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Nurturing ecological habits of mind in design

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nurturing ecological habits of mind
IN
DESIGN

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Image: "nurturing ideas" by Danny Jenkins for the Centre for Sustainable Energy



Nurturing Ecological
Habits of Mind in Design

2012 IMPERATIVE
Teach-In
V&A
Monday 12th October 2009



Dr Emma Dewberry
Department of Design,
Development, Environment
and Materials
The Open University

nurturing ecological habits of mind
IN
DESIGN

EDUCATION
RESILIENCE

Image: "nurturing ideas" by Danny Jenkins for the Centre for Sustainable Energy

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Ecological habits of mind in design:
EDUCATION

LEARNING: At a simple level, the process through which new knowledge, values and skills are acquired. **At a deeper level, it involves a 'movement of mind'.**

- Senge, 1990

The difficulty lies not in the new ideas, but
in escaping from the old ones ...

- John Maynard Keynes



Ecological habits of mind in design:
EDUCATION

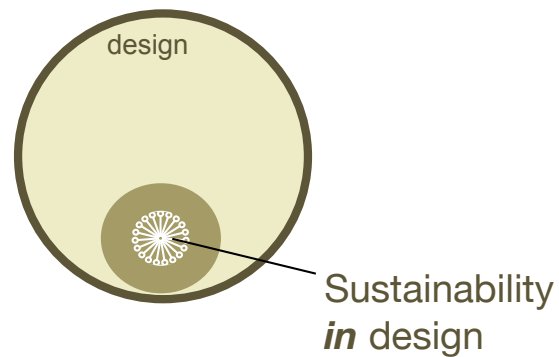
A new way of thinking

Reframing	(Problem solving)
Synthesis	(Analysis)
Holism	(Reductionism)
Multiple influences	(Closed cause-effect)
Integrative	(Atomism)
Extension of boundaries	(Narrow boundaries)
Critical subjectivity	(Objectivism)
Pluralism / duality	(Dualism)
Rational / non-rational	(Rationalism)
Uncertainty, ambiguity	(Determinism)

Stephen Sterling, 2009

Ecological habits of mind in design:
EDUCATION

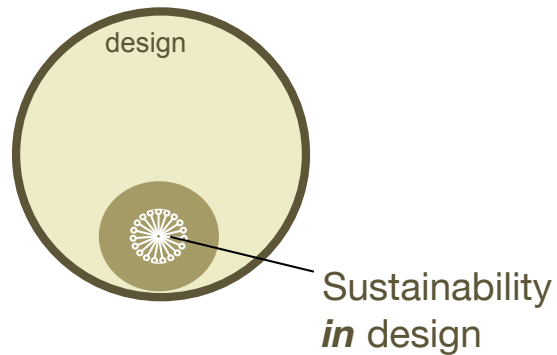
ECODESIGN
a focus on outcomes



The current boundaries of *designing* (within
[design] limits; but without ecological limits)

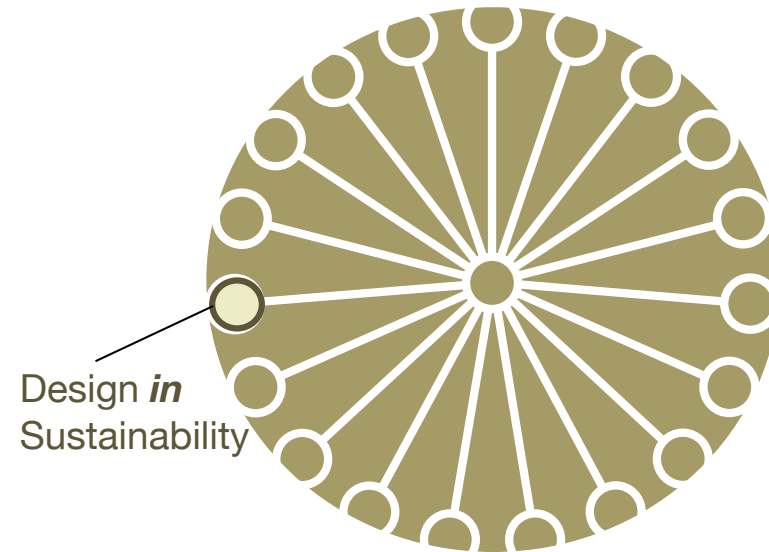
Ecological habits of mind in design:
EDUCATION

