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# A Conversation with Peter Fend

DAVID JOSELIT AND RACHEL HARRISON

*David Joselit:* In the context of the essays on television and video art I've edited for *October*, Rachel and I would like to begin by asking you about your work with satellites through Ocean Earth.

*Peter Fend:* Ocean Earth was the name of a corporation invented for a group of artists. And it remains a name of some sort. To get a corporation, you need a legally registered name. A lawyer I knew when we were kids discovered that I was working in a collaborative team with other artists, and he said, "You have to incorporate." So I applied to the New York State authorities, in early 1980. The certificate of incorporation was issued on July 3, 1980. The first choice of a name had been Ecological Development Corporation, but that was taken. It turned out that the second choice was available, Ocean Earth Construction and Development Corporation. The acronym happened to be OECD, the same as for the international quasi-state organization [the Organization for Economic Cooperation and Development]. But the lawyer said, "Go ahead." He did not think there could be any, to use a legal term, "confusion." Under this umbrella, various artists could proceed on a business basis with what they were already doing in nonprofit form through a group incorporated in 1977 called Collaborative Projects. The projects would be in film, video, TV, theater—all collaborative. We also were producing our own themed group shows.

*Joselit:* Can you say who?

*Fend:* There were many artists in Collaborative Projects—John and Charlie Ahearn, Coleen Fitzgibbon, Jenny Holzer, Tom Otterness, Kiki Smith, Robin Winters. Actually, I was a latecomer to the whole game. Many artists we know now were involved. The whole crowd, so to speak. I think one of the few holdouts at that time was Richard Prince. He did not get involved. But many other artists were involved. Some now would say it was a name-artist career launch, but I think it was more to create our own showing and thinking space, and our own multi-person productions, beyond the idea of artist as Alone.

We would do group shows, theme shows, artist-run shows, and these

would force us, certainly me, to change one's head. We would also do a lot of TV. I really jumped into that. From 1978 through 1982, I was producing a half-hour TV show as much as once every two weeks.

*Joselit:* So when you say TV, do you mean community cable, or—

*Fend:* Cable, yeah.

*Joselit:* How were the programs distributed?

*Fend:* On cable TV, very late at night, but visible enough for my co-workers at a job and people on the street to recognize us. That was the idea: communicating with the public. We felt, “Well, if we went to grade school, then why can’t we talk to people we went to school with? Why do we have to talk to collectors, whom we did not go to school with?” In 1979, Jenny Holzer conceived a sort of spin-off called *The Offices*. This was in line with her fantasy of being a lawyer, and also of communicating with and providing services to normal people, not art people. She and I had both wanted to be, or been pushed to be, lawyers. So we thought, “Why can’t we be art lawyers?” That is to say, have clients, have a firm, have credentials, and work in a real-world mode. So Jenny, for example, initiated our going to the UN. These were people in policy-making positions, we thought, who knew little or nothing about art but could gain the benefit of artists’ ideas. She thought we could begin with the International Labour Organization. She wanted to spread the idea, a theme we worked with, of “Pleasure/Function,” that the choice of work should align also with what gives pleasure. We had a meeting in an ILO office near the UN Building; I don’t think anything concrete came from it. But I liked the idea of dealing with such people. Medical doctors, for example, don’t just do business with collectors of medical artifacts. They do business with normal people needing expert help. So, we would do projects having to do with clients’ needs. This included starting *White Columns*, which was previously called 112 Greene Street. We came in, as a consulting group, and renamed it *White Columns*. But in classic art fashion we used alphabetical order for our title. We called ourselves, in order, *The Offices of Fend, Fitzgibbon, Holzer, Nadin, Prince, and Winters*. Some of these names we know. All of us are active, but in different ways.

Around this time, due to my work on the fish docks, I got caught up in a request by the U.S. District Attorney to be a protected witness against the Mafia, and I did not want the payoff, namely, a change in name and face and a job in Disneyland, so I arranged for a news article, which ended up in *New York* magazine. Soon after I received a call from a lawyer on Wall Street. He had been a boyhood friend, a friend from grade school, and he had gone on to Harvard Law School—and now, outside the art world, rediscovered me. He said, “Listen, let’s meet.” And he saw *The Offices*, even in our actual office space on Broadway, and he said, “This is not legal. You need a legal corporation.” And that was the genesis of *Ocean Earth*.

*Joselit:* Why were you worried that *The Offices* would not be legal?

*Fend:* He just said, “You can’t run a business this way. It is simply not viable to have a number of names. . . .” And in fact, that became a major issue with regard to financing. We would go off to L.A.; do a show; and because Jenny had some money, she could stay in a hotel room and have a telephone and a fax, and the rest of us were staying disconnected in a loft. (This was before cell phones.) So, that was a problem. And because we had no legal structure, we had no address, we had no income tax to pay, no financial identity, and so on, there was not really an existence. And this is what the lawyer really emphasized. In all instances, we were acting from an aspiration for group activity, or video activity, or public activity, or client activity, something out beyond the gallery/museum frame—the whole dream of Lucy Lippard and all that—and this could be crystallized in a proper firm. I said I would try setting up a for-profit firm. Jenny said she wanted to set up a nonprofit one. Ultimately, the lawyer discouraged her idea, saying, “You’re just playing the same art game. You’re not really going to be able to get out of that box. You can get out of that box with a for-profit company.”

Now, the work with satellites arose because one of the shareholders, Paul Sharits—and he was a kind of star shareholder—myself, and Coleen Fitzgibbon all sat down at Magoo’s Restaurant, one of the main watering holes and meeting places for artists then, in 1980, just south of Canal Street off West Broadway, and we said, “Well, what do we do first?” We prepared a whole outline that included what I’m still working on: just taking Earth Art and Gordon Matta-Clark-type architecture and trying to figure out ways to apply those ideas in the real world. We decided that the cheapest thing to do, cheaper than working on some site, would be to acquire satellite data. Then we could develop a broad inventory of sites. We could move on to construction and development—the big projects in the desert, realizing Robert Smithson’s dreams—only after developing a knowledge base. Plus, with the satellites we would acquire something that artists don’t ordinarily have—believability. I mean nobody believes Damien Hirst when he says something about an important topic. You know, it’s just “Damien Hirst.” So we felt that it was important to develop real evidence, and we decided to go ahead with it. We did not think we’d get into so much trouble doing it.

