"Where do we draw the line?"

has been a persistent phrasing of the question of ethics and science since at least the arrival of the Atomic Age: should we blow everyone up, or just those select countries that we decide truly deserve it? The former is supposed to constitute a "misuse," across some ethical border from the latter "use." Absurd, I know, but this is what often passes for an exertion of ethics. The generic question arrives with even greater force and greater frequency now that we are entering The Clone Age, as the title of a recent book by Lori Andrews dubs the time that we live within—a time of in vitro fertilization, genetic screening, surrogate births, cloning, and all the other reproductive and genetic technologies that are themselves reproducing in labs and clinics around the world with the proverbial rabbit-like frequency.

You should read Andrews's book, which has now been mass (re)produced in paperback–faithfully copied and available via FedEx from your favorite on-line source, not unlike some sperm sample from the Repository for Germinal Choice or one of the various other biobanks that Andrews writes about. Andrews is a lawyer who for the last twenty years or so has been involved in various capacities with the ethical, legal, and social issues implicated or folded within reproductive technologies. She's written a wonderful, readable book about her multiple encounters on the margins of life: with scientists "pushing the frontiers" of biology and reproductive technologies; with citizens trying to interpret the new genetic interpretations of life, and trying to use these biotechnologies in diverse projects of production and reproduction; and with biolawyers and bioethicists trying to draw up the lines that would divide

What's a line? What skills are involved in drawing? And of course the ever-popular question since the days of Tonto and the Lone Ranger: what mean "we," kemosabe?

use from abuse, good application from bad misapplication, and all those important distinctions that fall under the general heading of regulation and legislation—the line of the law and the law of the line.

No one needs to be told these days that these are big issues, and that there are a dizzying number of them. In the limited space here, I'll use Andrews's provocative book to raise and respond to-without necessarily answering-some questions prior to the "Where do we draw the line?" one that gets

posed with such habitual and often numbing frequency–such questions as: What's a line? What skills are involved in drawing? And of course the ever-popular question since the days of Tonto and the Lone Ranger: what mean "we," kemosabe?

One place which Andrews visits is the island of Sardinia, where managing the reproductive and health questions associated with beta-thalassemia (a blood disease obeying the laws of recessive genetic conditions) has been thickly entwined in history, medicine, and culture. Toward the end of Andrews's visit, a woman doctor there lights up a cigarette and asks Andrews why Americans are so intolerante—making smokers like herself feel so criminalized that she simply doesn't smoke when she's in the U.S., and otherwise being "so harsh on people who do things that they [Americans] themselves were doing a few years earlier, like eating meat or drinking alcohol." Andrews ponders this question on her flight home, and writes the following:

Maybe the Italians can live better with the notion that they are carriers of genetic diseases and can provide more resources to people who are born with disabilities because they have a better acceptance of fate than we do. Americans think they must be in control. They are used to it. Controlling their lives, controlling the world. A country that has directly suffered in war has less of that feeling of invincibility.

Maybe this is indeed the case. But I'm less interested in the guestion of whether or not this cultural analysis is correct than I am in Andrews's implicit drawing of a line here, a line that will later mark the unacknowledged difference between "bad control" and "good control." Here in her Sardinia story, the desire for control looks like a kind of American cultural pathology that subtly but powerfully shapes our attitudes and practices towards our bodies and the problems they present. (And the innocent pronoun "our" here would have to be fleshed out in a longer, more precise essay, since the "our" of "our attitudes and practices" is arguably a masculine one for the most part, while the "our" of "our bodies" tends to refer more to women.) And Andrews surely has a point here that's worth thinking about and developing: in the different cultural and social context of Sardinia,

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By Mike Fortun

Lines in the Sand of Life

Continued from Journal page 1

"control" takes on a different spin, perhaps a more "human" or humane one, in which technological order is supplemented and ameliorated by social order and action.

But again and again in this book, because it and its author are indeed so indicative of the sprawling American bio-techno-cultural landscape, another form of control-fetish is left in place, unmarked and unquestioned. After a fascinating and sobering discussion of current or near-future practices of egg freezing, fetal ovarian transplants, and male pregnancy, and how the practices of ethical line-drawing have shifted so quickly in these domains, Andrews makes a symptomatic suggestion:

Boston University health law professor George Annas suggests a new agency be created to review what he calls "boundary crossing experimentation." This would include human cloning, genetic engineering, organ transplants from animals to humans, and artificial hearts. Just as the FAA regulates aviation, this new agency would regulate reproductive and genetic technologies to protect the consumers.