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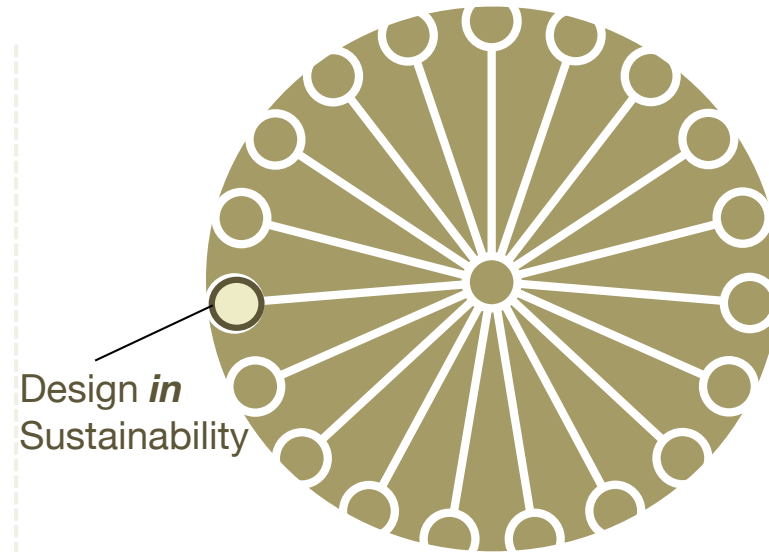
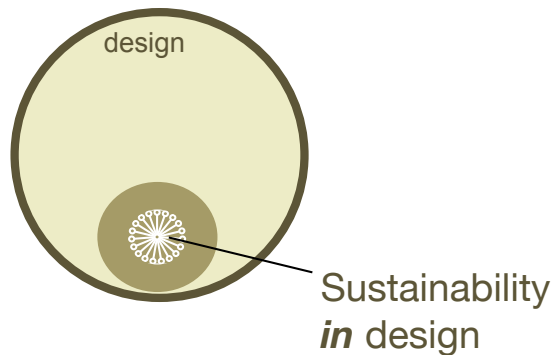
The current boundaries of designing (**within** [design] limits; but without ecological limits)

SUSTAINABLE INNOVATION
a focus on process



Designing in a sustainability context that connects everything (**without** limits; but within ecological limits)

Ecological habits of mind in design:
EDUCATION



Stephen Sterling, 2009:

Content and/or skills emphasis.

Easily accommodated into existing system.
Learning about change.

ACCOMMODATIVE RESPONSE -
MAINTENANCE

Capacity building and action emphasis.

‘Living’ and experiential curriculum.
Sustainable institutions as permeable learning
communities.
Learning as change.

TRANSFORMATIVE RESPONSE -
ENACTMENT

Ecological habits of mind in design:
RESILIENCE

U N s u s t a i n a b i l i t y

The emphasis is on reducing the environmental [& social] impacts of what we do today

J Ehrenfeld (2004) 'Searching for Sustainability:
No Quick Fix', *SOL Reflections* Vol 5 No. 8



Ecological habits of mind in design:
RESILIENCE

U N s u s t a i n a b i l i t y

The emphasis is on reducing the environmental [& social] impacts of what we do today

C R E A T I N G s u s t a i n a b i l i t y

The emphasis is on rethinking our goals and visioning different futures and ways of getting there

J Ehrenfeld (2004) 'Searching for Sustainability:
No Quick Fix', *SOL Reflections* Vol 5 No. 8

