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Colonialism and Forestry in India: Imagining the Past in Present Politics

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Forests in India are at the center of highly charged conflicts. Use of the past by the different historical subjects engaged in these contests over forest lands in India results in several threads intertwined across a shared frame. I shall try to unravel only one strand in this essay, namely, the official ideologies implicated in colonial forestry and the technologies of power that it spawned. I will show how the colonial state, drawing on several pasts, constructed the question of forests in India.

The discussion of alternate constructions of forests that emerge from resistance to forest control issues, I believe, is integral to my project, which suggests that there is a dialectical relationship between discourses of rule and discourses of protest and that we can advance the study of this relationship by treating resistance as a diagnostic of power.[1] There are several advantages to doing this. First, we can avoid wrongly attributing particular forms of consciousness and politics to acts of resistance. Second, we can detect historical shifts in configurations of power (Abu-Lughod 1990:48). This is important because, as Foucault (1980:119) says, "power . . . produces things . . .[—] forms of knowledge and discourse. It needs to be considered as a productive network that runs through the social body." At the same time, the agency

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[1] I use the term discourse in combination with the term practice as originally utilized by Bourdieu (1977). Such melding of the concepts was suggested by Feierman in February 1992, while speaking at the weekly colloquium of the Program in Agrarian Studies at Yale. He defined discourse as an underlying set of practices—a combination of speech, writing and action. He makes admirable use of this formulation in his historical anthropology of agrarian change in Tanzania (Feierman 1990).

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manifest in resistance cannot be displaced completely onto extant power structures. A theory of practice must be used. But, as Cohn and Dirks (1988) have pointed out, this theory has to be applied to the state-making process by inserting culture into a larger historical program of interpretation and analysis.[2] Hegemony is not self-securing. It is constructed, maintained, and modified by human agents and state agencies through contest and cooperation on sites like India's forest lands. It is important, in studying the refracted technologies of control and self constitution that the modern state employs, to analyze the political moments of culture embedded in colonialism's history.

COLONIAL STATE DISCOURSE AND FORESTRY

How do we historicize debates over forest use and management in India today? We could start with the insight offered by Said (1979), who argues that all knowledge is a historically contingent construction that cannot be adequately understood without referring to contemporary politics and power. Further, discursive practices expressing such knowledge do not only produce discourse but "are embedded in technical processes, in institutions, in forms of transmission and diffusion" (Foucault 1977:199–200). There are also subtle alterations in fields of power that keep past and present firmly entangled. The transformation—partly juridical, partly real, partly ideological—of people from colonial subjects to sovereign citizens suggests a changed moral context, as Geertz (1988) has suggested.

At the same time, the politics of representation, originating in the modernizing project of colonialism, continue to dominate the post-colonial scene. For instance, post-colonial custodial forest policy in India remained captive to the self-inflicted whittling process set in motion by the ambiguous treatment of customary rights and privileges in the second half of the nineteenth century. In this regard the debates between colonial administrators and Indian parliamentarians, separated by a century, frequently resonate.[3] When they reproduced the terms of the argument between Brandis and Baden-Powell, different branches of the Ministry of Environment and Forests in the Government of India disagreed over the definition of national forest policy. The conflict was consummated in the practical irony of Parliament approving contrary proposals on the same day in December 1988. An amendment to the Forest Conservation Act of 1980 categorizing medicinal plants and fruit trees as non-forest species, approved in the forenoon, placed greater onus on the local

[2] By theory of practice I refer not merely to the analysis of structured interaction presented by Bourdieu (1977) in his study of Kabyle gift exchange. More recently, Ortner (1984, 1989) has elaborated the concept for examining social discourse and institutions. Isaacman (1990) provides another dimension to theories of practice by suggesting a focus on peasant labor processes, their development and change. All these refinements are relevant here.

[3] Guha (1990) gives a flavor of the earlier exchanges. Their re-enactment in emancipated India's highest legislative forum several years ago while debating the New Forest Policy, which I witnessed from official galleries of the lower house of Parliament.

forest bureaucracy to seek central approval for working plans. Later in the day the National Forest Policy Resolution was passed. It said a basic objective was to "creat[e] a massive peoples' movement" to achieve goals primarily related to environment protection and meeting subsistence needs of rural populations (Government of India 1988:1–2).

