

## **Turbines, Turbulence, and Transformation**

**Integrating our hopes for sustainable energy and local economies  
with  
our longing for beauty and love for the landscape.**

**Like all energy systems, wind turbines are transformers – converting wind power to electricity. They also offer us an opportunity for transforming our approach to the ecology, economics, ethics, aesthetics, and politics as well the mechanics of energy generation. Can we harness it?**

**Locally, and throughout the nation, wind turbines are stirring controversy and dividing communities.** The issue is seldom addressed in a spirit of open inquiry and conversation, but increasingly polarizes two camps: supporters see an essential source of renewable energy that can provide income for rural localities; opponents see inefficient eyesores – disruptive to landscape, tourism, and avian life.

**This proposal seeks to transcend these divisions, and encourage projects that work as wholly as possible with both the natural environment and the human community – enhancing rather than disrupting ecology and economy, landscape and social fabric, and the spirit of the place. We may expect such practical idealism to engender enthusiasm and support within the local community and beyond.**

**The usual approach to wind turbines is to install identical, mass-produced structures –** singly or in sets. Economic considerations are limited to whether the electricity produced will outweigh development costs; ecological inquiries are limited to whether the area is a site of special scientific interest or is home to an endangered species; the prime social concern is whether planning permission is granted or (at best) whether majority approval can be obtained; scant attention is given to fostering harmony (social, ecological, or aesthetic), creativity, or enthusiasm. In the worst cases, beautiful areas – including ancient ceremonial landscapes – may be despoiled.

This approach resonates with much modern construction. And it is spreading.

**The usual alternative is to limit these projects as much as possible – or reject them altogether.**

**In contrast, building in harmony with nature and the community has deep and ancient roots, and continues to inspire interest – especially in our area. But a modern approach is needed.**

Traditional communities created buildings which harmonized their experience of the natural environment and their own needs – for meaningful expression as well as purposeful function. Looking at the modern built environment shows that this is now seldom the case: our architecture tends to be either drably functional or eccentrically expressive; efforts to create in harmony with nature and the human community are growing in number, but are still few and far between. The capacity for living in concord with our fellows and our surroundings no longer comes intuitively, as it did for traditional peoples. For us, it requires conscious effort.

**Paths toward harmonious development** have been researched and practiced in various places. (See attached references for examples in Scotland.) These pathways share two main aspects: they take into account the character and needs of the natural environment as well as the human community, and they involve members of that community as fully as possible.

Typically, such a project begins with attention to these two realms – the human needs and resources, and the character of the natural environment. These are explored carefully and openly. Exploration of the environment might involve a series of meetings on the site, where physical and ecological aspects as well as the 'gestures' and 'moods' of the landscape are gradually discerned. As a sense for the place unfolds, designs emerge that respect and may even enhance what nature is offering; it is as if the human and natural realms are creating together. The participatory character of the project creates enthusiasm and commitment; it leads to a shared understanding of the situation, and a shared vision of how it may develop.

A wind turbine project sited and designed with the participation of the local community, and in harmony with the surroundings, may hope to transcend the argumentative dynamics as well as the aesthetic blindness which these projects usually entail. The very endeavour, as well as the result, may serve to attract interest: this may take the form of publicity, offers of land, funding from diverse sources (including supporters of ecology, landscape design and preservation, social enterprise, art, and tourism as well as renewable energy and community development), and a corresponding range of visitors. The project may enrich the community on many levels, and it may serve as a model for others – including future wind turbine developments.

**Such an approach may help us recognize that questions and crises of energy – and the opportunities these bring – occur on various levels: physical, environmental, and social – economic, psychological, and spiritual; solutions that address only the most easily-measured of these will ultimately fall short. The *form* and *process* of an energy system – and the ways these relate to its function and location, as well as the process of design and implementation have ramifications wider and deeper than mere quantity of kilowatt output. Approached with the whole in mind, we can create and adapt systems that provide a source of energy (and an opportunity for transformation) on every level and for all involved – from planners to builders to consumers to visitors, now and into the future.** This may sound idealistic; but it is thoroughly practical in the long run. We need such practical ideals – and communities that are clever, creative, and courageous enough to implement them. Such practical creativity seems to be a hallmark of Scotland as a whole, and Dumfries and Galloway in particular.

### **Possible scope of projects:**

There are various levels at which turbine design can be re-envisioned to integrate with the environment and other aesthetic considerations. These include:

1. Design of whole turbine arrays – incl. siting, layout, landscaping.
2. Design of individual turbines – size, form, colour, etc.
3. Modifications to existing turbines (profile, colour) and landscape (plantings, etc.).

Any or all of these can be developed for projects in the planning stages. Landscaping and more superficial modifications can be implemented for existing installations.

Joseph Proskauer

## Some References on Wholistic Design in Scotland

An example of such work with a land project in Scotland is described in the following articles:

Isis Brook, "Goethean science as a way to read landscape," *Landscape Research* 23(1), 1998.

Margaret Colquhoun, "An exploration into the use of Goethean science as a methodology for landscape assessment: the Pishwanton Project," *Agriculture, Ecosystems & Environment* 63, 145-157, 1997.

M. Colquoun & Christopher Day, "Meeting the land: Doing science, (art and religion) Goethe's way." In *Creating harmony – Conflict resolution in community* (H. Jackson, ed.), Permanent Publications, 1999.

M. Colquhoun, "Healing the Land, Healing Ourselves," *Caduceus* 72, 6-11, 2007.

Available on line at <http://pishwanton.org/healing-the-land-healing-ourselves>

Oliver Lowenstein, "Listening To Landscapes" *Resurgence* 216, Jan/Feb 2003.

I recommend the work of architect Christopher Day –

dedicated not merely to sustainability, but to the proactive nurturing (even 'healing') of both environment and community. He has developed a process he calls 'Consensus Design,' which involves the community of interested parties in non-judgmental exploration of various aspects of a project *en route* to creating buildings in harmony with environmental and social needs. As the project progresses, the community and the individuals involved grow as well. He's based in Wales, but has undertaken projects worldwide – including Scotland. Quite exciting.

Website: [www.fantastic-machine.com/artandspirit/spirit-and-place/welcome.html](http://www.fantastic-machine.com/artandspirit/spirit-and-place/welcome.html)

Introduction on community building:

[www.fantastic-machine.com/artandspirit/spirit-and-place/community.html](http://www.fantastic-machine.com/artandspirit/spirit-and-place/community.html)

Page on the 'Consensus Design' process:

[www.fantastic-machine.com/artandspirit/spirit-and-place/consensus.html](http://www.fantastic-machine.com/artandspirit/spirit-and-place/consensus.html)

"Approach to Architecture and Environmental Design" and "Workshop Method" at bottom of CV – [www.fantastic-machine.com/artandspirit/spirit-and-place/cd\\_cv.html](http://www.fantastic-machine.com/artandspirit/spirit-and-place/cd_cv.html)

Review of *Consensus Design*:

<http://transitionculture.org/essential-info/book-reviews/consensus-design-christopher-day-2003>

## A wholistic approach to wind turbines

The work of Susumu Shingus (shown in the new film *Breathing Earth*, which featured in the first Environmental Art Festival Scotland) is relevant and inspiring. Beginning from an artistic perspective, he has designed turbines (and associated structures, including a whole community powered by wind) that are aesthetically pleasing, rather than intrusive – evoking the flows of air itself. He has explored Galloway as a prime candidate for this practical, creative enterprise. (See <http://susumushingu.com/en/work.shtml> .)