*Joselit:* Could you say how you acquired these satellite images and what they represented?

*Fend:* This came through a convergence of different artists’ efforts. I was by no means alone. I had my own more or less nerdy ideas about using satellites, which I showed in my first exhibition at Caltech in 1978. The science types liked what I was doing, saying it was “real-world,” but they were science types. They would like how I connected sites in, say, Libya with sites in Italy, and there was also the first public use of European weather-satellite data—this was Caltech so I got the special permission—but it was still just a form of ecological improvement, not very interesting to people. Around that time, I met a guy

named Taro Suzuki, who was interested in futurism, was even in *Artforum* for it, and he was going to parties with celebrities, and to my surprise he came to me on the street, in the summer of 1979, and he said, “You know, we should start an art air force.” We went to his studio, and I responded, because my father had been in the U.S. Air Force in World War II (Suzuki’s father was in an internment camp). Then I thought, Well, let’s go one step further, let’s call it “Space Force.” Because also, as a kid from where General Electric had its research headquarters, I grew up with the first TV station in the U.S., with a kids’ show called *Satellite 6*, and there was work on military satellites and on nuclear submarines, so I was into space this and that, and it was the next thing after “Army Air Force.” We agreed, “Okay, let’s build a space force,” and of course we would use that vantage point, from space, to do television monitoring or video monitoring, and one or the other of us, I cannot remember who—it was such a big back-and-forth it doesn’t matter—came up with the term “television government.” We, the artists, would do visual communication from space, for the world, and we would bring to the world a visual government, what Beuys was calling “direct democracy.”

It wasn’t only Taro Suzuki. He had friends who were also into these ideas. We first met at a New Museum opening, and then we were meeting in each other’s houses. There was Joan Waltemath and Eve Vaterlaus, who had done the *Space Window* show at RISD and Brown in 1977, possibly the first ever art show about space technology and its implications, and then there was Glenn Steigelman, who for years had been compiling images from and data about observation systems in space. And there was Wolfgang Staehle, already a friend of mine and Taro’s, already occupied with how art could have a political role. And to the meetings came, as well, Coleen Fitzgibbon, who had been in The Offices but liked the idea of television news based on observation from space. She was also working at CNN, so she saw the opportunity first hand. And Paul Sharits came, when he could visit New York from his faculty job in Buffalo, since both Coleen and I saw that with satellite-observation technology we could realize his dream of “abstract color narrative.” Win Knowlton, the sculptor, was there, too, as were a few people who are now critics in the art world. All of us were coming together from our own different interests and abilities. And without all of us coming together, we could not have succeeded in what we started: the first TV-news broadcasts of satellite imagery with site analysis.

Our easy entry into NASA and the world-class scientists in laboratories around the world who could reveal the most from the satellite images—mostly in the sifting through of multicolor data—was made possible by Joan and Eve. They had built the vital contacts at NASA through their 1977 *Space Window* show. It was in Rhode Island, but people in New York knew about it. Many of them, like Dennis Oppenheim and Alan Saret, had been in it. Something new had happened. And—this is important art-historically—Joan

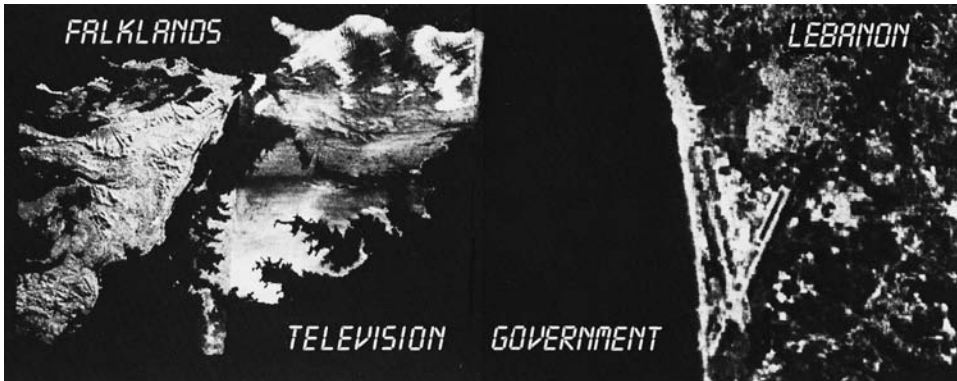
and Eve had built a bridge of trust and easy understanding between artists and high-ranking scientists, even government officials. They had developed all the contacts in NASA, and then the global space industry, that we ended up relying on.

As for Taro, he was still coining the best phrases, like “aim higher.” So, we set out to achieve, “live, from outer space,” the delivery of satellite data to the people for visually verifiable self-government, or Television Government. As a counterweight to all these fantasies, you had Steigelman, who was a photographer. He was a Yale MFA graduate and had gone on to the Whitney Program. He was very interested in the aesthetics of space imaging as a mode of abstraction, and also how the cameras and scanners and hardware all functioned. He was interested in what the state of the art was. Paul Sharits was also interested, because he could realize what he called abstract cinema, with “true” abstract colors from space. It’s still abstract, but it’s also the real world, and it’s all based on global mapping and territorial imperialism. We were all excited to go forward. So we’d have meetings at Glenn Steigelman’s with Paul and everyone else, plus some onlookers from time to time, and we would figure out how to get started commercially. We started with some cable TV shows, using the time slots covered by Collaborative Projects.

And then we had a big break: a last-minute change in schedule at The Kitchen for Video and Music, opening an invitation for me to apply, on short notice. I worked furiously on an application, not for me but, to use a phrase from Peter Nadin, for “a we.” And “we” won. We, “Space Force, an Operation of Ocean Earth Construction and Development Corporation”—including all the people I named, and even some new ones like Bill Dolson, a NASA veteran and another friend of Taro’s—would mount our proposal for *Live from Outer Space: Art of the State*.

