MARC JANCOU GALLERY

PRESS RELEASE

EURASIAN SCENARIO: Peter Fend: April 20 - May 21, 1994

"Wars, famine and drought--all the scourges--have driven people to invent cities, fortresses, granaries, new systems of using land. As everyone knows, we the human race have arrived once again at a position of need: there is an ecological crisis".

In a lead editorial, the Financial Times acknowledged that humanity had only begun to "scratch the surface" with dangerous problems like fossil-fuel emissions. The Economist led an issue with alarming reports of a sharp decline in the numbers of fish. Reporters from The Independent recently published a book warning that wars in the Middle East will soon be over water, not oil. And frequently news reports appear about still more disease and death of trees, or sharp declines in pollination or spawning, or entire coastlines off-limits for swimming. The world is everless habitable.

Responding directly with an architectural program, American artist Peter Fend presents a construction scenario at the Marc Jancou Gallery, at 41-42 Foley Street, London. This is Fend's first major show in Britain.It is the opening show of the gallery, also based in Zurich, in London.

Having recently exhibited in the Documenta XI and Aperto of the 1993 Venice Biennale, Fend is no stranger to the world of art. But his work has carried him much farther, into press conferences at the United Nations, lead articles in the Observer and New Scientist, and coproduction with naval architects and scientists of emerging ocean structures. He did this through a company he founded in 1980, based on art ideas, called Ocean Earth Development Corporation. This company is known in diplomatic, journalistic and scientific circles as the first private producer of satellite-based site analyses for mass media. Now it focuses on developing an industrial system for clean fuel that meets a No. 1 requirement of cities: clean air.

The domain of the current show is Eurasia. Considering this terrain, Fend focuses on three questions:

1. How can the countries of the Mediterranean maintain a stable sea, with ample water cycling north-south? Fend proposes, for example, replacing the Aswan Dam system wtih upland earthworks.

2. How can the countries of the Far East organize the colossal water source of present-day Tibet? How can we reverse the now-spreading deserts, sharply reduce the danger of floods, and, perhaps most vital, create the offshore nutrient conditions required for what Japan's MITI says will be the next major source of fuel: vegetation in the sea. All this would entail the replacement of both the mega-nuclear and hydroelectric scenarios now posed before China.

3. How can the Northern European countries, notably Great Britain, organise their territories for a post-pollution era? This would lead the way towards the Fat Corner materials-cycle economy propounded by that "Chief of the Hunters", Joseph Beuys.

The solutions presented through "Eurasian Scenario" manifest a conjunction of many projects on which Fend has been working for over a decade. As a scenario, it effects an integration of recent art and science towards a new practice of architecture: a Global Architecture.

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OPEN TUESDAY-FRIDAY 10-6 SATURDAY 11-3

EURASIAN SCENARIO

The projects exhibited are part of a global strategy to change primary production and make it assure clean air and water. No economy today relies on a fuels or materials base which does this. We hold these propositions:

(1) fossil fuels must be replaced by non-polluting and renewable sources quickly

(2) dams must only be allowed where they do not affect the chemistry of river waters entering the ocean, for they are (we think) the primary cause of drastically worsening conditions for fish

(3) cities and land-use patterns should affect wild animal numbers far less than now.

All construction projects here shown are chosen to trigger a global construction practice helping meet these propositions. At the outset, we stress that given our experience of authorities protecting vested interests, and of human nature in general, a security-dependent industry of nuclear power is not a viable option.

CONSTRUCTION PROJECTS CONSIDERED VITAL TO A RESTORATION OF NATURAL SPLENDOR IN EURASIA, CHOSEN AS THEY COULD AFFECT THE DECISION-MAKING PROCESS FOR DEVELOPMENT, CULMINATING IN CITIES, THROUGHOUT THE TERRITORY

Project 1. China

Site: Slopes of waters descending from Tibet into China,
into the Gobi Desert (Sinkiang)
into the Yangtze, the largest river system.

