative spatial configurations of land uses, which are widely understood as a key factor in planning for sustainability. Selected methods for sustainable landscape planning are reviewed according to the typology presented. Challenges, barriers and strategies to the implementation of sustainable landscape planning are discussed with recommendations and methods referenced. Keywords: sustainability; landscape planning; spatial configuration

119

# Theories, Methods & **Strategies for Sustainable Landscape Planning**

Ahern 2005

Available here

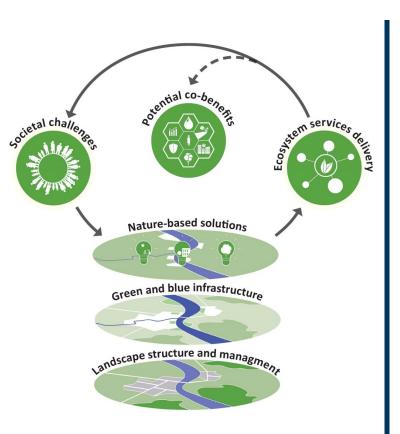


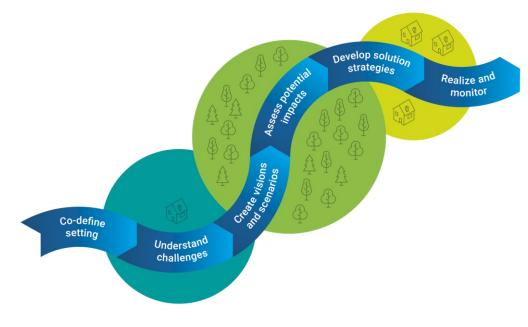
Department of Landscape Architecture and Regional Planning. University of Massachusetts.

Amherst, MA 01003, USA. E-mail: jfa@larp.umass.edu

# NBS Frameworks

# **Criteria, Planning Steps, Principles**







Placespecificity



Evidence base



Integration



Equity



Transdisciplinarity

# EUP in Skarpnäck: Co-design

- Study area
- Stockholm City Plan + Stockholm Vision
- Selection of 4 challenges/ES

Step 1 - Problem analysis

Presenting problem analysis in Skarpnäck

Step 2 - Visions and scenario storylines

Presenting proposed visions for Skarpnäck

Step 3 - Designing solutions

Step 4 - Assessing ES impacts

Presenting proposed solutions their impacts

**Session 6 - May 13, 2024** 

**Session 9 - June 10, 2024** 

**Session 13 - July 8, 2024** 



# Visions and visioning in planning

#### Not one clear meaning but as many as twenty different and distinct meanings

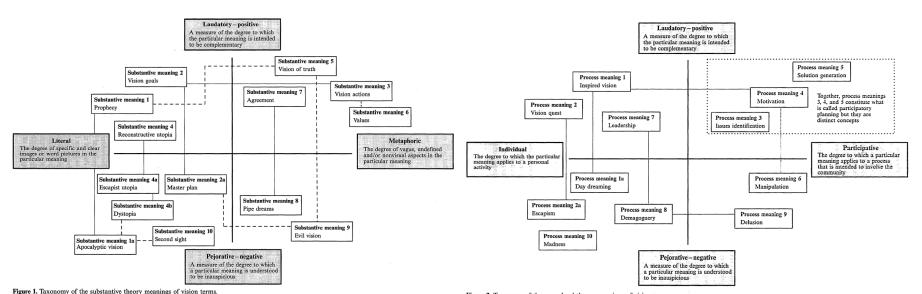
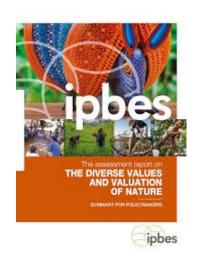
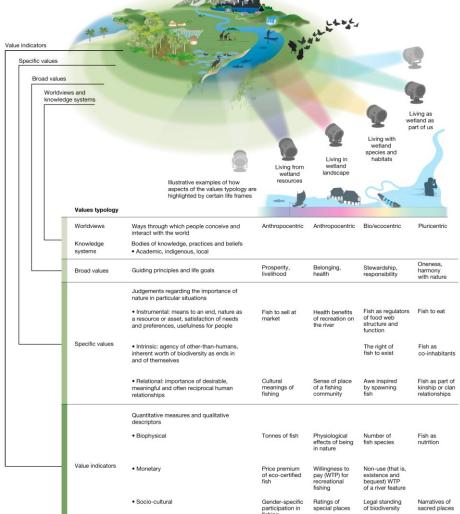


Figure 2. Taxonomy of the procedural theory meanings of vision terms.