*Joselit:* So the TV shows on cable were a presentation of this concept?

*Fend:* They were scenarios. They showed all that we wanted to do but could not, for lack of money. They were called Space Force, or Space Force in Action. But when I was offered that last-minute gig at The Kitchen, I applied on behalf of Space Force, which I labeled as an operation of the brand-new firm, because the firm had a legal identity, but Space Force did not. The firm was already doing projects. For example, when Eve and I contracted with a stretch-fabric company to build elastic windscreen membranes allowing for lightweight architecture. Here, the firm would be the legal owner of the work, but the brand name, representing us as a space-date group, was Space Force. The term “Art of the State” called for an aggressive use by Space Force, a civilian space militia, of civilian satellite data for observation of anything pertinent on earth. It was to be launched, with “state of the art” technology, thanks to the contacts set up five years earlier by Eve and Joan. Given Taro’s call for an “art air force,” for something military, I think now, but did not think consciously then, that we were all acting with an impulse



*Ocean Earth. Layout featuring satellite imagery, designed for the exhibition catalog accompanying The 1984 Show at Ronald Feldman Fine Arts. 1983. Image courtesy of Ronald Feldman Fine Arts, New York.*

from the Second Amendment of the Bill of Rights, about the right to bear arms. That did not mean we wanted handguns. No, it meant we wanted, as U.S. citizens—and all of us except Wolfgang were U.S. citizens—we wanted to have a military, territory-defense capability. As civilians. With civilian satellites. Hence Space Force. The guy who did the cover for the brochure, always active in telecommunications and video art, jumped in on precisely this civilian militia idea. He was Willoughby Sharp. We had gotten the go-ahead from The Kitchen to do *Art of the State*, and it was truly a collective thing. Glenn made the photos; Win worked on the installation; Joan and Eve arranged all our access to top scientists and space officials; Wolfgang and Coleen produced the videos; Bill, Wolfgang, and Coleen did the edits for the installation; Taro controlled the overall look; and I ended up doing the writing and logistics—that is, the advertising campaign. That was in January and February of 1982.

It coincided with another exhibition that Jenny Holzer had invited me to take part in that was arranged with the Lower Manhattan Cultural Council, at the Chase Manhattan Plaza. Again, I used the Ocean Earth corporate label and team, and we, with Dolson's massive physical intervention, produced a giant basin display of the world, labeled with the OECD name, facing the Wall Street crowds. And people were asking, "What is this OECD [the international organization based in Paris] doing now?" Our lawyer was already being proven wrong on "confusion." We—displayed as OECD in Chase Manhattan Plaza—were doing global monitoring, global mapping, *Art of the State*, and had state-of-the-art satellite images to show for it. Lucy

Lippard condemned this as letting “the viewer play God.” We thought we were letting the people *see* like gods. And we were able to get all the people down at NASA to jump on board, because they wanted to be in Chase Manhattan Plaza. They don’t know about The Kitchen, but that’s another story. What that did was to create enough interchange with people in the satellite business that they would say to me in May, “Hey, you know what? There’s a satellite flying over the Falklands area, where British ships are now gathering for an attack on the Argentines who took over, and you know, they could be put onto video, as you did.” We got it, yeah, and rushed to make a sale to broadcast TV.

*Joselit:* In May of 1982?

*Fend:* Yeah. The day I came back from Washington—I had been down there to buy maps for a group show on 57th Street, for a piece responding to a request by a man from the UN Environment Program—I told Wolfgang Staehle what was happening, “There’s a satellite flying over the Falklands,” and he said, go to the BBC. Wolfgang and I did, and they were cordial, but the amount was rather small: \$7,000. Also, George Chaikin, who had joined us then, being struck by what he saw in The Kitchen, warned us to not deal with the British, a combatant nation. (He turned out to be dead right.) So, I telephoned NBC, and Coleen and I went in there to make a U.S. deal, instead of giving the BBC a global one. We went into the office of the Foreign News Editor, we showed him a tape from *Art of the State* that showed ships in a harbor. He said, “How much will you want to do this with the Falklands data?” I looked at Coleen, then said, “\$12,000.” We were making our first break in real, global-broadcast TV news. So the exhilaration was, we’re now on the news, with our corporate name. There it was, in a rather long segment of a half-hour show, and this is all real. And incidentally, much of it has—here was what came to be a glitch—military-intelligence value. Incidentally? Right there in the data-processing laboratory, with the same expert who helped us produce The Kitchen show, we were figuring out, with a former military officer, where the armored vehicles could go, where the best place to land was, where the Argentine aircraft were landing and taking off. And this was with relatively low-resolution data, but with many colors to sift through. It was the colors, and the sifting, all with techniques from Structuralist film, that had such potential for finding out facts. Civil grade, but real Space Force.

*Joselit:* How exactly did you access the satellite images?

*Fend:* You buy the data, and you process the data. You have to pay money for the data.

*Joselit:* From NASA?

*Fend:* No, EROS. That was the Earth Resources Observation Satellite. It was a commercial outlet for government-controlled data. A certain kind of government entity, but doing business. The point is, you, the buyer, are purchasing data under a trade-secret agreement, such that you cannot just



give the data to anyone else—they have to buy it—and such that any imagery produced under your control of the data is co-copyrighted by you, the buyer, and by the satellite data source, here, EROS. They share the copyright with you: you are the processor, with your own processing. This leaves the original data available to other people, which is very, very important. It saved us in other cases, because then other people could test our results and say, “Oh, they’re right.” I should say that the processing is not actually done by you on your own. It is not done by any of us artists at all. We simply do not know how to do it. Instead, we go to world-class scientists and satellite-data processors, people who can work with the multi-spectral data, the half-dozen or more bands, or wavelength segments, and can combine them in different ways mathematically to reveal different conditions on the ground. From this work, requiring the astute analysis of color, we can start analyzing what is going on at the site. So it’s not the data but the analysis—the final set of understandings, backed up by different color images, often from data taken at different times, for comparison—that is the copyrighted product attributable to both us, the buyer and risk-taker, and the data source.