Therefore, the study of colonial discourse is important, especially the contradictory nature of colonial intervention and the institutional bases of colonial impact (Dirks 1989). Key continuities in the hegemonic discourses about forest management in the aftermath of decolonization may be noticed, and these can help assemble the pieces that went into realizing colonial discourses and their manifestation in state authority structures. Many Orientalist ideas about primordial Indian ways of living informed the approach to forestry in the nineteenth century.[4] On the one hand there was the idea of the epiphenomenal, ancient monarchic state presiding nominally over self-governing, durable village communities that appears in the writing of Henry Maine, Marx, Weber and Louis Dumont (1970). This could in turn feed the notion of forest communities engaging in pre-capitalist forms of forest use that were ecologically sustainable.

Alternatively, the assertion of sweeping and overriding state power over forest resources (most dramatically instanced by the Forest Act of 1878) drew on divine kingship's dictatorial hubris to link the concept of royal trees to the ultimate justification for forest preservation. In fashioning strategies of power, colonial administrators delved selectively into the pre-colonial pasts of subject peoples. The lengthy legislative debates preceding the Forest Act of 1878 were punctuated by references to the practice adopted by Tipu Sultan and some other Indian rulers in which certain trees like teak were declared to be royal, thereby reserving the right to harvest them for the state.[5] In manipulating such flimsy evidence of pre-colonial state regulation of forest use to buttress sweeping usurpation of local rights in forests, colonial foresters acted in the same spirit as their distinguished colleagues did a few years later when they compiled ethnographies of Indian castes and tribes.[6] Here the silvicultural experts, naturalist foresters, and some civil servants joined in imagin-

[4] I refer to what Said (1979) has called the containment and representation of the Other within dominating frameworks. "A priori Orientalist assumptions . . . produced definitions that could be redeployed to prove the original belief. This was typical of colonial knowledge" (Nigam 1990:136).

[5] Similar instances are cited in other colonial encounters. In the Sandwich Islands, the history of sandalwood trade shows chiefs quick to regulate items valued and demanded heavily by Europeans (Sahlins 1981). Again in Java, some foresters argued that forests were considered the property of Javanese kings and sultans and, hence, were state property. "Yet the property rights of early Javanese kings, enjoyed only along local systems of use rights were vastly different from the notion of exclusive state property . . . inherent in the system imposed by the Dutch (Peluso 1991:69).

[6] See the excellent discussion of similar processes in the colonial constitution of caste in Dirks (1989, 1990). It seems to reflect a more widespread approach to the appropriation of Indian pasts and their utilization in framing colonial policy.

ing a village community that was inherently hostile to the natural environment and its preservation.[7]

What was happening in the forestry sector was to some extent a manifestation of the larger Orientalist colonial project of constructing India as knowable by representation. The enormous growth, change, and increasing complexity of such knowledge was of crucial importance to technologies of rule. For example, when the ethnographic surveys and census operations commenced, society was fragmented into groups, households, and individuals and became available for reassembly as statistical units (Prakash 1990). With its inclusive classificatory enterprise, the state was incorporating the classic episteme of modernity which, according to Foucault (1973:74–75) was an "articulated system of mathesis, a taxonomia and genetic analysis. The sciences project . . . was an exhaustive ordering of the world." While forest dwellers were being sorted into types by tribe and caste, the forests themselves were arranged in categories by dominant genera and species. Such description and the laying down of taxonomic structures to represent biotic communities presaged colonial development projects in which human and natural resources were harnessed for imperial purposes.

In India's forests, these massive developmental projects materialized in railway expansion and in more roads and tracks being constructed into hitherto inaccessible areas of hill regions, resulting in extensive deforestation (Guha 1989; Whitcombe 1972). The government's role in transforming the affected areas, often in tribal belts, included restricting swidden cultivation and forest reservation. The nineteenth and early twentieth centuries marked similar developments in different parts of the colonized world. In Tanganyika, German colonial administrators established a number of forest reserves in the decade preceding World War I. This was an attempt to control the use of forest resources in an area and culture where such use—certainly in terms of scientific forestry—had been traditionally unregulated (Schabel 1990). In Java, Dutch colonialists had started by negotiating with Javanese kings and other nobles for access to particular species, notably teak, and for forest labor. However, a bureaucracy within the colonial state managed forests there, too, by the middle of the nineteenth century (Peluso 1991).

