

# ART-LAND

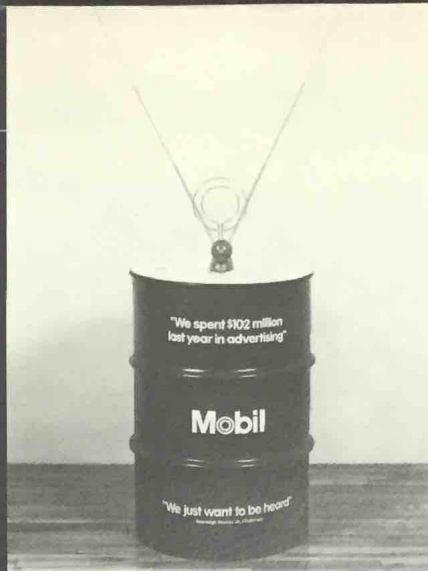


GLOBAL WARMING

50¢ OFF LARGE COFFEE

**PLUS;** Cosmic evil  
Health & Beauty

*The New Economy*  
*Globalization*  
*Activism*



## ART-LAND

Its always a sign of possible change in conciousnes when a word or notion enters the spotlight. This has happened throughout history. Sometimes it's been the philosophers who have tried to understand the world through a word or a notion and thereby caused changes in knowledge; sometimes its been the scientist; sometimes the artists. Sometimes its been because of a new political conciousness, or a new social conciousness, that suddenly a word or a notion is questioned or examined in new ways. Some words and notions that come to mind that have had people thinking and debating forever, it seems, are God, Beauty, truth, justice, ... So what is the word on everybods lips right now? *Globalization*

Globalization has long been a hot issue in the world of arts. Hans Haackes 1981 piece titled *Creating Consent*, expose the Trans National Corporations (TNC's) use of public relations in the global game of marked shares. Peter Fend has throughout his pioneering work with satellite images, information-technology and energy-issues kept a global perspective. Artists like Rirkrit Tiravanija has in his work *Supermarked* (p.5), come up with a fresh approach toward standardization and globalization.

Art-Lands opening section in this fall issue is dedicated exclusively to upgrade you on globalization, with essays on economics, ecology, and diverse branches of activism. This section also launches such groundbreaking artists as Matti Braun (p.6), Peter Fend (p.11) and Henrik Plenge Jacobsen (p.5).

### Rapid Respons to the Situation

We are no longer alone.  
Iceland is ahead of us.  
DaimlerChrysler is ahead, too.  
We are falling apart under the domination of Old Oil.  
Rapid Marketing.  
Affirm that the situation now, globally, is unacceptable.  
Then give the cures.  
**INDUSTRIAL EVOLUTION.**

A cure for global warming  
No more fossil fuels  
"Cellulosis biomass", chiefly  
within basins

A warranty against nuclear  
accidents  
No nuclear fuels  
Direct solar instead:       wind  
  Photovoltaic

A guarantee against deadned  
oceans  
No large dams  
Run-of-the-river Hydro  
Waves  
Tidal

Peter Fend *Text as of August*



## PETER FEND / OCEAN EARTH: A PURPOSE FOR A NATION

**The game between East and West will continue. But how that game gets played, and what might be the rules and parameters, can be decided at the net – by Denmark**