*Joselit:* So do you buy time on the satellite?

*Fend:* No, you buy a product. The product is generated from a flyover by the satellite which occurred, or now can be sometimes scheduled to occur, at a certain time in the satellite’s regular, usually bi-monthly, passes over every site on earth. The actual satellite data tape used to be in the form of several big data discs—now they are much smaller.

*Joselit:* And how do you determine where the satellite is?

*Fend:* Well, that’s the trick. That’s the trick.

*Joselit:* So it’s like a geographical database?

*Fend:* There’s a scheduled flyover. Every site on earth is covered at least twice a month. But you do not know ahead of time whether it will be cloudy or clear, so you check sources like Meteosat and other weather data, or even just someone on the ground, to see if it’s cloudy or clear that day. Also, and this is what made our work unique, you have to figure *where* to look. What are the sites being observed that need investigation today? So you track the news. Then you’d say, “Hi, NBC, we’re going to have a satellite tomorrow flying over Lebanon, you wanna check out that site?” That type of thing.

*Rachel Harrison:* What was your intention at that time in recovering the data? Did you have an application in mind? Was it just research?

*Fend:* The Falklands was the first thing. It was a chance to be inside history. Not reading about it after it happens, but engaged in it. So, it was not research. It required research. Lots. But it was, as with war, being at the right place at the right time, and to use a phrase from the Civil War, “being fustest with the mostest.” Applications, like what to do at the site, what could be earth-works or new buildings or art practices at the site, would all come later.

*Harrison:* So it was specific to the Falklands or—

*Fend:* The point was, we wanted to be on broadcast TV. We wanted to be the TV news. We wanted to reach a national, and even global, level of recognition and credibility. So, we did this.

And this, I think, addresses your question, David, about television. This is not by any means a Peter Fend thing; this was Taro Suzuki, Coleen Fitzgibbon, and the whole Space Force group. And it was the main aspiration, I think, behind the whole Collaborative Projects group. Walter Robinson can disagree with me here, but I don't think Collaborative Projects was just a sort of postgraduate training ground, a kind of incubator, for gallery/museum art careers. I think it was, and it felt that it was, with Eric Mitchell, Becky Johnson, and even lesser-known media holdouts like Mitch Corber, a means to reaching the general public on general-public terms, not art terms. It had behind it the same aspirations as Jenny Holzer had with The Offices, in supplying authoritative, state-of-the-art advice to clients entirely outside the art discourse. Before some of the group got famous, we were really interested in being on television. Some of us, like Ellen Cooper, had a real knack for it. We could become everyday household names. We could communicate to our classmates from grade school. Even classmates like the lawyer who incited the setting up of Ocean Earth. This was happening with some of the music people in downtown New York. They were ending up on the *Tonight Show*. When someone was getting on *Saturday Night Live* or something like that, this was great; we had someone going to Hollywood, and that was great. Anything to get out of the art world, into mass communications, was fine. We understood that it would be watered-down; we understood it would be dumbed-down. Okay. We didn't mind. This was very much our aspiration.

*Harrison:* Chris Burden was also working with television at this time, right? I mean, he was also trying to make a link between the artist and business or media. Your intent, then, for the satellite was really to make news?

*Fend:* Absolutely. Chris Burden's brother, Robert, was with us on the video production for the first TV news projects. And he, Coleen, and I started planning to build a TV company. Ronald Feldman came along, inspired by what we showed in his *The 1984 Show* (in 1983 actually), to propose a TV company with satellite service called Space TV. No longer Space Force, perhaps, but with the same "live, from outer space" purpose. All for publicly available news from hot spots, anything notable, around the world.

*Harrison:* Would it be fair to say that you were interested in changing the definition of an art work, and that having your art on television was motivating and guiding the work? In a way, then, the priority was making the news, not researching the ecological themes that you're involved with now?

*Fend:* The interest in ecology was always present. It was the dominant interest from the beginning. But the problem is, how do you gain national or global

credibility? How do you get the power to deploy more suitable technologies? If you stay within the art world, or worse, in the ecology-art world, you are minor. Just a sideshow. Just a clown entertaining a few of the rich. Who don't, after all, care. Getting the art practice onto global TV meant getting onto the platform of global policy. A report on ABC News is itself a news item. A report in the *International Herald Tribune*, and not in the "Culture" or worse-termed "Arts and Leisure" section, is itself a news item. Then people in power take note. We learned that firsthand. All the government intelligence agencies, and even some generals and admirals, were certainly taking note. From the first project, the Falklands, they were jumping in and asking us to work with them, or even simply taking our results, but always . . . well, very interested. And even if it meant being stolen from, or being blocked, and only getting a trickle through to the public, sometimes utterly distorted, that was still better, even if bad, than a show at a museum.

If you want to change land-use practices, if you want to effect new types of cities, if you want to restore the ecological splendor of only a few centuries ago, at least in the continents ravaged by Europe since 1492, then you have to go through mass media, not through the art world.

So, the interest in ecology was always there. But the problem was, you go to the NBC News Foreign Editor with, say, an acid-rain-survey concept, which was Wolfgang's project, and the editor would say, "Ecology doesn't sell." Okay, so we don't do the acid-rain report. We'd like to, but we can't. In the 1980s, war sold.

*Joselit:* Only in the '80s?

*Fend:* Well, maybe now, too.