# Diverse values and valuation of nature







**World-views** are like lenses through which people perceive, make sense of and act upon the world. Embedded in cultures and languages, world-views shape people's values in their relationships with other people and with nature. **Anthropocentric world-views** prioritize people; **bio/ecocentric** world-views emphasize nature's inherent value and its evolutionary and ecological processes. E.g. application of a bio/ecocentric world-view in policy is the recognition of the rights of Mother Earth. **Pluricentric world-views** focus on relationships between humans and other-than-humans, as well as nature's elements and systemic processes {2.2.1}. **Cosmocentric world-views** can be understood as bridging bio/ecocentric and pluricentric world-views, i.e. living in harmony with all forms of existence that are considered alive and connected by reciprocal and interdependent relationships {2.2.1}.

**Knowledge systems** are dynamic bodies of knowledge, practices and beliefs, pertaining to the relationships of living beings, including people, with one another and with nature, embedded in world-views. **Scientific knowledge systems** entail explicit knowledge derived from applying formal and generalizable methods. **Indigenous and local knowledge**, which includes traditional knowledge, is highly diverse, grounded in territory and sociocultural identity and is based on different knowledge types (e.g., written, oral, visual, tacit, practical) {2.2.1}.

**Broad values** are general moral guiding principles and life goals (e.g., freedom, justice, responsibility, harmony with nature, harmony with Mother Earth, health, prosperity) informed by people's world-views and beliefs. They are often embedded in a **society's institutions** (i.e., informal social conventions and norms, and formal legal rules) and can underpin people's specific values of nature {2.2.3.1}.

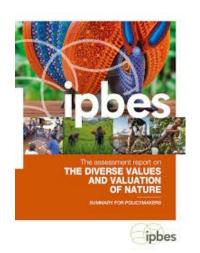
**Specific values** are judgements regarding nature's importance in particular situations {2.2.3.2}. They can be grouped into **instrumental**, **intrinsic** and **relational values**. **Instrumental values** relate to things that are a means to a desired end and tend to be associated with nature (e.g., as asset, capital, resources) and its contributions to people. **Intrinsic values** relate to the values of nature expressed independently of any reference to people as valuers and include entities such as habitats or species that are worth protecting as ends in and of themselves. **Relational values** refer to the meaningfulness of people-nature interactions, and interactions among people (including across generations) through nature (e.g., sense of place, spirituality, care, reciprocity) {2.2.3}.

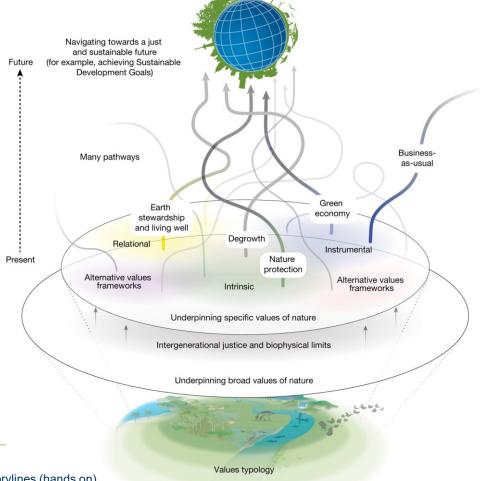
**Value indicators** are quantitative measures and qualitative descriptors that reflect nature's importance to people. Indicators are generally grouped as **biophysical**, **monetary** and **sociocultural** {2.2.4}.

**Life frames** of nature's values allow the organization and communication of the richness of the relationships between people and nature. A set of life frames (e.g., living from, with, in and as nature) can be used to organize and reflect distinct sets of values found in the typology. Life frames are diverse and not mutually exclusive, but help to understand how certain values are highlighted in particular decision-making contexts and can inform the design of integrated valuations {2.3.1; 1.2.3}



# Diverse values and valuation of nature







#### **Eco-centric values**



Relational values

**Utilitarian values** 

NATURE AS NATURE (Biodiversity first)

NATURE FOR SOCIETY (People first)

NATURE AS CULTURE (Tradition first)



Source: Mansur er at. 2020, in Environmental Science and Policy

# Visions and scenario storylines

#### NATURE AS NATURE

(eco-centric intrinsic values of nature dominate) where nature has value in and of itself without direct human benefits and the preservation of nature's functions is of primary importance

#### NATURE FOR SOCIETY

(utilitarian values dominate) is a perspective leading to a set of multiple uses of nature for the benefit of people

