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Overshoot in Newfoundland

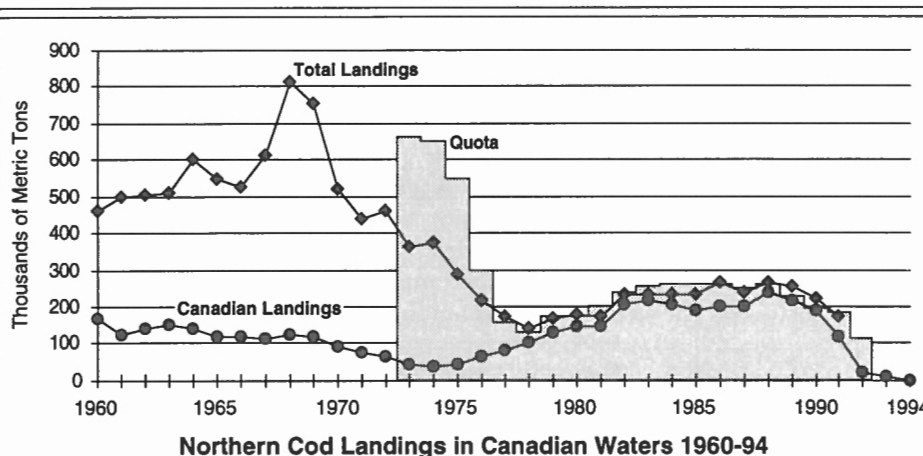
Modern fleets deplete fish populations around the world, resulting in many local instances of overshoot and collapse. The island of Newfoundland, for example, depends heavily

on fishing. As one fisherman put it, "Cod is the reason we live where we do." Hundreds of Newfoundland communities have no other livelihood. Decades of fishing pressure, however, have eroded northern cod populations to such low levels that, despite the hardship this caused, in summer 1992 the Canadian

government had no choice but to close the fishery down. As often happens, an official quota system had failed to prevent overfishing. Despite the closing, cod stocks appear not to be

recovering. From New England groundfish to Northwest salmon, similar collapse threatens many other North American (and world) communities. Overfishing drives rapid,

foreseeable social change. As fisheries contract, efforts towards economic diversification and "sustainable development" take on new urgency; but there is also an increasing likelihood of outmigration, dependency and social problems. These data form part of the background story in



Resources and Hopes in Newfoundland by **Lawrence C. Hamilton** <Larry.Hamilton@unh.edu> and **Carole L. Seyfrit** <cls100f@oduvm.cc.odu.edu>, forthcoming in *Society and Natural Resources*.

Mid-Range Theory and Cutting-Edge Sociology: A Call for Cumulation

by **William R. Freudenburg**
and **Robert Gramling**

The call for middle-range and comparative research by Kroll-Smith and Laska (1994) in *E.T.S.* #74 is one that deserves a good deal of response from Section members, and we'd like to offer one part of that response, in the form of a somewhat broader argument. The argument, stripped to its essentials, is that the time has come for a new generation of environmental sociology, and that there are good reasons for

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Officers of the ASA Section on Environment and Technology

Chair: Penelope Canan (1993-1995)

Phone: 303-871-2049
FAX: 303-871-2090
email: pcanan@cair.du.edu

Chair-elect: Eugene Rosa (1993-1995)

Phone: 509-335-4621
Fax: 509-335-6419
email: facrosa@wsuvm1.csc.wsu.edu

Secretary-Treasurer: Kent D. Van Liere (1991-1995)

Phone: 608-232-2800
FAX: 608-232-2858

Council Members

Marilyn Aronoff, (1993-1996)

Phone: 517-353-9237

Wendy Nelson Espeland (1992-1995)

Phone: 708-467-1252
Fax: 708-491-9907

Ken Gould (1992-1995)

Phone: 315-379-5395
Fax: 315-379-5803
email: kgou@slumus.bitnet@cunyvm.cuny.edu

Shirley Laska (1991-1994)

Phone: 504-286-6472
email: sblso@uno.edu

Dorceta E. Taylor (1993-1996)

Phone: 313-763-0692
Fax: 313-994-7116
email: Dorceta.E.Taylor@um.cc.umich.edu

Willem Van Vliet (1991-1994)

Phone: 303-492-7711
email: vanvliet_w@cubldr.colorado.edu

Committee Chairs, 1993-1994

Program: Penelope Canan

Phone: 303-871-2049
FAX: 303-871-2090
email: pcanan@cair.du.edu

Publications: Chris Cluett

Phone: 206-528-3333
FAX: 206-528-3552
email: cluett@battelle.org

Nominations: Ken Gould

Phone: 315-379-5395
FAX: 315-379-5803
email: kgou@slumus.bitnet@cunyvm.cuny.edu

NIE Chair: Loren Lutzenhiser

Phone: 509-335-4595
FAX: 509-335-6419
email: LLutz@wsuvm1.csc.wsu.edu

Membership: Kurt Cylke

Phone: 716-245-5336
FAX: 716-245-5005
email: CYLKE@uno.cc.geneseo.edu

Network Committee: Tom Dietz

Phone: 703-993-1435
FAX: 703-993-1446
email: dietz@gmuvm.gmu.edu

Notes from the Editor

As Hamilton and Seyfrit point out in their article *Resources and Hopes in Newfoundland* and as illustrated in their graphic on the front of this newsletter, Newfoundland is suffering a catastrophic collapse of its fishing-based economy, and this is not the only fishery that is suffering the impacts of decades of unsustainable fishing practices. The World Wildlife Fund writes in their book *Choosing a Sustainable Future: The Report of the National Commission on the Environment* that "the marine environment is often overlooked or neglected in discussions of the effects of human activity on ecosystems, but it is no less important and no less threatened than are many land areas. ... Pressure on the Earth's marine ecosystems is increasing, (and) ... coastal ecosystems are subject to greater pressures from human development than are any other systems."[†] The authors discuss the "seriously flawed" Magnuson Fisheries Management and Conservation Act that was created with the objective of maintaining U.S. commercial fishing stocks and "ensuring that overfishing would not destroy valuable fisheries." The problem pointed out by the Commission is that "the limits on allowable catches are set by regional boards dominated by the commercial fishing industry" who have responded to pressures for short-term economic gain and have not been able to make decisions regarding catch limits that are based on sound principles of long-term sustainability of the marine ecosystem. They recommend revising the Act to provide for a more balanced decision making process based on sound science. At the same time they point out that as we try to move "from exploitation to sustainability," we need to be especially cautious because our understanding about complex ecosystems, their interactions, and their function in a global context is distressingly limited. We still have a lot to learn about how these systems function as a whole.