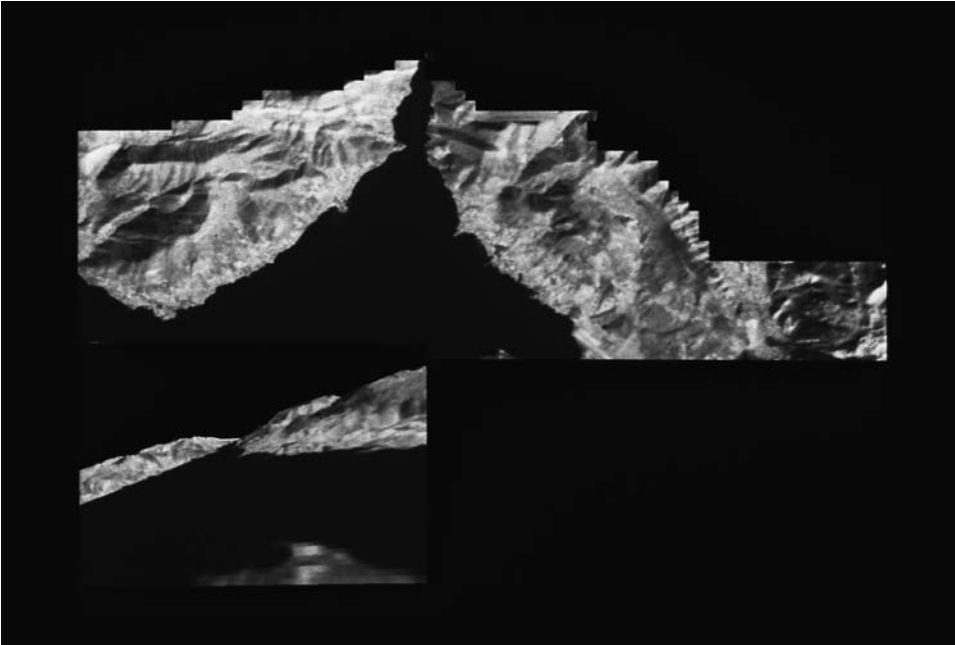
*Harrison:* We're in the '80s again. [*Laughs*]

*Fend:* And that led to the paparazzi world of ambulance chasing after satellite images in hot spots after the Falklands war, like Libya-Chad, Lebanon, and Nicaragua, until we had a big break in 1984, with the discovery of where to look in the Persian Gulf. Until that time, it was just, you know, you pick up the *New York Times*—and I did this every day—and try to find vulnerable spots. That's how we got the Chad job.

*Joselit:* The Chad job? Could you say more about that?

*Fend:* You find out there's some military activity in Chad, and the French are sending troops, and NBC's sending a crew. And then you're talking to NBC Paris. I'd already talked to NBC Paris; we'd had contacts there. Actually, all the people in Paris. In Paris and other capitals: CBS, NBC, ABC. We got to know the news people, like John McWethy (national security correspondent, ABC), David Martin (Pentagon, CBS) or Jerry Lamprecht (foreign news editor, NBC), whoever. Finally, I would say, "We think you should really look at the Aozou Strip, especially a city called Bardai." "Why?" "Because it's what we think."

*Joselit:* And why weren't the networks themselves doing this?



*Ocean Earth. Stills from a satellite-derived video of Tivat Bay, Montenegro, containing hand-plotted elevation data. 1992. Intended to be used in the design of an ecological city and exhibited as art at American Fine Arts, it was bought by NBC News to serve as an aid in the analysis of the Bosnian war. © Ocean Earth/EOSAT.*

*Fend:* I think they wanted to—we certainly had discussions here and there about contracts or retainers—but the fact is that nobody at the networks had our patience, or our level of suspicion. The problem with TV is that it’s basically yuppie. You know, everybody there is getting along in his nice job and doesn’t want to offend his contact at the Pentagon. And the guy at the Pentagon will make sure nothing’s shown. That’s true. But, as artists, we are in the business of being suspicious. The beauty of Collaborative Projects was that it was—and I congratulate Robin Winters and Coleen Fitzgibbon and Richard Miller and other players in this whole social scene—the *norm* that we were all suspicious. We were extremely *unwilling* to accept the published news. Unlike major network staffers, we had the ability to dig deep and find stuff out. So if I say to John McWethy, who wants to look at what the *New York Times* is featuring in the Iran-Iraq war, “John, don’t look in the Majnoon marshes. Go down to Basra. That’s where the hot stuff is. And I can tell you

why.” But, in this case, he’d pass on that, so I’d sell the story instead to CBS. And McWethy would regret it. And afterwards he became much more trusting in us. He knew we were really digging into the news tissue—into the layers of lies. Toward a sharper knowledge. All the network people began to respect us, because they saw that when we said, look at this site, and they were doubting us, we turned out to be right. This resulted from plotting the news against maps and seeing where the soft spots were, where apparently big things were happening but nothing was getting reported clearly, where—to use a phrase—the fog of war was.

So, it was looking at the news and then looking at detailed maps, and never, along the way, believing that what the newspapers reported was enough. Why? Because—here’s the critical point—the satellite has a frame of about ninety miles on each side. You have to aim correctly or you’ll miss. If you tell the TV company that, “Yeah, okay, let’s spend ten-, twenty-thousand dollars. That’s what it’s going to cost to buy the data, process the data,” and then you miss, you’ve lost your credibility. So you’ve got to be targeting that news site right. And I think that was our genius, in terms of being able to keep going as long as we did, until we finally got stopped. Now, with regard to getting stopped, I’ll just say this. The moment we had our Falklands release, we had trouble. That’s why I began operating in Europe.

And this ended only because of the intelligence agencies in all the countries, finally, going to people like McWethy (he told me) and saying, Do not buy from Ocean Earth.

*Joselit:* But you had merely contracted with a government agency, right?

*Fend:* No. We were U.S. citizens who had paid money to a commercial enterprise that had a government control on it, but was in any case releasing authorized, reliable data. We were contracting with them only for the right to use that data, with ascription.

*Joselit:* Right.

*Fend:* We were paying them money.

*Joselit:* Right.

*Fend:* It was part of the legislated “open skies” policy. Civilian satellite data would be available to the public, to anyone without nefarious intent, for a price. And the price was rather high, so only people with substantial means or serious business interests could purchase the data, and anything they published with the data would have to be co-copyrighted. All this was in line with the legislative intent that civilians could gain access to satellite scrutiny for civilian purposes, such as—I believe—public information.

