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William R. Freudenburg

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Thirty Years of Scholarship and Science on Environment–Society Relationships

William R. Freudenburg
University of California, Santa Barbara

By 2008, "environmental sociology" had become a well-established and well-recognized field of sociology, but exactly 30 years earlier, in 1978, it was essentially nonexistent. That was the year that saw the publication of the first two articles that, along with later work by Riley Dunlap and William Catton, began to make possible the subsequent development of the field. At the time, many of the leading figures in sociology—specifically including those who called themselves "human ecologists"—were actively hostile to the idea that sociological work would include attention to environmental variables. The hostility was particularly acute for work that focused on what an important book of the time called Limits to Growth. Fortunately, these pioneers moved forward, and in doing so, they helped to change the entire field of sociology. If the earlier degree of hostility toward work on environmental problems and variables is difficult to imagine today, a significant fraction of the credit needs to go to Drs. Catton and Dunlap.

Keywords: *Environment–Society Relationships; New Human Ecology; New Ecological Paradigm; Theoretical Diversification*

In June 2008, *American Sociological Review* (*ASR*) effectively celebrated the 30th anniversary of a remarkable outburst of scholarly and intellectual contributions—doing so with something that would have been inconceivable when that outburst began and that was in many ways made possible by it. Both of the two lead articles in *ASR* Volume 73, Number 3 (Auyero & Swinston, 2008; Cable, Shriver, & Mix, 2008) dealt explicitly with environmental topics. Neither of the articles from 2008 explicitly cited the classic contributions that began to appear in 1978, just as very few articles in biological journals today cite Darwin's *Origin of Species*, but in a very real sense the later articles in each case were made possible by the earlier, pioneering contributions. In biology, of course, the pioneer was Charles Darwin himself. In environmental sociology, the pioneers were Riley Dunlap and William Catton.

The happy state of environmental sociology today—vibrant, thriving, and dynamic—would have been almost impossible to imagine in the late 1970s. At the same time, however, the state of the sociological world in 1978 may be impossible to imagine for anyone today who did not live through the earlier time. To gain some insight into the tremendous impact that Dunlap and Catton created, the obvious place to start is thus the now-strange world of mainstream sociology, as it existed back in the 1970s.

Back to the Dark Days

Those of us who lecture on the history of American environmental thinking nearly always include references to the Santa Barbara oil spill of 1969, then the phenomenal outpouring of environmental thinking and concern that was associated with and closely followed the first "Earth Day" in 1970. Interdisciplinary programs in environmental studies and environmental sciences, including the one in which I now teach, spread like wildfire. "Ecology" grew from being a relatively little-known scientific field to being something that every presidential candidate needed to embrace. Within the social sciences, important new fields emerged within the first few years after 1970, including environmental psychology, ecological anthropology, and environmental economics and political science. The one new field that did not emerge for many years thereafter, and the one that was striking by its absence, was environmental sociology.

This point needs to be kept in perspective. Sociologists have shown a keen interest in the dynamics of modernity at least since the days of Weber (1904-1905/1958), Toennies (1887/1963), Durkheim (1893/1933), and Marx (1889/1977). By today, similarly, it is clear to almost all sociologists that the ways in which modern societies depend on the earth's resources have changed starkly since Weber closed his *Protestant Ethic* with his note that the "iron cage" of capitalistic systems might well last "until the last ton of fossilized coal is burnt" (Weber, 1904-1905/1958, p. 181). Particularly in the exuberant years that followed World War II, however, especially in the United States, the more common assertion was that the gloomy "old" world of environmental and economic limits had somehow been left behind. A willingness to continue thinking explicitly and sociologically about environmental factors was kept alive by a very small number of important "mainstream" sociologists who would come to be regarded later as nearly visionary—most notably Frederick Cottrell (1951, 1955) and Walter Firey (1945, 1960)—and by a larger number of rural sociologists, following in the traditions of pioneers such as Landis (1938) and Kaufman (1939), whose work would for many years received far less attention than it deserved from the rest of sociology (for an extensive review, see Field & Burch, 1991). In most of the "mainstream" departments of sociology, however, for at least the years 1945 to 1975, environmental variables were seen as being less appropriate for analyzing than for belittling.