In short: regulate our regulatory technologies. (Socially) fix the (tech) fix. Control our control habits.

Here's where things get sticky, so let me try to be clear: I am really, really happy that the FAA exists. If ever elected to Congress, I would support every budget increase they ever asked for: more inspectors, more frequent inspections, more rigorous training programs, greater subpoena power, etc. etc. Give 'em everything they want, I say, because I do *not* want to be plummeting out of the sky in a badly maintained metal tube when I'm supposed to be at a semi-interesting academic conference that I'm attending mostly because it's in a nice city and I get to see old friends. (My selfishness at work—and it works just fine even without the non-existent "selfish gene".) So I admit that it's at least

I do *not* want to be plummeting out of the sky in a badly maintained metal tube when I'm supposed to be at a semi-interesting academic conference.

potentially counterproductive, or perhaps the result of being unwittingly infected by this Libertarian virus that seems to be going around, eating the flesh off welfare programs and civicmindedness alike,

when I ask: why is it that the first thing that often comes to the mind of a bioethicist or a biolawyer is another government agency? Why is this expression of the desire for control a good one, across the borderline drawn somehow between it and the apparently bad desire for control represented by the new bio-repro-ductive tech-

nologies themselves? (I might also ask: why am I being positioned as a consumer rather than as, say, "user" or "co-experimenter"? But that's a question for later.)

This rather predictable move to re-install control at a different level of the bio-techno-cultural system is all the more questionable-and again, all I'm trying to do is raise the questions- given that Andrews also delivers a scathing critique of the Ethical, Legal, and Social Implications Working Group, that mother-of-all bioethics agencies born through a strange surrogacy arrangement with the Human Genome Project. Andrews become chair of the ELSI Working Group in 1995, and is quite perceptive and honest about her own positioning there. It was a position drawn by gender lines (she was the second woman to chair ELSI, the feminized acronym for the squishy, "touchy-feely" feminized implications, as opposed to the masculinized, hard scientific organizations like HUGO, the international Human Genome Organization). It was a position marked by staffing lines (she never got her own staff person, but had to use one under the control of the National Center for Human Genome Research). Most importantly, Andrews's position was inscribed by budget lines:

The ELSI Working Group was given no budget of its own; instead, we had to ask [NCHGR Director Francis] Collins and his staff for funding. Every time we planned an activity that might lead to more people getting genetic tests or participating in genetic research—such as a project protecting genetic privacy—we were given a blank check. But each time we planned an activity that called into question the power of genetic testing—such as a study of the problems with using genetics to predict intelligence, criminality, or certain psychiatric disorders—we were told that the Genome Center didn't have enough money to fund it.

When the ELSI Working Group raised these and other issues that were cumulatively expressed as "concerns about the marginalization of ELSI," things went from bad to worse:

The National Center for Human Genome Research told us the budget was so tight it would have to cancel two of the next three meetings and renege on the \$20,000 it had promised us for a project investigating genetic tests by courts, schools, and other social institutions. The Working Group vice chair, Berkeley sociologist Troy Duster, was irate... When it came to funding molecular biological scientists, says Duster, the council was willing to take risks and give millions to laboratories that were using speculative, high-risk, and unproven techniques that had not in the past been as successful as had been expected. At the same time, several vocal and influential members of the council were often unsupportive of and trivialized the research on the social, legal, and ethical

issues, begrudging the 5 percent spent. But what he found most troubling, Duster says, was his inability to reconcile the millions poured into speculative techniques at the molecular level, while the council could not find funding for even a full series of ELSI Working Group meetings that year.

All this, according to Andrews, was sanitized from the official minutes of the Working Group meeting, and she has been stone-walled in her repeated requests to get the original tapes. She tried to meet with Collins in December 1995, "to complain... that our 'autonomy' was becoming laughable. He stood me up to attend a prayer breakfast with a member of Congress." Andrews quit a few months later.