*Joselit:* You were kind of data mining. That’s what we would say now, in the language of the Internet.

*Fend:* We were not “data mining” at all. To sell imagery to the global news media, you need to demonstrate state-of-the-art scientific authority, so you need to work with data processors and site analysts of international reputation. No

one is going to put your report on air, with commentary by a talking head from the Brookings Institution, without your using world-recognized expertise. It is not a task you do yourself. It was not even a task that Ocean Earth, with its artist participants, could do itself. It was a task that required contracts, with us paying the bill, for processing the data and analyzing the site in laboratories run by world-ranked satellite-data processors. For example, leaders in satellite imaging at the University of Munich, or at the UN-affiliated ITC in Holland, or at the Institut für Meereskunde in Kiel. This teaming up with top scientists made us able to publish in scientific outlets like the *Earth Observation Quarterly* of the European Space Agency. It also made us vulnerable to interference. If a government did not want us to work with the top scientists, they could just step in. This happened almost immediately in the U.S. The Scientific Applications International Corporation (“CIA” backward) told us point-blank that word had been sent out throughout the U.S. to block any work with American laboratories. This was backed up by a warning from a U.S. admiral in San Diego. So, we worked in Europe. And the boom kept coming down. We were hopping from country to country. Toward the end, there would be six agents from, say, the BND, the German CIA, telling me that I was “not qualified.” I would get furious.

In the end—or all along for several years, as I learned with the UN scandal—we got betrayed.

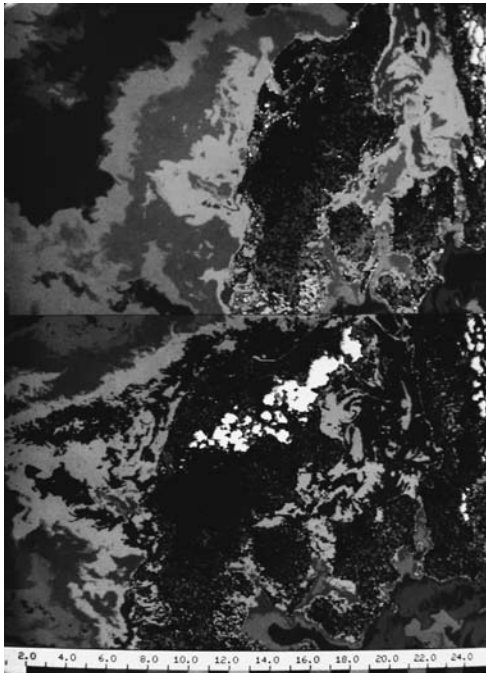
*Joselit:* Are you referring here to the Gulf or to the Falklands?

*Fend:* I am referring to all the projects that went into the news stream: from the Falklands, with the British military stepping into our laboratory, near Washington, D.C., and seizing all the data; to a quasi-ecological event like Chernobyl, with German police “helping” with data delivery, forcing me to scream at them to get it back from their hands and into the lab, forcing us to buy data from another source, in Sweden; and forcing us all, in the end, to accept that, well, they would use it for their own purposes, too bad for us. And of course I am referring to the one ever-announced no-go zone, the Gulf. The problem is that every government flips out when somebody actually finds out what’s going on. And I should say that an artist’s skills really help in this context. Inspired by Paul Sharits, we’d done a lot of color flickering for the data—you can process color this way and that way—and we were finding out things like grass runways would have hydrocarbons on them. That meant that, even with the relatively low-resolution (80 m) data we were working on with the Falklands, astute manipulation of the different spectral bands let us see where the hydrocarbon slicks on the grass were, and therefore where the Argentines were flying in and out with their Pucara aircraft. So we could see what would be a primary military target, better than the military satellites could do. The U.S. Defense Intelligence Agency noticed this, and they asked us to work with them. I said, forget about it. We are U.S. citizens, and we have a Constitution, and these civilian-grade, multispectral satellites are a new tool for the exercise of

our Constitutional rights and duties. I reported all this for the U.S. Congress, as part of a, say, debate. We lost. To the CIA. Because they were stunned, as the DIA man said, that we could see more, with our art practices, inspired by Sharits and early Staehle, than they could with their Renaissance-based obsessions with detail. The government professionals weren't doing this with military data, but we could. Now, I have to say, it's not just us, there were scientists we found who collaborated well in playing with color. We felt, as with Taro's initiative, that we wanted to have this Space Force. So we were actually delighted to have military potential. We thought we could actually bring this to bear in the body politic. I can say for sure that if we had, you would not be having what happened in Iraq. You would not have had 9/11. For sure, history would've worked out otherwise.

*Harrison:* What about ecology?

*Fend:* In the end, I'd say, ecology and military converge. They are both about territory. About who controls it, what is done with it, how it gets used. We were acting as scouts, checking out territory, worldwide, and this was scary to the governments in power. They want to cover things up as much as possible, to keep their power. The citizen's job is to constantly rip away the mask. We had this happen even in pure ecological events, like the microalgae bloom of 1988 in the North Sea. We would provide the imagery to Dutch TV, and out



*Ocean Earth. Satellite-image comparison showing the overnight spread of microalgae in the North Sea. 1988.*

would come a government official, on TV, to say that the pictures were not serious and there was nothing to worry about.

*Harrison:* You've mentioned several different times here, as well as in other interviews you've given, that you and your collaborators wished to pursue art as a way of *seeing* and processing information through new means, such as the satellites, or whatever tool might be appropriate to a particular occasion. You also use form in a similar way—with maps and the diagrams of watersheds, in the presentations you've recently given. Could you talk about your use of these sorts of forms as a kind of aesthetics?