**As** the body of land – of sea-bottom raised above the sea's level – Denmark plays a pivotal role in the world.

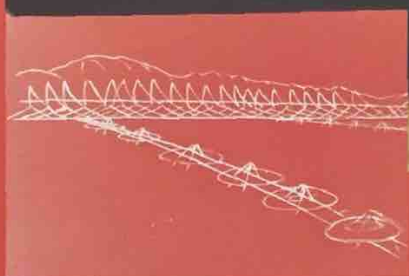
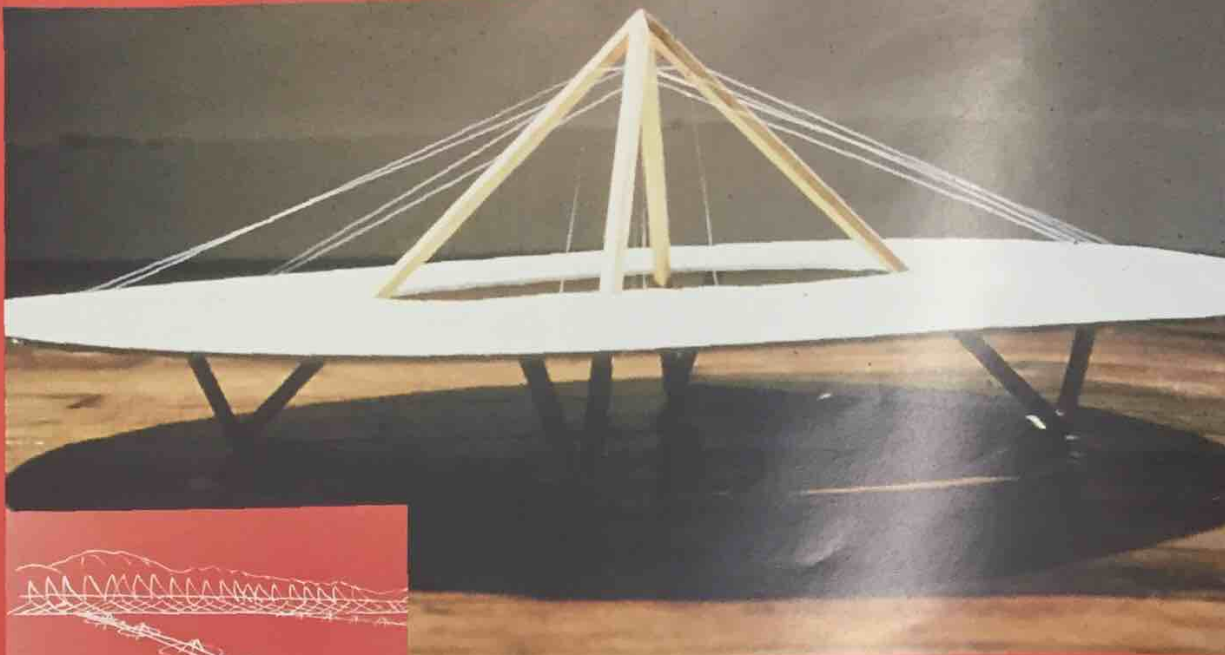
It plays a pivotal role in the current centerpoint of political and ecological decision on the planet, that peninsula where artists triggered a five-century lead in propulsion engineering and territorial control, starting with the Renaissance – that peninsula called Europe.

This pivotal role now, this position between counter-balanced masses, this critical status, results from one physical fact: its location between the North and Baltic Seas. Or, to speak in geopolitical terms: its location as a filter, as a gateway, between the two players of the Great Game: the British Empire (now including the US, and headquartered in London, with NATO in tow) and the Russian Empire. On a map, the gap is traditionally between London, at the west end, and St. Petersburg, at the east. Denmark lies dead-center in-between.

The game between East and West will continue. But how that game gets played, and what might be the rules and parameters, can be decided at the net – by Denmark. Both sides are fairly even in their access to resources. Britain has North America, Australia and South Africa, with the attendant strategic metals, and Russia has everything anyone needs, plus dominance in access to natural gas, where it sits.

Now, with the vexing dangers of Global Warming, Ozone Depletion, Desertification, Urban Sprawl, and Toxic Contamination, the global game must change. A new set of rules, with new objectives for dominance, must emerge. Until now, the contenders have sought dominance in mineral fuels – in the nuclear and petroleum industries. That can change. It can change into a race for dominance in renewable systems – in the production of hydrogen, biological methanes, kerosenes and like gases – and the propulsion engineering that ensues. Who will win? Probably neither side, in the end. But meantime Denmark can take the lead. Here are four ways:

Megastructure city with slope structure and counterweight-discs on cas-  
sons supporting transport routes. Trut Bay, Montenegro. Shows here  
in walldrawing, at Neue Gallerie am Landesmuseum Joanneum, Graz.  
By Peter Fend, to be in tandem with licensed architect Kevin Gannon,  
through Ocean Earth Development Corporation, 1993.



