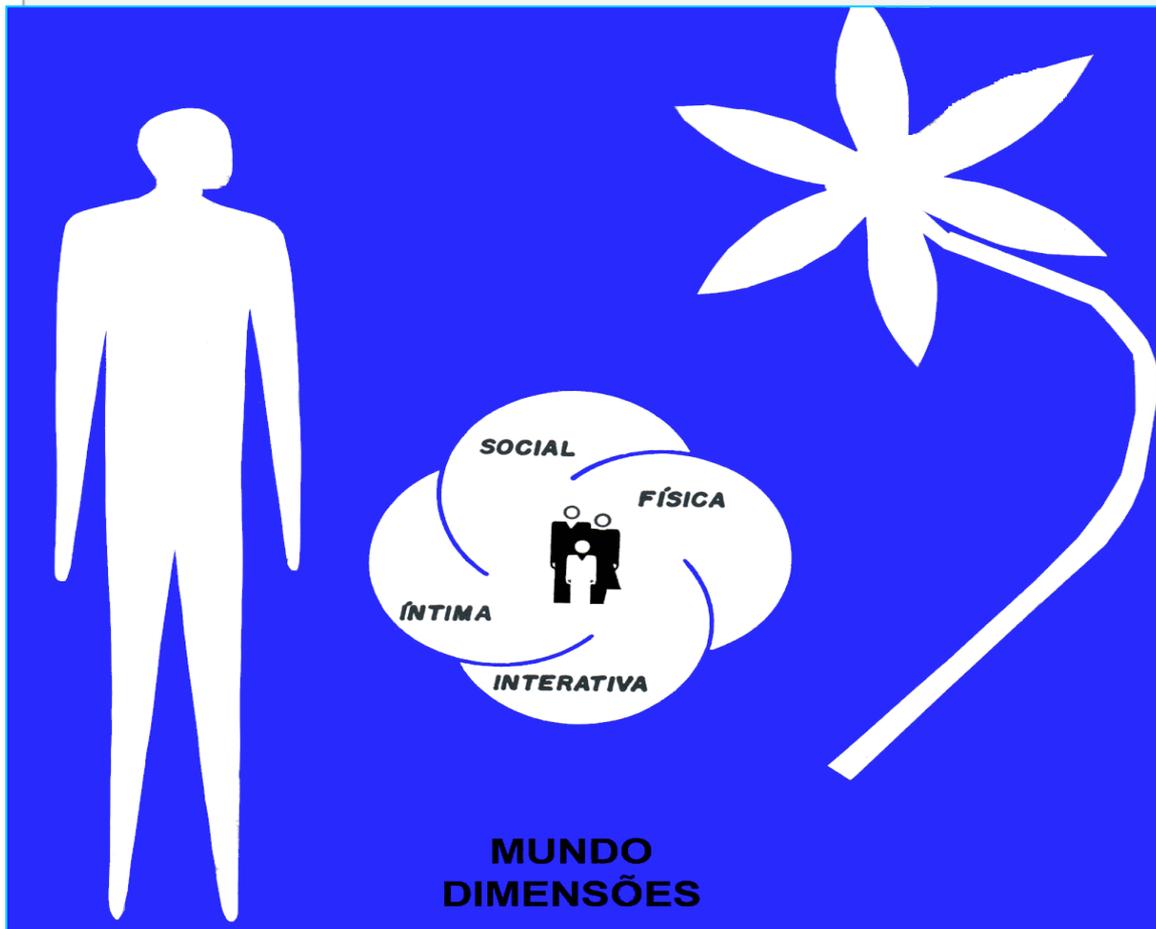


# The Bubbles or the Boiling Water?

## A Course on Environmental Capacity Building



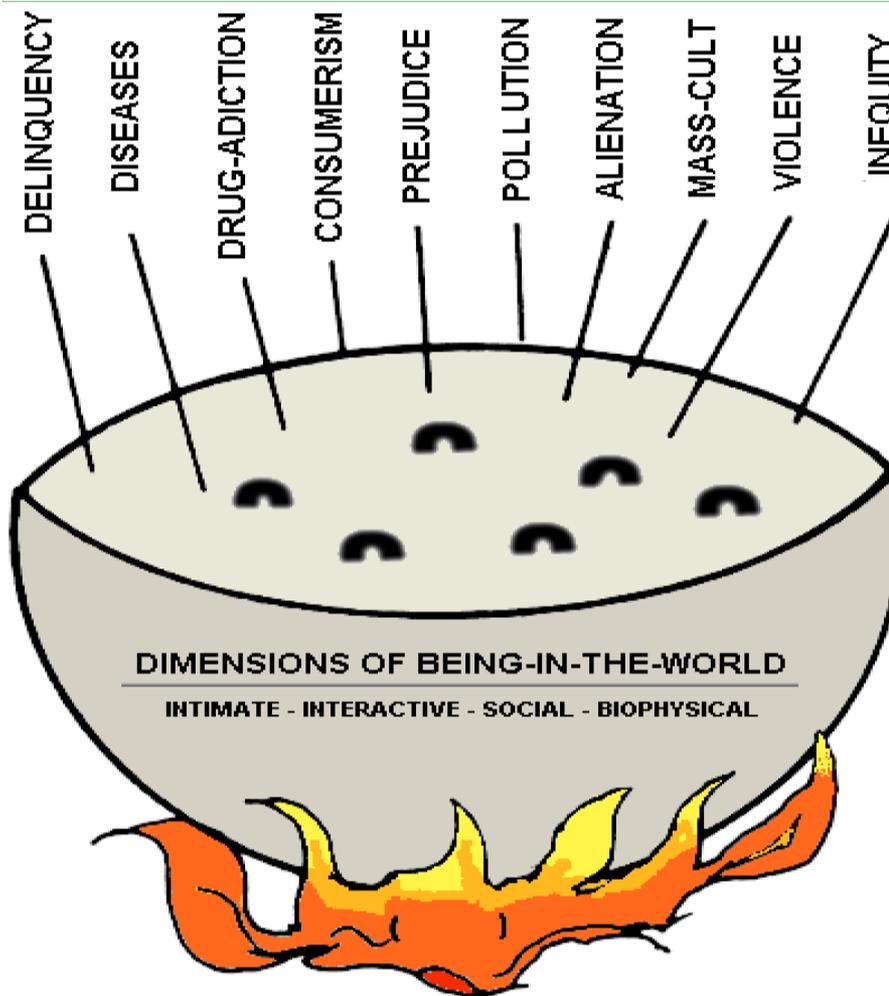
André F. Pilon

University of São  
Paulo

Academy of  
Science, Health &  
Ecology

UNCCD / SPI  
Committee  
Member

# The Bubbles or the Boiling Pot? Dealing with the General Phenomenon

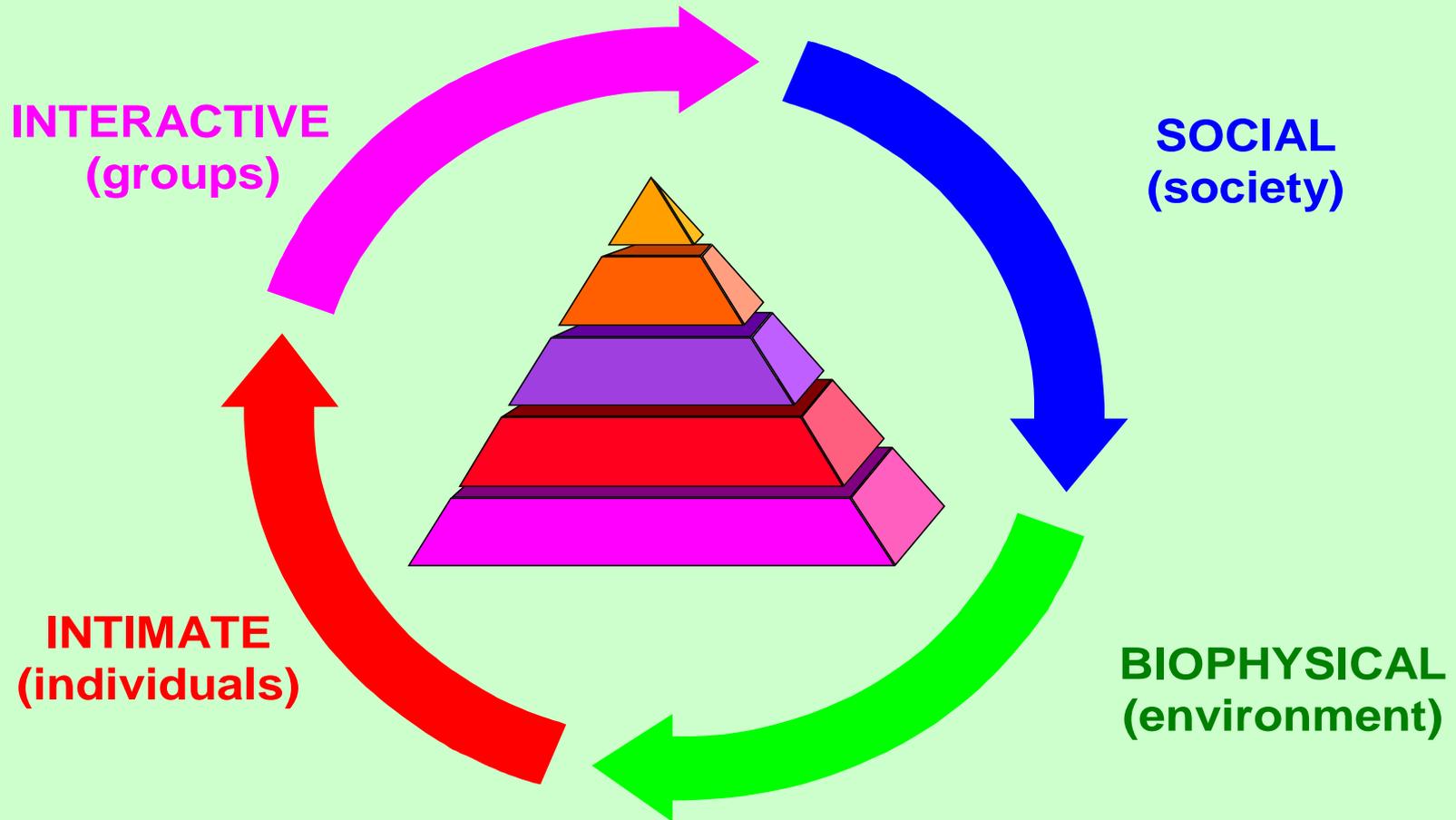


The problems are not in the 'bubbles' of mass-media headlines and academic formats; they are deep inside the boiling pot, in the tangle of social, environmental, political, economic and cultural counter-actions along places and time.

# Re-framing Relationships Between Humans and the Earth

- How could recover of Earth (regeneration, retrieval) uphold the recover of humans?
- How could recover of humans (regeneration, retrieval) uphold the recover of Earth?
- How to engage people as political, economic and social actors to trigger change?