At the end of the chapter on her misadventures at ELSI, which involved even more disturbing events than the few I've mentioned here, Andrews relates a telling quote from James Watson. We all know that Watson is pretty much synonymous with DNA in this age, the Clone Age: he gets credit for discovering the doublehelix structure of DNA in 1953, he gets credit for being the most important person in the institutionalization of the Human Genome Project, and he also usually gets credit for brokering that surrogacy arrangement that made ELSI a part of that Human Genome Project, and thus for exhibiting a kind of "social responsibility." But Andrews' quote reminds us of the paradoxical and even contradictory qualities of Watson's nickname, "Honest Jim." Watson first earned that nickname for his book The Double Helix, an "honest" account of the not-too-pretty and not-terribly-honest means by which he and Francis Crick arrived at their 1953 discovery, through the dishonoring of Rosalind Franklin and her x-ray crystallographic work. Some forty-odd years later, Honest Jim told Andrews what he really had in mind when he set up the ELSI Working Group:

Watson implied that the ELSI Working Group had been created not to set ethical standards but to let the science proceed unimpeded. "I wanted a group that would talk and talk and never get anything done," Watson said, "and if they did do something, I wanted them to get it wrong. I wanted as its head Shirley Temple Black."

So we might once again be grateful that, eventually, in time, Watson is honest about his disingenuousness. But the contradiction that we might be more interested in, perhaps, is Andrews' ongoing faith in government ethics and policy panels in the face of such experience. She's experienced first-hand how these highlevel government panels are—at least in some ways—designed for stonewalling, marginalizing, and co-opting. and yet she advocates more of them?

Let me back up again: clearly, we're going to have to have high-level government agencies stocked with famous biologists, doctors, bioethicists, lawyers, theologians, and "citizens," engaged in various kinds of FAA-like tasks. They're practically a pre-requisite of the liberal-state structure that we've lived within for a long,

long time. And I don't want to be entirely cynical about such expert panels and suggest that they all must end up playing the role of a former child movie star singing lilting tunes on the Good Ship Lollipop of biotechnology.

But at the same time, we'd be kidding ourselves to think that establishing even the most well funded, most critical (whatever that means), and most democratic (whatever THAT means) bioethics panels in sufficient quantities will constitute a solution to the problem of living well in the Clone Age. To see why legislation and regulation on the reproductive and genetic border may be necessary, but never sufficient—and why that might be the best possible state of affairs—consider the story that frames Andrews's book.

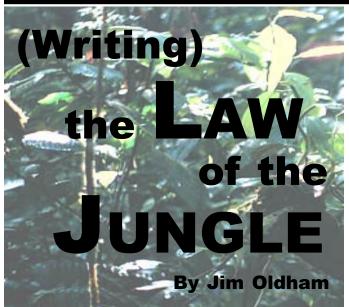
At the opening of her book, Andrews is flying to Dubai, one of the United Arab Emirates. She'd been invited by–pay attention now–the Dubai Chief of Police to give a lecture on the law and ethics of human cloning. Dubai is the most liberal of the Arab emirates and, quoting a travel writer she had been reading, "one of the last bastions of anything-goes capitalism; sort of an Arab version of Hong Kong." After a bit of a visa problem (they had been expecting a man), Andrews enters the country and is mulling over a map of Dubai in her hotel room. Where Dubai abuts the

She's experienced first-hand how these high-level government panels are—at least in some ways designed for stonewalling, marginalizing, and co-opting. And yet she advocates more of them?

territories called Saudi Arabia and Oman, there is no line but only the words "no defined boundary." "That is how I feel about my work in reproductive technology and genetics," she writes. "No defined boundary."

Despite having written a 113-page document for the U.S. National Bioethics Advisory Commission that urged a ban on cloning, Andrews finds herself at a loss for words in Dubai, where the legal, cultural, and religious contexts are so different from those in the U.S. In addition, she writes, "it was the first speech I had ever given where members of the audience wore sidearms." So when one member of the almost entirely male audience stood up and delivered a fifteen-minute religious tirade against reproductive technologies, Andrews recalls that she "looked at the guns and considered responding with 'I agree completely' to whatever he said." In the end, the gathered religious leaders and doctors "had come to an accord that it would be consistent with Islamic values to clone *men* – infertile, married men – as long as it was used in the marriage relationship."