Ecological habits of mind in design:
RESILIENCE

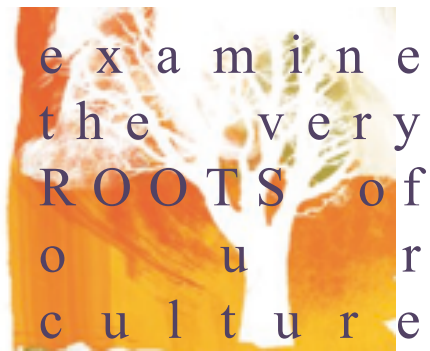
Quick Fixes don't solve Fundamental Flaws

The Problem	Quick Fix	Negative Side Effects	Fundamental Solution
Global Warming	CO2 Trading	R&D slips: Irresponsibility	Renewable Energy
Material Use Growth	Eco-efficiency	Eco-system collapse	Industrial restructuring
Mal-distribution	Tax policy	Irresponsibility	Cultural change
Unsatisfaction; Alienation	Commodity consumption	Addiction; loss of competence	Self-development; Convivial technology

J Ehrenfeld *Beyond Sustainability* - a Manifesto
<http://www.worksavvy.ws/BeyondSustainability.pdf>

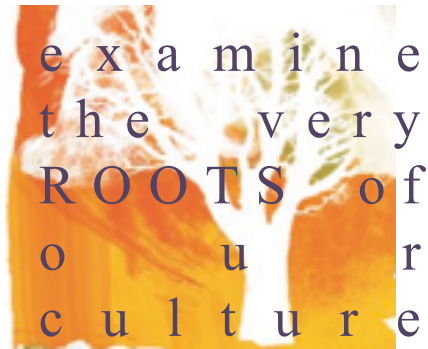
Ecological habits of mind in design:
RESILIENCE

In transition to the 'long view' we need to



Ecological habits of mind in design:
RESILIENCE

In transition to the 'long view' we need to



- embrace profound changes in individual behaviour
- fundamentally shift to different concepts of work and reward
- create holistic systems and structures of governance

Ecological habits of mind in design:
RESILIENCE



ordinary minds everyday

We know what we should do but we don't think it is urgent or relevant to us –
creative interruptions are required to shift societal perceptions and goals