[†] National Commission on the Environment. 1993. *Choosing a Sustainable Future*. (World Wildlife Fund) Washington, D.C.: Island Press.

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I would like to encourage more of you to submit information about your on-going research interests and activities so that E.T.&S can do a better job of facilitating networking and information-sharing among our growing membership. If you have a chart or graphic that illustrates some interesting data that you are working with, send that in to me for inclusion in the newsletter. If you know of data sources or other helpful resources accessible via the Internet, let me know that too. The Newsletter lives or dies by the contributions of our membership; get involved! Your faithful editor is always open to suggestions for how to improve E.T.&S. See you in LA.

Environment, Technology and Society Newsletter

Editor

Chris Cluett, Research Scientist
Battelle Seattle Research Center
4000 NE 41st Street
Seattle, WA 98105-5428
Phone: 206-528-3333
FAX: 206-528-3552
E-mail: cluett@battelle.org

Page Design and Layout

Gretchen Gaffney

Publication Schedule

The deadline for the Autumn issue will be Oct. 15, 1994. If it is possible for text items of any length to be submitted electronically, that greatly facilitates the newsletter production process. Use my Internet e-mail address: <cluett@battelle.org> Also, please contribute articles on current research that can be presented graphically on the front page.

Mid-Range Theory & Cutting-Edge Sociology (cont.)

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middle-range, comparative research to make up the core of that new generation of work. In fact, a number of authors have already begun to do that work, but there are good reasons to encourage the trend. What we will do in this article, accordingly, is to summarize our basic argument, to provide a few examples from some of the work that reflects our effort to take this line of argument seriously, and to close with an invitation to others who care to join us in the effort.

...the time has come for a new generation of environmental sociology, and there are good reasons for middle-range, comparative research to make up the core of that new generation of work.

There have of course been many generations of environmental sociology, some of which date back almost to the beginning of sociology itself. The field that we today know as "environmental sociology," however, dates essentially to the period after the first "Earth Day" and to the pioneering work of scholars such as Dunlap and Catton (1979; see also Dunlap 1980; Catton 1980; Catton and Dunlap 1980; Schnaiberg 1980; Buttel 1987) in the late 1970s and early 1980s. That work, to oversimplify only slightly, drew attention to the linkages between social activities (including economic ones) and environmental realities—with one important part of the effort being the call for more systematic attention to the biophysical environment within sociology itself.

It can be easy to underestimate the magnitude of that effort from the vantage point of the present, but at the time, it truly was the case that at least a significant number of distinguished sociologists felt that the physical environment could (or even should) be ignored. Thanks in part to the environmental sociology writings of the 1970s and 1980s, and associated developments in other disciplines, that is largely no longer the case. With the exception of a relatively small number of scholars such as Simon (1980, 1982), most observers are now indeed willing to see, for example, the connection between large-scale socioeconomic activity and significant impacts on the biophysical environment (Laska 1993). The basic starting point for our argument for the present and future, in other words, is that unless the situation changes, the battle of the 1970s and 1980s should now be regarded as having been won.

Importantly for the discipline, moreover, we believe that this is a change that has taken place within sociology as well as within society. The most systematic analyses of which we are aware (Krogman and Darlington, 1992), together with recent updates by those two authors (personal communication), show a relatively dramatic increase in the rate at which sociology journals have been publishing articles explicitly dealing with the environment. For Section members who prefer qualitative evidence to the quantitative variety, we can offer the supportive example of our own work. The two of us generally found that, while we were able to get "environmental" articles published in sociology journals even in earlier years, the earlier articles often needed to be "dressed up" as something else—e.g., as contributions to the basic sociological literature on communities—almost as if we had just happened to use resource-related communities as convenient sources of illustration (see for example Freudenburg 1984, 1986; Gramling and Brabant 1986; Gramling and Freudenburg 1990). More recent articles, by contrast (e.g., Freudenburg and Gramling, 1992, 1993, 1994b; Gramling and Freudenburg, 1992a, 1992b), have had little difficulty being accepted, even by mainline sociology journals, and even when explicitly presented as "environmental" articles.

Yet if it is time for the battles of recognition for environmental sociology of the 1970s and 1980s to be considered as effectively won, one of the implications is that it is time for a new generation of work to begin. In the grand tradition of cumulation, we believe that the new generation of work needs to build on the work that has already been accomplished, and at the same time to go beyond it. The question of *whether* there is a connection between socioeconomic activity and environmental degradation appears now to be sufficiently well-established as not to require a good deal of additional research. The question, instead, has to do with *how* those influences are exerted and felt. This need, in turn, points to the reasons why middle-range and comparative approaches appear to us to be so important.

Variables that Vary. As most of us learned in graduate school, Merton's classic article (1968) advocated greater attention to work that was "middle-range," in the sense of lying somewhere between grand theoretical syntheses that attempted to explain almost everything and isolated efforts that saw nothing beyond the idiosyncratic. The grand

schemes, he argued, tended to cover so much territory as to offer relatively little help in mapping the systematic variations in real-world phenomena, while *ad hoc* and/or idiosyncratic approaches offered little hope for learning, generalization, or cumulation. He argued that middle-range approaches offered the most useful balance of characteristics—and we'd like to add that these approaches can lend themselves quite well to the deliberately comparative approaches we see as necessary.

Studies of the relationships of environment, technology and society are certainly not the only field within sociology to have fallen prey to the malady of being insufficiently comparative, but we believe the broader problem has a particular importance in this field. If our goal is to understand environmental and technological

variables, then we need to make sure that we design our studies in such a way that those "variables" can vary. This is not simply a matter of the scale of analysis; ironically, whether the focus is on a single, isolated community, or on a global system of political and economic power that virtually by definition is a one-of-a-kind variety, the ability to make explicit comparisons across

"cases" is often severely constrained. So long as the focus is on a single community—or a single but entire planet—there can be a real temptation for the environmental "variable" to disappear from sight, "naturalized" or taken for granted in much the same way as a fish ignores the fact that it is constantly surrounded by water.