As a graduate student in a leading department in the mid to late 1970s, I was able to work on "environmental" topics, but that was mainly because I found three faculty mentors who tolerated and even encouraged my interests—Kai Erikson, William Burch, August Hollingshead, and Jerome Myers. I was also helped by the fact that I was able to venture outside of sociology, working with political scientists, engineers, psychologists, and an assortment of open-minded biophysical scientists. Within sociology, however, I heard a number of distinguished, internationally respected figures saying almost exactly the same thing: All of this "environmental *stuff*," as they often called it—with the emphasis conveying something akin to disgust—was something that they considered to be a passing fad. Several of them informed me, stiffly, that they were convinced as well as determined that nothing of *that* sort would ever besmirch the pages of important sociological journals. A few of them even told me, adding a concrete example in the interest of clarity, that this newfangled "environmental stuff" would never see the light of day in *ASR*.

What they may not have realized at the time was that "never" implied a very long time. Something else they clearly did not realize at the time was that, thanks in part to the path-breaking contributions by Catton and Dunlap, "never" would actually end within relatively few years. My first "environmental" piece in *ASR* appeared only a half-dozen years after the Catton–Dunlap articles began to appear in sociological journals, and my first "environmental" piece in the *American Journal of Sociology* appeared two years later (Freudenburg, 1984, 1986), but to be fair to those who had predicted only 10 years earlier that such things would never happen, those articles both had to be presented as an analysis of something else—as analyzing the experiences of adolescents and a previously "Overlooked Variable in Community Research"—rather than as an analysis of a community going through environmentally related disruptions. More recent articles, by contrast, have been able to make clear contributions to the literature of *environmental* sociology and to do so without needing to offer any whiff of apology or distraction. That, to be clear, is something that most leaders of the field of sociology could never have imagined during the first several years after the initial "Earth Day" in 1970.

The views of then-leading sociologists had of course been shaped by a variety of factors, but two of them, in particular, are worthy of emphasis today. One was the ghost of "determinism." The other was the continued dominance, at least within "mainstream" sociology at that time, of an approach to "human ecology" that often seems unusual from the perspective of the 21st century.

The issue of "determinism" was in some ways related to the efforts of Emile Durkheim (1893/1933), in particular, to establish sociology as being distinct from other social science disciplines—efforts that, among other things, led to his insistence that social facts should be explained only in terms of other social facts. In addition and more specifically, however, it was also part of a sharp reaction against the former dominance of the "environmental determinism" associated with authors such as Ellsworth Huntington.

From the perspective of the 21st century, it is difficult to read Huntington's work without being struck by its racist implications, but nearly a century ago, he was an influential thinker who served for many years as a professor at Yale. His most-remembered works today are ones that argued the temperate climates of Europe were much better suited for the development of intellectual capacities than were the hot temperatures of continents such as Africa or the colder climates close to the earth's poles, which by that time were inhabited largely by indigenous peoples—observations that led him to conclude that White-skinned Europeans were basically smarter and better equipped for civilization than were peoples who happened to have darker skins (see, e.g., Huntington, 1915, 1924).

Rereading his work today leads me, at least, to conclude that, if anything, his views should have been discarded quite a bit faster than they were, but once they finally did come to be challenged more widely, they were attacked with heartfelt passion. In sociology, in particular, reactions against the determinists were so strong that, for decades thereafter, it became possible to level the charge of "environmental determinism" toward any analyses that might "suggest that biological or environmental factors have *any* degree of influence upon human affairs" (Dunlap & Catton, 1983, p. 117). That, regrettably, is not an exaggeration. Some authors went so far as to argue that "the main accomplishment and direction of the social sciences to date" should be seen as involving "the progressive substitution of sociocultural explanations for those stressing the determinative influence of physical

nature" (Stanley, 1968, p. 855). Such a context, in short, was not one that made it easy for sociologists to devote serious attention to the environment once again.