An interesting accord – and "accord" is itself an interesting word Continued on Journal page 8



Editor's note: On March 13, 2000, the Secoya Indigenous Organization of Ecuador (OISE in Spanish) signed an Oil Exploration Agreement with Occidental Exploration and Production Company (OXY). After almost two years of negotiations with OXY, pressure tactics from the company and the government, and internal debate within OISE—and four and a half months after the two parties signed a Code of Conduct intended to ensure a fair and "transparent" dialogue between them—the Secoya gave permission for OXY to build up to four oil platforms for drilling exploratory wells, and to do a second round of seismic testing in Secoya territory. (Initial seismic tests were done in 1997). In return, OISE will receive \$700,000 in compensation (\$600,000 if no oil is found) paid into three funds: \$100,000 to divide among Secoya families to meet immediate needs and support individual economic development efforts; \$280,000 for infrastructure and development projects; and \$320,000 (\$220,000 if no oil is found) as seed money for a permanent investment fund. The agreement establishes environmental and cultural safeguards and the right of the Secoya to monitor the oil activities to ensure compliance. It also prohibits the unilateral expropriation of Secoya territory for oil development (a common step in the exercise of oil companies' concessionary rights) and ensures there will be continued dialogue under the Code of Conduct prior to any oil production in the territory. ISIS's Secoya Survival Project provided technical and legal support for OISE during the development of the Code of Conduct and the subsequent negotiations for exploratory wells. We have also lain awake nights wondering if our work is facilitating the work of the oil company even as we struggle to defend Secoya rights.

28 May, 2000.

I'm in the rainforest, in the territory of the Secoya people in northeast Ecuador. This weekend I've come deeper into the rainforest (away from the banks of the Aguarico river) than I've hiked before. Watching monkeys? No, they've run away. Ecotourism? We've dubbed this petrotourism. My first trip into this part of Secoya

territory—the land I was told in 1996 was to be a permanent reserve—is to visit two drilling platforms being constructed by Urazul, a subcontractor to Occidental Exploration and Production Company (subsidiary of Occidental Petroleum Corporation, or OXY). I'm here with two Secoya monitors and their technical advisor (hired by ISIS), along with OISE's members of the joint *Comision de Seguimiento* (the Oversight Committee set up with OXY to ensure compliance with the terms of the Agreement), and OISE's lawyer (also contracted by ISIS).

Yesterday we hiked to the first platform, *Cocaya Centro*, two hours on an old hunting trail. It was difficult walking because the regular passage of oil workers has churned the trail into a muddy mess. Streams, however, are easy to cross as the company has built a number of bridges with wood from trees they've cut along the path.

We are met at the platform by Wilson Gallegos, community relations specialist for OXY and member of the Oversight Committee. We spend several hours inspecting the platform (only a week or so from completion) and interview the supervisors of the work (employees of Urazul). After lunch with the oil workers, there is another three hour walk on a less worn trail, which follows old seismic lines (and passes through a waist deep swamp), to *Cocaya 1*, the second platform.

Day two of the visit begins with an inspection of *Cocaya 1* and an interview with the Urazul supervisor there. We then sit down with Gallegos, two other OXY reps, and the supervisor, to discuss our observations from the two day visit. Two of the most important issues we raise regard access routes to the platforms and the process that led to their creation. Workers are regularly entering by canoe and trail through Secoya territory rather than by helicopter as was initially agreed. Secoya "permission" for this change was obtained by Urazul workers who negotiated directly with individual leaders of the nearest Secoya village, violating several principles of the Code of Conduct and the Agreement for Oil Exploration signed by OXY and OISE: the only oil workers authorized to enter Secoya communities are member's of OXY's community

relations team, all communication should be in writing and go to all members of the *mesa de dialogo* (the negotiation group established by OXY and OISE), negotiations are to take place within the *mesa*, and internal Secoya decision making processes must be respected.

Why am I not surprised when Gallegos tells us that we are making a big deal out of nothing? "The Code of Conduct and the Agreement are one thing, the jungle is another." Things had to get done and they got done; people discussed the issues and worked them out. I'm not even surprised a week later that there is confusion in OISE: part of the new leader-



Inspecting an oil platform R: Wilson Gallegos (OX) worker (Urazul), Humbert Beltrán (OISE lawyer), Ma zalo Payaguaje (OISE), A

ship (elected after the code was signed and the agreement with OXY had been negotiated) takes steps to negotiate the access issue directly with Urazul (trading access by land for a laptop computer and help building a bridge) even as the official representatives to the Oversight Committee are setting up a meeting with OXY to resolve the issue according to the rules of the Code of Conduct.