Counterweighted disc, or 360 degree bascule bridge, using counterweight suspended from poised but not joined slope beams. Building based on principle of balance rather than statics. Response to Richard Serra's TWU, where I saw the need to make the massive weights serve an architectural function. Artist: Peter Fend 1979

## 1. Production of Zero-Emission Gases from biomass.

Huge amounts of sediment accumulate in the waters and lowlands of the Baltic and North Sea Basins, all the time. Although the seas can be rough, wearing away the coast, particularly in the North Sea, over the long term the sediments prevail. Without an action like dredging, harbors and waterways will clog up. One can dredge, and wait for big storms. Better, one can absorb the nutrients in animals and plants, then scoop. This includes literally scooping the poop, as Superflex propose in their biogas projects. In northern Europe, for example in Poland and the former USSR, there's plenty of grazing animals, plenty of water, and plenty of the low-cost labor that could be willing to produce fuel from, well, dung. Other fuels can also be produced upland: with freshwater microalgae in ponds, one can yield large amounts of methane; with a strange microorganism called *botryococcus braunii*, one can directly produce, after distillation, a jet-fuel kerosene; with tanks of a single, select organism, exposed to the sun, one can even generate hydrogen. Providing that information and equipment are dispersed well, the countryside, with its many farmers, could become a major source of transportable fuels.

But there's also the two Seas. In these two Seas, the nutrients that continually pile up can continually be hauled away, in the form of marine algae, preferably brown algae like *Laminaria* kelp or the more-indigenous *Fucus*. Essential to high yields are:

(1) salty water, not fresh, with plenty of

mixing and influx from the High Seas;

- (2) many nutrients suspended in solution, occasioned by storms and current or, artificially, by tube-induced upwellings;
- (3) submersible rigs for growing the plants on an artificial "bottom", the rig floor, and allowing frequent (even weekly) harvests. The chief barriers to such an industry have been administrative; there have been worries about freedom of navigation. But inventions in rig design make them readily submersible, if need be for ships, more frequently to go beneath the violent waves of storms.

In the North Sea, including the Kattegat, biological conditions are good. One could replace the oil & gas rigs with vast marine-algae skeins. But in the Baltic, from the Belt Sea and Oresund of Denmark on through the current flowing towards Gdansk, the waters become less saline. The Vistula, the biggest source of freshwater in the Sea, sharply reduces salinity, and one can only expect a marine-algae industry where waters become deep, as off southeastern Sweden, and saltier, silty waters far below can be artificially or even naturally upwelled. Denmark could take physical action to make the Baltic more oceanic—and therefore more vital. Denmark should, for the alternative would be a gradual silting in and deadening of a still, stratified lake. With purpose, arising from its position, Denmark can:

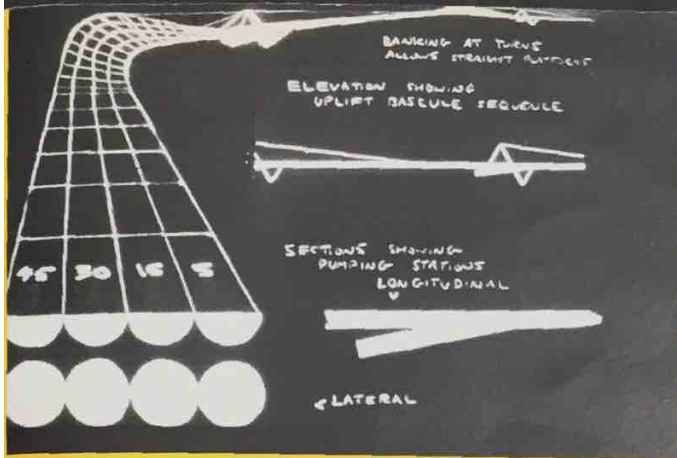
1. Take sediment out of the sills around it, chiefly in the Oresund and Store Belt, and usually not with

dredging but with harvesting sea plants,

2. Sponsor a widened, deepened channel between the North Sea and Kiel, inducing a whole new salt-sea regime along the once-Prussian coast;
3. Build and disperse the giant tubing that can upwell the seawaters flowing inward deep below, mixing them with the fresher waters on top, flowing outward. Of course the kelp or fucus being grown could absorb the excess soil runoff, agricultural pollution and urban waste loads now damaging the Seas—all without eutrophication or other deadly impacts on fish. Our final aim, evidenced on any coin from Denmark's onetime colony Iceland, is MORE FISH.

