

**PROTECTING THE NEW JERSEY PINE BARRENS:  
FROM WHOM AND FOR WHOM?**

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**ABSTRACT:** In 1978, 1.1 million acres of southern New Jersey were designated the United States first National Reserve, a land management strategy ostensibly designed to accommodate existing populations and activities while preserving wilderness ecosystems. The legislation establishing this control divided the Pine Barrens into preservation and development areas, reflecting concepts of society-nature relations that define 'natural' landscapes and human labor as fundamentally incompatible. While scientists and environmentalists largely ignored or denied the role of local livelihood practices in shaping the ecosystem, local relations of production and regional politics influenced the choice of human activities that would be permitted within the Reserve. This braid of forces inevitably lead to the undermining of Piney livelihoods and culture and possibly to long-term ecosystem change.

**INTRODUCTION -- PARADOX AND THE POLITICAL BRAID**

In 1978, 1.1 million acres of southern New Jersey were designated the United State's first National Reserve. This new land management strategy was ostensibly designed to accommodate existing human activities in the area while excluding development and urbanization. In practice, however, Reserve regulations have prohibited many of the traditional livelihood practices of the local poor and middle class. They have simultaneously allowed berry farming, timber harvesting, and extractive mining to continue while development intensified around the Reserve perimeter. The apparently paradoxical nature of this result can be seen as a case study of wider trends in a new politics of international environmental stabilization.

Water runs through and underneath this story as the area has a sizable coastline, an extensive system of rivers and streams, swamps and bogs. The Cohansey Aquifer, which has an estimated volume in excess of 15 trillion gallons, literally and figuratively underlies any study of the Pine Barrens

This paper, however, examines the politics and social impact of the land management strategy devised to protect the New Jersey Pine Barrens. I propose the image of a braided stream as a structural device for the analysis. The main channel is an ideology of nature-society relations that is cut deeply into Western thinking. Twisting about this center are local relations of production and regional politics. Viewed as a whole, these three strands offer some explanation of the apparently paradoxical results of Pine Barrens protection efforts.

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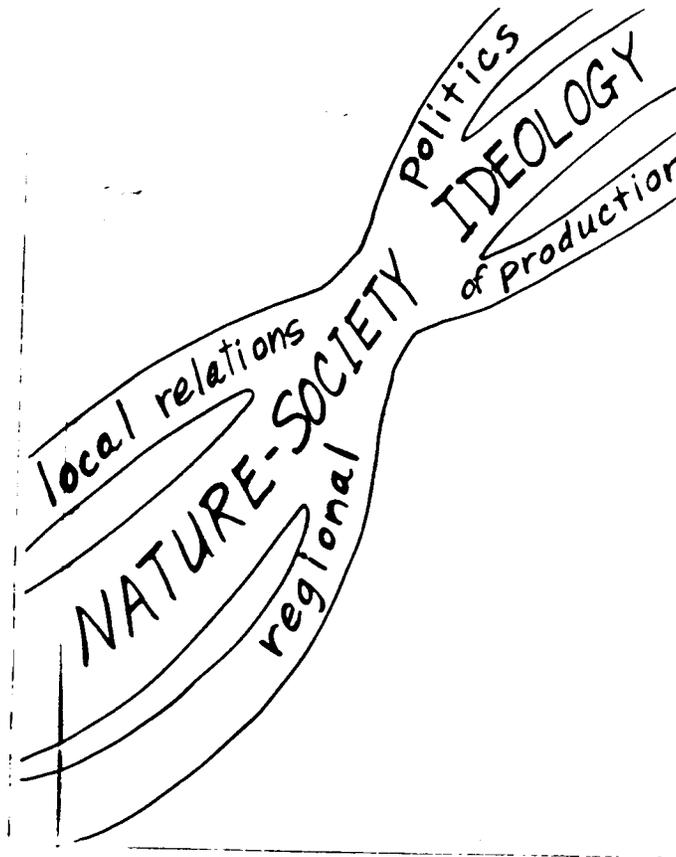


Figure 1. A Preservation Politics Braid

Some situating and defining are needed to place the analysis in perspective.