In the case of a study of, say, the distribution of housing in Minneapolis, it would scarcely seem impressive to conclude that "to understand Minneapolis, you need to know that it snows here"—any more than it would make sense to argue that "you need to know that fish swim in water." Of course fish need water, and of course it snows, but a case study that reached only that conclusion might provide a tempting target for a new resurgence of "golden fleece" awards ("The National Science Foundation spent \$300,000 to find out that

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it snows in Minneapolis; is it any wonder that taxpayers are getting the chills?"). In a *comparative* study of residential distribution patterns, however, at least a skilled and insightful observer has a fighting chance of recognizing that snowfall does indeed appear to be one of the most powerful factors of all—even after all other factors are statistically controlled—in explaining the real differences in population densities across communities (see Guterbock, 1990). There may be a lesson there; we believe there is.

What's to be Done? The key lesson, to us, has to do with the value of seeking study designs that will highlight rather than hide the importance of environmental and technological variables. Whenever we focus on mid-range variables—those that are expected to exert an influence in more than one setting, while still being less broad than “the overall history of industrial civilization”—we increase the chance that others will be able to try out the same variables in other settings. Whenever we test the concepts and arguments that have already been put forth by our colleagues, we contribute to the cumulation of learning, as well. Best of all are studies that are designed from the outset to offer instructive comparisons or contrasts.

New and exciting examples abound, but to us, some of the most impressive are those in which a single researcher or group of researchers design and carry out their studies in a way that both permits and encourages cumulation and comparison, from the outset. Importantly, a middle-level, comparative approach can be characteristic of a broad range of research scales, ranging from neighborhoods to nation-states. Promising recent comparative research efforts at the community or neighborhood scale include the work of Seyfrit (1986, 1988), now being expanded by Seyfrit and Hamilton, on the ways in which adolescents are affected by large-scale, resource-related industrialization; the work of Kroll-Smith and Couch (1990; 1991—or Couch and Kroll-Smith, 1985) on community exposure to toxic contamination; or the work of Gould (1991, 1993) on matched pairs of communities in the same region, finding systematic variation in community responses that appear to be systematically related to identifiable correlates. At a broader level of analysis, examples also include Jasper's nationally comparative study on *Nuclear Politics* (1990), Dunlap's cross-national comparison (1993) of adherence to ecological as opposed to exemptionalist paradigms, or

Ciccantell's (1994) comparison of the social and environmental impacts of efforts to encourage aluminum mining (and extraction-led “development”) in Brazil vs. Venezuela.

The examples with which we are most familiar, however, are of course our own comparative research.

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Probably the clearest statements of our overall argument can be found in three spots—a recent *Sociological Forum* article (Freudenburg and Gramling 1993), which focuses on the importance of comparisons across environmental contexts (if we are to be able to observe significant variation in environmental variables), an as-yet-unpublished piece (Freudenburg, Frickel and Gramling 1993) that focuses on the importance of variation *across time* if we are to understand the importance of technological variation, and another as-yet-unpublished piece (Gramling and Freudenburg 1994) that tries to show the importance of observing controlled variation across both space and time if we wish to see the conjoint influences of environment and technology. For those who would rather see what can be learned from a completed (and more readily accessible) study that makes more extensive use of an explicitly middle-range-and-comparative approach, on the other hand, a good example is the one provided by our recent book, *Oil in Troubled Waters* (Freudenburg and Gramling, 1994a). Naturally, we have a strong investment in this book, but while we'd love to believe that everyone in the Section would want to buy the book tomorrow, if not yesterday, we also realize that most library budgets have already been stretched to the breaking point, so we'll take a detour here to summarize some of the relevant findings for those who'd rather save a few bucks.

Oil in Troubled Waters summarizes a larger project to compare a single technological and economic activity, namely offshore oil drilling, in two coastal regions, namely southern Louisiana and northern California (see also the more detailed accounts in Gramling and Freudenburg, 1990, 1992b, 1994; Freudenburg and Gramling, 1992, 1993, 1994b). Without a comparative approach—which is precisely how most of the policy

discussions have been carried out to date—the question is usually expressed in terms such as, “Why are those Californians so crazy?” The common belief in the oil industry (and in the agency that funded our study) has long been that people in Louisiana have oil development offshore and they love it, while people in northern California don't have the activity, and they hate it—thus, to know us is to love us. For others—those who see offshore oil as inherently disastrous, and who thus see the generally positive orientation of Louisiana residents as problematic—the usual question is, “what's wrong with those folks in Louisiana?”

As often happens when a comparison is carried out more carefully, however, we found the matter not to be so simple. We found systematic differences between southern Louisiana and northern California—differences that made southern Louisiana almost uniquely well-suited for the emergence and growth of the offshore industry, while working against the expansion of the same industry in California. Those differences, moreover, included not just historical and social factors, but also the physical environments of the two regions. If the study had focused strictly on Louisiana, for example, we probably wouldn't have realized the explanatory importance of the fact that the river along the eastern boundary of Louisiana is sometimes called the “muddy” Mississippi. Once we had done enough comparative work, however, the importance of that fact became, well, significantly clearer than the mud.

Historically, the clearest difference between the two regions had to do with the time of the start of the offshore industry—in the 1940s, in the case of Louisiana, versus the 1980s in the case of California. Given that a dramatically increased environmental sensitivity had come to characterize not just sociology, but society, during the interim, it would scarcely be surprising that environmental concerns played a much larger role in the region where the proposals came along at a later date. Less obviously, the offshore industry in Louisiana began not just before environmental sensitivities were so highly developed, but also before competing uses such as fishing had begun to expand to the open waters of the Gulf of Mexico. By the time fishing boats took to the open waters in the search for shrimp—the most important critter in the Gulf, economically—a number of offshore platforms

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were already there. This sort of temporal priority led to a very different situation than would face current-day proposals to put oil rigs off the coasts of northern California, where commercial fishing is not just already established, but already under considerable pressure.