Scale: 1: 100,000

Decisions at Issue: This month, do Chinese companies start attracting capital, with a listing for example on the Hong Kong Stock Exchange, and do they start contracting with major Western power plant builders, to construct the world's largest hydroelectric dam project, the Three Gorges Project, on China's main river, the Yangtze.

How to restore ecological vitality to the now-arid Gobi Basin, designated in 1983 as a No. 1 development region by the Chinese Government.

Background Issues: challenges to the Chinese claim to Tibet: the alternative to giant hydroelectric projects having been giant nuclear-energy projects, for now ruled out. China is the world's biggest emerging market, now with an open choice on development strategies in the 21st century.

Solution: Build hydroelectric systems only very far upstream, where Tibet water tables reach the outflowing rivers, and build only diversionary or water-absorbing marshes downstream, to assure natural nutrient outflow at the river mouth, with maximum mixing of saltwater, freshwater and n;utrients to afford what the MITI of Japan says can be the No. 1 source of fuel, both hydrogen and methane (and both clean burning), giant marine algae.

Gobi Basin Sites:

Model 1.1. Upland, construct water barriers only very high up. Take advantage of short descent to the Sinkiang (Gobi) Basin. Blocked rocks can be blasted to assure mineral outflow downstream, and thus no alteration in river chemistry downstream. Riverbed model, as opposed to topographical model, shows angle of descent

Model 1.2. Downland, in the Basin itself, build through-ways for outrushing waters so that they do not burrow deep below, where they enter the now-enormous underground reserve. With spillover capacity into a header lake, there can be further through-ways in flood time.

The objective is maintaining surface flow for accumlation--hence, an inner ocean--within the overall Gobi Basin. If evapotranspirative cycles are built strong, then cloud formation and consequent rainfall, with restoration of wild animal and plant populations as before agriculture, can occur.

Yangtze Basin Sites:

Model 1.3. Riverbed model for headwaters of the Yangtze, descending from 18,000 to 14,000 feet elevation, above tree line. As with the Gobi upland site, the lack of vegetation, coupled with accumulation of broken rocks at level beds, allows for hydroelectric damming which--providing that mineral runoff is maintained, e.g., with pulverization of accumulants--would not deny nutrient flows to the ocean.

Model 1.4. Meander diversion scheme, occuring where otherwise sediments and waters behind the proposed Three Gorges Project would be taking place. River control occurs, but with the waters being fed into a marsh network, with benefits for animal-plant numbers, rather than into a standing reservoir.

Model 1.5. Yangtze Mouth; Estuary at Shanghai. The main island is turned into a double-slope marsh gradient, for maximum mixing of saltwaters (tidal) and freshwaters (river). Further to our satellite discoveries of backcurl marsh formations from the Danube, we would propose giant saltwater marsh systems constructed with interspersions of dry and submerged land,again in slopes for fresh/salt mixing. The river ouflow is turned into an engine for production of fish. In turn, this affords the biochemical conditions for giant algae industry. Chinese scientists are researching large-scale offshore production of such giant algae.

The energy scenario for China, a potential model of world development, is not nuclear, which has already been rejected and would require seven years from power plant concept to production. It should not, we say, be hydroelectric projects like Three Gorges, which would require ten years lead time and would produce only the amount of one year's increase in energy supply in China. It should be based on gas fuel. A methane-supplied power station, for example, requires only 2-3 years lead time, and can start with the offstream from gasification of coal, of which China has the world's largest reserves, chiefly in Sinkiang. Within the same time span, given proper ocean engineering, large quantities of either methane or hzdrogen gas can come through giant algae industry. One could start this year, being ready in 4-5 years, for a faster return on investment.

Project 2: Nile Basin.

Site: Slope of waters descending into the Nile upstream from Khartoum.

