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

2012 IMPERATIVE Teach-In
V&A
Monday 12th October 2009
nurturing ecological habits of mind in design

EDUCATION RESILIENCE

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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**

<table>
<thead>
<tr>
<th>Concept</th>
<th>Previous Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reframing</td>
<td>Problem solving</td>
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<tr>
<td>Synthesis</td>
<td>Analysis</td>
</tr>
<tr>
<td>Holism</td>
<td>Reductionism</td>
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<tr>
<td>Multiple influences</td>
<td>Closed cause-effect</td>
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<tr>
<td>Integrative</td>
<td>Atomism</td>
</tr>
<tr>
<td>Extension of boundaries</td>
<td>Narrow boundaries</td>
</tr>
<tr>
<td>Critical subjectivity</td>
<td>Objectivism</td>
</tr>
<tr>
<td>Pluralism / duality</td>
<td>Dualism</td>
</tr>
<tr>
<td>Rational / non-rational</td>
<td>Rationalism</td>
</tr>
<tr>
<td>Uncertainty, ambiguity</td>
<td>Determinism</td>
</tr>
</tbody>
</table>

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

ECODESIGN
a focus on outcomes

SUSTAINABLE INNOVATION
a focus on process

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

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

Unsustainability

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

Ecological habits of mind in design:
RESILIENCE

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

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

**Ecological habits of mind in design:**

**RESILIENCE**

**Quick Fixes don’t solve Fundamental Flaws**

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

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

examine the very
ROOTS of our
culture
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

Examine the very ROOTS of our culture
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
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
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RESILIENCE

Alternative Approaches to Designing

Material Journeys
Ecological impacts; Resource nature & flows; Distances

Labour & Economic Development
Human health & Well-being; Needs

Impacts of Design
Resources Fitness for Purpose En-durability

Consumption & Product Use
How much STUFF? Perceived 'value' / purpose Real costs Life stories

Co-creation Activism Ownership

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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
challenging perceptions of personal resource needs

Kate Fletcher and Becky Early AHRC 5 Ways Project

No Wash
Power Aware Cord

Seeing Personal Energy Consumption

STATIC! INCREASING ENERGY AWARENESS
http://www.tii.se/static/
Disappearing-Pattern Tiles

Expressing Daily Hot Water Routines

STATIC! INCREASING ENERGY AWARENESS
http://www.tii.se/static/
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
Experiencing a different scale

Tumbleweed Tiny House company
http://www.tumbleweedhouses.com
nurturing ecological habits of mind
IN DESIGN

‘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)