Peter Fend / Ocean Earth

Art of the State

When there is conflict, a dialectical impasse occurs, and a new synthesis must be reached. This requires a new paradigm, a new way of seeing and doing. It requires art: that which, in consonance with nature, generates new imagery and technology. This in turn yields new ways to resolve disputes over territory and resources, or war. In the current conflict, which new ideas will take root? Which technologies will prevail? This depends on how one can get around or defeat the entrenched. How does one join up with new forces, even a set of states, to replace the Old?

Working as a convergence of artists, architects and scientists, a US company called Ocean Earth (founded 1980) looks at crisis spots around the world, then prepares site plans, and now aims to act. Anywhere we go, we use ideas from recent art. Our concept of territory comes from Marcel Duchamp, the "Marchand de Sel" (Merchant of Salt) and his earth-art successors: the saltwater basin. Our concept of industrial process comes from Joseph Beuys, with his "Fat Corner," a low-molecular weight hydrocarbon, as a chemical phase through which all things must pass, in cycle. Our concepts of countryside and cities come from the Futurists, Constructivists and their untamed-spirit successors, like Archigram and Gordon Matta-Clark.

Assume now, as many say, that there's a global crisis, even a war. Conclude, then, that it's time to put art to use.

During the Renaissance, art became important because among city-states there was near-perpetual war. Soon after, in France, art became important in the formation—again with near-continuous war—of the first, geometry-based nation state. Two painters, Le Notre and Vauban, rose to become the nation's engineers, respectively in layout and defense. In present-day terms, artists like them would run the Pentagon.

Art-based practices, fostering brand new ways of using terrain and resources, could run the military. And the foreign policy. And the general economic policy. This occurred before, with the Renaissance: perspective begot technologies and weapons with which Europeans could colonize the planet. Without the art-inventions, there could have been no gun, drive-shaft, turbine or camera—technologies crucial to conquest and globalization. Centuries earlier the Vikings had tried to colonize North America, but they lacked the new inventions, and were wiped out. Renaissance art changed that. But the task now, on a global scale, is to correct the Renaissance achievements. 500 years of global conquest also begot an ecology decline. It begot a desertification and ruination of most ecological systems on the planet. In North America alone, nearly all the wild animals, including the wild people, have been wiped out. Around the world, with urban sprawl, acid rain, dams, ocean decline, monoculture farming, and consequent land depletion, we must change course. To whom do we turn?

A practical role for art occurred already in the growth of the US. To speed up military communications, a high-society painter named Samuel Morse, a master graphist, invented a means for communication called the telegraph. And in recent decades, after World War II, an able abstract Artist, relatively unknown, probed very deep into the visual field, farther than anyone had gone, to invent the bar code.

If the city-states won wars by relying upon artists, and if the first nation state, France,

swelled out to its geometrically-defined frontiers by relying upon artists, then what sort of states now could emerge now with help from artists? Revolutionary Russia and rapidly-industrializing Italy had the potential, early this past century, of setting the pace for future urban-industrial development—if they had relied upon their artists, the Russian and Italian Futurists. What would be the public-policy effect of a pan-social reliance on Aerial Suprematism—namely, aerial and satellite views—conveyed through mass media? Or what if, in 1912, before the First World War for control of fossil fuels, Italy had adopted Marinetti's vision of energy coming chiefly from ocean dynamics? We would not today be depending on Petroleum.

But in Russia and Italy, the governments that came into power, under Stalin and under Mussolini, chose to crush the innovators, replacing them with aesthetic throw-backs. The historical result appears in the colossal material-culture failures of the Soviet Union and industrial civilization worldwide. Time and again, imaginative technologies (like balloon-suspended buildings) have been overruled, replaced by emphatic enforcement of bygone aesthetics, manifested in giant dams, giant power plants, giant monoculture farms, giant sprawl cities. The death of the Aral Sea is a result.

How can the pioneers in material culture prevail? One begins with a viewpoint, stated by architect Otto Frei, that "Kunst ist die Antipode der Politik." Inside a given political frame, the artists and architects are now out of power. But if they step outside the political frame into the political unknown, joining an adversary to "der Politiker," inside or even outside the country, then artists and architects can gain power. Then they can realize their ideas.