## 2. Production of Hydrogen from Water

To produce hydrogen from water with electricity is well known. One needs a strong current—and plenty of pure, distilled water. Denmark on its own has plenty of water suited for distilling. And it has plenty of electrical power, including power from windmills. But this advantage is shared by nearly all the countries throughout the sea basins between which Denmark is the filter: the North and Baltic Sea Basins. By far the greatest freshwater impact on the North Sea, and hence on Denmark, comes from the Rhine. Two-thirds of that flow's volume has already gathered at Basel, where the river leaves Switzerland. A similar condition occurs with the Elbe, which has two-thirds of its volume where the river leaves Czech, and with by far the greatest river impa-



Pumped Aqueduct transport system, mimicing blood vessels, Peter Fend 1979



1:7 Model of Giant Algae System Clean Air Rig, prepared for Laminaria (as opposed to the much-larger Macrocyctis), suitable for the areas indicated behind: East China Sea/Yellow Sea Basin; Kuroshio Current. Ocean Earth Development Corporation

cting on the Baltic Sea, the Vistula – where two-thirds of its volume is reached far upstream, by Cracow. In sum, the freshwater flows into the North and Baltic Seas are mainly produced very far inland, and much higher up (c. 500 m). Of course a similar primacy of the highlands appears in the countries to the north, in Norway and Sweden.

About half the flow from the Swiss Alps and Vosges Mountains, the northward flow from the Carpathian Alps, and all the flow from the Swedish side of the Scandinavian Peninsula – as well as of course the usual runoff from the well-watered lower lands of the Baltic Republics and Russia. A more direct impact, striking the west coast, comes from the Czech Republic and what had been East Germany. Denmark could be described as Water Central.

At the same time, given its position, its interface role between Ocean and Inland, Denmark – to quote the NY Times – is "one of the breeziest corners of the world." According to the Danish Ministry of Environment and Energy,

the Times reports, "wind energy today covers 7 percent of Danish electricity consumption and will rise to 50 percent by 2030." Soren Krohn of the Danish Wind Turbine Manufacturers Association says, "The Danes were fortunate to be in the right place at the right time with the right concept." He was speaking of wind energy. We expand this to include the electricity from wind energy, if suitably intensified: this electric power, coupled with the plentiful water, permits the electrolysis that yields Hydrogen fuel in quantity, no muss, no fuss, very fast. The Danish model, widely adopted inside the country, gets exported fast, too; the country produces 50% of all the world's wind-energy systems. Now, we seek only an extensive electrolysis hookup.

A shorter sequence comes by using sunlight directly, in photolysis. The conversion process uses both photoelectrolysis and photobiological systems. It's based on a coincidence easy for all of us who can see: as US government researchers report, "the entire visible spectrum of light [alone] has sufficient

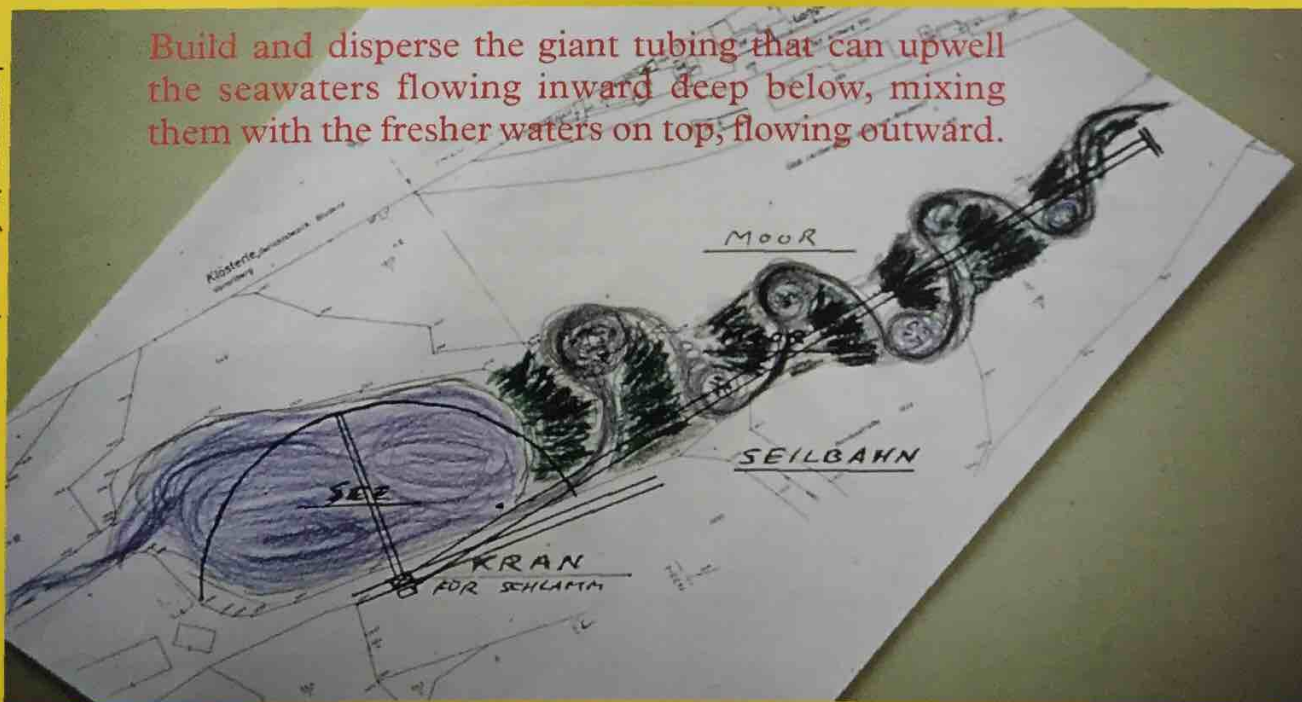
energy to split water into H<sub>2</sub> and O<sub>2</sub>."