- How to preserve biodiversity, biomes and land to live better in a better world?

# Triggering the Events in the Four Dimensions of Being in the World



# The Four Dimensions' Interplay in the Fabric of the Events

Examples: Building a Cathedral  
Going to the Moon / A Soccer Game

Intimate: Subjectivity  
+  
Interactive: Relationships  
+  
Social: Institutions  
+  
Biophysical: Environment  
Technologies



# Dimensions' Interplay in Poor Livelihoods Conditions

**INTIMATE**  
Lack of  
Resilience  
+  
**INTERACTIVE**  
Group  
Marginalization  
+  
**SOCIAL**  
Cultural  
Vulnerabilities  
+  
**-BIOPHYSICAL**  
Unhealthy  
Environments



# Combining the Four Dimensions (Deficits / Assets / Goals / Outputs)

- *Eliciting* the events (deficits/assets);
- *Coping* with the consequences (desired/undesired);
- *Upholding* the changes (potential outputs).
  - Intimate: motives, values, capabilities
  - Interactive: relationships, allegiances
  - Social: political, economic, cultural
  - Biophysical: natural/built environments

# Aspects to Consider when Dealing with Lock-ins and Barriers to Change

- Prevailing paradigms of growth, power, wealth, work and freedom embedded into the social, economic, technological, political, cultural and educational systems.
- Institutional capacity, judicial neutrality, informational transparency and social spaces for civic engagement.
- Equilibrium, balance standing between the different dimensions of being in the world.

# Effects of Technologies and Social Institutions on Quality of Life

- "To build a sustainable society we need to redesign technologies and social institutions to bridge the gap between human design and the sustainable systems of nature".

UNESCO-EOLSS Joint Committee Warning

- "Three to five percent of elites at the top of influence (military, economic, political, educational and cultural in the media, arts, entertainment, would be enough to shift the mindset of the larger population".