An additional factor, however, was the school of "human ecology" that prevailed at the time. The pioneers of sociological human ecology at the University of Chicago in the 1920s and 1930s (see especially Park, 1936; also see McKenzie, 1924, 1931) were quite conversant with the biophysical ecologists of the time, just as Darwin had been influenced by sociological thinkers of a few decades earlier. Park (1936), for example, recounted Darwin's own story of the cats and the clover:

> Humbelebees [are] almost indispensable to the fertilization of heartsease, since other bees do not visit this flower. The same thing is true with some kinds of clover. Humblebees alone visit red clover, as other bees cannot reach the nectar. The inference is that if the humblebees became extinct or very rare in England, the heartsease and red clover would become very rare, or wholly disappear. However, the number of humblebees in any district depends in a great measure on the number of field mice, which destroy their combs and nests. It is estimated that more than two-thirds of them are thus destroyed all over England. Near villages and small towns the nests of humblebees are more numerous than elsewhere and this is attributed to the number of cats that destroy the mice. . . . Thus next year's crop of purple clover in certain parts of England depends on the number of humblebees in the district; the number of humblebees depends upon the number of field mice, the number of field mice upon the number and the enterprise of the cats, and [their] number . . . depends on the number of [people] . . . in neighboring villages who keep cats. (p. 2)

Particularly after 1950, however, "human ecology" had come to mean something very different than it had meant to the Chicago pioneers. Although there were exceptions, the best-known human ecologists in sociology at the time, ironically, were thinkers who used the *metaphors* derived from biophysical ecology but whose approaches and analyses included remarkably little evidence of "humans" (at least as individuals) or of "ecology." They noticed, for example, that when one group of immigrants (e.g., those from England) would be replaced by another and then another (Germans, say, then Irish, then African Americans), the whole process started to look something like what biophysical ecologists would call "succession." As the metaphors multiplied, however, and actual contact with biophysical ecology dwindled, what sociologists and geographers called "human ecology" came to mean the quantitative analysis of spatially aggregated data—forget the (individual) humans, and forget the ecology.

By the year of 1950, for example, Robinson (1950) would be publishing a classic article, also in *ASR*, giving the name of "ecological fallacy" not to anything that the rest of the scientific world would have recognized as "ecological," but to the drawing of inferences about individuals on the basis of "ecological" (i.e., spatially aggregated) data. Perhaps more tellingly, it was the same year when Hawley (1950) published the synthesis that came to define the field for the next several decades—*Human Ecology: A Theory of Community Structure*.

I distinctly remember several discussions with both Dunlap and (especially) Catton, who took pains to note that Hawley did have at least some understanding of what most members of the scientifically literate public would consider to be "ecology." (They also made the same points about other leading scholars of the day, such as Duncan [see, e.g., Duncan, 1964]—and as I note below, they did eventually succeed in getting most sociologists to start thinking about "ecology" in terms that would be recognizable to the rest of the scientific

world.) As of the 1970s, however—although I appreciated their efforts to be fair to Hawley and other leaders of what was seen at the time as "human ecology"—it was not at all clear that the Catton–Dunlap efforts to be fair to the human ecologists of the day were being met with anything even approaching reciprocity.

Part of the problem may have been that—with a tenacity that left the basic tenets of his thinking largely unchanged over subsequent decades (cf. Hawley, 1950, 1986)—Hawley's version of "human ecology" was thinking about societal growth, advancement, and improvement. The then-dominant thinking in sociological human ecology was thus essentially the polar opposite of what leading "ecology" books of the 1970s, such as Meadows, Meadows, Randers, and Behrens (1972), were calling *The Limits to Growth*. I never did hear directly from Hawley himself about the pioneering efforts of Dunlap and Catton, but I did hear directly from a number of other "respected" human ecologists of the time, and they responded to the upstart field of environmental sociology with something that approached ferocity. I remember thinking on more than one occasion that such leading figures seemed to have strikingly little interest in intellectual interchange, seeming instead to be defensive and hostile. Given the extent to which the then-new views of Dunlap and Catton came within the next decade or two to be the dominant ones, perhaps the defensiveness was more understandable than it seemed at the time.