### **WHAT'S IN A NAME?**

In assuming control of the Pine Barrens, the state changed the area's official name to 'Pinelands.' Although I found no explicit discussion of this name change, a National Park Service report says, "A viewer can appreciate that the region's name is a misnomer, for the land is anything but barren... The term "barren originated with the early farmers of the region who could not grow their usual crops in the sandy soil" (1978).

Thus, the change may have been intended to counteract what natural scientists considered to be a mistaken historical notion about the area -- a notion that stood in stark contrast to their contentions of exceptional biological diversity and richness. Another justification may have been the desire to distinguish it from other pine barrens ecosystems such as the one on nearby Long Island. Whatever the reasons, the effort was unsuccessful. 'Pine Barrens' is still the common appellation, even among scientists who conduct research in the area. In this paper, I refer to the place as the 'Pine Barrens,' reserving 'Pinelands' for the names of official organizations and legislation.

## **PINEYS**

A second definitional task is the identification and description of the local population, referred to as the Pineys. Some sense of this term is critical since it is the local residents, the people who were deeply rooted in the land by culture and livelihood strategies, who were ultimately locked out. One researcher reported that the definition of 'Piney' proved elusive during three years of field work but she concluded that 'Pineyness' was based on geographical location at various stages in life, with birth-place being of greatest significance followed by ancestry, age, occupation, economic status, and family ties. At its most basic, she contends, it boils down to an affective sense of 'being' in the pines (Rubinstein, 1983). This definition is perhaps vague but it does help parse out people whose families have been in the area for generations, some of whom are anxious to get away from what they consider a backwards area and other who want to preserve a direct connection to the land as a central part of their lives. It likewise can accommodate relative newcomers who want that direct connection and distinguish them from people who have come because it was a relatively inexpensive, safe place to live in proximity to Atlantic City or along the Boston-Washington corridor.

## **HUMANS AS ECOSYSTEM COMPONENTS**

The New Jersey Pine Barrens are located halfway between New York City and Washington D.C. and just over 30 miles east of Philadelphia. They are an anomaly in the midst of the mid-Atlantic's most densely populated area. Within the legal boundaries are 1.1 million acres of forests, wetlands, and undeveloped coastline. Topographic relief is low, soils have high sand and gravel content, are generally acidic, and the water table is high (Governor's Pinelands Review Committee, 1979).

Because of their 'droughty' acidic soil, the Pine Barrens were spared the early fate of most eastern forests -- permanent clearing for agriculture. People have, however, been modifying the Pine Barrens ecosystem for thousands of years (Wacker, 1979). Native Americans conducted fire drives to flush deer for hunts, increase visibility, and make foot travel easier. European settlers also burned the Pine Barrens, often accidentally but also intentionally. They used regular small fires to open up grazing areas and improve the yield and quality of wild blueberries. Charcoal production was a local occupation into the mid-20th Century.

In the 19th Century, unintentional fires were often set by sparks from trains and local ironworks, glass manufacturers, and paper mills. The cumulative effect of this burning was to perpetuate the pine-dominated ecosystem in a region that would otherwise be dominated by oak.

The Pine Barrens have also experienced extensive lumbering since the 18th Century. Intensive cutting of pine, Atlantic white cedar, and oak lead to a reduction in the average size of Pine Barrens trees as well as periodic concern about the eradication of white cedar (Lathrop, 1994).

Pine Barrens water courses have also been altered by humans. In the 18th Century, rivers and streams were dammed to provide power for local mills. More extensive damming occurred in the mid-19th Century when commercial cranberry cultivation began. These activities produced bogs and standing bodies of water where they had not previously existed.

While the physical and biological characteristics provided the parameters for the Pine Barrens' ecosystem, humans clearly played a major role in creating the landscape that the Pinelands National Reserve was designed to protect. Were it not for a small population that had lived off the land, the Pine Barrens would not have looked as they did.

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### **THE RESERVE STRATEGY**

In the late 1970s, as housing and industrial development seemed poised to invade the Pine Barrens, New Jersey environmentalists asked the U.S. National Park Service to consider preserving the Pine Barrens and recommend a strategy for doing so. A 1978 Park Service report declared the area to be environmentally unique and well worth saving. It also recognized that there was a local population and culture imbedded in the land and recommended the creation of an entirely new Park Service category -- Reserve -- specifically to accommodate the existing human presence -- the Pineys -- in the landscape.