Socially, the differences included average educational levels—which stood at less than *five years* in the Louisiana of the 1940s—and the decidedly extractive orientation toward the natural resources of the area at the time. In terms of contemporary social factors, we found a subtle yet potentially important difference from Gould's (1991) emphasis on industrial control of local jobs, involving not just the individual interests but the social networks of the two regions. Even individuals in southern Louisiana who derived no visible economic benefit from offshore oil, for example, showed a marked disinclination to criticize an activity that they saw as providing economic benefits for friends, relatives, neighbors, or simply the region as a whole; in northern California, similarly, even people who were not directly dependent on tourism and/or commercial fishing had no desire to encourage anything that might threaten the livelihoods of their friends and neighbors. In coastal Louisiana, there was considerable pride in the fact that some of the most sophisticated technology in the world had been locally developed, often by people they knew, while in northern California, both the technology and the people involved with it were likely to be seen as alien. These differences, in turn, led to what we call "the spiral of stereotypes" in the case of northern California; so polarized has the issue become that the people who favor and oppose offshore oil have largely stopped talking to one another—but not *about* one another. Oil industry proponents frequently argue that the California opposition "just" reflects ignorance, selfishness, or irrationality, rather than reflecting legitimate concerns on the part of sensible citizens, while in the words of one Californian, "When I think of the oil industry, I think of fat, pushy Texans in pointy-toed boots" (Freudenburg and Gramling, 1994:92).

So what about that muddy Mississippi? It affected settlement patterns, far-away harbor space, and offshore fishing realities, to name just three kinds of influence that might not come immediately to mind.

In California—as in most coastal states of the U.S. today—most people live as close to the coast as they can. The clear majority of the state's total population lives in the counties that come in contact with salt water, and roughly 90% of the coastline can be reached by roads or highways; in Louisiana, only 21% of the population, even under a generous definition, lives in "coastal" counties or parishes—the figure is 10.7% under a stricter definition—and only 12.3% of the coastline is within a mile of *any* kind of road. One of the reasons why so many Californians see the coast as such an important resource, in short, is that they can literally "see" the coast, so often. In southern Louisiana, by contrast, one resident noted that "there are probably more people around here who've seen the Gulf from *Florida* than have seen it from Louisiana." The reasons are distinctly physical, and they are directly related to the mud that has been carried down the Mississippi over the centuries. Thanks to millions of tons of the wet goo that has been carried down the Mississippi River over the past hundred thousand years or so, southern Louisiana is the home of the largest contiguous coastal marsh in North America, but across most of the southern end of the state, the marsh makes it almost impossible to get to within 15 to 20 miles of salt water without a helicopter or a boat. To many people, the marsh resembles the description that the well-known naturalist, Dave Barry (1993:4G), applied to the Florida Everglades: "[A]n enormous, wet, nature-intensive area that at one time was considered useless, but which is now recognized as a vital ecological resource, providing [the state] with an estimated 93 percent of its blood-sucking insects."

Given the muddiness of these lands, they are laced by countless miles of rivers and bayous, contributing to another difference between the two regions in the ability to accommodate offshore oil activity. Northern California has a rugged coastline, which is exposed to significant levels of storm energy, but which offers few suitable ports or harbor spaces. The available harbor space is already full to the point of overflowing, meaning that any increase in oil activity could well come at the expense of commercial fishing boats that would be unable to afford higher-priced competition for harbor space. In southern Louisiana, by contrast, even though there were so many activities spread across southern Louisiana during the peak of the oil boom that, in combination, they constituted the busiest

port in the world, the many bayous and other waterways meant that the region had little difficulty in accommodating fishing vessels as well as the fleets serving the offshore oil industry, with hundreds or perhaps even thousands of miles of potential berths to spare.

The muddiness even contributed to important offshore differences. The ocean bottoms of the Gulf of Mexico are broad and silty, while those off of California are steep and rocky. The reasons for the breadth have more to do with tectonics than with the river; in essence, the bottoms off Louisiana are home to a vast coastal "shelf," extending hundreds of miles offshore, meaning that the loss of an area around a single oil rig would actually constitute a relatively minor impact, in comparison to the proportionate impact created by the loss of exactly the same area off the coast of northern California. The silty bottoms do have to do with the Mississippi and other regional rivers, having been deposited offshore over a period of centuries. The soft, silt-and-mud bottoms have effectively meant that the oil rigs off the shores of Louisiana have generally contributed not to the loss of fishing grounds, but to their improvement. Certain species require "hard substrate," such as rocks and reefs; the waters off of Louisiana are so deeply buried in silt and sediment that, by the best estimate we have been able to find (Gallaway, 1984), the underwater portions of offshore structures collectively make up over a quarter of all the hard substrate in the offshore waters. While this is a contribution that might be less readily appreciated in a region that already has an abundance of offshore rocks and reefs, the offshore structures in the Gulf of Mexico serve to concentrate and probably to increase the fish populations, and as a result, those who fish in the region (including, on occasion, the two of us) often head directly toward the nearest offshore oil structure to do so.

We think diversionary reframing deserves a good deal of additional attention from those of us who are interested in environment, technology, and society; the reasons include comparisons and the potential for cumulation.

Conclusion. In the book itself, we pull things to a close by drawing attention to a tactic we call "diversionary reframing"—a

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special form of "changing the subject" that seems to characterize a growing number of societal debates over environment and technology. Often, the partisans on one side of the debate (commonly but not always the proponents) will attempt to divert attention away from the actual concerns of their critics by calling into question the legitimacy of the critics as well as of the criticisms. When a partisan accuses an opponent of being "just" emotional, irrational, selfish, or opposed to the American Way of Life, those may indeed be the partisan's heartfelt beliefs, but another possibility is that the charges reflect a political precept that our analyses have too often ignored in the past, namely that the best defense is a good offense. When Clarence Thomas was accused of sexual harassment, he and his allies in the Senate spent little time in denying the charges; more of their time went into efforts to shift the question--and the focus of debate. Were the hearings "just a high-tech lynching?" Was Anita Hill making things up? The tactic "worked," at least if the confirmation of Justice Thomas is any indication, but it did so at the cost of considerably disturbing a good many citizens. Something like that seems to happen in many controversies involving technology and society, as well--except that, at least in northern California, the technique seemed not to "work" even on a political level.