These are mistakes, it is easy to forget that there is a law, even in the jungle, that both sides have agreed to obey. Rule of law is not the norm in the jungle of extractive industries, and it will take time to get used to.

One popular introduction to oil development in the Amazon for readers in this country is Joe Kane's book <u>Savages</u>. First published in 1993, in *The New Yorker*, under the title *With Spears from all Sides*, the story describes relations between the Huaorani (known to their enemies as *Auca*, a Quichua term meaning savages) and "the Company"—an entity comprised of the multinational oil company itself (in this case Conoco), the government oil company and various agencies, and everyone else associated with oil development. According to Kane, the company, like all outsiders, are dangerous *cowode*—cannibals—from the point of view of the Huaorani. The article and the book highlight a confused, highly unequal, and, as the titles suggest, confrontational relationship based on mutual misunderstanding in which both sides lose.

Readers of *After the Fact* are also aware of the history of Secoya experiences with oil exploration. As we have described previously, OXY "has been intermittently active in Secoya territory [since 1995], doing seismic and topographic studies in various parts of the territory. To gain Secoya permission to carry out these activities they have had a series of negotiated agreements with OISE, but these negotiations and agreements have been marked by misunderstandings, contradictions, and lack of Secoya access to information or to independent advisors."

The experiences of the Huaorani and Secoya are in no way



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/), Jaime López and a coo Piaguaje (OISE), Bolívar
rcelo Villaroel (OXY), Gonniceto Payaguaje (OISE).

unique. Throughout the Amazon region (as in other previously inaccessible regions of the world) new technologies are taking multinationals in the extractive industries into fragile ecosystems and bringing them into contact with threatened indigenous cultures. The continuing campaign and lawsuit against Texaco for its destructive oil development in Ecuador between 1967 and 1992 has made public one of the most blatant examples of the environmental, social, and cultural impacts of unregulated extractive industries. It has also raised consciousness in Ecuador of the need to change the relationship between extractive industries and communities they affect.2

This shift in understanding is highlighted by Carmen Allauca, President of the Human Rights Committee of the Northern Oriente, quoted by Tamara Jezic in a report for Oxfam America:

When the companies began, the people didn't know anything about rights, they didn't know they could denounce oil companies. We told the people, "Don't be afraid, we must denounce the contamination." When we first started, we faced a kind of disbelief among the people. The State owned the subsurface rights, and the company was the big God; what they said was what you had to do. There was no understanding that you could oppose the company and claim your rights. Now people have begun to realize that they can and they should denounce the contamination and that they don't have to be afraid. Now people feel supported and they come forward.³

While Allauca focuses on denouncing acts of contamination, there is a similar need for communities to claim rights *prior* to the entry of multinationals, to prevent at least the worst impacts of oil development or mining. This is the goal that drove the creation of the Secoya Code of Conduct. The Code was designed to protect "the Secoya's constitutional rights and establish... for them a more equal relationship with [OXY]." It started with the recognition that, like many indigenous communities, the Secoya were choosing—whether due to preference or lack of alternatives—to allow the company to enter their territory.

As Martin Scurrah and Cathy Ross of Oxfam America have written:

Most of the affected indigenous populations have opted to negotiate with the companies, placing primary emphasis on [short term] benefits and allocating the negative impacts to a secondary plane... At the same time, it must be recognized that the vast majority of those acquiescent communities probably felt they had little choice as to whether to negotiate with a company or reject its presence and likely lacked complete information about possible impacts at the time when they might have protested.⁵

Although there are important examples of indigenous communities opposing all oil development in their territories (Scurrah and Ross mention, for example, the U'wa people in Colombia and the Achuar in both Peru and Ecuador), the decision to negotiate is hardly surprising when one thinks of the threats facing communities that don't reach agreements with the companies. Companies have:

the right, granted by law through a mining [or oil development] concession, to gain access to [oil or] minerals in the subsoil for a specified period of time by occupying and using the land surface in return for compensation to current