The Reserve scheme proposed to accomplish this by dividing the Pine Barrens into Preservation and Protection Areas with development areas designated outside the Reserve perimeter (Pinelands Comprehensive Management Plan, 1979). Within Preservation Areas, ecosystem values would be paramount and only those human activities that did not endanger ecosystem values would be permitted. Within the Protection Areas, human use values and ecosystem values would be balanced. And therein lay the roots of paradox -- someone would have to decide which human activities were compatible with the goal of preserving which ecosystem values.

In practice, the Reserve strategy did NOT accommodate the existing human presence -- the Pineys -- because of the way the 'compatible' human activities and ecosystem values were defined. The braid of nature-society ideology, local relations of production and regional politics explain why Pineys were locked out by a land management scheme that was ostensibly designed to preserve their place in the ecosystem.

### **NATURE-SOCIETY IDEOLOGY**

While much has been written about nature-society/nature-culture relations, Roderick Neumann's study of the creation of Serengeti National Park in Tanzania (1994) is particularly helpful in illuminating the paradox of Pine Barrens preservation. Neumann theorizes that

"Intrinsic to elite European ideologies of society-nature relations was a way of seeing the land which split the world spatially into two spheres -- land that was for practical (productive) observations and practices and land that was for aesthetic (consumptive) observations and practices. An important aesthetic feature of landscapes of consumption... is the absence of any evidence of human labor."

Thus, although scientists had acknowledged the historic role of humans in the formation of the ecosystem they engaged in very strained rhetoric to 'remove' them from the landscape as in this quotation from two consecutive paragraphs written by a botanist:

"Human activities in the past and in the present are mirrored in today's Pine Barrens ecosystems...None of the characteristics appears dependent on human disturbance; all developed and are maintained by natural causes" (Forman, 1979).

### **LOCAL RELATIONS OF PRODUCTION**

In fact, not all human activities were deemed to be incompatible with ecosystem preservation. Hunting, fishing, trapping, and gathering -- traditionally part of the diverse livelihood strategies of the poor and middle class -- were banned from Preservation Areas. On the other hand, berry farming was deemed to be not only 'compatible' but actually defined as a part of the 'natural' environment. It is perhaps not a coincidence that cranberry and blueberry farmers were the largest private land owners in

the area. The single largest landowner in the area was the State of New Jersey (Zampella 1988), which derived substantial revenue from its Pine Barrens timber harvest. Not surprisingly, the committee tasked with identifying compatible land uses said "There is no doubt that lumbering can be compatible with the preservation and protection of the Pinelands." (Governor's Pinelands Review Committee, 1989).

That same committee also declared that "it may be possible through careful planning and regulation...to permit the operation of extractive industries in spite of their apparent degree of incompatibility" (ibid.) and thus declared that open-pit sand and gravel mining could stay on in the Pine Barrens.

### **REGIONAL POLITICS**

New Jersey has a definite North and a definite South. The North has old agricultural money and new industrial money. It has that elite educational jewel Princeton University and the less glamorous but still formidable Rutgers University. Northern voters have historically tended to elect Democrats and emphasize state-level control. South Jersey, on the other hand, was left with very little capital by the demise of 19th Century industry. It has no major universities and tends to elect Republicans who work to protect traditional 'home rule' by municipal government (Russell, 1988).

Thus, it is not surprising that Pine Barrens preservation efforts were spearheaded by North Jerseyans. They called on Princeton scholars to provide the rhetoric of Pine Barrens preservation and Rutgers scientists to produce the 'hard' evidence. They also activated their ties to state and national environmental organizations. South Jersey simply did not have comparable mouthpieces or political connections. The disparities in political clout were so conspicuous that local residents suspected that Northerners wanted to turn the Pine Barrens into a playground and municipal officials sometimes complained that 'the Princeton mafia' wanted to take over (Rubinstein, 1983).

### **CONCLUSION -- DUAL IRONY**

The Reserve scheme was intended to protect two values: 1) the Pine Barrens ecosystem, and 2) the activities and culture of the local population. In a dual irony with important implications for preservation efforts throughout the world, it may have accomplished neither.