Scale: 1: 100,000

Decisions at Issue: The Aswan High Dam will need to be replaced. Some can speak of 50 years, if one disregards the disastrous impact on Mediterranean ecology, on public health in the Delta, or on that soil fertility once attributed to the famous annual floods. It is harder to disregard the ominous phenomenon of silt deposits well upstream, due to the slower speed of flow caused by the dam: these deposits bake in the sun during dry season, forming new, weaker dams, ever increasing the danger during a high flood of their breaking in succession, placing unexpectedly high sudden pressure on the Aswan itself. Conseuence: dam failure. One Egyptian scientist has calculated that this would cause the virtual wipe-out of Egypt. Many other scenarios have been prepared, particularly by the Egyptian military, all in view of the near-total dependence on one river, all of it upstream from their Aswan High Dam in foreign countries--with their own water needs and policies. How is one to effect a comprehensive Nile policy which will replace the Aswan High Dam, assuring water and energy to the population (now very fast growing) throughout the basin?

Background issue: how will most of the Islamic countries, being arid, forge a peaceful future, given growing population and very limited water cycles: what can be done to greatly increase the water circulation throughout the territory, chiefly through restored populations of animals and plants? In a phrase, how to deploy the growing populations to restore savannah where now there is desert. Note: this same issue, though much less politically acute, faces Sinkiang China.

Solution: use techniques indicated by recent earth art, and discovered being used successfuly by Iraq before Desert Storm, for raising underground aquifers to the surface with micro-habitat for underground animals and supplied by migratory surface or aerial animals, all for nutrient circulation and mud buildup, and for pushing surface waters through blockages caused by accumulated silts, sands or salts. In any case, keep surface waters moving, and allow no large standing bodies except to form headers, very temporary reservoirs, that allow high-flood waters to accumulate and then thrust through at a critical moment.

The models deal with two sources for the Nile flow at the Egyptian border, that is, at Aswan: one, what could be the primary source but due to evaporation is not, coming from Lake Victoria, the high plateau due south, and the other, what is now by default the primary source, coming from the highlands of Ethiopia, to the southeast.

Models 2.1-2.2. Averting the giant marshland morass of southern Sudan (called the "Sudd"), to avoid a 90% loss due to evaporation in the standing waters there of the main source of Nile waters, the White Nile and Lake Victoria region. This would effect much less dependence on the highly-fluctuating supply from the mountains of Ethiopia, which--being the main source of Nile waters from North Sudan onwards--have made it seem necessary to build the Aswan High Dam. Through-thrust here helps assure more regular year-round flow, without the need of reservoirs. Thus, we propose in scenario what has already been proposed for over fifty years, and is now blocked solely by political turmoil, the finishing of hte Jonglei Canal. We propose further, alongside to the east, the finishing of the parallel canal, from Bor--but leading eastward into pre-existing now-dry river beds. Technically much easier, and therefore less politically complicated, would be diversions from upstream, into the marshlands just west of Ethiopia, site of Model 2.3.

Model 2.3. Diverting the Sobat River from Ethiopia sharp northward, to converge with the first of the diversions of the Nile we propose (from Mangala, not Jonglei or Bor), so that it does become bogged down in the marshes now spreading just west of Ethiopia, in the flatlands of the Sudd. In this diversion, the river is sinusoidally worked down the valley and can be fed into two header ponds, to store up hydrological force at high flood.

Model 2.4. Inside Ethiopia, not proceeding with the US foreign-aid proposal to build 22 dams, which may help the Ethiopian water economy for a while but are already considered to be unacceptable by Egypt, at lesat given its current dependence much more on waters from Ethiopia than from the Nile Source itself. We work with the one identified dam site inside Ethiopia, a tableland with a sharp drop where one could with convenience form a waterfall, hence dam. A short channel is blasted from the reservoir into the long string of gullies from the same tableland being eroded into the same Sobat River passing through. The gullies become feeders into a long meander downhill, with marsh sops at each bend. Results: (1) draining into the river flow of accumulated silt from the reservoir, hence restoring the flow of nutrients; (2) buildup of active marshes rather than standing water, for increased water holding capacity of water and larger overall evapotranspiration and re-absorption cycles. We show a counter-proposal to what American engineers have recommended in their disregard (despite extensive documentation) of the damaging effect of dams on life in the oceans.

Project 3. Macedonia.