In India the jungle that had been the refuge of beleaguered peasants became the object of keen commercial interest thus reproducing the pattern emerging in different colonies. Forest officers sent to assess the jungle's value wrote dramatic reports predicting the imminent destruction of forests, soil erosion, landslides, and the dessication of springs if conservation was absent. Dr. Gibson, the first Conservator of Forests in the Bombay Presidency compiled, around 1850, a list of rivers and creeks that had silted up along the Malabar

[7] See Stebbing (1922) and Troup (1940), who represent both the scientists and the administrators directly involved. For similar processes in Tanganyika under German colonial rule, see Schabel (1990).

coast. He did this by ethnographic interviews, drawing on the memory of villagers. As Stebbing (1922) reveals, the question of real importance for scientific forestry was to determine how far the destruction of forests in the catchment areas and on the sides of hills in the drier parts of the country affected the level of water in big rivers, decreased local water supply and rainfall, and caused erosion and avalanches. Thus, the rhetoric of conservation, environmental protection, and sustainable development, commonplace in current debates on forestry internationally, was being generated in the colonial project and laying the foundation for state forest management.[8] The observations made by surgeon naturalists like Alexander Gibson in Poona, Hugh Cleghorn in Mysore, and Edward Balfour in Madras had created a body of reports and influential opinions that linked deforestation to the disturbance of hydrological regimes, dessication, and aridification. The direct effect of such work on Lord Dalhousie, who initiated colonial forest management in India, is noted by Grove (1988:38–39). The discursive device consisted of blaming the ecological misfortunes of local populations, including occasional events like drought, on the villagers' practices and ignorance of conservation strategies.[9]

As was true of other British colonies, deforestation in India was axiomatic of the principal economic and ecological changes during colonial times (Tucker 1983; Adas 1983; Guha and Gadgil 1992).[10] The history of ecological imperialism would be manifest in the pattern of tree species exploited, planted, and regulated by law and silvicultural science.[11] To enable systematic extraction of desired economic products from the forests, the first step was to classify and take inventory of stock.[12] In addressing the demand for more intimate knowledge of Indian forest resources, British policy makers evolved an elaborate administrative structure, a stringent legal code, and a body of scientific practice. Forest policy also rested on ideological formulations aris-

[8] Even in the nineteenth century, the intercontinental similarity of rhetoric is striking. See Schabel (1990) for the way the justification for forest regulation was couched in environmental rather than fiscal terms in Tanganyika.

[9] For a discussion of nineteenth-century conservationism and its construction around an image of destructive, senseless natives in Africa, see Grove (1989). There are several resonances with the Indian case.

[10] For a description of the transformation of virgin forests into plantations of tea, rubber and spices in the northeastern and southwestern parts of India, see Tucker (1989).

[11] For example, in the Himalayan region, sal (*Shorea robusta*) and deodar (*Cedrus deodara*) were first exploited for railway sleepers and construction in the infrastructure development phase. Later chir pine (*Pinus longifolia*) was mercilessly tapped for chemical industries in the manufacturing phase.

[12] This process began with Brandis (1873) and was built upon by Watt (1889–96), Ribbentrop (1900), Brandis (1906), Troup (1921), Pearson and Brown (1932), and most recently is exemplified in Champion and Seth (1968). The classification schemes kept changing in terms of number of zones and types (by rainfall intensity and climate), but the species considered important remained the same. This of course is not to deny the foundation laid by botanical researches of the surgeon naturalists, an outstanding example being Cleghorn (1860) and the creation of facilities like the Calcutta Botanical Gardens established in 1788 (Grove 1988).

ing from culturally delineated pasts of colonists and indigenous societies. This suggests several questions relating to perceptions of nature among the different interacting cultures, issues and idioms of protest and the structuring effect of such matters on policy. The following examination of instruments of state forestry, peasant protest, and the interplay of cultural constructions that may be discerned is part of an approach to understand the dynamics of power relations in the forests of India. It is also an attempt to formulate ways of looking at the canopy of hegemonic discourse that at once constrained and was penetrated by the emerging undergrowth of practice and resistance in the management and use of these forests. This approach seeks to make cultural forms and historical events contingent on power relations.[13]

INSTRUMENTS OF POWER: ADMINISTRATIVE STRUCTURES AND LAWS[14]