### 3. Production of electricity from sun

But, to continue the scientific recitation, "The key to these direct conversion systems is to find a light-harvesting system and a catalyst that can efficiently collect the energy and immediately direct it toward the water-splitting reaction."

Today, most electricity in Denmark is produced from coal. Soon, and for ever, electricity can be produced directly (photovoltaic, or PV) or indirectly (wind, waves, biomass, falling water) from the sun. Even though Denmark is often covered by clouds, even though it's no Sahara or Mojave Desert, it can run its economy on all varieties of energy from the sun. The question is not Whether, but How. The answer consists in a Mix. A variety of ultimately sun-generated sources of energy can be adjusted frequently, almost daily, as in the stock market, for the entirety of the several giant solar-energy absorbing dishes physically

Build and disperse the giant tubing that can upwell the seawaters flowing inward deep below, mixing them with the fresher waters on top, flowing outward.



Langenese site, for meander structure. Ocean Earth Development Corporation Contracted through residency with Kunsterhaus Palais Thurn & Taxis, Bregenz, Austria

connected to Denmark: the entire Baltic Sea Basin, and the entire North Sea Basin. A rational policy for both these basins can be determined from Denmark as the filter and connecting point in between. How much shall upland biomass be collected upland, or be allowed to flow into the seas, at risk of eutrophication? How much shall algae offshore be grown and harvested without imbalancing the sea or inducing too much monoculture? How much shall urban and agricultural wastes be converted into fuel, or perhaps more efficiently into keratinacious nutrients for introduction to larvae and fish-spawning marshes? How much can wind be relied upon, and over how much of the terrain? And last, perhaps most critically today, how much shall falling water, or hydroelectric energy, be a source of power? Answers to all these questions require continuous monitoring and a balancing of trade-off factors.

#### 4. Control of territory using observation satellites

The answer may also come from a restructuring of government. Rather, from an alignment of government with values and technologies developed over the past three centuries, in what's often called "the Modern Era."

(1) Early in that Era, just as civilization fell into the confusion of the French and American Revolutions, a coherent philosophy of government emerged, to eventually become the foundation (according to many Nobel Prize winning experts) of Economics, being started by a group called the "economistes," that was labeled "Physiocracy." This means "cracy" or government, of the "physiology," or what we would call now the biosphere. It means government, or self-rule, of a biological entity, a physiology writ large. The philosophy held that any government rules over a certain terrain, and the long-term responsibility of that government is the maintenance and – if possible – enrichment of that terrain. Government, then, is not of, by and for the people, as the American revolutionaries declared. It is not, as more dangerously stated in whatever territorially happens to be Germany, of or for "dem Volke." It is that management of a demarcated terrain by a certain Gardener, or caretaker, for the long-term well-being of a specific terrain.

(2) Late in this Modern Era, starting in 1972, systematic observation of terrain by observation satellites has established what the Futurists and Aerial Suprematists long espoused: a mathematically precise way of measuring changes on the earth from an overhead view, in fields and streams of color. Digital color.