Toward the Future and the Light

Unlike the then-dominant thinkers in what passed as sociological human ecology from the 1950s through the 1970s, Dunlap and Catton wanted to create space for sociologists to study relationships between humans and their environment more broadly—and to do so in a way that focused squarely on the kinds of "limits" that were anathema to the people whom most sociologists considered to be "human ecologists" at the time. Included among the thinkers who were almost openly hostile to discussions of "limits" would have been not just Amos Hawley but also other important sociologists of the time, such as Seymour Martin Lipset, Robert Nisbet, and Daniel Bell. Those, unfortunately, were not the sorts of people that a then-young assistant professor without tenure would have been wise to anger. Fortunately, neither Dunlap nor his then-tenured senior colleague, Catton, allowed such tactical considerations to slow them down.

The earliest of their joint papers that I can still find in my files comes from the American Sociological Association (ASA) convention in 1976, and it was actually titled "Environmental Sociology: Why Not Human Ecology?" (Dunlap & Catton, 1976). Their answer at the time was quite a bit more polite than I am attempting to be in this article, but that paper did mark at least for me the beginning of the analysis that would soon start to show up in published form. Like most Americans at the time, they suggested, leading sociologists of the time needed to stop assuming that human ingenuity and American prosperity would make us exempt from ecological limits.

It was in 1978 that their arguments began to be published. Two of the articles from that year are especially noteworthy today. The first was by Catton and Dunlap (1978); in an article that was prepared for a special issue of *The American Sociologist* devoted to "New Theoretical Perspectives," they focused on the assumption that human culture and intelligence made us so "exceptional" that we could continue to ignore the limits of nature—a

package of beliefs and assumptions that they initially called the "Human Exceptionalism Paradigm." The second was the article by Dunlap and his then-student collaborator, Kent Van Liere, offering additional details on an alternative way of thinking—what they initially called the "New Environmental Paradigm," or NEP (Dunlap & Van Liere, 1978, 1984). Both pieces have since achieved a status that is relatively rare in the social sciences, having become citation classics (having been cited, according to Google Scholar, 200 and 573 times, respectively, as of July 23, 2008).

Part of the reason may be that these two early articles were cornerstones of what would become a set of landmark publications, which would soon be seen collectively as having helped to guide and define the entire field of environmental sociology (see, e.g., the later reviews by Buttel, 1987; Freudenburg & Gramling, 1989).

The Catton–Dunlap piece has been reprinted at least a half-dozen times, principally in books with titles such as *Theoretical Perspectives in Sociology* (McNall, 1979) and *Readings in Contemporary Sociological Theory* (McQuarie, 1995), but also—with an irony I enjoy considerably—in books put together for and by scientific ecologists, such as Young's (1983) *Origins of Human Ecology*. In it, the two argued that sociology suffered from an implicit set of assumptions that encouraged the discipline to ignore the ecological constraints facing all other species. As noted above, Catton and Dunlap initially called this set of assumptions the "Human Exceptionalism Paradigm," or HEP, following Klausner (1971) and referring to an exaggerated emphasis on the "exceptional" characteristics of *Homo sapiens* (culture, science, and technology). Shortly after they submitted that initial paper, a conversation at a San Francisco deli with Stan Albrecht, Allan Schnaiberg, and me (although I was mainly listening, not talking, back in those days) caused all of us to agree that a more accurate term would be the "Human *Exemptionalism* Paradigm" (see, e.g., Catton & Dunlap, 1980; Dunlap & Catton, 1979a, 1979b). That remains the term they use to this day.

The article by Dunlap and Van Liere (1978) offered an important complement, along with statistical evidence that there was an emergent if implicit set of assumptions in society as well as within the growing body of sociological work on environmental problems—a "New Environmental Paradigm." The scale they published in that article—subsequently revised and renamed the "New Ecological Paradigm Scale" in Dunlap, Van Liere, Mertig, and Jones (2000)—has also been reprinted at least a half-dozen times, and it has become the most widely used measure of "environmental concern" in the world, having been used in more than 100 studies, in a range of countries that circle the globe.