Ecological habits of mind in design:
RESILIENCE



ordinary minds everyday

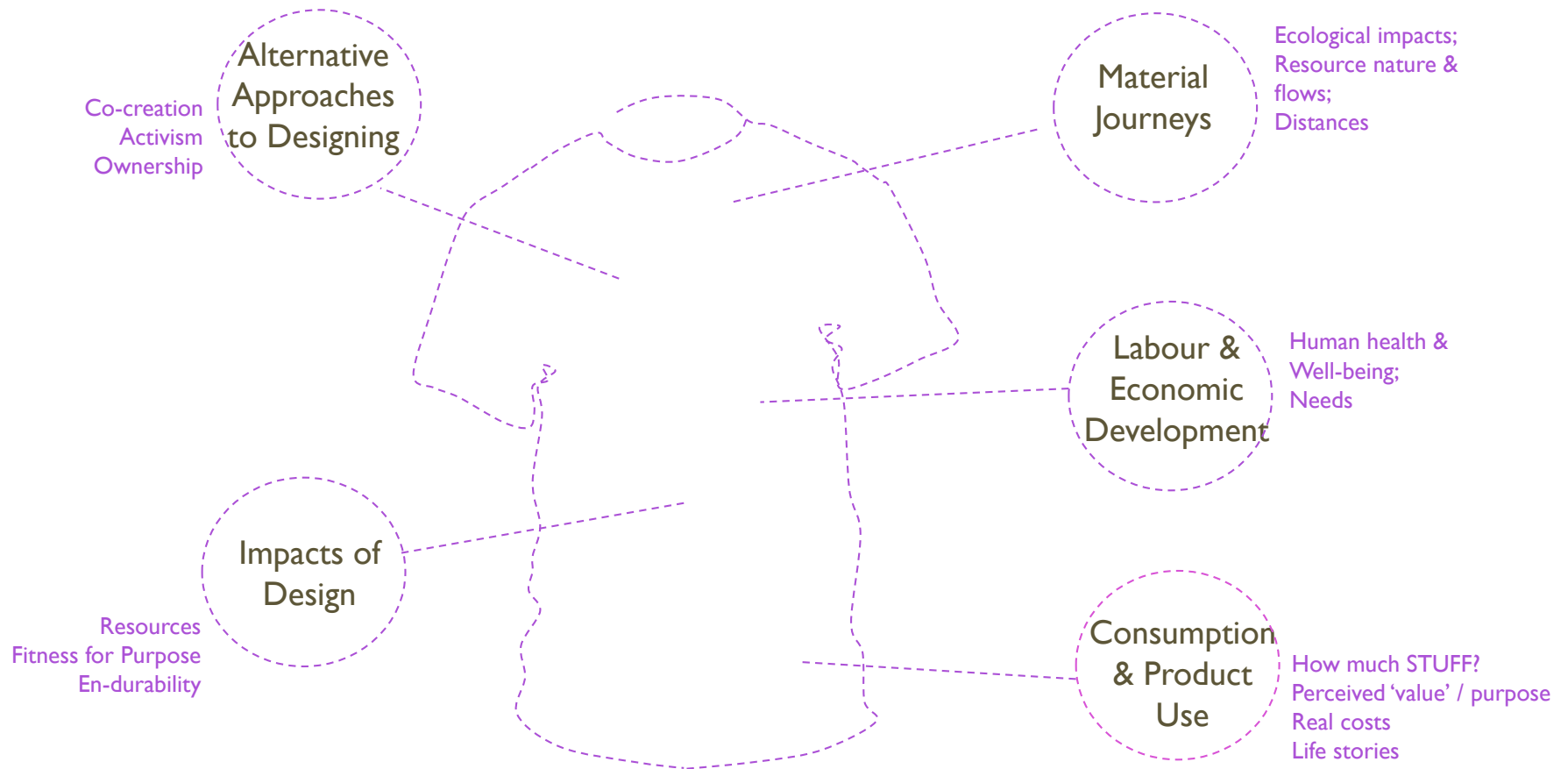
We know what we should do but we don't think it is urgent or relevant to us –
creative interruptions are required to shift societal perceptions and goals

Designers have the capacity to redraw the story for society; to
revision, to make real other, viable and more sustainable lifestyles ...

... to REDESIGN concepts and ways of thinking; technology and tools;
institutions and infrastructures



Ecological habits of mind in design: RESILIENCE



design narratives

Flock knitwear:

a line of knitwear where the fibers can be traced back to specific animals (sheep and goats) and the clothing tag provides information about the animal and its location and breeding.



by Nancy Nowacek *From Farm to Closet*,
Metropolis, December 2006: 52

Designer: Christien Meindertsma

design narratives

challenging perceptions of personal resource needs



Kate Fletcher and Becky Early AHRC 5 Ways Project
No Wash

design narratives

making the invisible visible

Power Aware Cord

Seeing Personal Energy Consumption



STATIC! INCREASING ENERGY AWARENESS
<http://www.tii.se/static/>

d e s i g n n a r r a t i v e s

Disappearing-Pattern Tiles



Expressing Daily Hot Water Routines

STATIC! INCREASING ENERGY AWARENESS
<http://www.tii.se/static/>



design narratives

Lunar-Resonant Streetlights

by the San Francisco's design collective **Civil Twilight**

Streetlights respond to ambient moonlight, dimming and brightening each month as the moon cycles through its phases. On clear nights they turn off completely saving up to 80% of energy used in street lighting.

Metropolis, May 2007: 158-161



design narratives

Experiencing a different scale



Tumbleweed Tiny House company
<http://www.tumbleweedhouses.com>

n u r t u r i n g e c o l o g i c a l h a b i t s o f m i n d
I N
D E S I G N

‘Why is being heard so healing?’

I don’t know the full answer to that question, but I do know it has something to do with the fact that listening creates relationship.

We know from science that nothing in the universe exists as an isolated or independent entity. **Everything takes form from relationships**, be it atomic particles sharing energy or ecosystems sharing food.

In the web of life, nothing lives alone.’

Meg Wheatley *Turning to one another: simple conversations to restore hope to the future*: 89
(2002)