In 1985, during the Iran-Iraq war, two participants in Ocean Earth visited a negotiator between Iran and Iraq, the Algerian Ambassador to France, to show him satellite photographs and war-zone analyses. There were three meetings. In the last meeting, he asked, What could we do to help the Algerian Army restore the Sahara Desert to savanna? He did not know we were artists. He just thought we could help solve their territorial problems. Since then, models and plans have been made; now, with the civil war easing, we'll respond.

To be heard, one goes to where politicians are ready for the New. In the US now, this can mean going to leaders in Montana who want to redraw regional boundaries according to watersheds, hoping to start reversing a four-year drought. In the US also, this can mean challenging the Pentagon on its visually-archaic "National Missile Defense." Where there's demand for a change, artists and architects can find work.

The Patron must be a State, or a faction within a State, for a State deals, above all, with Territory. Every drawing, painting, and sculpture, and then all these brought together in architectural construction, is an imitation of, presence upon, even a plan for Territory. If Art is powerful, the governance of Territory will change. If Art is weak, its clients will be just museums and collectors—entities that, regardless of how powerful financially, do not have control over Territory.

At some times, particularly with autocracies, one could approach a State as one's self, as an Artist or Architect. But autocracy is in decline, given current mass media; one can better approach a State or challenger to a State as a Group. In our case, at the end of the collaborative-project efforts of the 70s, we followed legal procedures to set up a business corporation. This contrasted sharply with the tradition of the Lone Artist. As a company, like any other business venture, we would produce goods and services for paying clients—ideally, clients outside the art world, outside whatever might be called a collector community, people looking for solu-

tions to practical, public tasks. We thrive if our clients are governments, or at least the mass media that influence governments. So we entitled our early exhibitions *Art of the State* (1982) and *Television Government* (1983), and we produced a series of cable-TV shows as a *Space Force* working to achieve Beuys' "Direkt Demokratie" in a "Space State" (1979–82).

If a State becomes a client, it believes that no one else can do a better job of helping secure the integrity of its Territory. For that, we focus on the chief goal of art: fecundity. As Spenser wrote, "Art is that by which Nature makes more Nature." Nowadays, given the ruin of the planet, that means: More Wild Animals. The art practiced throughout most of human existence, which we call "cave art," is focused on sustenance in a world of Wild Animals: animal fertility, animal hunting, human dancing and procreation, animal masks and skin, hair, tusks. We have mastered the art of throwing a spear, what with all the weaponry, but now we need to restore the numbers of animals. With more animals, in more varieties, there's more likelihood of survival. Here's the role for artists described by Beuys, called "Chief of the Hunters." Herein are the Futurists' fantasies fulfilled, of "Body Madness," "The Untamed" and "Variety Theater." Scientists in Minnesota projected recently that if domestic farming were replaced by wild-animal habitats, North America could support millions more people than it does now. "Overpopulation" is not a problem. Misuse of the land, and eradication of wild habitat, is. For sustainability on Earth, use animal mimicry.

Application of mimicry to sites, or Art in Situ, becomes Architecture. Leon Battista Alberti, in his Four Books of Architecture, said there are four tasks for the Architect: to secure, for a city, (1) water, (2) air, (3) circulatory space, (4) defense.

Water

Fresh water, descending from highlands to the sea, has become a No. 1 issue worldwide. Wars may soon be more about access to water than to oil. Witness the population/water pressures in the Middle East. If the now-dry lands of Afghanistan, Libya, Iran or Kazakhstan were restored to savanna or forest, with revived streambeds, an impetus for "terrorism" would disappear.

Securing water results not from building dams and irrigating, not from planting trees in the desert, but from restoring large populations of wild animals. Start with burrowing and flying animals, let them build up oases and marshes, then let grazers spread the dung. Water cycles will follow. The species can do the work. We start at key feeding spots: earthworks restore underground animal habitat and microclimate, then allow the buildup of "keystone" constructor species. In North America, if those keystone species were in full number, there would be 80 million buffalo, 250 million beaver, billions of soil-aerating prairie dogs and, in swamps, millions of crocodiles. Similar numbers can be set for other continents ruined in the past 500 years—by European colonists. To re-establish those numbers, within decades, use Earth Art.