*Fend:* What pushed me into the art world, really, was being offered to try out a job at the World Bank in 1974, where I was asked to do "Sector Reports." I was shocked at what I saw and was asked to do. The Sector Reports were, as I saw it, just Renaissance-based procedures for trying to address problems one by one, down perspectival alleys to vanishing points, each one being for, say, urban development, electrification, education, agriculture, all within the confines of former colonies such as Ghana or Togo, places without a chance of building a solid economy. I was shocked by the reliance on visual and mental habits from before twentieth-century art, and by the smug colonialism, assuming that former colonies could be countries or nations at all. Look at what happened in the U.S.: the colonies united. Not in Africa could they. But the shock was more—given what I could do—aesthetic. I could not comprehend the complete inability of the agency's staff to understand twentieth-century art. I mean, you can't just do perspectival studies of what's going on in a country; you must do overview field studies. And then I became aware of Sharits, and things got more and more intense. The point is that twentieth-century art has major implications in the way we look at information. If we're looking at colors and shift to find something out on a satellite image, for instance, we suddenly see hydrocarbons, and therefore we can see where aircraft are. A person we might be contracting with at the BBC would say, "Can you see helmets?" No, we can't see helmets. We're not looking for helmets. We don't look for objects that way. We're looking for phenomena of change. Or I could go to Agence France-Presse, and they'll say, "Now, we just want to have bodies and tanks." Well, how about this analysis of how the river's moving? And they wouldn't want to have that because, they'd say, "That's not news." There was a very fundamental inability on the part of most media people, news-media people, to think abstractly or in twentieth-century artistic terms. They want to see things that we already know. They want to show things we already know. I know what a tank is. I know what a body is. How about what I don't know?

*Joselit:* So there's a kind of threshold of news, or even threshold of factuality, that you're suggesting abstraction gives us access to?

*Fend:* Right. And it was funny, because when we did the CBS thing the first time, David Martin, the Pentagon correspondent, would say, "Well, this looks like an



abstract painting.” But he didn’t know about abstract painting. In other words, it was clear to me—and I think that we would all agree—that you’re going to need to have the generation of kids who have learned about modern art or twentieth-century art to be in power in government or the news media before you can really get them to be able to deal with what we were discovering.

*Harrison:* I wonder how you would extend this aesthetic take on data to other political and critical questions.

*Fend:* I believe that property should be the main tax base and that we can use satellites for this purpose. This would be an ecological tax system where every “pixel” of the globe is represented and assigned a certain value. If the value of a pixel-parcel becomes more ecologically responsible or “green,” there would be less tax to pay. If it becomes more polluted, there would be a higher tax. And that means that the owners of the land, whoever they might be—it could be a teachers’ union, it could be an airport, it could be a city government—are being taxed according to the deterioration or the improvement of the site. So I am actually looking quite seriously into ways of having a political system whereby the landowners are the payers of taxes.

*Josefit:* There’s been a lot of skepticism among artists and intellectuals of the kind of society of surveillance or the panopticism—

*Fend:* I think this: the laws called for civilian satellite data to be available to the people. The situation is that it’s not really the case. That is to say, Google Earth will not show you what’s happening in Iraq or what’s happening in hot spots.

*Harrison:* Or Washington, D.C., right?

*Fend:* I’m not too happy about the whole Google Earth phenomenon because it’s not about, for example, change detection or motion detection or dynamics. The curiosity we should have about what’s going on around us is not satisfied, in my sense, by just mapping. Okay, so I see a house. Big deal. I’m not talking about looking at ourselves for the narcissistic satisfaction of it, I’m talking about looking at ourselves and saying, “Hey, we find this city with this pollution runoff,” or more general problems. And we find your property is having this amount of emission. And we find that this street is not doing so well. It’s quite dramatic to show, for example, that in downtown Munich, if you just move one block, the air pollution can go way down.

*Josefit:* You’ve said in other interviews that you think that the art world can be used as a platform for advertising politico-aesthetic programs such as this. What do you think the utility of the art world is for the kind of project that you’re outlining now?

*Harrison:* To follow up on that, I think there are other artists interested in what you’re doing, and who might actually want to redirect the conversation around art back toward the kind of real-world objectives that interest you. I would really like to see people talk about art ideas again, not commerce. It seems lately that there is more reporting on auction sale prices, art fairs, and private jets, than there is art criticism.

*Fend:* Right. And the art criticism is directed at promoting, or devaluing, named individuals. Everyone out there who is subjected to art criticism is like a foot soldier at the Battle of the Somme: most get cut down by the gunfire, a very few get through. And then what? Nothing. They get a badge, maybe—to use Oppenheim’s term—the cover of *Artforum*. And a retrospective. And another one when they drop dead. I mean, what was accomplished with Sol Lewitt’s retrospective? Nothing has happened: it had none of the awesome power of his work when he first made it. Empty triumph.

Point is, artists have instinctively wanted to get involved in our team practice. Artists can forget about the auctions, the art fairs, the private jets, the critics, and they can focus on building real-world projects with real-world facts, gleaned from satellites, for example, for real-world change. Everyone who joined us, and there were many, had the same desire to help effect real-world change rather than to be a foot soldier subject to art-criticism gunfire, and maybe getting a Medal of Honor and a retrospective at a museum—if you survived a near-total winnowing process.

We of Space Force were fairly much wiped out with the early run-ins with the spooks. The big collapse was in early 1984, when the prospective co-workers on Space TV were all told by the CIA not to work on this. I learned this first, curiously, from what they told my sister, who was then waiting on tables at Magoo’s; they confirmed the report. So . . . end of plan with Ron, Coleen, and Chris. Two non-U.S. citizens joined in, each enthused with the prospect of real-world practice. One, Ingo Günther, emphasized the value of news photos and print publication: this is what we started to do. But he also thought it suitable to get “help” from various governments. Another, Sante Scardillo, had helped find international TV clients in the first year, and this paid off several years later, when we landed big projects with French and Japanese TV, but he also pushed, a bit like von Steuben with the U.S. citizen soldiers in the Revolutionary War, he also pushed for a more professional and integrated product. With his prodding, we began producing our own video narrations of events like the Iran-Iraq war: notably, *Moving a Border by Moving a River*, a satellite narration of the Iran-Iraq war zone from 1979 to 1987. Not just selling footage and analyses, but our own full-length video document.