(3) Also early in the Modern Era, in North America between 1763 and 1781, between the end of a first and second North American war between Britain and France (the latter being the American War of Independence), an entire continent was demarcated into territories according to the flow of waters to the sea, in watersheds. Rather than demarcate territory on national or tribal grounds, the competing French and British states decided to agree on demarcating territory – the respective zones of control – according to their respective seas. Hence there could be a Louisiana Territory – purchased in 1812 – with a limit at the Continental Divide between the Atlantic and Pacific Ocean watersheds. The American War of Independence, meant to liberate the entire continent from outside rule, significantly failed; this led to the parceling of territory throughout the continent by very different, usually artificial principles. But the concept of post-national or post-tribal organization of territory remains, evident here and there on the world map, as in Iceland. The concept has recently been codified by the United Nations Environment Program through the UN Regional Seas Program (founded by a Yugoslav marine biologist), with its mandate for governance and legal enforcement in each regional sea not only over the sea but also its "land-based sources" of pollution and runoff.

The combination of these three phenomena—Physiocracy, systematically-repeated satellite observation, and saltwater-basin demarcation of territory, engenders a new form of government. It's government of the terrain by the people for the terrain. The people all get to see what's going on with the terra-

in. They get to see it through the TV broadcast or Internet webcast of satellite imagery, from overview to, say, 5 meter resolution, of everything that's detectable from sensors in outer space. Ocean Earth colleague Taro Suzuki and I coined a term for this: TELEVISION GOVERNMENT. Together with Joan Waltemath, we fleshed out the concept of a tele-vision based, or satellite-imagery based state – or SPACE STATE. The state would not be of a Volk, nor a people, but a lived-in space: a particular territory in a coherent x-y-z frame. That frame, in line with earth-art logic, would be outlined by maximum values of elevation surrounding a relatively definable body or current of saltwater. Systematic monitoring of any such basin, using the many sensors from the many satellites now in orbit, could yield timely information on everything happening to the territory. Given that dissemination of imagery, and even of raw data and algorithms for processing, could be democratic, for everyone with access to Internet and, at the least, TV, one could achieve – in a visual-language form – Joseph Beuys' dream of "Direkte Demokratie."

Totalitarianism cannot arise because everyone becomes used to seeing everything down to details of public interest, say, 5 meters. If the supply of data and imagery should be cut off, or altered, everyone will know – and will be primed to object. As we came to say in the 1980s: PRE-EMPTING BIG BROTHER; THE MIRROR REPLACES THE MASTER.

The means to government, the material flows of rule, lie in taxation. With satellite monitoring for the public, following through on our 1982 show, "ART OF THE STATE," we start a new tax system. The system imposes pressure not on income, not on imports, not on valuated property, but on the ecological

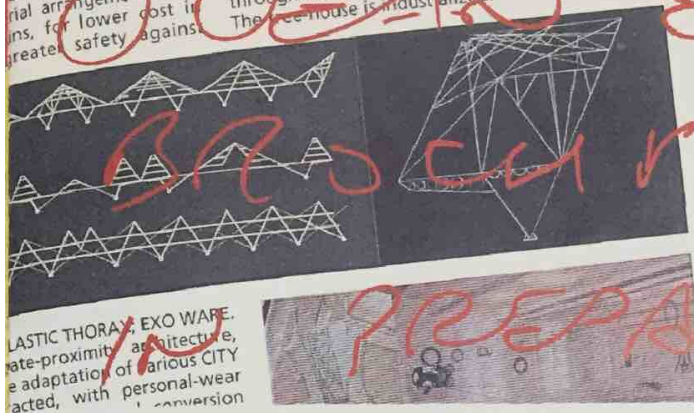


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greater safety against

aspects of self-built cross  
engineer-controlled supra-terrestrial infrastructure,  
with water, fuel, and sewage lines readily extended  
throughout, independent of the slobby terrain.  
The see-house is industrialized.