Collins and Makowsky

CONSUMERIST  
PROFIT-ORIENTED

GLOBAL STRUCTURES  
OF VIOLENCE

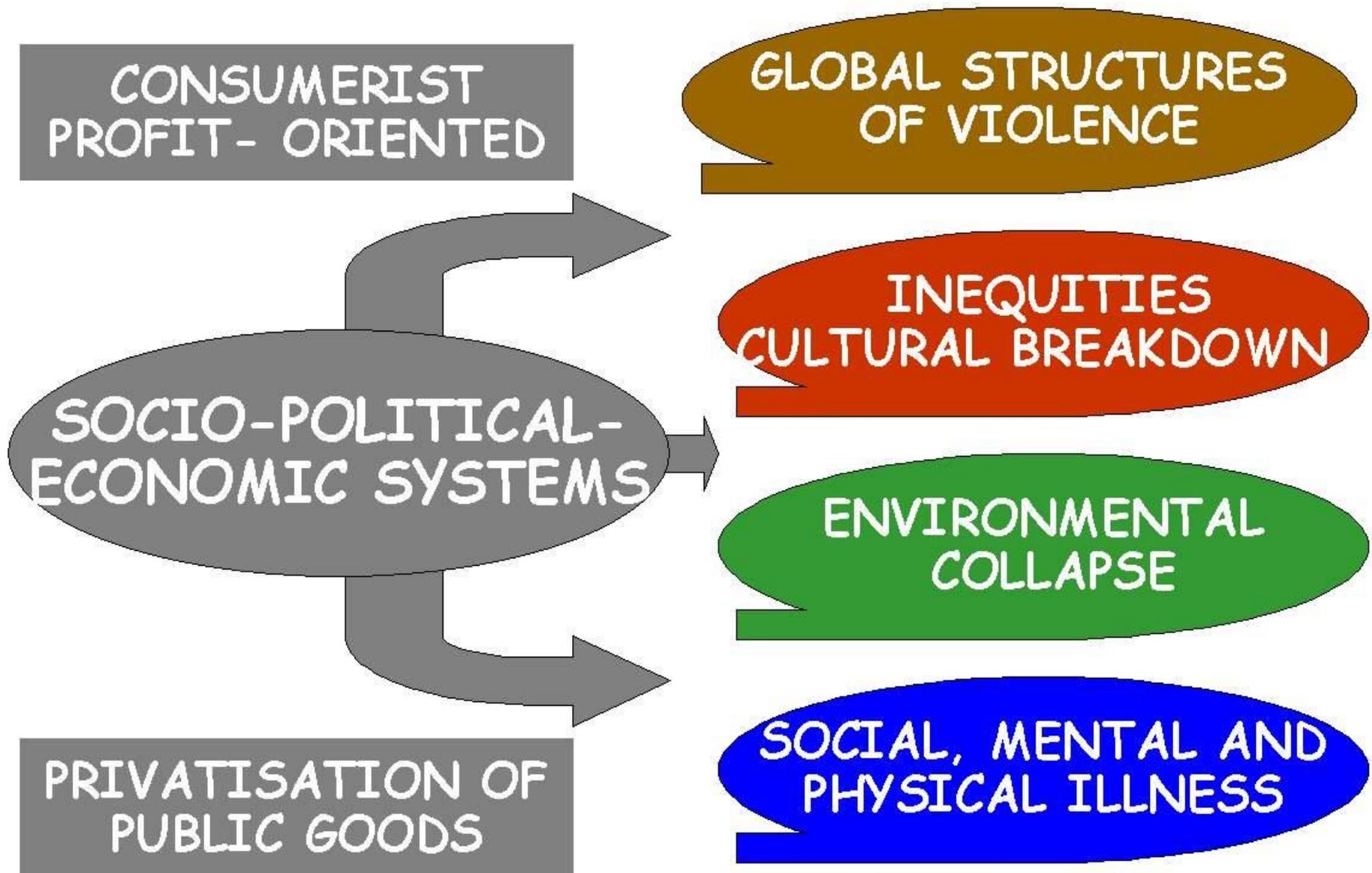
SOCIO-POLITICAL-  
ECONOMIC SYSTEMS

INEQUITIES  
CULTURAL BREAKDOWN

ENVIRONMENTAL  
COLLAPSE

PRIVATISATION OF  
PUBLIC GOODS

SOCIAL, MENTAL AND  
PHYSICAL ILLNESS



# THE VICIOUS CIRCLE

SPOLIATIVE  
NON-ECOSYSTEMIC  
DEVELOPMENT  
POLICIES

MEGACITIES  
AGROBUSINESS  
DEFORESTATION  
POLLUTION

GOVERNMENTS  
COMPLIANCE TO  
BIG BUSINESS  
CORPORATIONS

CORRUPTION  
CRIMINALITY  
CULTURAL DECAY  
CONSUMERISM

# "Development" and "Progress" from Primitive to "Civilised"

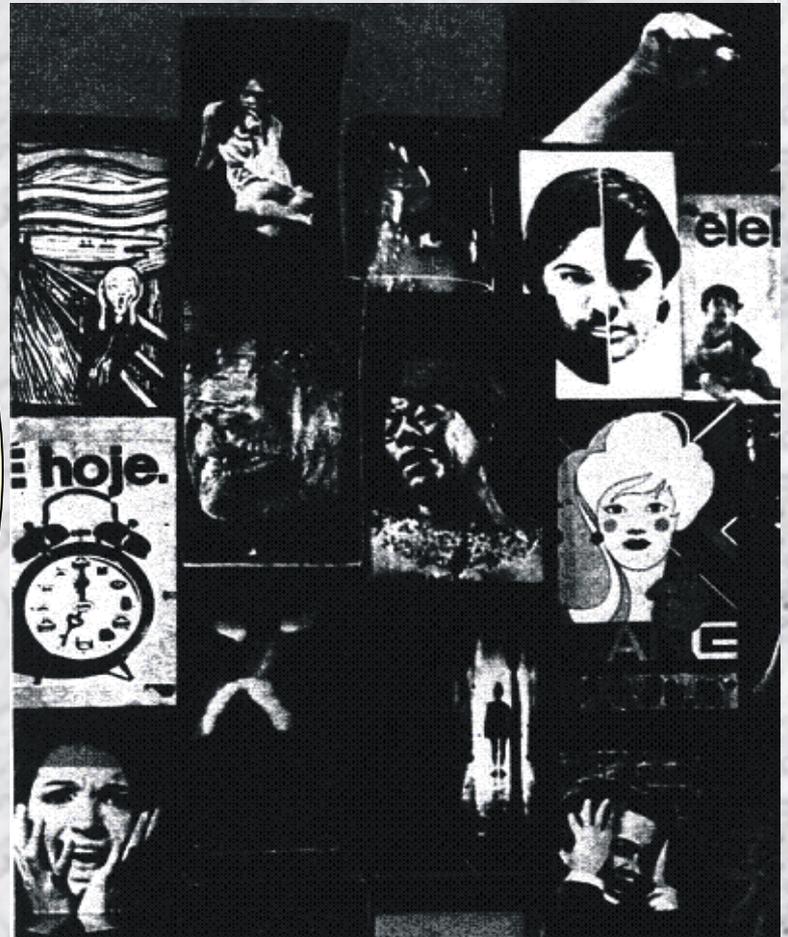


"Primitive" Versus "Civilised" Environmental Impacts

# Intimate Dimension

**PROJECT OF LIFE  
COGNITION  
AFFECTION**

**AWARENESS, RESILIENCE  
SELF-ESTEEM, CORE BELIEFS  
EXISTENTIAL CONTROL  
CULTURE, EDUCATION  
COPING ABILITIES**



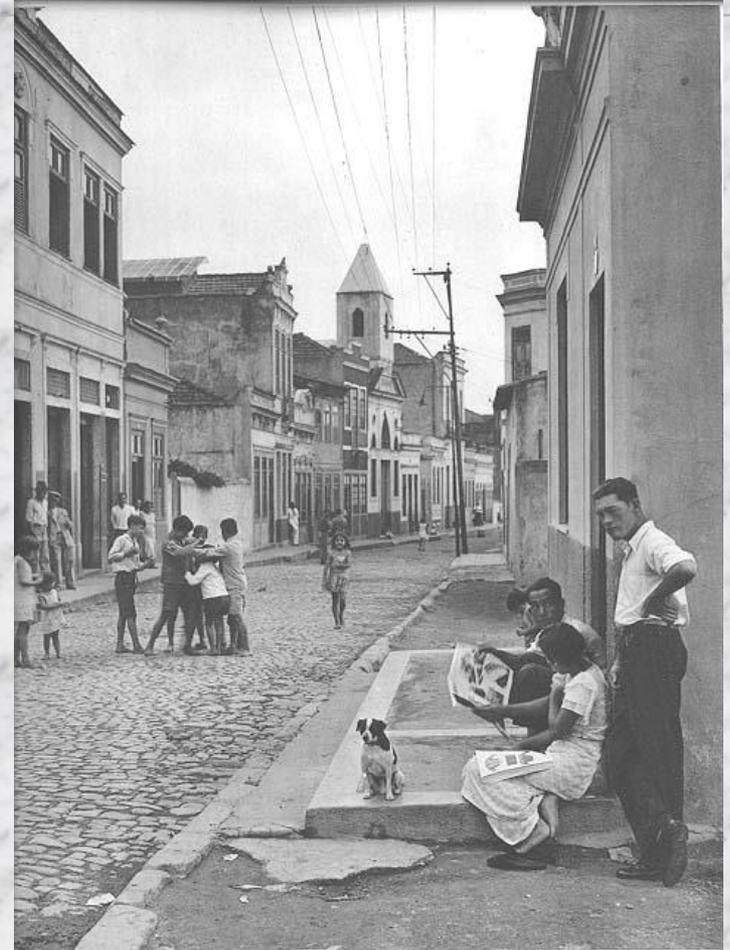
# Interactive Dimension

**AFFILIATIONS  
BINDINGS AND GRIDS  
GROUPS, PEERS, NETWORKS  
SHARED VALUES, BELIEFS  
FAMILY, FRIENDSHIPS,  
ASSOCIATIONS,  
COMMUNITIES**



# Social Dimension

**LAW**  
**INSTITUTIONS**  
**PUBLIC POLICIES**  
**CULTURAL PRODUCTS**  
**PUBLIC PLACES, HEALTH,**  
**EDUCATION, SECURITY,**  
**WORK, LEISURE**  
**MASS-MEDIA**



# Biophysical Dimension

**LAND,  
WATER, AIR  
LIVING ORGANISMS  
MATTER AND ENERGY  
BIOLOGICAL ENDOWMENT  
LANDSCAPES, ARTEFACTS,  
NATURAL AND BUILT  
ENVIRONMENTS  
TERRITORIES**



# Dealing with Problems in the Ecosystemic Approach

- Problems are assessed inside the “boiling pot”, and not reduced to the “bubbles” or fragmented representations of reality,
- Problems are defined in view of the dynamic configurations intertwining the four dimensions of being-in-the-world.
- Dimensions are analysed as mutual donors and recipients, in view of their connections or ruptures along space and time.
- The singularity (identity) of each dimension and the their mutual support (reciprocity) are concurrent and complementary aspects.