Together, these two articles—and the other field-defining ones that followed them (see especially Catton, 1980, 1994; Catton & Dunlap, 1980; Dunlap, 1993, 2002a, 2002b; Dunlap & Catton, 1979a, 1979b, 1983) changed the world for those who followed. In a very real sense, those of us who have been able to publish explicitly "environmental" articles in mainstream sociology journals—a group among whom I have by now been able to count myself as well as many of my sociological friends—have good reasons to thank the pioneers who first blazed our trail, namely Bill Catton and Riley Dunlap.

The Longer-Term Legacy

At least from the vantage point of 2008, and from the perspective of an observer who is by now drawing on some thirty years' worth of hindsight, the field-defining works by

Dunlap and Catton that began to appear in the sociological literature in 1978 also seem worthy of attention for three additional reasons. I turn briefly to each before concluding.

1. The way in which they legitimated the field. I have already made the point that these early works helped to make the world safe for sociologists to take the environment seriously again. In some senses, that point is not quite precise enough.

Even during the earlier years of the 1970s, a number of colleagues were already "committing sociology" on environmental issues, but for the most part they were doing the kinds of work that Dunlap himself would subsequently call the "sociology of environmental issues." They were applying standard sociological perspectives to the study of broadly "environmental" topics, such as environmental attitudes, environmental activism, and environmental politics (see, e.g., Dunlap & Gale, 1974). When Catton and Dunlap began to publish their field-defining articles, they worked hard to define and legitimate a broader field of environmental sociology, especially what they termed the study of "societal–environmental relations" or interactions—a definition of the field, incidentally, that has enjoyed widespread acceptance ever since.

Catton and Dunlap, in other words, wanted to encourage sociologists to go beyond environmental topics and issues, such as the distribution of public opinion on environmental issues, and instead to include the study of relationships between environment and society more broadly. Given that much of my own work over the years fits easily within that broader definition while not fitting within the narrower one (see, e.g., Freudenburg, 1993, 2005; Freudenburg & Gramling, 1994), I have a personal reason for appreciating that choice. More broadly, given that much the same is true, for example, of the two lead articles in the same issue of *ASR* Volume 73, Number 3 (Auyero & Swinston, 2008; Cable et al., 2008), a good argument can be made that the entire field of sociology has been able to benefit from their preferences on that issue, as well.

2. The way in which they redefined "ecology" within sociology. During the 1970s, I remember having had some doubts about the value of their efforts to redefine sociological human ecology along the lines that would come closer to the usual meanings of "ecology." In retrospect, I need to acknowledge that their approach was the more sensible one.

From the start, Dunlap and Catton sought to avoid the proverbial throwing out of the baby along with the bathwater, insisting instead on developing a genuinely ecological perspective within environmental sociology. They patiently and consistently drew on the ecologically valid ideas that could be found in sociological human ecology (in authors who were active from the time of Park to the time of Duncan, and beyond). They even urged sociologists to adopt the "ecological complex" of "Population, Organization, Environment and Technology," or POET, as a framework for guiding the study of society–environmental interactions—although they diplomatically added back in the symbolic or cultural elements that had so pointedly been left out of the classic treatment by Duncan and Schnore (1959). Useful examples of this choice are provided by Dunlap and Catton (1979b, 1983).

Their insistence on including an explicitly "ecological" perspective is now paying especially clear dividends for other sociologists, and beyond. Notable recent examples of work that benefits from the ability to use genuinely "ecological" approaches—now redefined, again, back to the kinds of meanings that would make sense to ornithologists or wildland

ecologists—can be seen in the work of authors such as Fischer-Kowalski and Haberl (2007), or for that matter the work by York, Rosa, and Dietz (2003) that has also been published relatively recently in *ASR*. Today, similarly, those who attend meetings of the Society for Human Ecology or read articles in *Human Ecology Review* will find thinking that consistently reflects what the words themselves suggest—that is, thinking that includes humans as well as biophysical ecology—and much the same is true for the "new" human ecology within sociology in particular. That would have been almost impossible to hope for in 1978, and for the very fact that it seems to have been accomplished so successfully over the 30 years that followed, Dunlap and Catton are two of the authors who deserve to be thanked the most.