We think diversionary reframing deserves a good deal of additional attention from those of us who are interested in environment, technology, and society; the reasons, of course, include comparisons and the potential for cumulation. Members of the Section who try out the idea in other contexts may well wind up extending, delimiting, or even rejecting it, and we could all well prove to be smarter as a result. The same is true of a number of other middle-range concepts being put out by other authors, just as, for example, we build on but differ slightly from Gould's reading of the importance of personal economic concerns. Probably our only point of disagreement with Kroll-Smith and Laska, to note another effort to contribute to cumulation, is that we believe the sociology of environment and technology ought to have a good deal more mid-range cumulation before there will be enough raw material to provide the grist for an intellectual Newton's mill.

We believe that the greatest need at present is not for Newtons, but for mortals and colleagues--for sociologists who are suffi-

ciently interested in environment and technology to build incrementally upon one another's work. That includes some of the broader examinations of interrelations among environment, technology and society, at the global level, that are currently underway, many of which are quite promising. What is important, ultimately, is not so much the size of the region being considered, as the way in which the consideration is carried out. If we are to do justice to the founders of the Section by building on but also going beyond their work, we need to devote a higher proportion of our attention to the way in which our studies are designed. We need to make sure that our "variables" can actually vary.

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(continued on page 7)

Mid-Range...(cont.)

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From My Corner

Penelope Canan

Hello to you from Denver. I have just reviewed the Preliminary Program for this summer's meetings in Los Angeles. There are many exciting sessions for our members. Below are a few that caught my eye.

Members have two opportunities to display their work through Section activities. Members who would like to display their work at the Section table at the welcoming party on Friday 8/5 at 6:30, can drop it by then or send it to Carole Seyfrit at the Sociology Dept., Old Dominion University, Norfolk, VA 23529-0090; e-mail: <cls100f@oduvm.cc.odu.edu> Materials for our Information Table in the Westin's Pasadena Room Exhibit Hall (for display Sunday, 8/7 2:30-4:30) should be sent to Kurt Cylke, Department of Sociology, SUNY-Geneseo, Geneseo, NY 14454; e-mail: <CYLKE@uno.cc.geneseo.edu>.

Also, I want to tell you about our social hour and dinner plans for the evening of our Section day, Monday August 8th. At the Business Meeting we will have sign up sheets for various restaurants (different cuisines, different price ranges). You can create your own group or join one already formed. After the Business Meeting, we have one more (terrific) session, *Feminist Perspectives on the Environment and Technology*. Then everyone will meet in the Hilton Hotel bar at 6:45 pm to socialize, and dinner groups will leave from the Hilton lobby at 7:45 pm. I am looking forward to seeing you in Los Angeles.

Our Author Meets Critics Roundtable (Schnaiberg and Gould, *Environment & Society: The Enduring conflict*); See p. 6 of the Program as well as listing under Session 335.

Environmental Justice Tour, Tour #3 (Fri. 8/5, 1:00-4:30 pm, \$20).

Session 145, Environment: The Politics of Environmental Policy Implementation (Sat. 8/6, 12:30).

Session 164, Environment: Human Settlement and Nature (Sat. 8/6, 2:30).

Orientation for New Section Officers (Sun. 8/7, 8:30).

Session 176, Environmental Justice (Sun. 8/7, 8:30).

Environment & Technology Section Council Meeting (new and old officers, council members, committee chairs), brown bag lunch in Canan's room in Westin (Sun 8/7, 1-3 pm).

Session 236, Special Student Roundtables, Table 3, Environmental Sociology (Honors Program) (Sun. 8/7, 2:30).

Session 278, E&T and Medical: Health and the Environment (Mon. 8/8, 8:30).

Session 300, E&T: Institutional Change and the Future of Technology and the Environment (Mon. 8/8, 10:30).

Session 318, E&T: Linking Global, Regional and Local Environmental Politics (Mon. 8/8, 12:30).

Session 335, E&T: 12 Refereed Roundtables (Mon. 8/8, 2:30).

E&T Section Business Meeting & Awards, followed by sign-up for dinner groups (Mon. 8/8, 3:30, after roundtables).

Session 353, E&T: Feminist Perspectives on the Environment and Technology (Mon. 8/8, 4:30).

Everyone meet in Hilton Hotel bar for social hour (Mon. 8/8, 6:45).

Dinner groups depart from Hilton Hotel lobby (Mon. 8/8, 7:45).

Session 359, Making the Desert Bloom: Water Policy and Politics in the West (Tues. 8/9, 8:30).

Session 383, Risk: Theory and Context (Tues. 8/9, 10:30).

Session 415, Risk: Health Risks (Tues. 8/9, 2:30).

Meetings/Conferences/Symposia

The U.S. Forest Service and others are sponsoring a national conference on *Integrating Social Sciences in Ecosystem Management: A National Challenge*, at the Unicoi Lodge and Conference Center, Helen, GA, December 12-14, 1994. This conference is targeted at improving understanding, integration, and research application of the human dimensions of ecosystem management. Managing to sustain ecosystem health and productivity is the driving philosophy of the Forest Service and other agencies charged with resource conservation. Critical to successful ecosystem management is understanding the role of humans in ecosystem structure and function. The purposes of the conference are to (a) assess the state of knowledge of social sciences relevant to ecosystem management, (b) determine how to integrate this knowledge in ecosystem management (along with physical and biological sciences), (c) develop a strategy to effectively integrate social sciences in ecosystem management, and (d) determine a research agenda to further knowledge in the area. Panel discussions will include biological, physical, and social scientists, as well as successful projects integrating social sciences in ecosystem management. Participants will include both public and private managers and scientists from the social, biological and physical sciences. Key policy and conservation leaders will be invited.

The **deadline** for receipt of abstracts is Sept. 1, 1994.

For more information, contact **Linda Caldwell**, Department of Recreation and Leisure Studies, Hardman Hall, University of Georgia 30602.