# A Four-Dimensional Ecosystemic Framework for Planning and Evaluation

	<b>INTIMATE</b>	<b>INTERACTIVE</b>	<b>SOCIAL</b>	<b>BIOPHYSICAL</b>
<b>DIAGNOSIS OF THE EVENTS</b>	SUBJECTS' COGNITIVE AND AFFECTIVE ACTUAL STATUS	GROUPS ' AND COMMUNITIES' DYNAMICS AND COHESION	PUBLIC POLICIES LAW ENACTMENT CITIZENSHIP PARTICIPATION	NATURAL AND MAN-MADE ENVIRONMENTS BEINGS, THINGS
<b>ELICITING NEW EVENTS</b>	DEVELOPMENT OF SUBJECTS' EXISTENTIAL SELF-CONTROL	DEVELOPMENT OF GROUPS AND PRO-ACTIVE COMMUNITIES	DEVELOPMENT OF PUBLIC POLICIES AND CITIZENSHIP	PROMOTION OF NATURAL AND MAN-MADE ENVIRONMENTS
<b>IMPACT ON EACH DIMENSION</b>	ENHANCEMENT OF SUBJECTS' WELL-BEING	ENHANCEMENT OF GROUPS AND COMMUNITIES	ENHANCEMENT OF POLICIES AND CITIZENSHIP	ENHANCEMENT OF OVERALL ENVIRONMENT

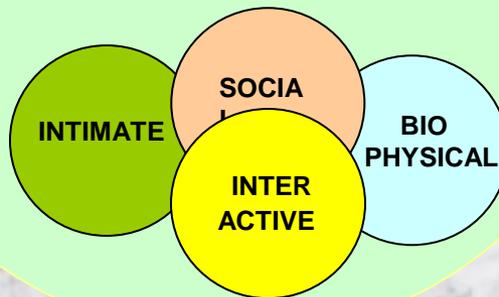
# Role of the Four Dimensions in Health-Related Problems

Health Problems	Intimate <i>Subjective Well-Being</i>	Interactive <i>Group Dynamics</i>	Social <i>Collective Well-Fare</i>	Biophysica <i>Milieu and Beings</i>
<i>Exogenous Depression</i>	<b>Broken Project of Life</b>	<b>Lack of Social Bonds</b>	<b>Cultural Economic Difficulties</b>	<b>Built and Natural Hazards</b>
<i>Sexually Transmitted Diseases</i>	<b>Education Existential Control</b>	<b>Fidelity or Defiance (Boasting)</b>	<b>Public Policies Mass-Media</b>	<b>Physical Protection (Condoms)</b>
<i>Adolescent Pregnancy</i>	<b>Self-Esteem Maturity</b>	<b>Family Cohesion Companio n</b>	<b>Education Schooling Exclusion</b>	<b>Spaces Settlement Facilities</b>
<i>Drug-Addiction Violence</i>	<b>Emotional Balance Resiliency</b>	<b>Group Values and Pacts</b>	<b>Inclusion Cultural Models</b>	<b>Dwellings and Settlement</b>