3. The way in which they welcomed diverse views in environmental sociology. Third and finally—perhaps inspired in part by the hostile reactions they initially encountered so often—both Dunlap and Catton have worked tirelessly, over a period that has now spanned several decades, to be welcoming to diverse and differing points of view. I have already noted that they worked hard to include "human ecology" within environmental sociology, even though the gatekeepers of "human ecology" during those earlier days were not nearly so sure that they wanted to allow the environmental sociologists within their realm. During the early years of the Environmental Sociology Section of the ASA, similarly, both Catton and Dunlap worked hard for a broader and more inclusive definition of the field. One of their notable articles discussing POET, for example, also bears the title of "What Environmental Sociologists Have in Common (Whether Concerned with 'Built' or 'Natural' Environments)" (Dunlap & Catton, 1983).

The pattern of being open and welcoming is also one that continues, particularly on an interpersonal basis. Many of the people who have attended meetings of differing "sections" of the ASA have noticed, vividly, just how different those sections can be in terms of their collective "personalities." The official ASA Web site defines sections as "constituent parts" of the association, which are intended "to promote the common interest of association members in specified areas of sociology" (see http://www.asanet.org/cs/root/leftnav/sections/overview). The ways in which the sections "promote common interests," however, vary widely. Some like to present themselves to newcomers as being "tough." Others seem inordinately impressed with their own status, forming communities of self-reverence as well as self-reference. Some seem to require secret handshakes, unknown except to those who have spent many years in learning the appropriate moves.

By contrast, the Section on Environmental Sociology—long since renamed the Section on Environment and Technology—generally still strikes even newcomers as being exceptionally friendly and open to new ways of thinking. This was the 13th ASA section when it was formed (in significant part under the leadership, once again, of Bill Catton and Riley Dunlap), meaning that it has been in existence for longer than two thirds of the 44 sections listed on the ASA Web site today, so it might be expected by some to have become "older" and more closed to new ways of thinking, unless something "exceptional" had intervened. In no small part, I believe, the Section on Environment and Technology has remained warm and welcoming, as well as active and professional, because it continues to benefit from the personalities and the personal choices of the leaders who first established it, back in the 1970s. Perhaps it is true of ASA sections as it is of communities—as yet another ASR article has said—that the

"character" of a social aggregation can become more like itself, over time, by attracting those who find that character appealing while not attracting those who prefer something more pompous (Molotch, Freudenburg, & Paulsen, 2000).

That, of course, is speculation. What is not at all speculative, by contrast, is that the work of Riley Dunlap and Bill Catton that began to be published in 1978 has by now utterly transformed the ways in which sociology deals with the environmental realities of society. By 2008, it is almost difficult to remember that the field was once within the grip of "the Human Exemptionalism Paradigm," given that the "New Ecological Paradigm" has now become so well established that—as one would expect for a true paradigm shift—most sociological articles today seem to feel little need to state that they are working within the paradigm that by now seems less "new" than simply "necessary."

The work of Catton and Dunlap, and of the rest of us who now work within the traditions they helped to establish, has moved from being considered beyond the outer fringes of the sociological cosmos to being well within the mainstream. Still, as much as they, and we, have accomplished, there are good reasons to hope that a similar assessment, another 30 years from now, will need to offer a comparable verdict on how much things will have changed between 2008 and 2038. Both within sociology and in society, after all, there is a tremendous amount of work that still needs to be done.

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William R. Freudenburg is the Dehlsen Professor of Environment and Society in the Environmental Studies Program and Department of Sociology at the University of California, Santa Barbara. For most of 1978, he was still a graduate student, but that was also the year when he became an Assistant Professor of Sociology and Rural Sociology at Washington State University.