Ph. 706-542-5064 or 706-546-2451;

FAX: 706-546-2478;

e-mail: <LCaldwel@UGA.cc.UGA.EDU>

The 1994 International Annual Conference of IAP3, the International Association of Public Participation Practitioners, will be held at the Capitol Hilton, Washington, DC, September 11-14, 1994. The topic for the conference is *Building Partnerships Worldwide and at Home*. The conference will bring together public participation practitioners, international program managers, national, state, provincial, and local government representatives, and business and advocacy group leaders. It will include skills-building workshops, plenary sessions featuring high-profile keynote speakers and policy panels, and working sessions on such topics as defensible decisionmaking; using decision analysis; developing informed consent; prejudice reduction; mediation and multi-party negotiation; risk communication; facilitation; and partnering. Topics will include public involvement in energy, environment, transportation, construction, natural resource planning, and community development. For information contact: IAP3 Headquarters, P.O. Box 82317, Portland, OR 97282. Ph. 503-236-6630.

The Asian Regional Conference on *Ecotechnology for Sustainable Development* will be held in Beijing, October 19-26, 1994. Conference speakers will contribute to the awareness of sustainable development and promote the use of ecologically and environmentally sound technologies and practices for long-term development of agriculture, forestry, and health in different ecosystems and communities. They will also address multidisciplinary approaches to sustain socioeconomic ecosystems of villages and cities that suffer from severe stresses due to migration and shortages of housing, water, energy, transport, and food. For information contact: Mr. Eng-Leong Foo, UNESCO Microbial Resources Center, MTC-Karolinska Institute, S 171 77 Stockholm, Sweden. FAX: 08-331547; Ph. 08-728-7145; E-mail: <eng-leong.foo@mtc.ki.se>

The 1994 Annual Meeting of The Rural Sociological Society will be held in Portland, OR at The Portland Hilton August 10-14, 1994. The meeting theme is *Rural Institutional Change: Comparative Perspectives*. The meeting has numerous sessions that will be of interest to E&T Section members.

The University of Crete is hosting an international conference on *Sustainable Development Within the European Union: Theory and Practice*. The conference, which will take place between October 21-23, 1994, is organized by four European Universities: Erasmus of Rotterdam, Crete, Teesside, and Manchester. **Allan Schnaiberg** and **Ken Gould** of our Section will present papers. For more information contact: **Dr. Maria Kousis**, Department of Sociology, University of Crete, 74100 Rethimno, Greece (FAX/Ph. +30-831-23692).

The Dixy Lee Ray Memorial Symposium on *Science-Based Environmental Management* will be held at the Holiday Inn-Crowne Plaze, Seattle, WA, Aug. 30 to Sept. 2, 1994. For information, contact Leslie Wong, Temple University, 215-707-2520. Topics for discussion will include:

- Technologies that enhance the protection of human health and the environment.
- Approaches to limit the exposure of humans and other living species to chemical, biological, radiological, and other physical agents.
- Methods for determining the Best Available Scientific Information, in particular as applied to environmental management.
- Critiques of laws, regulations, and judicial decisions.
- Global warming, nuclear energy, and the usefulness of chemical agents.

Papers presented at the Symposium will be published in a new journal: *TECHNOLOGY: Journal of the Franklin Institute*. The Journal will publish reports on governmental decisions impacting technology and its development, and will include discussions on the environmental impact of various technologies, including delays in the development or the deployment of available technologies. For information on the Journal, contact Barbara Moghissi, P.O. Box 7166, Alexandria, VA 22307; 703-765-3546.

Current Research

Barbara A. Haley, U.S. Department of Housing and Urban Development, recently completed the field test of a supplement to the Current Population Survey. This supplement will measure public awareness of lead paint hazards and supply baseline data for an assessment of the effects of Section 1018 of the Housing and Community Development Act of 1992 on public awareness. This section requires landlords and sellers to disclose to potential tenants and buyers the potential of lead paint hazards in dwellings built prior to 1978. Barbara would like to hear from any E&T member engaged in the study of public awareness of specific environmental hazards. Contact her at: OLBAPP, HUD, Room B-133, 451 Seventh St., S.W., Washington, DC 20410. Ph. (202) 755-1805. ☐

Publications

Bardacke, Frank. 1994. *Good Liberals and Great Blue Herons: Labor, Land and Politics in the Pajaro Valley*. The Center for Political Ecology: Santa Cruz. (May).

Brown, Phil and Susan Masterson-Allen. 1994. *The Toxic Waste Movement: A New Type of Activism*. *Society and Natural Resources*. Vol. 7. Pp. 269-287.

The Ecofeminist Newsletter has served since 1990 as a network for ecofeminists, providing news of activities, political actions, publications, and educational materials relevant to making connections between environmentalism and feminism. An issue is published at least once a year and submissions are welcome. Contact: Noël Sturgeon, *The Ecofeminist Newsletter*, Women Studies, Washington State University, Pullman, WA 99164-4032. Ph. 509-335-1794.

Freudenburg, William R. and Robert Gramling. 1994. *Natural Resources and Rural Poverty: A Closer Look*. *Society and Natural Resources*. 7:5-22.

Freudenburg, William R. and Robert Gramling. 1994. *Bureaucratic Slippage and the Failures of Agency Vigilance: The Case of the Environmental Studies Program*. *Social Problems*. 41:501-526.

Freudenburg, William R. and Robert Gramling. 1994. *Oil In Troubled Waters: Perceptions, Politics, and the Battle Over Offshore Drilling*. New York: SUNY Press.

Haley, Barbara A. 1994. *Sociology of Housing: Implementing Title X*. *Eastern Sociological Society Annual Meeting*. Baltimore. (March) Pp. 17-20.

Innovation is the European Journal of Social Sciences under the auspices of the Interdisciplinary Centre for Comparative Research in the Social Sciences. Vol. 6, No. 4, 1993, is devoted to *Environmental Sociology*. For information, contact the publisher: Carfax Publishing Co., PO Box 25, Abingdon, Oxfordshire OX14 3UE, UK.

Interorganizational Committee on Guidelines and Principles. 1994. *Guidelines and Principles for Social Impact Assessment*. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-F/SPO-16. (May). [Ed. Note: Members of this committee included numerous E&T Section members. For further information contact: Robert Gramling at <gramling@usl.edu>]

Kousis, Maria. 1993. *Collective Resistance and Sustainable Development in rural Greece: The Case of Geothermal Energy on the Island of Milos*. *Sociologia Ruralis*. 33(1). Pp. 3-24.