#### NATURE AS CULTURE

(relational values dominate) is a perspective, often expressed in local knowledge systems where nature is shaped by culture and vice versa and where people's identity is associated with nature

#### **Eco-centric values**







# Visions and scenario storylines

#### **NATURE AS NATURE**

(eco-centric intrinsic values of nature dominate) where nature has value in and of itself without direct human benefits and the preservation of nature's functions is of primary importance

- More space for natural areas and biodiversity, enabling ecological processes to operate with little or no human intervention.
- **Urban development is compact** with extensively consolidated greenspaces to better protect sensitive and endemic species.
- Natural habitats are protected and there is space for urban forests and wild parks,
- Rivers and lakes are clean, wastewater treatment is effective,
- People and policymakers recognize **rivers as living systems**, especially in the management and restoration of freshwater biodiversity and riparian buffer zones.
- Rewilding is promoted as a management strategy in large portions of the city parks,
- Ecological corridors connect urban green areas to wider landscapes.
- **Urban dwellers value nature** intrinsically and experience wildlife through various activities such as bird watching and walks in the woods.
- There is education on biodiversity conservation, which contributes to conservation

#### **Eco-centric values**





# ce: Mansur er at. 2020, in Environmental Science and Policy

# Visions and scenario storylines

#### **NATURE FOR SOCIETY**

A perspective leading to a set of multiple uses of nature for the benefit of people

- **Deployment of nature-based solutions (NBS),** for example, enhancing the use of green and blue infrastructure such as constructed wetlands and urban tree planting.
- NBS are designed solely to provide a range of ecosystem services, e.g. clean air
- Coastal and riparian zones are protected as natural defenses against floods.
- People have more access to pocket parks and urban green areas, including increased access to a network of green corridors for walking, biking, and riding
- **City parks and landscapes** are managed to promote good mental and physical health conditions. There are incentives for recreational activities in open spaces.
- Environmental education programs where people learn the value of nature for human well-being. Community initiatives on climate mitigation, tree sponsorship, sorting of domestic waste for recycling, and cleaning of rivers. Urban gardens as solutions;
- Emphasis on equitable distribution of benefits across various communities in the city.
- A circular economy is promoted, e.g. more investments in renewable energy, and compact urban development that enhances transport efficiency and promotes integrated mixed-use environments with walkable neighborhoods.

#### **Utilitarian values**







# ce: Mansur er at. 2020, in Environmental Science and Policy

# Visions and scenario storylines

#### **NATURE AS CULTURE**

A perspective, often expressed in local knowledge systems where nature is shaped by culture & vice versa and people's identity is associated with nature

- People have opportunities to enjoy nature as culture in a multitude of ways, actively engaging with nature in activities contributing to social cohesion, sense of place, cultural identity, and stewardship of nature, through which people take care of the environment.
- **Important historical sites**, e.g. botanical gardens, urban parks, and sacred sites, that represent the city's relationship with nature, **are protected and well-managed**.
- Protection of culturally important species prioritized in city parks regardless of origin;
- **Urban parks and landscapes reflect cultural norms** and the historical context that define the relationship of people with nature in different parts of the city;
- Spaces for nature and people created for the emergence of new cultural expressions,
   People engage in community gardening as a cultural practice, promoting social cohesion and identity. E.g. various crops reflecting the cultural backgrounds;
- **Urban dwellers often visit nearby farms** and cultural landscapes, participate in farming and cultural activities. Consumer preference for farmers' market products.
- Learning through generations: opportunities to perpetuate socio-ecological memories
- Education programs promote the benefits of cultural interactions with nature;

#### Relational values







# Visions and scenario storylines

#### NATURE AS NATURE

(eco-centric intrinsic values of nature dominate) where nature has value in and of itself without direct human benefits and the preservation of nature's functions is of primary importance

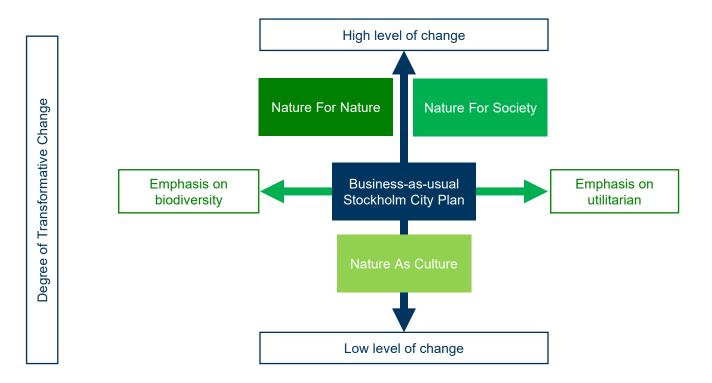
- More space for natural areas and biodiversity, enabling ecological processes to operate with little or no human intervention.
- **Urban development is compact** with extensively consolidated greenspaces to better protect sensitive and endemic species.
- · Natural habitats are protected and there is space for urban forests and wild parks,
- · Rivers and lakes are clean, wastewater treatment is effective,
- People and policymakers recognize **rivers as living systems**, especially in the management and restoration of freshwater biodiversity and riparian buffer zones.
- Rewilding is promoted as a management strategy in large portions of the city parks,
- Ecological corridors connect urban green areas to wider landscapes.
- **Urban dwellers value nature** intrinsically and experience wildlife through various activities such as bird watching and walks in the woods.
- There is education on biodiversity conservation, which contributes to conservation

