




SUBR:IM National Conference

Nature and Community in Brownfield Regeneration – an ethical framework for sustainable regeneration

Dr John Handley

Professor of Land Restoration and Management, Centre
for Urban and Regional Ecology,
School of Environment and Development,
University of Manchester


London, 2006



Nature and Community in Brownfield Regeneration – an ethical framework for sustainable regeneration

- Introduction;
- Scope of Environmental Ethics;
- Derelict and despoiled land – a symptom of market failure;
- Sustainable development – a context for land restoration;
- Extending the boundaries – the biocentric and ecocentric positions;
- Conclusion.

CUTRE




“Shall we not learn from life its laws, dynamics, balances? Learn to base our needs not on death, destruction, waste, but on renewal. In wisdom and in gentleness learn to walk again with Eden’s angels? Learn at last to shape a civilisation in harmony with the earth.”

Source: Adams, A and Newhall, N
‘This is the American Earth’ (1960)

CUTRE

Ethical concerns for environmental design professionals



Ethics

- Personal Ethics
- Professional Ethics
- Business Ethics
- Environmental Ethics

Source: Woolley and Whittaker (1989)

CUTME


The Scope of Environmental Ethics

“Environmental ethics is concerned with the moral relations that hold between humans and the natural world. The ethical principles governing those relations determine our duties, obligations and responsibilities with regard to the Earth’s natural environment and all the animals and plants that inhabit it.”

Source: Taylor, P.W. (1986)

CUTME

Environmental degradation itself implies an ethical position



The slide features three photographs illustrating environmental degradation. The top-left photo shows a dead, skeletal tree in a field. The bottom-left photo shows a large pile of rubble and debris. The right photo shows a large pipe discharging a dark liquid into a stream, creating a large splash.

C
U
M
E

Contrasting Ethical Positions


Utilitarian versus Duty-Based

Human - centred versus Nature - centred

C
U
M
E

The Anthropocentric Position

"Penguins are important because people enjoy seeing them walk about rock... In short, my observations about environmental problems will be people-oriented, as are my criteria. I have no interest in preserving penguins for their own sake"



Source: Baxter, W.F. (1974) 'People or Penguins: The case for optimal pollution'

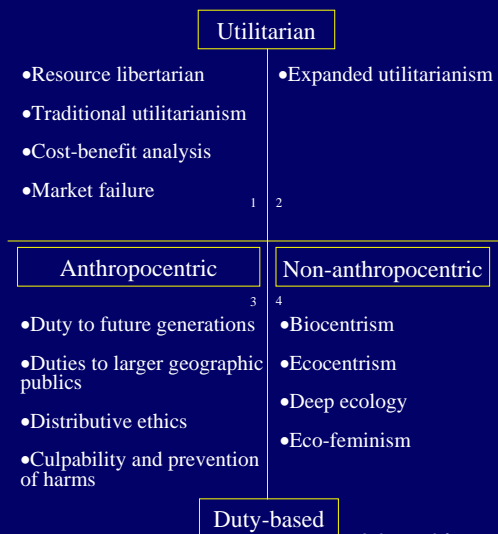
The Ecocentric Position

"The land ethic simply enlarges the boundaries of the community to include soils, water, plants and animals, or collectively: the land ... a land ethic changes the role of Homo sapiens from conqueror of the land community to plain member and citizen of it. It implies respect for his fellow members, and also respect for the community as such."



Source: Leopold, A. (1949) 'A Sand County Almanac'

An Organising Framework for Environmental Ethics



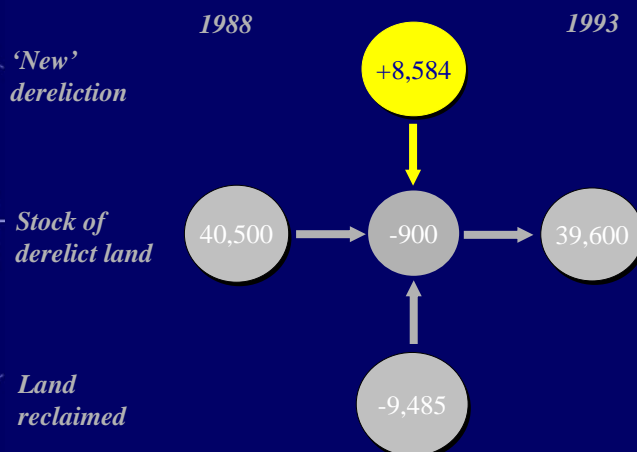
Adapted from: Beatley (1994)

Derelict and despoiled land – a symptom of market failure¹



¹ The failure of markets to achieve an optimum resource allocation.