*Harrison:* But that’s twenty years ago.

*Fend:* I know. I have been inside the art world ever since, in a sort of retirement.

*Harrison:* But there is still hope.

*Fend:* You mean?

*Harrison:* As less and less reporting goes on about art, and more and more goes on about the commerce surrounding it, art itself becomes just a surrogate, a substitution for the real. I actually see this as a link to why there’s a new trend in a certain kind of abstraction. A lot of it is not the abstraction of modernism, but they all say it *refers* to modernist practice, so it’s just a stand-in for a time when art was real but became big bucks, and ultimately it serves



*Ocean Earth. Image from Moving a Border by Moving a River, a satellite narration of Iraq's attempts to move the Tigris and Euphrates rivers. 1987. © Ocean Earth/CNES.*

the market. What we make as artists can change this. So I see your work and the kind of conversation you want to have as a possibility of redirecting art right now, like the way you'd redirect a river, right?

*Fend:* There are a lot of artists who can and do build markets that have nothing to do with the art world. I'll give you a very concrete example. Nils Norman did a kiosk, a kind of news kiosk. He had several shows, and in the first the project was completely feasible—as a real thing. I think all he had to do was to find a few people who would invest in building it for around \$8,000. You can get a site, and you can put that stuff in there. And his whole concept of a solar panel and library and—I mean, you could do a Nils Norman installation—but the art world forbids that. It is not cool to do that. It's supposed to stay in the land of idea. But the fact is that realizability is there. I think there remains a kind of challenge in Nils's work. I mean, when are we actually going to do the real thing? It's not that hard, and it's a good idea.

*Harrison:* I want to bring up an artist who has taken into her hands the possibility of the application of the idea.

*Fend:* I appreciate that.

*Harrison:* I want to bring in Andrea Zittel and the way she is working now. She has actualized a way for her work to exist outside the traditional gallery and museum settings, because it is most complete in real time, while in use. She has been successful in establishing the terms in which her work should be experienced by creating actual places, such as her home, for the work to function—in addition to the objects that can go on display. She did this from the very beginning, in modest storefronts in Brooklyn, and now on a larger scale in L.A. This is an extension of a praxis from the Bauhaus. But it is very contemporary. And it is never about just the art world, or having conversations only about art.

*Fend:* I think that's very commendable—and I appreciate that, because it's important not to always have the, as it were, negative cast I may be giving to this—but I'm making a call for more. Andrea has done, I think, an admirable, and I think a historic, job of making no real bones about whether something's functional or art.

*Harrison:* Okay, can the artist have a function?

*Fend:* We had hoped so.

*Harrison:* Zittel has a fairly active exhibition site at Joshua Tree called High Desert Test Sites. There, artists can come and demonstrate experimental and practical ways of working for themselves. It is as a whole a work of art, an extension of her own practice, putting her ideas in use. Besides being on her land, it utilizes her concepts in full force in the very do-it-yourself way in which artists create exhibitions. She has also opened a smock shop in Los Angeles, in Chinatown, which is both a functioning dressmaking collective and a store, and also an art work in itself. As an art work, it is rather unusual by today's standards. It cannot be bought and sold as a whole entity. The dresses get sold, at clothing prices, get worn, and the proceeds from the sales of the dresses go back to the artists who made them, not to Zittel.

*Fend:* I am always curious about how art projects are financed. In our case, with Space Force and Ocean Earth, we sometimes paid out of pocket, once or twice from grants, but for the big projects, we got money from the media clients. That is why we ended up doing wars instead of ecology: the clients. The art world, generally, is a zone of nearly zero transparency on how anything, or any artist, gets financed. Unlike Wall Street.

*Harrison:* Are you saying Wall Street isn't corrupt? [*Laughter*]

*Fend:* It's funny, to me, because this goes back to my own experience with CLUI, the Center for Land Use Interpretation. (They too have, shall we say, an invisible source of money. So they are not really a market-driven entity. They are a happenstance of . . . good fortune.) Now, CLUI invited me to go out there to their test site, their test area, which was in the Harper Dry Lake, near Barstow. Actually, they

wanted me to help find test sites for them and for other artists, including myself, within the Harper Dry Lake. And actually, I did satellite work on the area to locate a good place to work. I wanted to go where the aquifer was getting near to the surface, in front of the salt lake, so we could begin to work with Dry Wells and other elements of Earth Art vocabulary. And they wanted to go well up into the hills, for a drip irrigation project. I said, "Drip irrigation, no. I want to go to the areas where an aquifer is rising up and where structures on the terrain can induce capillary action upwards, where a change in the soil moisture and soil as microhabitat can occur." I would do this on the perimeter of the salt-lake bed. And I found sites. One was in a now-dry area that used to be called "Water Valley." The other had signs of flash floods, indicating that water did flow through and could be put to use. But there was a snag. I wanted to credit the sources of my technology, Dennis Oppenheim and Michael Heizer, and I wanted to follow through on a co-copyright deal with Oppenheim, and I wanted to use the name Ocean Earth instead of my own, since the deals were through Ocean Earth, not through me. This was not accepted by the people who invited me out there, specifically an early sponsor of mine for water research in California, Claude Willey. The CLUI was supposed to be the corporate entity, and I was supposed to be the solo artist. So, we did not agree. I was being, they said, "legalistic." Well, I can go to the same sites and buy up some property on my own, in the name of Ocean Earth or whatever, just not in that particular art frame. What is different about High Desert Test Site? Who owns the intellectual capital on any project? Who is going forward with any breakthroughs? Are there breakthroughs?

*Harrison:* In any case, the ideas are circulating. Artists have always worked in different directions; it's the oversimplification of journalists and historians that make it look like they all do the same thing. There are artists engaged in ideas, rather than market mobility, and there are artists that might work in a way that appears more traditional but has personal meaning and intent unrelated to capitalism. There is a future in test sites and group and convergent practice, but also in the way we can work as individuals. It is opening up now.

*Fend:* That's encouraging.