The determination, codification, control and representation of the past have been central to the establishment of the nation state and directly implicates colonialism. Not only did the empire provide the ground for European domination, it reproduced itself after its demise through the documentation projects initiated in previous centuries (Cohn and Dirks 1988).[15] A consideration of the forestry sub-project, so to speak, is then vital from this angle. The circumstances under which the Indian forest department was created and the debates preceding the formal legislation of the Indian Forest Act are significant as the historical context and as one set of structuring forces on modern forest management practice.[16] These conditions included the objective economic com-

[13] As an emergent tradition, the pedigree for such analyses may be found in Thapar (1978) and Cohn (1987), who, writing on ancient and modern India respectively, have stressed the historicization of cultural forms essentialized during colonial rule. For, as Anderson (1991:06) says, "all communities . . . are imagined. Communities are to be distinguished . . . by the style in which they are imagined." While the imagined community may be the nation-state, the discourse of nationalism has been a derivative discourse, the overweening concern of nationalist elites being the purchase of used ideas from the West (Chatterjee 1986). National forestry is implicated at several levels in colonial forestry, in a scientific and institutional culture that can neither be removed from history nor separated from power, even as it is being produced, constructed and deployed.

[14] When writing this section, I found it useful to keep in mind the following definition, "law does no more than symbolically consecrate, by recording in a form which renders both eternal and universal, the structure of the power relation between groups and classes, which is produced and guaranteed by the functioning of these mechanisms" (Bourdieu 1977:188). This clearly runs counter to law as understood in Roman jurisprudence and to what Rousseau called "the condition of civil association" (Ritter and Bondanella 1988:107).

[15] One needs only to think of the massive amounts of documentation that the nineteenth- and twentieth-century British state produced in India, in the form of investigations, commissions, and the compilation, storage and publication of statistical data on finance, trade, health, demography, crime, education, transportation, agriculture, and industry. Forestry was molded in the same documentation project that was at once totalizing and individualizing. See, for instance the copious official forest histories generated continuously from 1870s when Brandis did his seminal work, until the National Commission on Agriculture in 1976.

[16] The Indian Forest Department originated in 1864 with Dietrich Brandis, a German botanist

pulsions of railway development and the financial crisis faced by India's government after the revolt of 1857 (Metcalf 1964).[17] These conditions were also shaped by the intellectual predilections of the administrators imposing the imperial will and securing national revenues.[18]

A combination of revenue needs, expansion of commercial crops, and development of the mining industry accentuated the powerful impact that building railways had on Indian forestry in the nineteenth century (Richards and McAlpin 1983; Tucker 1983; Guha 1989).[19] By 1921, Indian railways, the greatest in any colonial country, covered over 37,000 miles. They linked ports to agricultural hinterlands and urban centers to support the export of primary goods and import of finished products (Hurd 1975). Wood from the forests, in the form of sleepers for railway tracks and fuel for steam engines, provided vital inputs into this system. Forests were integrated into the market economy by forest administration initially demarcating areas with promulgated regulations for their management and directives to generate budget surpluses in forest operation. The appointment of Brandis as the first Inspector General (IG) gave the central government an agency for formal intervention in provincial forest management. His appointment had much to do with his image as the "hero of Pegu" who had rescued the teak forests of Burma from timber traders and made them available to British shipbuilding (Troup 1940).[20]

Brandis toured the presidencies and centrally administered provinces, laying down more specific duties for the forest service. In his nineteen years as Inspector General of forests, Brandis produced several reports based on relentless travelling through the jungles which became the basis for creating

turned forester, as the first Inspector General of Forests. A hurriedly drafted Forest Act was passed in 1865 to facilitate the acquisition of forest areas earmarked for railway supplies. However, the Indian Forest Act that is still largely in force came about only in 1878 after vigorous debate over the suggested provisions. In its final form it bore the distinctive stamp of B. H. Baden-Powell, the civil servant best known for his voluminous work on the land systems of British India.

[17] Government reports contemporary to the debate on forest legislation exist in which certain states, such as the Madras presidency, have been chastised for trying to obstruct the process of rapid revenue augmentation by achieving complete control over forest lands, when they expressed dismay over the effacement of customary rights enjoyed by indigenous people (Guha 1990).