An examination of the surrounding ecoregion makes it clear that human beings have played a crucial role in making the Pine Barrens what they are -- a predominantly pine forest in the midst of the Eastern Broadleaf Forest Province (Bailey et al, 1994). The regular burning conducted by humans in the area has perpetuated a 'pineland' that would otherwise be 'oaklands.' Satellite photographs taken during the last decade shows, in fact, that oaks are beginning to crowd out pines in key locations within the Reserve (Luque, 1994). Thus, the exclusion of traditional Piney activities may actually lead to loss of pine-covered land.

The Piney presence has been more immediately altered. It would be neither fair nor accurate to imply that the architects of Pine Barrens preservation set out to obliterate Piney culture. In fact, it would be false to imply that it has disappeared. As recently as October 1993 the New York Times ran an article on the persistence of Piney culture in spite of both development and land use regulation. But regulations do make it harder for residents to carry on traditional activities and endanger both their livelihoods and their culture. Whether intentional or not, this undermining of Piney culture was the inevitable product of the prevailing nature-society ideology, local relations of production, and regional politics.

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### **BIBLIOGRAPHY**

Bailey, Robert G., Peter E. Avers, Thomas King, and W. Henry McNab (editors), "Ecoregions and Subregions of the United States." USDA Forest Service, 1994.

Collins, Beryl Robichaud, "The Backdrop for the Pinelands Legislation," pp. 34-61 in Collins, Beryl Robichaud and Emily W.B. Russell (editors). 1988. Protecting the New Jersey Pinelands: A New Direction in Land-Use Management. (New Brunswick, Rutgers University Press).

Collins, Beryl Robichaud and Emily W.B. Russell, "Pinelands Comprehensive Management Plan," pp. 130-147 in Collins, Beryl Robichaud and Emily W.B. Russell (editors). 1988. Protecting the New Jersey Pinelands: A New Direction in Land-Use Management. (New Brunswick, Rutgers University Press).

Forman, Richard T.T., "The Pine Barrens of New Jersey: An Ecological Mosaic," pp. 569-585 in Forman, Richard T.T. 1979. Pine Barrens: Ecosystem and Landscape. (New York, Academic Press).

Goldstein, Joan, "The Pine Barrens: A Study of Environmental Decision Making," Ph.D. 1978, City University of New York.

Governor's Pinelands Review Committee. 1979. Planning and Management of the New Jersey Pinelands. (Trenton, New Jersey).

Hufford, Mary. 1986. One Space, Many Places: Folklife and Land Use in New Jersey's Pinelands National Reserve. (Washington, DC, Library of Congress).

Lathrop, Richard, Remote Sensing Center, Rutgers University. Personal communication, March 1994.

Luque, Sandra, Department of Geography, Rutgers University. Personal communication, March 1994.

McPhee, John. 1968. The Pine Barrens. (New York, Ballantine Books).

National Park Service. 1978. Pine Barrens of New Jersey. (Washington DC, Department of the Interior).

Neumann, Roderick P., "Field of Dreams: Colonial Recasting of African Society and Landscape in Serengeti National Park," *Ecumene*, 1994.

Romano, Jay, "A Sense of Place," in the New York Times, October 24, 1993, New Jersey Section, p. 19.

Rubinstein, Nora J., "A Psycho-social Impact Analysis of Environmental Change in New Jersey's Pine Barrens," Ph.D. 1983, The City University of New York.

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Russell, Emily W.B., "Federal and State Pinelands Legislation," pp. 63-87 in Collins, Beryl Robichaud and Emily W.B. Russell (editors). 1988. Protecting the New Jersey Pinelands: A New Direction in Land-Use Management. (New Brunswick, Rutgers University Press).

Wacker, Peter C.. "Human Exploitation of the New Jersey Pine Barrens Before 1900," pp. 3-23 in Forman, Richard T.T. 1979. Pine Barrens: Ecosystem and Landscape. (New York, Academic Press).

Zampella, Robert A., "Acquisition, Management, and Use of Public Lands," pp. 214-232 in Collins, Beryl Robichaud and Emily W.B. Russell (editors). 1988. Protecting the New Jersey Pinelands: A New Direction in Land-Use Management. (New Brunswick, Rutgers University Press).