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SPECIAL INSERT SECTION: THE ISIS RECONSTRUCTIVE SCIENCE JOURNAL

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landowners and on condition that the land is eventually returned to the owners in its original condition. The procedures involved are heavily weighted in favor of the... companies and against farmers and indigenous people: if no agreement is reached... the company can request that a mechanism that is in effect an expropriation process be applied. A government body determines the value of the compensation to be paid for the land and for any lost income and, if the community refuses to accept these terms (which are widely considered to be well below what free market rates would be), the amount may be paid into an escrow account in the name of the community and the company then has the right to undertake its exploration or extraction activities with the support of law enforcement agencies if necessary.⁶

One recent example in Ecuador involved OXY itself, which took the land of the Quichua community of Eden, on the Napo river, making a payment (paid into an escrow account, over the objections of the community) of just \$40 per hectare (2.47 acres).



The Cocaya Centro oil platform, in Secoya territory

The Secoya Code of Conduct creates an alternative environment by getting the oil company to agree to principles that, while already contemplated in Ecuadorian law (in the constitution and treaties the country is party to) and more or less universally accepted in theory, are not upheld in the specifics of the oil and mining laws. The Code is a vehicle for applying basic rights regarding access to information, legal representation, consultation regarding use of the community's land, the opportunity to follow traditional decision making practices, and so on. It is difficult for a company, particularly a multinational subject to public pressure, to formally refuse to recognize these rights once they are demanded by the community. It is one thing to benefit from an unequal power relationship, it is another to insist that maintaining the inequality is proper and good.

And, as Scurrah and Ross suggest, a more equal relationship should benefit the company in the long run:

One of the most striking features of the relationship between the resources extraction companies and the local communities is the dramatic inequality in resources of all kinds. If the unequal relationship between multinational companies and most Third World Governments has been a cause for much comment and analysis, this is even more marked when local, especially indigenous, communities are left unprotected or only partly protected by national governments to negotiate with oil, gas or mining companies.

While this situation may present opportunities for exploitation by some unscrupulous companies, for many it represents a genuine problem because it makes it difficult for them to negotiate agreements that will be seen as fair and just by the many stakeholders whom they must satisfy and that will ensure a favorable, predictable and secure local environment within which they can carry out their extraction activities.⁷

So why does OXY continue to disrespect the Code? One possible answer is directly related to the reason the code is valuable to them: they need agreements that are "seen as fair and just." The biggest danger for the Secoya is a Code that exists to be seen on paper but is not enforced—a Code (and other negotiated agreements) that give the appearance of protecting rights yet are too weak to really serve that purpose in practice. For that reason

the code is just a beginning; the real work will be enforcing it, day by day. After the Code of Conduct was signed, Humberto Piaguaje, then OISE president and leader of the negotiating team, said that "the main difficulty in reaching this agreement was the lack of trust, because oil companies are used to doing whatever they want, without respecting the law." It is this habit of disrespecting the law that will make defending the code a long-term challenge. Nevertheless, the code itself is a significant achievement, as recognized by the Latinamerica Press:

Despite the difficulties... the code of conduct established by OEPC and the Secoya organization paves the way for other agreements to protect the rights of indigenous groups in the face of oil drilling.⁹

So we can hope that future agreements will be stronger, benefiting from our successes as well as learning from our omissions and failures.

- ¹ After the Fact, December 1999.
- ² T. Jezic, Oxfam America Report on Texaco Campaign (Draft), 2000.
- ³ Carmen Alluauca, quoted in Jezic.
- ⁴ After the Fact, December 1999.
- ⁵ M. Scurrah and C. Ross. <u>Resource Extraction Activities and the Local Community</u> (Draft), at the 2000 meeting of the Latin American Studies Association, Hyatt Regency Miami, March 16-18, 2000
- ⁶ Ibid. The authors are describing mining industry in Peru but a similar situation is faced by communities in many Amazonian countries, including Ecuador, facing oil or mining interests.
- 7 Ibid.
- ⁸ Quoted in Latinamerica Press VOL. 32, Nº 1, JAN. 17, 2000
- ⁹ Latinamerica Press VOL. 32, Nº 1, JAN. 17, 2000

SPECIAL INSERT SECTION: THE ISIS RECONSTRUCTIVE SCIENCE JOURNAL

David Keith—Community Co-Chair of the Restoration Advisory Board and invaluable collaborator—has been central to citizen oversight at Westover Air Reserve Base from the start. This commentary, written for the Valley Citizens for a Safe Environment newsletter, explains both his "relative absence and [his] continued presence in the restoration process at Westover" as he considers the choice between stealth (bombers) and health (care).