Air

To assure air, replace all fuels or energy processes that pollute air with those that do not. Fossil fuels (and nuclear ones, if leaked) pollute the air (and water). With architectural analysis, we see how to handle sources without harm. We see that oil & gas result from the decomposition of marine algae eons ago; grow the algae with the current solar income, harvest that, and you can ferment it to yield methane, reformable to hydrogen, methanol or plastics-feedstock. Stillwaters and canals,

common on coastal plains, can foster algae yielding still more fuel; in Australia, for example, a single pond-suitable organism can yield enough jet-grade kerosene for the nation's aircraft.

Reasoning spatially, we also see that nuclear energy is fine, far away. It's available everyday—from the Sun. We can use it in forms like wind, direct solar, passive solar, offshore thermal gradient, biomass, or (in a closed household cycle) biogas. Water cycles also result from this natural-nuclear power: evaporation and transpiration lead to convection, then condensation, then precipitation; the fallen waters descend to the sea, carrying soil. Their descent can release energy. But one must recall that the water is not just H_2O; it's a medium for soil, salt and organisms. It's a medium of life, like blood. Building dams can block up this blood, so we propose undershot water wheels on bypass channels. Power conversion is 25% less, but ecological flows, in the transport of life-essentials, are maintained.

Satellite monitoring of terrain, combined with elevation and slope records point by point, helps locate which zero-pollution energy system to adopt where. It also affords a basis for taxation. One can assess charges against any depletion of ecological productivity pixel-by-pixel. High dams become tax-expensive, with their deadening reservoirs; fossil fuels become much more costly, both in extraction and in exhaustion, since satellites show their presence, and damage; direct solar might be fine, but sited where there's no vegetation vitality or animal numbers to reduce. Water flow becomes a prized asset. Without water, there cannot be one of the least polluting energy sources, direct pyrolysis of distilled water to make hydrogen using electricity from gravity's pull. Without enough water, also, there cannot be enough of that much-touted zero-emission source, geothermal. Satellite surveys of saltwater basins permit a comprehensive siting-plan for whatever can increase the aerial, surface and sub-surface cycles of water.

Circulatory Space

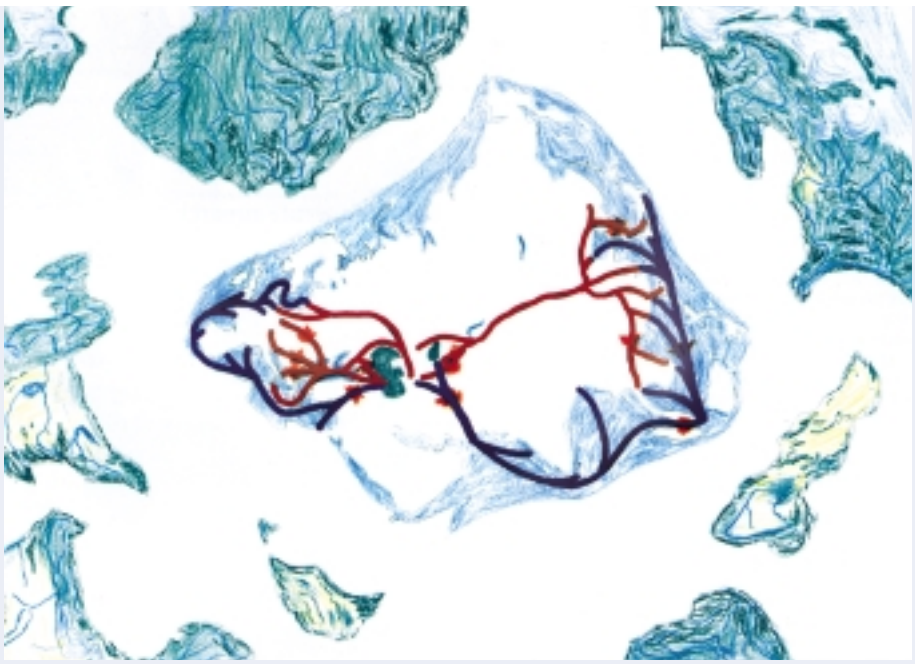
Such space-based tax surveys, combined with structural engineering, can induce high-density, jungle-gym cities, away from fecund marshes, even nestled into mountains. These meet that third condition for architecture defined by Alberti: space in which a body can move. A city is a transport nexus. Ease of movement makes it exciting. Mechanized transport has allowed the city to spread, but with high costs. There's less face-to-face experience, more time spent on travel, and a gobbling up of animal habitat. We work now to re-concise the city. We work now for greater ease of intra-city movement and much lower loss of the wilderness. The Renaissance grid and piazza functioned well through several centuries in meeting Alberti's requirement for body-movement space. But populations have boomed, and machinery, such as cars and trains (all derived from Renaissance innovations), have made the city no longer definable by movement on foot. The Constructivists, also urbanists like Archigram, have sketched out far-denser cities meshed in with today's machines. But public finance must be set up to promote them. What's now called erotic art can be expanded into "Futurist Body Madness" engineering, to yield body-like buildings that swell with warmed gases, counter-balance with poised weights and tendons, and straddle vast spaces with skeleton-like carriages instead of just stacking up. Architecture should arouse sexual appetite and prompt the urge to run, dance, play, with all one's limbs. Structural engineers say much playful innovation is possible, even more efficient; but encrusted customs and rules must be broken.