Derelict Land Dynamics



Source: Dept. of the Environment (1995)

Community powers on the use of land

Education of landowners: provision of information and advice

Financial incentives and penalties (especially taxes and grants)

Restraints on undesirable uses: Planning consents, site licences etc.

Removal of property rights on the open market

Removal of property rights by compulsion (compulsory purchase and nationalisation)

Source: Selman, P (1992)

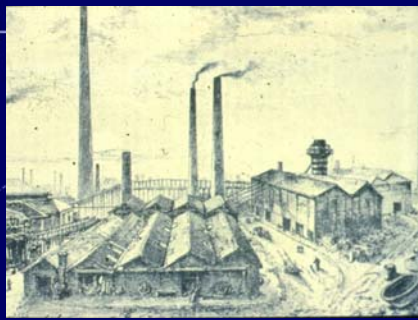
Evaluation of measures for derelict land prevention

	Rehab. Conditions	Financial Guarantees	New LA Power	Tax Relief	Tax
Impact	✓				(✓)
Practicality	✓		✓	✓	
Incentive		✓			✓
Flexibility	✓	✓	✓	✓	✓
Does not Deter Investment	(✓)			✓	
No Call on Public Funds		✓			(✓)
Minimal Legislative Changes	✓	✓		✓	

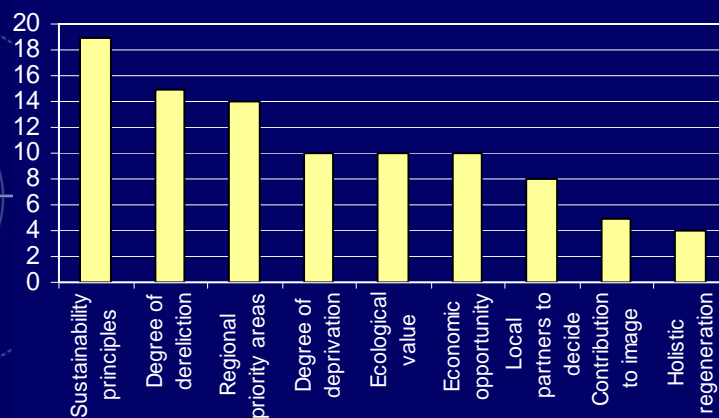
Source: Arup Economics and Planning (1995)

Contaminated Land – the polluter pays principle

“The polluter should bear the social cost of any pollution caused.”



Sustainable Development – a context for land restoration



Priorities of reclamation practitioners
Source: NWDA, 2001, Reclaim the North West



Sustainable Development – The Brundtland definition

Development which meets the needs of the present without compromising the ability of future generations to meet their needs.

Source: WCED, 1987



Sustainable Development – a Government perspective

- Social progress which recognises the needs of everyone
- Effective protection of the environment
- Prudent use of natural resources
- Maintenance of high and stable levels of economic growth and employment.

Source: DETR (1999) A Better Quality of Life



Sustainability principles – an Environmental Planner's perspective

Sustainability arguments...view environmental protection and continuing economic growth as mutually compatible *i.e.*, development should be consistent with natural resource limits and biospheric waste assimilation capacities. We may distinguish:

- productive sustainability
- aesthetic sustainability
- socio-economic sustainability

Source: Selman, P (2000)