I started pestering Westover way back in 1984 when I first heard about the proposed swap of C-5s for C-130s. A lot has changed for all of us in all those years. Ruth Griffith and several other loyal members have died. And now I have a charming almost-three-year-old boy who had a birth injury to the portion of his brain that controls motor function. He cannot yet roll over. I give him more of my time than I ever imagined I would be physically able to give. But here I am, typing away in one of my precious free hours. Why?

People always told me that parenthood would change my priorities and it has. I do look at things more for how they may affect my son than how they affect the world, America, or me. I used to pester Westover, believe it or not, out of patriotism. Just like the people I was opposing, I wanted to protect America. I did not think that excessive spending on the military would ultimately be good for America. I did not think that it was in America's interest to allow the military to continue to disregard damage to the environment.

I don't think I was wrong. But why do I keep at it now that family concerns are so demanding? A general answer, true for any parent, is that our children need us to leave them some clean air and water. Amid the overriding concerns of World War II, nobody was paying much attention to environmental damage from military activities. For four decades after the end of the war, though, the military was allowed to act with little or no external oversight. They say doctors and lawyers who try to work on their own cases have fools for clients. The military did no better in policing its own environmental abuses. Citizen intervention, including Valley Citizens' interventions, has helped hold the military accountable and helped keep some air and water cleaner than it might have been.

There is plenty left to do. Westover avoids air pollution regulation by flying through a big loophole that we should be trying to close. Because aircraft are considered "mobile sources" of air pollution, they go virtually unregulated even though they may act just like "point source" pollution at and near airports. As Ruth Griffith figured out, in this region only Westover and Monsanto rank in the top five of polluters in all three main categories of air pollution.

That's the general answer to why I keep plodding along. I am still stunned that C-5s burn 24 tons of fuel an hour. My personal and public themes converge, however, more specifically now.

I have a whole new awareness of the importance of the choices we make as a nation. Now I pay attention to health-care issues. I have been lucky enough to be able to afford, so far, equipment and care that my child requires that is not covered by our insur-

By David Keith

COMMENTARY

ance. But now when I hear that 44 million people in this country have no health insurance, it means very tangible things to me. Sitting in the lobby at Children's Hospital in Boston, I recently asked a single mother with a child in a special wheelchair how much the chair cost. This was not a motorized chair, it just had ways to adjust the seat to different angles. It cost \$7,000.

Worse still, without insurance, parents are compelled to do without medicine and medical attention that could improve the lives of their children. I have a whole new appreciation for the depth of anger and frustration any parent would feel about that.

Still, I do have anger of my own. This is a very exciting time for medical research. Scientists have regrown nerve cells to succesfully repair severed spinal nerves in mice. Christopher Reeves, the movies' Superman who has emerged as a real superman by falling to earth, puts it bluntly: "Oh, to be a mouse." He goes on to explain why this advance in nerve repair has been limited to mice—money. Reeves quotes scientists in the field who say that for \$100 million they could cure Parkinson's disease. The same research might fix his spinal nerve. The same research might give my child the chance to walk.

Now that even the Cold War is over, now that we 125 million baby boomers are facing the issues of aging, does it make more sense—does it make us safer as a people—to spend one *billion* dollars for one single Stealth bomber *instead* of spending a tenth of that amount to cure Parkinson's disease that kills thousands of us each year? When the elder George Bush was first running for president, he bragged that the Reagan administration had committed a billion dollars to fight AIDS. The same administration was ordering, I believe, 70 B-1's at \$1 billion each. What if we had spent the \$70 billion on AIDS? Which priority could have saved more lives?

We as a nation have a nearly unique opportunity now, while we face no serious challenges to our existing military might, to rethink our spending. We are squandering that chance. We are still paying for new attack submarines, new bombers, new bombs. All while nearly one fifth of us have no insurance. And those of us who are insured are discovering that being insured does not equal being covered. We discover as well that even the care that may be covered by insurance may not be available because the government has cut funding to virtually every health service organization.