Defense

How does one defend such a city from attack? What can keep outsiders from wanting to break in? What prevents the waves of destruction common to History? The fourth domain of architecture as defined by Alberti, defense, has scarcely been tackled. We know of water cycles and river works, we know of zero-emissions fuels, we know of futurist cities fit for sport, but we don't know how to ward off the two main causes of urban collapse: hinterland destruction, and hostile attack. Suburban sprawl, curiously, is an example of both. It destroys both the city and its ecological substrate. We start with a notion less of defense than of evolution. Even of offense. We promote "creative destruction." We say demolition is as vital as building, that nothing human lasts forever, or even for long. Primacy of a civilization in one century can rightly be superseded by another civilization in the next. Whereas cities in the Renaissance, and centuries earlier, were built to last forever, now we learn from wars that what's built should last for much shorter times. We see this in plug-in cities, most spectacularly in the rapid-assembly, rapid-change modular building-scape of Japan. We see this also on the American prairie. Cities and towns decline, then disappear; a few metropoli remain; the bulk of terrain reverts to native Americans, who re-establish a buffalo-hunt economy—with more yield per square mile per year than with farms. The practice could extend to Asia, Africa, most of the world.

We build a city more as a camp than a bastion, and—in the best lasting defense against massive destruction—we arm the populace. We arm it with the chief new weapon that the military has today: space-based command, control and communication. Taro Suzuki, conceiver of *Space Force* in 1979, promoted this C3I concept at the Walker Art Center in 1985. But the motive was not to vaunt himself as an Artist. Rather, it was to motivate all the public to civic action. Our mandate comes from the 2nd Amendment to the US Constitution, which calls for a citizens' militia and a right, nearly a duty, to bear arms. In our time, that means having military-grade intelligence, globally, as free and thinking citizens.

Our arguments align with those used against the present US space-based defense program. As a *New York Times Magazine* cover story puts it, global security could result more from anyone anywhere being able to see anything, at a certain resolution, not too personal, but certainly revealing of any military or ecological issue, anytime, than from efforts by the Pentagon now to "dominate" outer space. The Pentagon's game, the article says, is bound to fail. It's called "King of the Mountain." Inevitably, sooner than anyone expects, all the others can take down the king of the mountain. The German occupation of nearly all Europe, or the French one a century earlier, confirms that. Dominance today follows the physics of the seesaw; it will beget Armageddon tomorrow. No security or safety, or even long-term prosperity can result from attempts at hegemony over the earth's envelope. Here, Ocean Earth works to produce "a scene of conflict" with Rumsfeld et al. to direct American opinion against his rearview hubris. The US in 2002, in its response to "terrorism" from the impoverished majority of humanity, has behaved like Austria-Hungary in 1914. But this time, unlike with Franz Joseph, the avant-garde need not acquiesce. Rather, it could challenge the regime. It could lead the way to a new global policy, beyond petroleum, beyond minerals, beyond colonialist "Great Games." The avant-garde can assert an ocean-based vision of the globe, centered on Antarctica. At the same time, for the US, it can re-affirm that region's two-ocean status, extending ecological restoration plans out into the Pacific and the Atlantic, converging on Eurasia from two sides.