Site: the northern reaches of the Aegean Sea, where remains fo outflow from the Nile, now in saltwater, would meet inflows from former Yugoslavia and Bulgaria in traversing present-day Greece and, to the east, Turkey.

Scale: 1: 150,000

Decisions at Issue: how to define "Macedonia". More fundamentally, how to establish an economic horizon for countries in the Mediterranean Basin without conventional industrial resouces or development.

Background Issue: the Balkans. (It is 17 April 1994).

Background Issue: the biological stability of the Mediterranean Basin, now damaged--for example--by the Aswan High Dam. As well, the dams of Albania, France, and so on.

Model 3.1. All of the "Macedonia" in former Yugoslavia drains through a single river, the Vargas, into present Greece. At the border, much as along the Ethiopian-Sudan border, the river comes out of the highlands and reaches a flat alluvial plain. The model shows most of the territory draining into this river. At center is Skopje. Incisions are made to show new diversions and marshes that effect river control without the use of dams, to assure a stable biological condition offshore.

Model 3.2. In Greece, a counterpart project is developed, for the main river flowing from the high mountain range there into the Gulf of Salonika. The entire reservoir basin is turned into an arc of marshes and diverions, achieving what the dam does without the trapping of sediments, of loss of sediments to animal uptake, caused by dams.

Model 3.3. In Turkey, a concrete example of what could occur on the coast: megastrutures nested into the hills, even as space-frames poised on linear wedges of the mountain, allowing the mountain to function as the "material supporting", all being supplied with energy from vegetation in the sea. The quantities necessary result from normal, undammed river flows into the sea, affording that mixing required for pre-civilizzation levels of sea plants and fish. The site for development here, rich with meaning given the turbulence common to the region, is Gallipoli.

Project 4. Saudi Arabia and Kuwait

Site: Wadi el Batin

Scale: 1:100,000

Decisions at Issue: how to develop water resources in the Middle East generally, and in rich oil-exporting countries specifically:

Background Issue: more geopolitically, how to make sure that there is a viable resource base and ecological foundation, including water and soil populated by large quantities of animals and plants, after the fossil-fuel industry is finished.

Model 4.1. A three-channel canal is built, possibly with blasting, thorugh the giant sand barrier crossing the Saudi shield from north-northwest to south-southeast. This barrier, about 200 km wide, results not from geological structure, but from a removable deposition. Waters from the west converge on the barrier at Buraydah, where they foster the only greenery in Saudi Arabia, with the exception of the mountains in the southeast corner, which comes not from artificial irrigation. Then the river goes underground, only to re-emerge, in reduced form, just before the Kuwait Border. We seek to penetrate to the point of re-surfacing, thus restoring what had been the main hydrological pattern of the

Scale: 1:500,000

Decisions at Issue: What is to be done about the Chernobyl site, where the containment measures are now reported to be near failure, with the prospect of colossal and chronic contamination of the Pripyat River, the Kiev Reservoir, the Dnieper River and of course the Black Sea, during our lifetimes.

Solution: (1) Totally divert the Pripyat from its northwest-southeast meander, 100 km upstream, at Mozyr, with a thrust straight through to the Dnieper basin. The distance of the diversion canal, in multi-channel form, would be 60 kilometers. One must not have the Pripyat enter the marsh meander, for then the enormous volume of mud bearing on the Chernobyl reservoir, hence the reactor site, will not be diminished.

(2) In view of what contamination already occurs in the Black Sea, and will continue even if the entire Pripyat meander is emptied, and in view of other biochemical reasonings of scientists like Dr. Ulrich Horstmann of the Institute fuer Meersekunde, Kiel, divert the Upper Don River into the Volga River. This would help increase the salinity of the Black Sea, now over fresh, and help reduce that of the Caspian Sea, now over saline. It would also force the closure of one of those giant hydroelectric dam projects built by the former Soviet Union throughout the country, but particularly into the Black Sea and Caspian. We believe that such dams have been chiefly accountable for the sharp decline in fisheries, so clearly in biological stability, in both Seas. The precise site, historicaly significant but geologically reasonable, would be the former battlefield of (former) Stalingrad.