[18] It is important to comprehend the scientific content of silvicultural and watershed management programs designed and undertaken in the name of "scientific forestry" in their own terms, in addition to placing these specifics of praxis in their cultural, political, economic, and historical context. This aspect is also the subject of my research though addressed only briefly in this essay.

[19] This is abundantly evident from the official literature as well, which puts the process in terms of "forest conservancy" for the larger public good (Stebbing 1922).

[20] More biographical information on Brandis may be found in Guha (1991), who discusses the various stages through which the botanist from Bonn became the Conservator of Burma and then the first Inspector General of Indian forests. In this case the turn to forestry from botany seemed to follow a divine signal. His successor reminisced, "on arrival in Rangoon Brandis [he] was informed that the vessel which brought his botanical library to India had gone down in the Rangoon river. He looked upon this as being almost a sign from heaven that he should put botany aside and devote himself to forestry" (Schlich 1925:293).

forest administration with specific responsibilities in the provinces.[21] These included forest settlement, demarcation, surveying and formally constituting state forests; preparation of working plans; construction of roads, bridges, buildings, drainage channels, and anicuts.[22] Protection work was directed against fire, cattle, and natural calamities. A few years later, German foresters in Tanganyika regulated burning, cutting and grazing, reproducing discourses and technologies of state forestry rehearsed in India (Schabel 1990). Exploitation and artificial regeneration were mainly for major produce (timber), and minor produce (lac, bamboo, leaves, nuts and fruits) of commercial value (Ribbentrop 1900; Troup 1940; Reports 1900–30).

By 1920 the Forest Service consisted of three branches: the Imperial Forest Service (399 officers), recruited in Britain and trained at Oxford, Cambridge, and Edinburgh; the Provincial Forest Service (293 officers), recruited and trained in India at Dehradoon; and the Subordinate Forest Service, comprising over 15,000 rangers, deputy rangers, and guards recruited and trained in the provinces (Parker 1923).

In most provinces the Forest Service was placed administratively under the Revenue Department, a good indication of the primary role assigned to forestry.[23] As Stebbing (1926:345) points out, the Forest Service came to be regarded "as a purely commercial concern—its chief *raison d'être* the production of revenue." He makes this assertion based on an extensive survey of government documents in the last quarter of the nineteenth century. By 1920 net revenues from state forests had increased fourfold to 21 million rupees, from the 5.5 million rupees of 1880s.[24]

Even as the administrative machine was being created, legal sanction for taking over sporadically explored territory was being cobbled together, first in the Act of 1865 and, later, after much debate within the government, in the Indian Forest Act of 1878. To some scholars this represents a feature of British administration that blended and blurred executive and judicial functions even as British jurisprudence was transplanted into exotic settings with scant modification (Tinker 1966). A comparison of the forestry case with parallel developments in the legislation for control of nomadic groups all over India is illuminating in this respect.

In a discussion of the genealogy of the Indian Criminal Tribes Act of 1871 and its application in northern India, Nigam (1990) mentions considerable

[21] Though his recommendations pertained specifically to the Central Provinces (1876), Northwestern Provinces and Oudh (1881), and Madras (1883), their impact was more widespread and generalizing.

[22] Around the same period, the Dutch state in Java took over all teak forest lands and provided detailed guidelines for staffing, logging, planting, and maintaining forests (Peluso 1991).

[23] According to one Revenue Secretary of Central Provinces (Gordon 1919), railways not only stimulated the demand for hardwoods but also reduced cost of transport and increased profit margins on forest operations, thus contributing doubly to the boom in revenues (Reports 1900–30).

[24] These figures are not adjusted for inflation or fluctuations in currency values.

conflict between the judiciary and the district administration over interpreting the causes of the criminality of Sansis, Bawarias, and other nomadic tribes in Uttar Pradesh. The executive used the argument of intrinsic criminality to further the case for special powers acts and for enhanced magisterial powers that tilted the scale in favor of the subjective satisfaction of the magistrate, as opposed to the due process of law, which ultimately was the jural domain of courts. This was a struggle among different branches of the government for control over the criminal justice system. We can see regulatory systems in colonial India developing out of the tension between abstract libertarian legal principles and the more pragmatic jurisprudence of suspicion, which favored surveillance, deterrence, and draconian measures for social control.