Kousis, Maria. 1994. *Environment and the State in the EU Periphery: The Case of Greece*. *Regional Politics and Policy*. 4(1). Forthcoming.

Lekakis, J.N. and Maria Kousis. 1994. *Agriculture and the Environment in Greece*. *Progress in Rural Policy and Planning*. 4. Forthcoming.

O'Connor, James. (Series Editor). *Democracy and Ecology*. New York: Guilford Publications, Inc. (This new book series will present important contributions to the debate on the future of the global environment and the prospects for radical green and democratic movements in the world today. To order, call 1-800-365-7006. They also publish *Capitalism, Nature, Socialism* edited by James O'Connor.)

Red Pepper, a new monthly publication, designed for non-professionals, "is a voice for the renewed, radical left." It characterizes itself as "green, feminist, socialist, anti-racist, radical, diverse, democratic, and determined." Contact: *Red Pepper*, 3 Gunthorpe St., London E1 7RP. Ph. 071-247-1702. Info provided by Jim O'Connor.

Shrivastava, Paul. 1995. *Ecocentric Management in Industrial Ecosystems: Management Paradigm for a Risk Society*. *Academy of Management Review*. 20(1). Forthcoming. ∞

Papers/Proposal

Earthwatch and the Center for Field Research are requesting proposals for research funding. Earthwatch is a non-profit organizations whose goals are: 1) to support high quality field research in the life, physical, and social sciences and in the humanities, and 2) to forge bonds of understanding and support between the research community and the public. For information contact:

Catherine Schlager via e-mail: <cschlager@Earthwatch.org>

The West Chair of Excellence in Communication and Public Affairs at the University of Tennessee at Chattanooga and other donors are sponsoring An Interdisciplinary Conference on **Communication and Our Environment**, March 30 – April 2, 1995, Chattanooga, TN. This conference will have no registration fees and will be open to the public. There will be speakers and panels from academia, government, industry, and non-governmental organizations. The format will allow opportunities for interchange among scholars, students, public figures, industry representatives, and activists. Papers should address questions about how speech, writing, visuals, and different media affect our understanding of the natural environment, environmental policy, education, or action. Topics might include public policy formation, environmental advocacy, news coverage, visual representations, green consumerism, science, technology, sustainable development, wildlife protection, environmental justice, ecofeminism, and deep ecology. Address inquiries or send 3 copies of a 10-page double-spaced summary of your paper with a 100-word abstract to: M. Jimmie Killingsworth, Department of English, Texas A&M University, College Station, TX 77843;

Ph. 409-845-9936; e-mail: <mjk1136@tamvm1.tamu.edu>
Deadline: Oct. 15, 1994.

Book Reviews

Editor's Note: Carole Seyfrit, Old Dominion University, continues to encourage her students to submit book reviews to E.T&S, and I am very pleased to be able to include two more of these reviews in this issue. This offers a wonderful opportunity for us to involve our students in the affairs of the Section, to challenge them to write material for a broader audience outside of the classroom, and to enrich our Section through their participation. I urge other members of our Section to follow Carole's good example.

Valdimir D. Handy
Department of Sociology
and Criminal Justice
Old Dominion University

Young, Oran R. 1992. *Arctic Politics: Conflict and Cooperation in the Circumpolar North*. Hanover, NH: University Press of New England. Pp. 276.

Oran Young has produced a valuable book that provides numerous illustrations of why, as Young argues (p. xi), the Circumpolar North offers "a testing ground for varied approaches to socioeconomic and political issues" as well as an arena for developing new ideas that reach beyond the traditional view of the Arctic as a unique and remote area far removed from topics of general interest to social scientists. Dividing the book into three parts, Young details how state, federal, and international politics affect the Circumpolar North on the community level (e.g., health care delivery, subsistence vs. cash economies, and cultural viability), the regional level (e.g., wildlife management, dependence on nonrenewable resources such as oil and gas, and development of waterways and shipping), and the international level (e.g., militarization and sustainable development). Young argues that the Arctic "is emerging today not only as a region whose political dynamics are of interest in their own right but also as a microcosm in which to study issues of generic interest."

Using case studies from Alaska, Young illustrates how federal and state policies coupled with pressures from the "lower forty eight" have significantly affected the stability of the economy, culture, education, environment, and social systems of the Circumpolar North. He supports this argument with charts and statistics that show the dramatic way federal and state government have come to dominate Alaskan society. He believes that this domination only has resulted in short-term solutions for the region, but provides no long-term "survival" solutions for the indigenous peoples and cultures.

Focusing on international politics, Young argues that military developments have transformed the Circumpolar North into a global theater for military operations. He believes that the United States and Russia would both take a stand against any changes that gave jurisdictional policy making power to the region if it limited the "superpowers" freedom or access in the Circumpolar Basin and airspace. Young cites the strong interests of the United States in pursuing Arctic airspace and sea defenses such as the North Warning System and the deployment of U.S. Navy SSN-21 attack submarines.

The primary argument of Young's book is that no matter what it is one is studying, whether it be culture, social systems, the environment, sustainable development, or international politics, "it is the two-way flow of ideas between the substance of Arctic issues and generic concerns, rather than the unique features of the region, that makes Arctic studies attractive to social scientists in general and students of politics in particular" (p. xi).

Although the style of writing sometimes made passages difficult to understand, this is a very informative book. While possibly not the best choice for an undergraduate course, this is an excellent book for academicians and advanced students in sociology or political science, and of particular interest to those studying environment and technology issues such as wildlife management, oil development, sustainable development, or militarization. ∞

Networking

From: Administration Account
<admin@ENVIROLINK.ORG>

Subject: FREE Enviro Info and Accounts

The EnviroLink Network would like to invite you to try out its newest networking endeavour, the EnviroFreenet. The EnviroLink Network is a non-profit organization that is dedicated to facilitating communication on environmental issues. Our series of networks include over 400,000 people in 93 countries. All of our services are provided at no charge to the user, thus allowing everyone to join, with no regard to economic situation. The EnviroFreenet offers e-mail accounts, environmental b-boards, chat conferences, the EnviroGopher, the EnviroWeb and access to almost every other Internet Service imaginable. It can be accessed using either Telnet or Gopher.