So my public confrontation with Westover and my family's confrontation with disability come together. All those military boondoggles that fund shipbuilding or new planes in some politician's home district are no longer just political games. They are messing with my child's future, and that of all the children in the country. We need to hold the military accountable for the damage it causes to our children's environment. We need to hold our politicians accountable for choosing stealth over health.

And finally:

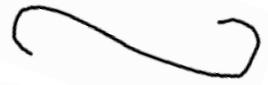
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which you should look up in your dictionary to get a sense of the complex meanings that are gathered in that seemingly simple concept. And it's the concept of "gathering" in turn that I'm more interested in here in this little sketch than the Dubai accord itself. Sketch out the gathering of forces in Dubai: lawyers, guns, and money, for starters, that powerful trio articulated in Warren Zevon's song of the same title. You could continue: doctors, priests, and police. Men, men, and men. Genes, test tubes, and parental desires. Nations, science, and cultural differences.

Bioethics and bioethicists never act alone. Even when power takes a less overt form than a gun in a holster, the bioprofessional is always in some kind of relation to it – sometimes agreement, sometimes opposition, but never some pure, detached drawing of the ethical line. Any drawing of lines takes place in a complex territory, and the bioethical territory is more complex than most, since it occurs in the shifting, drifting dunes of "life itself" where boundaries, when they exist at all, are always in the process of change. As is the "we" who tries to draw the line, and the "we" who get marked by it.

On some level, Andrews seems to understand all this: by the end of her book, she is describing how she has "crossed paths" more and more frequently with artists, and suggests that "the task for all of us in the coming years is similar to that of science fiction writers and transgenic artists." This seems a far more encouraging and interesting prospect to me than the establishment of another panel of learned "we's" to police boundary crossings. Maybe it's because artists know that drawing lines is more than a matter of rulers and their straight-edges, but involves, let's say, a certain amount of free-handed flare. So what might this mean? Since Andrews turns in her "Afterword" to artists for inspiration, I'll do the same here at the end of my own words.

Paul Klee begins his *Pedagogical Sketchbook*, written for his Bauhaus students in 1925, with a drawing of three lines. The first is "an active line on a walk, moving freely, without goal. A walk for a walk's sake. The mobility agent is a point, shifting its position forward":



Klee next draws "the same line, accompanied by complementary forms":



This third line gives us an image for the bioethics territory, in Dubai or elsewhere: multiple lines of force on a plane, lines that "we" didn't draw but are already in process, constituted by a horde of "we's," not all of whom are in accord. The heavy, central line may indeed be necessary and may indeed, to a certain extent, regulate the entire space. But all those other, different lines that are "complementary" to it are the biospace in which we, in all our discord and difference, actually live. Which is good, because otherwise the line would never move.

And Klee's second line suggests a kind of "complementary form" to the standard bioethical line-drawing operation, where the accompanying line traces a lively squiggle across the first, heavy-handed one.

Still, you're asking, what might this mean? Well, part of me was hoping you'd figure that out. But here's one possibility for you to draw on. Say that heavy line in the middle figure is the bioethical prescription *Thou shalt not clone humans*. (It never fails to crack me up when bioethicists bemoan The Scientist "playing god," when they themselves work so hard at the same game on a different register.) It would be up to the transgenic artist and science fiction writer in all of "us" to imagine a set of practices that moved around and across that line – not straying too far from it, perhaps, but wandering nonetheless. Cloning humans has always struck me as deserving more of a bored, ho-hum response than the ethical fire-and-brimstone that is usually rained down on it. So some millionaire idiot wants to clone himself or herself? Fine. Whatever. Why do I have to hear about it on CNN and Entertainment Tonight? BUT: did we remember to tell you that, according to our latest twisted regulations, the price on this procedure just tripled? One-third to pay for your own egomaniacal desires, one-third to pay for the exact same procedure for a random person chosen by national lottery from among the lowest income quintile, and one-third to be donated to that other, far more important reproductive technology: the public school system. Sorry if you don't like it, but that's the price, because that's the law.

Get the drift? So go figure.

Tell us how you like this first issue of the journal—or tell us what you'd like in the next issue—or better yet, **send us** what you'd like in the next issue! by email at isis@hampshire.edu.