Watersheds in Central Asia with proposed routes for oil and gas pipelines

Art as the Scene of Global Conflict

The main battles over the establishment of art-based policy have taken place inside the art world. Art—or rather, the institutions, publications and markets of the art world—has been our scene of global conflict. The fighting began over 20 years ago. It continues. For now, the pioneers who initiated changes directed towards policy have been defeated, or at least blocked, sapped, pillaged and criminalized. The Powers that Be have stepped in, at first here and there, but then full-fledged. They seduced one who joined the pioneers. They cowed many of the others. As one government official said, we had gone “out of bounds.” But the blockage is broader: it includes an Esso scientist flying up to a Midwest institution where we were talking about big-dollar biomass-energy projects to say, No way. It can also include a benign expectation among cultural institutions sponsoring our projects that a real-world fulfillment, like a working model, would not be allowed: artists can make shows, not reality.

To date, we of Ocean Earth have had satellite-data and/or related analyses and imagery stolen, without appeal, by military authorities in Germany, France, Holland, the UK, and the US. The first episode was with the Falklands, in 1982. British Navy officers, escorted by US officers, commandeered all the data, along with the computer facilities, which had been video-recorded for broadcast earlier on the BBC and NBC. Presumably, they found our property useful. The next day, someone from the US Defense Intelligence Agency suggested that we cooperate. We refused. All of us have been refusing such requests ever since—except for one among us, a relative latecomer who liked how German intelligence agencies were (to use his phrase during the Chernobyl struggle) “interlocked.”

The conflict hinges on what each individual, each artist, will do about the State. Inside Ocean Earth, starting in earnest with the satellite-observation projects of 1982, we have been pressured, and alternately asked to cooperate or stop, by covert agents. The US citizens among us did not cooperate; most of them simply quit. Even the first news media projects caused internal conflict: Wolfgang Staehle proposed working with the BBC; George Chaikin refused to work with them; Colleen

Fitzgibbon, with her news experience, became the producer, but worked mostly with me in battles with them for news-analysis control. With later projects, hard, inventive effort was put in by Fitzgibbon, Staehle, Bill Dolson, Ingo Gunther, Yann Viguier and Sophie Vieille. An Italian citizen, Santa Scardillo, helped expose the misdeeds of UN officials with our data, and served in confrontations over possession of assets. Co-founder Joan Waltemath was there at the UN too, and she helped us bypass French blockage to pick up data in Sweden, then sneak it past German authorities. But one of the two German participants, having joined the company years after first learning about it, succumbed to the apparent privilege of cooperation with his state. He thought it wondrous that they would volunteer to “help” us in our work. Staehle, who had worked on many other satellite projects, e.g., re Libya, was dragged in. Agents from their government were brought in to “help” with what ended up being a grossly-misleading Chernobyl analysis. They “helped” with a delayed and eventually confiscated transfer of data from the US to Munich. They “helped”, in the form of six persons meeting our contracted scientists in Munich, by saying we were “not qualified” to do our work. Our findings were published as authoritative in scientific and mass-media publications in later years, but their blockages during the first media-hot days led to years of public misunderstanding about the Chernobyl reactor site. Proper corrective action, like closing the entire complex, did not occur until 14 years later. Officials of states victimized by the falsified analyses, from the Ukraine and Belarus, have been informed—with consequences. As a French agent told us, we were loose cannons on deck. We retort, What do you expect? If you launch civil observation satellites, there will be policy effects. The public gains new powers, armed with hard evidence from outer space. Not all the military/territorial capability rests with professional soldiers.

The Powers that Be are on the defensive. The world must change with the open-skies capability. Now we seek out sovereigns around the world with our ambitions, ready to work above-board. The survivors of Ocean Earth never sought work, as described in a “Documenta” catalog, in a gray area between “Journalismus und Spionverdacht.” The company’s aims, grounded in the US Constitution, were for neither journalism nor spy service, but rather for arming the citizenry with IT weapons—for ecological self-reliance.

As to which state to serve, we decide: serve sovereign states, or approach them with services, only in the specific activities or projects that we would like to accomplish in their Territory. We choose the sites; we choose the services being offered; we choose the client states, which, in their recent decisions and statements, share similar goals; we sell to them in an arms-length relation. We sell always within the overall context of our Ocean Earth mapping of the world in its saltwater, or ocean, basins. As a higher international authority, we rely on the United Nations Environment Program's Regional Seas Program.

Our military stance is against any threat to the natural integrity of territory anywhere—that is, against threats to global ecology. We will use in this effort the omnipresent pan-global satellite technologies, unbiased and universal in application, of observation, global-positioning and telecommunications. Our allegiance, at end, is to Nature.