If you have access to telnet, telnet to: envirolink.org and follow the directions to receive a free account. If you have access to Gopher, go to the main gopher list, and choose "International Organizations" and then choose the "EnviroGopher". From the EnviroGopher, choose "Connect to EnviroFreenet". Or, you can gopher to: envirolink.org (port 70).

If you have any questions, then please feel free to contact us, but we first recommend you connect to the system, as that will answer most of them. The EnviroLink Network is a volunteer-run organization, so please allow some time for responses.

For the earth, Josh Knauer, Director, The EnviroLink Network, 4551 Forbes Ave., Pittsburgh, PA 15213; Ph. 412-681-8300.

Book Reviews

Franklin Harris, Jr.
Department of Sociology
and Criminal Justice
Old Dominion University

**Volti, Rudi. 1992. *Society and Technological Change*.
2nd edition. New York: St. Martin's Press. Pp. 290.**

Rudi Volti provides a clear understanding of the characteristics and consequences of technological change, and offers insights into cultural and behavioral patterns that affect the applications and development of that change. He does an excellent job of distinguishing between the advancement of pure technology and the concept of progress. He defines developmental technology as being extremely "dynamic and cumulative in nature," which tends to "set it apart from many other human endeavors" (p. 9).

Volti also examines the origins of basic technologies and discusses the forces of research and development upon technological advancements. He looks at the industrial revolution with particular interest, presenting his thoughts from an historical perspective. He cites examples of improvement in power technology, which opened the door for a more enhanced and positive social environment. Volti mentions, but seems to shy away from the negative effects of industrial advancement.

The author skillfully draws a comparative analysis between market and planned economies and the role each plays in contributing to technological development. He points out that the development of technology is cumulative and that the introduction of fresh knowledge and skills from an international framework is usually healthy, unless perpetrated for the purpose of destruction or war.

Volti does a brilliant job of discussing various interactions between technological and social development. He examines three important areas of people's lives wherein real comparisons can be drawn between changes in technology and changes in social interactive development. These areas include work or productivity, communication, and warfare. Volti concludes that mutual interaction between stages of technological development and social and behavioral changes in these areas of human involvement must take place for progress to materialize.

Volti sees the arena of communication, however, as the "bright spot" in technology. New and innovative developments in the production of the written word, and in radio and television have both positively and negatively effected quality of life. Volti stresses the positive effects, and sees the world becoming smaller, perhaps more global, because of these changes.

The author also takes a critical look at the forces of war, and cites several examples of technological advances in conventional warfare that have both helped and harmed our quality of life. He discusses the important realization by much of the world, that because of a quest for knowledge and superior military strategy, nuclear technology has once again, "altered the rules of war" forever (p. 204).

The book is written and organized in the manner of a textbook, which should be very useful in providing students with a general overview of the characteristics and social forces of technological change and the role technology plays in everyday human affairs. ∞

Membership News

Gene Rosa plans to have membership materials for AAAS available for our Section members who are interested at the ASA meetings in Los Angeles.

David A. Sonnenfeld, Ph.D. Candidate in Sociology at the University of California, Santa Cruz, has received a dissertation fellowship award for the 1994-95 academic year from the University of California Institute on Global Conflict and Communication. His thesis research is on the influence of environmental social movements on technological innovation in the pulp and paper industries of Australia and South-east Asia. Sonnenfeld has been a Visiting Research Fellow at the Centre for Resource and Environmental Studies, the Australian National University, Canberra, during the 1993-94 school year.

Robert Bullard's directory of *People of Color Environmental Groups* can be ordered from: Communications Department, Charles Steward Mott Foundation, 1200 Mott Foundation Building, Flint, MI 48801-1851.

A new organization, the International Association of Technology Assessment and Forecasting Institutions (IATAFI) was formally established in July 1993 under the auspices of the United Nations, with headquarters at the Bergen High-Technology Centre, in Bergen, Norway. The goals of the Association are to 1) link developing countries to technology assessment capabilities in the developed world; 2) promote technology assessment (including environmental assessment) and forecasting in the decision making process; and 3) collaborate in technology assessment by creating an opportunity for members to participate in, or contribute to, activities being carried out by other members. Membership is open to institutions, industry and private companies interested in improving decision making through technology assessment and forecasting. The first General Assembly and conference were held this year in Bergen. The 1995 Workshop will be held in Budapest, Hungary, and the 1996 Conference will be in Brussels, Belgium. IATAFI can be contacted through its president Dr. Jan Andersen, IATAFI, Bergen High Technology Center, P.O. Box 4463, 5028 Bergen, Norway or: E-mail <IATAFI@bbb.no> Ph: 47-55-54-37-80; Fax: 47-55-32-28-53. **Gary Williams** is the Executive Secretary and can be reached: <Williams@smtplink.eid.anl.gov> Ph: 202-488-2418; Fax: 202-488-2413.

The 1994 Meeting of the International Association for Impact Assessment (IAIA) was held in Quebec City with over 600 participants. The 1995 meetings will be held June 26 through 30, 1995 in Durban, South Africa. The theme for the meeting is: *Impact Assessments: Involving People in the Management of Change Towards a Sustainable Future*. Those proposing to submit a paper or poster are requested to send an expression of interest and abstract to **Maurice Volland**, Executive Director, IAIA, P.O. Box 70, Belhaven NC 27810. Deadline for submission is Dec. 1994. Ph: 919-964-2338; Fax: 919-964-2340

TO: Members of the Environment and Technology Section, ASA

FROM: Chris Cluett, Battelle Seattle Research Center, 4000 NE 41st Street, Seattle, WA 98105-5428

PLEASE SEND THIS TEAR-OFF SHEET OR A COPY FOR INCLUSION IN FORTHCOMING EDITIONS OF THE NEWSLETTER. MANY THANKS.

Your current research interest(s) you would like to share with others:

New literature you have published, or found especially helpful. Give full citations.

Forthcoming meetings and conferences. Calls for papers. Papers you have recently presented.

Names of Journals (for articles of E&T interest and opportunity for publication). Include editors, address, etc.

Name: _____

Address: _____

Email: _____