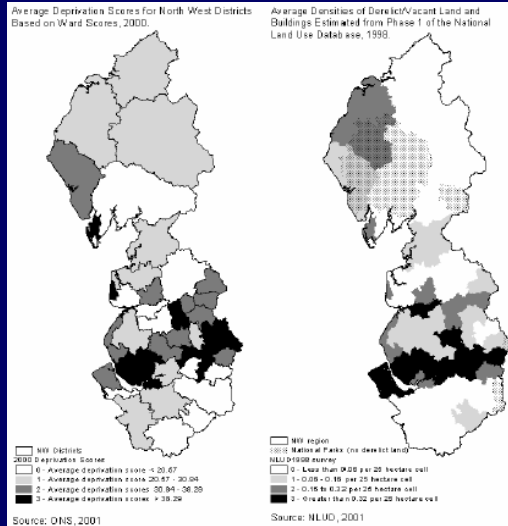
Sustainability principles – an Economist's perspective

For the economist, sustainable development requires consideration of:

- efficiency in resource allocation;
- equity in the present and future;
- resilience of ecological and social systems.

Source: Adger, W.N. (2000) in O'Riordan, Environmental Science for Environmental Management

Intra-generational equity



The intensity of dereliction and social deprivation in Northwest England

Source: NWDA (2001) Reclaim the Northwest

Engineering of Derelict Land



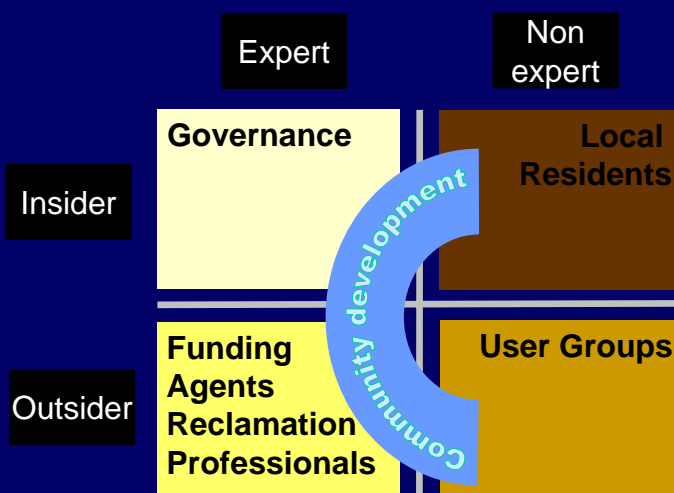
Land reclamation, because of its complexity, is often seen as a technical problem requiring a technical solution. The proper domain of the civil engineer and the environmental scientist.

This may inhibit community involvement, reinforce social exclusion...

...and interrupt natural recovery



Land reclamation must engage with the communities impacted by dereliction



Source: Handley, 2001 after Starkings and Bourassa

Benefits of community involvement

	Tangible	Non-Tangible
Facilitator	New issues onto the local agenda	Policing of site
Local Residents Passive Involvement	Educational	Health and Well-being
Local Residents Active Involvement	Training, New Skills	New Friends and Connections

Griffiths (2001)

'Community Involvement – Current Practice in the UK and EU'

- Questionnaire survey – UK and European mainland
- Workshop – UK
- Workshops – Modena, Italy
 - Lleida, Catalonia
 - Saarbrücken, Germany

EU Life Project: Toolkits for community led regeneration of derelict land, 2001

Questionnaire: Indicators of community involvement

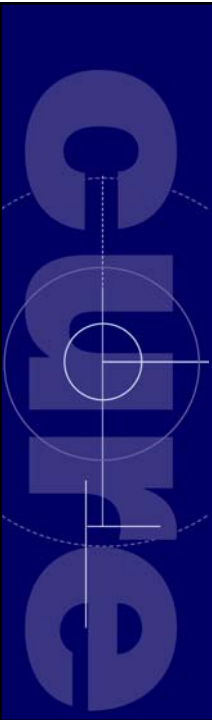
Stages in the Land Reclamation Process

- Awareness raising
- Interest generated
- Degree of participation
- Organisational response




Working with people





UK experience – workshop successes

- **Mentoring**
 - Professionals working with local people to increase the knowledge and skill within the community
- **Friends groups**
 - Groups of local people working with professionals to look after and manage the project.
- **User groups**
 - Involving user groups by leasing parts of a site to them with management conditions helps the long-term sustainability of a project
- **Arts projects**
 - Using art as a focus for participation and for visual improvement can be very effective



Questionnaire results - common difficulties in community participation

- **Control of site:** Plans compromised by project landowners and other partners.
- **Quick start:** Many projects are started quickly to take advantage of the funding opportunity.
- **Community character:** Heterogeneity makes consensus difficult to achieve.
- **What happens after project 'ends'?**
- **Conflict:** between community needs and environmental needs

Inter-generational equity: Remediation versus Dig and Dump



Weak versus Strong Sustainability

Weak sustainability: natural capital should only be consumed in so far as it is compensated for by increases in the stocks of reproducible capital.