# Equilibrium Versus Disruption in two Models of Culture

## ECOSYSTEMIC

Dimensions are  
Intertwined



## NON- ECOSYSTEMI C

Dimensions  
Drift Apart

INTIMATE      SOCIAL  
DISRUPTION  
BIOPHYSICAL      INTERACTIVE

# Dimensions' Reciprocity in the Ecosystemic Model of Culture

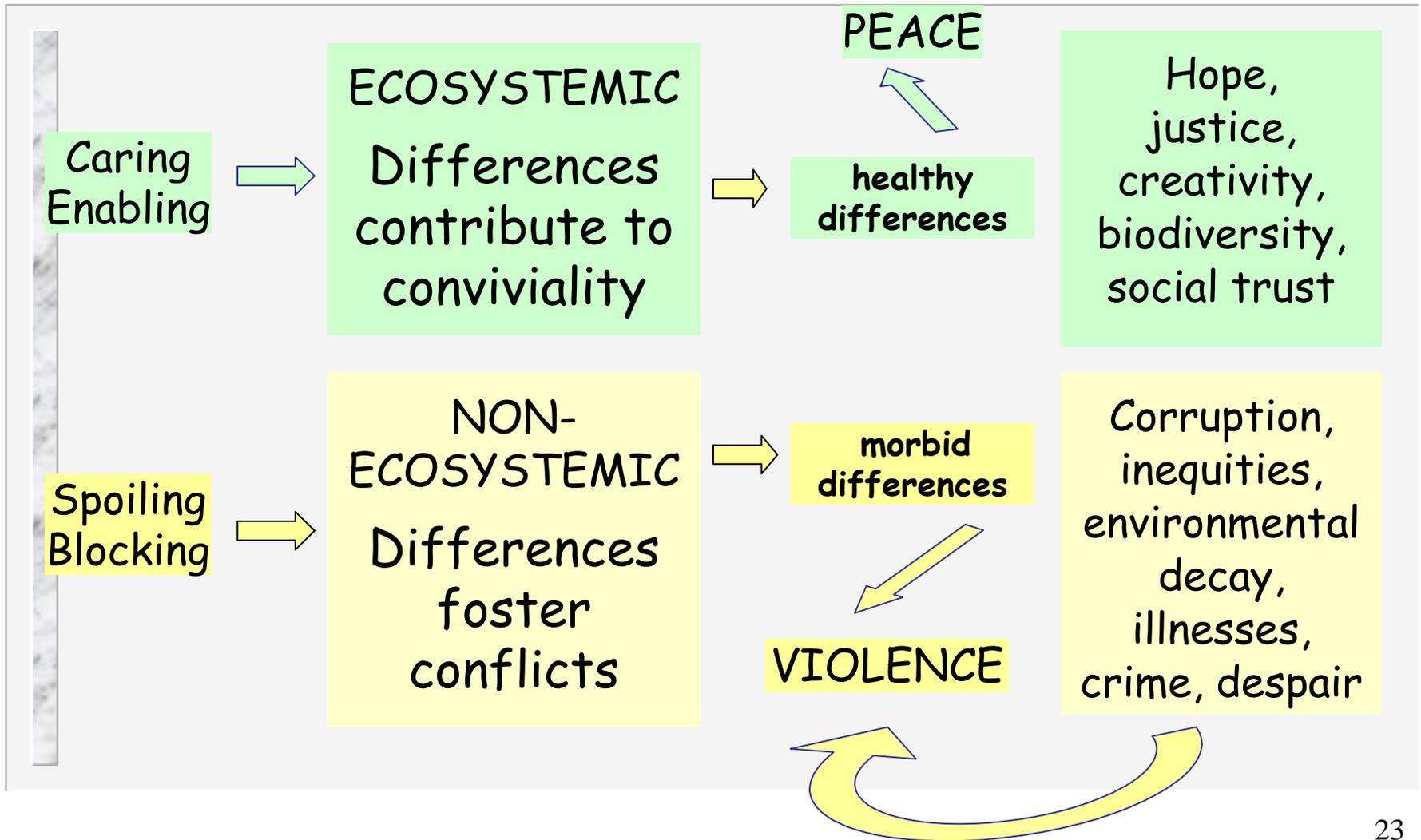
	Dimensions as Donors			
Recipient Dimension	<i>INTIMATE</i>	<i>INTER-ACTIVE</i>	<i>SOCIAL</i>	<i>BIO-PHYSICAL</i>
<i>INTIMATE</i>	<small>Creativeness</small> creativity	<small>Support</small> support	<small>Services:</small> services	<small>Vitality</small> vitality
<i>INTER-ACTIVE</i>	altruism	team-work	alliances	<small>Niches</small> niches
<i>SOCIAL</i>	citizen-ship	partner-ships	<small>Organisation</small> equity	<small>Spaces</small> spaces
<i>BIO-PHYSICAL</i>	<small>Care:</small> care	<small>Preservation</small> defence	sustain-ability	<small>Equilibrium</small> balance

# Dimensions' Disruptions in the Non-Ecosystemic Model of Culture

## Dimensions as Inflictors

Suffering Dimension	<i>INTIMATE</i>	<i>INTER-ACTIVE</i>	<i>SOCIAL</i>	<i>BIO-PHYSICAL</i>
<i>INTIMATE</i>	<small>Creativeness</small> solipsism	<small>Support</small> subjection	<small>Services:</small> neglect	<small>Vitality</small> harm
<i>INTER-ACTIVE</i>	egotism	fanaticism	<small>Diversity:</small> co-opting	<small>Niches</small> dispersal
<i>SOCIAL</i>	abuse	corporatism	<small>Organisation</small> tyranny	<small>Spaces</small> extinction
<i>BIO-PHYSICAL</i>	<small>Care:</small> injury	<small>Preservation</small> damage	spoliation	un- balance

# Violence and Peace in two Models of Culture



# Working with the Socio-Cultural Learning Niches

- Niches are “new structures”, protective spaces for “path breaking innovations”, having three functions in the transition processes: “shielding, nurturing and empowering” (Smith and Raven).
- A small core of agents emerges within the system as the incumbent for innovation, emergent structures form around niches for their development and the emergence of niche-regimes” (Frantzeskaki and Loorbach).

# Enabling Awareness in the Socio-Cultural Learning Niches

- By participatory, heuristic-hermeneutic processes, alternative configurations for being-in-the-world are elicited as people reflect about their own reality (internal/external) and develop new capabilities (world views) to understand and influence the course of the events.

# Creating Sustainable Changes in the Socio-Cultural Learning Niches



The forms of being in the world can be unveiled by intermediary objects, things, images that catch the eyes.

Subject-object relations are disclosed, world visions are unveiled and shared.

# Intimate Dimension Unveiling Subject-Object Relationships

- Current forms of being-in-the-world, world visions, epistemic positions, can be unveiled by presentation of intermediary objects.
- Participants can write in non-identified pieces of paper whatever comes to their minds (subsequently exchanged within the group).