#### **Eco-centric values**





### **Dominant perspectives on nature-human relations**



# Source: Albert et al., in prep, Illustration by L. Böhm

## E.g. Visions and scenario storylines – Lahn River

















# Hands-on Environmental Urban Planning

Task: Prepare a "guiding statement/objective" and a short paragraph describing your specific scenario. Build on your previous problem analysis of the study area. It is important that you familiarize yourself with the respective **perspectives of the nature-human relationships** for which you are responsible, i.e. nature for nature, nature for society, and nature as culture.

CH 1: Urban heat island

**CH 2: Loss of biodiversity** 

**CH 3: Flooding risks** 

CH 4: Social cohesion & Quality of life

NATURE AS NATURE (Biodiversity first)

NATURE FOR SOCIETY (People first)

NATURE AS CULTURE (Tradition first)



# Thank You

PLACES Lab - blal.ademesmail@rub.de

### Suggested readings

- Ahern, Jack. 2005. "Theories, Methods & Strategies for Sustainable Landscape Planning." In From Landscape Research to Landscape Planning: Aspects of Integration, Education and Application, edited by B. Tress, G. Tres, G. Fry, and P. Opdam, 434. Frontis - Wageningen International Nucleus for Strategic Expertise.
- Albert, Christian, Mario Brillinger, Paulina Guerrero, Sarah Gottwald, Jennifer Henze, Stefan Schmidt, Edward Ott, and Barbara Schröter. 2021. "Planning Nature-Based Solutions: Principles, Steps, and Insights." Ambio 50 (8): 1446–61. https://doi.org/10.1007/s13280-020-01365-1.
- IPBES. 2022. Summary for Policymakers of the Methodological Assessment Report on the Diverse Values and Valuations of Nature of the Intergovernmetal Science-Policy Platform on Biodiversity and Ecosystem Services. Bonn, Germany: IPBES secretariat.
- Mansur, Andressa V., Robert I. McDonald, Burak Güneralp, Hye Jin Kim, Jose A.Puppim de Oliveira, Corey T. Callaghan, Perrine Hamel, et al. 2022. "Nature Futures for the Urban Century: Integrating Multiple Values into Urban Management." Environmental Science and Policy 131: 46–56. https://doi.org/10.1016/j.envsci.2022.01.013.
- Pascual, Unai, Patricia Balvanera, Christopher B. Anderson, Rebecca Chaplin-Kramer, Michael Christie, David González-Jiménez, Adrian Martin, et al. 2023. "Diverse Values of Nature for Sustainability." Nature 620 (7975): 813–23. https://doi.org/10.1038/s41586-023-06406-9.
- Shipley, R., and R. Newkirk. 1999. "Vision and Visioning in Planning: What Do These Terms Really Mean?" Environment and Planning B: Planning and Design 26 (4): 573–91. https://doi.org/10.1068/b260573.
- Shipley, Robert. 2002. "Visioning in Planning: Is the Practice Based on Sound Theory?" Environment and Planning A 34 (1): 7–22. https://doi.org/10.1068/a3461.
- Shipley, Robert, and John L. Michela. 2006. "Can Vision Motivate Planning Action?" Planning Practice and Research 21 (2): 223–44. https://doi.org/10.1080/02697450600944715.
- · Steiner, Frederick. 2000. The Living Landscape: An Ecological Approach to Landscape Planning. Second. New York: McGraw-Hill.
- Steiner, Frederick R., and Allan W. Shearer. 2016. "Geodesign—Changing the World, Changing Design." Landscape and Urban Planning 156: 1–4. https://doi.org/10.1016/j.landurbplan.2016.11.006.
- · Steinitz, Carl. 2012. A Framework for Geodesign: Changing Geography by Design. ESRI.