Strong sustainability: the quantity of natural capital should be maintained constant; depletions of some sorts of natural capital should be compensated for by increases in other sorts.

Source: Bowers, J (1997), Sustainability and Environmental Economics

Environmental Improvement versus conservation of environmental capital

Lyon's Yard St. Helens



Before



After

Lyons Yard – environmental attributes or services

Feature	Attribute	+ve/-ve
Whole site (landscape quality)	Carbon sink (Health)	+ve
	Natural greenspace (appreciation of environment)	+ve
	Tranquillity (appreciation of environment)	+ve
	Land contamination	-ve
Vegetation cover	Endemic habitat (Cultural/historical)	+ve
	Unique species diversity (biodiversity)	+ve
	Ecological teaching (education)	+ve
Footpaths	Informal recreation (recreation)	+ve
Geological surface exposures	Unique geological substrate (cultural history)	+ve

Source: Wigley, K (2000)

Extending the boundaries



The Biocentric Position

- (a) *The belief that humans are members of the Earth's Community of Life.*
- (b) *The belief that the human species, along with all other species, are integral elements in a system of interdependence.*
- (c) *The belief that all organisms are teleological centres of life.*
- (d) *The belief that humans are not inherently superior to other living things.*

Source: Taylor, P. (1986) *Respect for Nature*



Priority Principles for the Fair Resolution of Competing Claims

- i. The principle of self-defence
- ii. The principle of proportionality
- iii. The principle of minimum wrong
- iv. The principle of distributive justice
- v. The principle of restitutive justice

Source: Taylor, P W (1989)



The Principle of Minimum Wrong

Applies to conflict between the basic interests of wild animals and plants and those non-basic human interests that are so highly valued that even a person with respect for nature would not be willing to abstain from pursuing them.

Source: Taylor, P W (1989)

e.g. Constructing an airport runway
involving serious disturbance of a
natural ecosystem



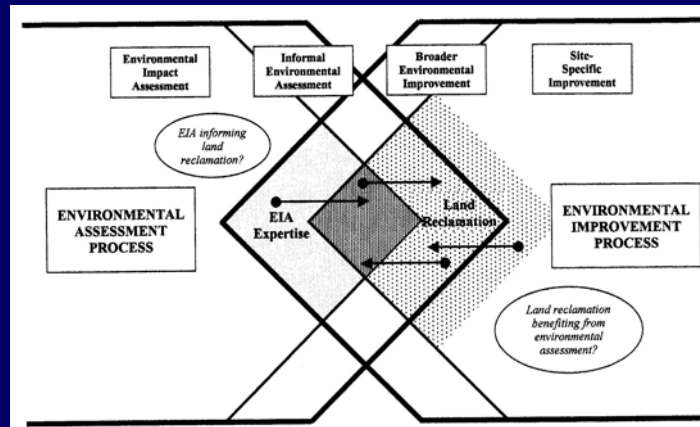
River Bollin, Manchester

Environmental Impact Assessment

*“EIA is not only an aid to decision making but
an instrument for guiding the creative process
in searching for solutions. It is a systematic way
to analyse complex problems and to look for
feasible alternatives”*

Source: Balfors, B (1993)

EIA and the Land Reclamation Process



Source: Jay and Handley (2001)

Contribution of EIA to Land Reclamation Practice

- The conventional role as a tool for environmental management, esp. identification and mitigation of adverse impacts.
- The more 'creative' role as a means of identifying and maximising potential benefits.