The intellectual history of British colonial lawmaking in nineteenth-century India can be written as an extended conversation with utilitarian philosophy and classical economics. The influence of John Stuart Mill, Lord Macaulay, and the evangelical movement was deep and lasting on the colonial administrators (Stokes 1959). "The belief that certain collective or corporate forms of social organization and property relations stifled initiative and/or encouraged lackadaisical and careless use of resources was generally held by colonial officers, missionaries and traders. It was embedded in an ideology that regarded private ownership as the superior opposite of communal forms and whose premises were based on a long tradition of western thought" (Peters 1987:179).[25] Land settlements made throughout this period, such as those for subsistence agriculture and areas producing cash crops, reflect an abiding faith in the ability of well-delineated private property rights to engender a productive climate that would enhance revenue generation. The emphasis was on economic productivity and the underlying belief that "a productive society without any form of ownership is an impossibility" (Grunebaum 1987:128). Thus, Bengal had a landlord settlement, while in the Central and North-Western Provinces village communities were made responsible for land revenue through their chieftains and headmen and in Madras and Bombay Presidencies the revenue demand was fixed with the peasant cultivator (*ryot*), in most cases (Baden–Powell 1892).

Land administration policy was definitely formulated to accomplish specific imperial objectives, and the cultural background of those who performed this task influenced their choice of ways and means. However, we cannot, therefore, treat the consciousness of agents of colonial domination as a simple reflex of political and economic processes or the expression of a solidary hegemonic intellectual tradition (Comaroff and Comaroff 1991). Several cultural constructs came into play. These cultural constructs also colored the perception of colonial administrators when they sought to comprehend local systems of rights, privileges, and land management. Often the local commu-

[25] Though written on the basis of African experience, these words admirably underscore the dominant view in South Asia as well.

nity defined the networks of rights, responsibilities, and privileges through cultural symbolism and the social organization of economic activity. They were not explicated or overtly recorded on parchment. There was often no apparent evidence of secular sanctification for such arrangements, which nevertheless performed functions very similar to property rights.[26] The validity of unwritten arrangements of common property management was not recognized by the dominant elements in the British administrative hierarchy.[27] This had as much to do with administrative expediency as an intellectual persuasion that state institutions identified as rational and progressive would better serve public interest. The British entered a medieval landscape in which absolute possession appeared not to exist. By contrast, their cultural legacy exalted the basic value of unqualified possession. This combined with the Roman notion of *res dominium* to inform British settlement policies in India.[28] This paternalistic approach, a powerful mix of conviction and coercion, undermined traditional structures of authority. At the same time, the legal and political environment that the Raj was creating for the operation of market forces and the penetration of capital remained contradictory and left social groups room to maneuver (Washbrook 1981).[29]

For such reasons, it may be simplistic to conclude that a single dominant ideology informed the process through which the legal framework for forest control and management evolved. In the land settlements that had preceded these efforts, there had been a sharp divergence between regions. Although the Bengal *zamindar* (landlord) settlement tried to recreate the British yeoman farmer, Thomas Munro in Madras made a *raiyatwar* (peasant cultivator) settlement, arguing its efficacy on the basis of a legitimacy conferred by the regional history of agrarian relations, as he read it. Munro's position was both moral and pragmatic in seeking a place for Indian institutions in land and judicial administration (Stein 1983, 1990). His view of an enduring British empire built on a reconstruction of Indian national character also emanated

[26] Human ecologists, such as Madhav Gadgil (Jain 1981), have documented the role played in this respect by sacred groves in particular, though the symbiotic relationship of indigenous cultures to forest resources is richly treated in the various classic ethnographies of Verrier Elwin. Rustomji (1990) is a good place to sample them.

[27] This is best exemplified by the elaborate provisions for assessing commercial value and compensation in proportion to rights for agricultural land acquired under the Land Acquisition Act (VII of 1894). Contemporaneous forest legislation did not share this interpretation of domain and chose to rely upon different principles of jurisprudence, whereby divine and monarchic ownership of land not in tillage was held to be complete.

[28] Sir William Blackstone's views most closely reflect this position. While Blackstone accepted the general proposition that the institution of property is a natural right, he argued that it was, at the same time, a product of civil government and its laws (Embree 1969).