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timely fuel-access information  
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marketed, depending on w  
methane, methanol, hydrog  
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LASTIC THORAX; EXO WARE.  
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conversion



Peter Fend

**CONCEPT**

**PREPARATION**

we start a new tax system. The system imposes pressure not on income, not on imports, not on valuated property, but on the ecological degradation

degradation, if any, of the territory. This system of taxation could be started in Denmark, then be spread throughout its influencing watersheds, of the North Sea and Baltic Sea Basins at least, extending farther even to the English Channel and Irish Sea. The territory could be not only the land above sea level but also the sea. Any polluted harbor pays more tax, any oil-drilling rig pays more tax, any owner of highways or parking lots (government or not) pays more tax, any builder of subdivisions which deplete ground water and clear away forests pays more tax, anyone depending on or using any part of the watershed in a manner which, as satellite detected, departs from a preset norm, a baseline, of ecological well-being, will pay more tax. As a result, heavily industrialized parts of Europe will be heavily taxed, poorly managed farmlands of Europe will be heavily taxed, and any property owner (state or private) which preserves the baseline bioproductivity and vegetation vitality, or even increases it, will pay little or no tax. All the assessments of degradation, or of algorithmically-measured departure from baseline spectral values in the satellite data, will be visible to anyone in the public that wants to investigate. Pressure will rise, very fast, for all the citizens, all the industries, all the property owners, all the roadway-building governments, to minimize their damage to the ecological vitality of the territory. Pressure will rise for zero-pollution energy, maximum-greenery canopies and ground-cover, any architecture which recycles what would otherwise be polluting or smothering of the territory in its pre-human, wilderness state.

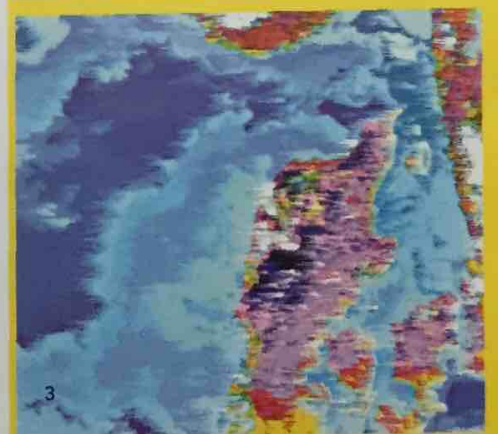
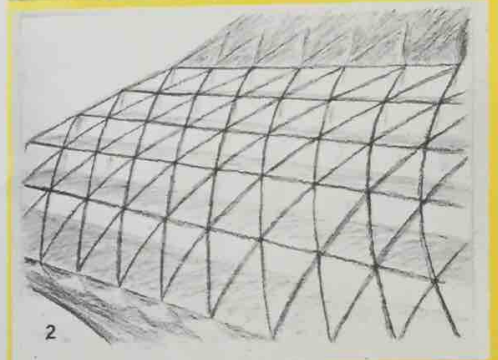
Every nation can have a purpose. The purpose of Denmark appears in its geography, its physical condition. It lies at the center of a giant estuary extending from Ireland to Lake Onega in

Russia, and it functions as both an accumulator of sediments and a filter for salt — and freshwaters circulating throughout this estuary. It lies at the center of a physical unit. From this center on out, in all directions, it can extend the power of a satellite-derived Direkte Demokratie. The data it requires for this extension flow into ground stations every day, frequently. The data can be organized against agreed-upon baseline spectral readings to yield an ecological-depletion accounting system. Then these data, in such a depletion accounting system, can be assembled and organized into a monitoring and assessment program for each watershed within the Ireland-Onega continuum. This can start in the North Sea and Baltic Sea Basins first — extending, given the facts of gravity and flow, out to the edge of each basin, into the Swiss Alps, into the Carpathian Alps, into the mountains dividing Sweden from Norway, into Russia up towards Moscow.

Denmark is now the seat of the European Union's Environment Ministry. It can become the seat as well for all of Europe's post-national environmental policy, including Television Government.

These four acts, all attainable by the people in the territory of Denmark, both on Europe and extended to Greenland, constitute a PURPOSE FOR A NATION.

All actions here are applicable throughout not just the home territory of Denmark but also the respective ocean basins — of the North Sea and the Baltic Sea, from seafloor to mountain ridges, far away. The territorial implications for Europe, already mandated by UN Regional Seas programs and river-basin commissions, could be considered as nonetheless... major. The European Union would of necessity restructure.



1. 1:20 scale model of Giant Algae System Clean Air Rig, replicating what is now produced as a 1:1 scale model, on view on the US West Coast, as part of an industrial promotion campaign, Ocean Earth Development Corporation.
2. Sloped City, Peter Fend
3. AVHRR Satellite views of Denmark, showing microalgae bloom in The North Sea (through Kattegat) Ocean Earth Development Corporation