The Principle of Distributive Justice


“The principle provides for a just distribution of interest and fulfilment among all parties to a conflict when these interests are all basic and become of equal importance to those involved”

The principle seeks to transform confrontation to mutual accommodation through:

- Permanent habitat allocation
- Common conservation
- Environmental integration
- Rotation

Taylor (1989)

Environmental integration



Manchester Airport

Tunstead Quarry,
Derbyshire

Culture

The Principle of Restitutive Justice

“The principle applies whenever the principles of minimum wrong and distributive justice have been followed...it requires some form of reparation or compensation from our actions to be fully consistent with respect for nature.”

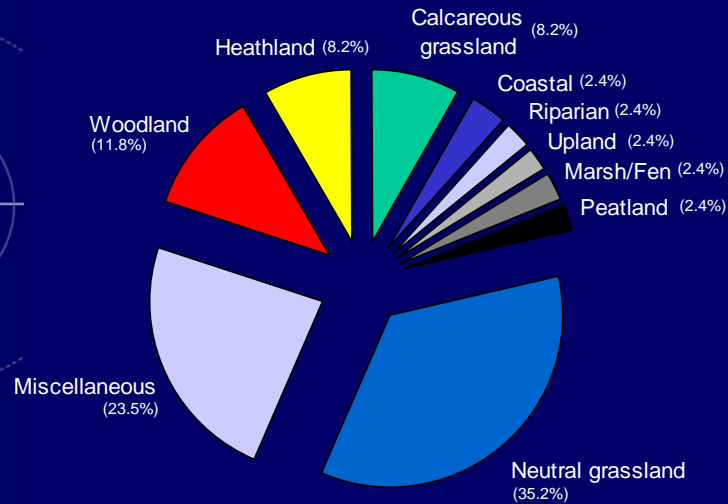
Source: Taylor (1989)

Culture

Creative conservation: Tunstead Quarry, Derbyshire



Habitat Creation Activity in the UK



Source: Jones (1990)

Restoration Ecology and Faking Nature

“That environmental restoration is flourishing and that its technologies are becoming increasingly adept may be welcome developments, but such developments should provide no excuse and no justification for those who want to degrade or destroy the earth’s shrinking, relatively natural areas.”

Source: Elliot, R (1990) Faking Nature – the ethics of environmental restoration

e.g. a translocated woodland retains only some of the attributes of an ancient semi-natural woodland



The Ecocentric Position

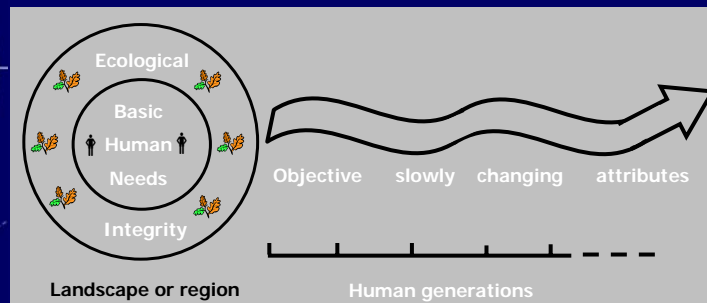
"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect"



Source: Leopold, A. (1949) 'A Sand County Almanac'

An Ecological Approach to Land Restoration

The aim is to create new landscapes in which *'ecological integrity and basic human needs are concurrently maintained over generations'*.



Adapted from: Forman, 1995

Ecological Approach to Land Restoration



- works with the grain of natural recovery;
- regards physico-chemical variability as a positive asset – a template for biodiversity;
- recognises that humankind is *'within nature as part of the natural eco-system'*;
- promotes meaningful social engagement through effective community involvement;
- seeks to achieve long-term sustainability of the restored landscape.



Blue-print for a National Land Restoration Trust

“English Partnerships, Groundwork, the Forestry Commission and the Environment Agency will create the Land Restoration Trust to restore and manage brownfield land that is suitable only for use as public green space. The Trust will work in partnership with local communities.”

Source: ODPM, (2003), Planning for sustainable communities



Conclusion

The challenge to the land reclamation community, both scientists and environmental design professionals, is to recognise that we each have our own philosophical position, whether implicit or explicit, and a degree of self awareness may be helpful in understanding our modus operandi.