# Interactive Dimension

## Sharing Perceptions in the Group

- The participants share the content of the written statements (distributed out of sort), by reading them aloud.
- The process goes beyond individual initial experience, it is enriched by the participants different perceptions, now aware of what others pointed out.

# Social Dimension

## Creating New Forms of Being-in-the-World

- Ecosystemic and non-ecosystemic forms of being-in-the-world are unveiled.
- Economical, political, cultural, social and environmental consequences are analysed.
- Paradigms of work, power, wealth, growth and freedom are confronted in view of the environment and the state of the world.

# Biophysical Dimension

## Reassessment of Concepts and Actions

- The natural and built environment is perceived as the result of the entanglement of all dimensions of being in the world.
- Vital processes and needs, relationships between all forms of life, consequences of humans activities and life experiences are examined, evaluated and transformed.

# Epistemic, Thematic and Pragmatic Analysis of the Participants' Outputs

- Outputs are analyzed from an *epistemic* (subject-object relationships), a *thematic* (explicit content) and a *pragmatic* (strategies) standpoint.
- *Epistemic* analysis ("how") refers to the structure of thought; *thematic* analysis ("what") to the emphasis and inclusiveness of the dimensions of being in the world; *pragmatic* analysis (actions) to the embedded outputs.

# Epistemic Analysis

## Subject-Object Relationships

- *Common-sense*: Adherence to established, stereotyped preconceptions.
- *Academic*: reduction to logical categories, describing to achieve closure.
- *Dependency*: Trust on exterior authority to qualify own experience.
- *Resistance*: Refusal to being involved, failure to see meaning in the experience.
- *Dogmatism*: Compliance to fixed paradigms for being-in-the-world.
- *Appropriation*: alteration of cognitive, affective and conative processes.

# Thematic Analysis

## Contents in the Four Dimensions

- ▶ *Intimate* Description of the experience in view of own expectations and desires.
- ▶ *Interactive* Description of the experience in view of the relationships with other people.
- ▶ *Social* Description of the experience in view of political-economical-social aspects.
- ▶ *Biophysical* Description of the experience in view of the natural and built environments.

**INTERPRETATION**  
Experiences in  
New Contexts

**PRECONCEPTION**  
Prior Experiences,  
Values, Knowledge

**UNDERSTANDING**  
Skills and Intuition,  
Insight, Empathy

**EXPLANATION**  
Interpretation's Revision  
Deeper Understanding

# Participants Statements in a Heuristic-Hermeneutic Process

1) "Three black seeds, three elastically connected bottle caps, three white river stones and a heart shaped, dried, open seed pot lay in a white rectangular open top plastic container; remains of living plants, time worn rocks and man-made metal objects represent earth materials"

2) "Box having within: 3 bottle caps tied up by an elastic string (it may suggest interaction, integration, inter-personal communication, horizontality); a seashell, 3 pink stones (it may suggest compartment, non integration between parts); a ribbon of paper with the inscription: how many parts have a grain? (it may suggest the type of information discussed, interaction)."

3) "I wonder what type of music these items make; was/is the heart-shaped thing good to eat?; what are the little "black beans"?, how were the holes drilled in the pop tops?; what kind of soda are the 2 unfamiliar?"

# The Ecosystemic Approach: Conclusions and Policy Lessons

- ❑ Development of public policies, community projects, research and teaching programmes must combine all the dimensions of the world.
- ❑ Individuals, groups, society, natural and built environments should be considered in view of their singularity and reciprocity.
- ❑ Quality of life, physical, social and mental well-being, natural and built environments, are by-products of ecosystemic models of culture.
- ❑ Current concepts of power, growth, wealth, work and freedom must be changed to face the problems of difficult settlement in the world.

## Selected Publications

Pilon, A. F., Returning Earth to Mankind and Mankind to Earth: An Ecosystemic Approach to Advocacy, Public Policies, Research and Teaching Programmes: <https://week.openrecognition.org/2018/09/27/returning-earth-to-mankind-and-mankind-to-earth-an-ecosystemic-approach-to-advocacy-public-policies-research-and-teaching-programmes/>

PILON, A. F., Is your own house on fire? Research Gate: [https://www.researchgate.net/publication/335797149\\_Is\\_your\\_own\\_house\\_on\\_fire](https://www.researchgate.net/publication/335797149_Is_your_own_house_on_fire)

PILON, A. F., Governance, Science-Policy Interfaces, Societal Organisation and the Transition to an Ecosystemic Model of Culture, Univ. Lib. of Munich, MPRA Paper 85783, 2018: [https://mpra.ub.uni-muenchen.de/85783/1/MPRA\\_paper\\_85783.pdf](https://mpra.ub.uni-muenchen.de/85783/1/MPRA_paper_85783.pdf)

The author welcomes contributions to develop ecosystem approaches to environmental problems, quality of life and the state of the world.

Discussion: How to face blockages and barriers and develop 'loci of hope' to achieve the 17 sustainable development goals?



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