[29] Making a similar assertion for forestry and conservation, Grove (1988:20–21) says, "the colonial state in its pioneer conservationist role provided a forum for controls on the unhindered operation of capital for short-term gain which, it might be argued, constituted a contradiction of what is normally supposed to have made up the normal currency of imperial expansion and profit maximization."

from the same reformist zeal that in other contexts was proselytizing nonliterate communities and characterized a spirit of responsibility to oneself. This gave the British administrator greater freedom than the system appeared to allow (Cohn 1966).

Such a distinctive interpretation of a shared past (cultural tradition and training) and present assignment among the British policy makers was also evident in the debate about forest law. Several approaches to forest management were put forth. One extreme recommended the complete extinction of customary usage, while the other, especially the Madras government, speaking in the Munro tradition, advocated the preservation of rights and local institutions. The rest can be placed on a continuum between these extremes. European experiences in dealing with communal forest rights were cited by all parties in the debate to support their respective proposals, but each had a different interpretation to bolster disparate cases (Guha 1990). For Brandis (1875:13), "the proposal was to give expression to that limitation of forest rights which follows as a necessary consequence from their origin and development." The most annexationist view prevailed and relying heavily on the draft by Baden Powell, resulted in the passage of the Act of 1878.

The bedrock of the law was the assertion that all uncultivated land was the state's property. In a narrow sense this was consonant with *Vedic* law and historical precedent, but Indian monarchs had rarely interfered with local usage (Singh 1986). Timber cutting restrictions, creation of hunting preserves, and grazing regulation by regional chiefs were occasional exceptions that are described by Brandis (1897) and Rangarajan (1994). These restrictions found in certain parts of eighteenth-century India which applied to cutting certain species of trees by calling them royal were used by India's rulers to justify a monopoly on exploiting teak, *Tectona grandis,* and sandal, *Santalum album,* when a lucrative trade developed in these species (Stebbing 1922). The Marathas in Western India found it expedient to acquire control over large tracts of coastal forests to set up plantations both for shipbuilding and revenue (Grove 1988:27). The colonial state nonetheless made use of such slender evidence of indigenous efforts in state forest control by successor states to the Mughals to legitimize their own attempts at forest reservation. The rhetorical strategy was to invest state monopoly with antiquity.[30] In another instance, the constitution of sacred groves and game preserves in native polity was cited as evidence that supported forest reservation. Brandis (1875:13) argued that "the state had not exercised its full rights over the forests, which were left open to anyone who might choose to use them; but the

[30] Thus, Brandis wrote of the manner by which teak forests were taken over in Burma, "at annexation the teak forests had by proclamation been declared the property of the state, and this was in accordance with old established custom, for under the Kings of Burma teak had been a royalty, all teak trees were the property of the King and teak timber was a monopoly" (Brandis (1897:30).

right of the state was unimpaired and was asserted when a Native Ruler chose to close whole areas of forests to preserve the game, as in the well-known instances of the Belas of Sindh enclosed by the Amirs."

The state established total ownership of forested lands by using the principle of eminent domain, in which the state, drawing on European jurisprudence, claimed to be acting in the public interest (Singh 1986). But even this classical notion of state supremacy provided for due compensation, a notion built into the 1894 law for the acquisition of agricultural land (Ghosh 1973). But in the case of forests, procedural artifice was used to evade juridical obligation to provide compensation for rights abrogated in the process of declaring them exclusive state property. As has already been noted, Baden-Powell was influential in crafting the Act of 1878. A crucial contribution was his distinction between rights that could not be abrogated without compensation but must be engraved in the settlement record and privileges that were always regulated, could be terminated, and, where allowed, were not alienable. He averred that villagers, who from time immemorial were accustomed to cut and graze in the nearest jungle lands, did not acquire a right by prescription because they used the forest without any distinct grant or license. All customary usages were therefore merely privilege.[31]

A simple gazette notification stating that forest land was reserved nullified all customary usage and rights if those lands were not claimed and ownership was not proven by legal methods and standards common to western literate society (Legislative Department 1890). For the non-literate communities affected, this amounted to nothing less than unilateral forfeiture.[32] Shifting cultivation was one major, traditional subsistence activity that got banned from the reserved forests.[33] Other rights were curtailed and regulated.[34] Protected forests were constituted with slightly less stringent restrictions, but in either case the question of compensation was left to a subjective definition of "substantial infraction," which in the case of prescriptive rights exercised *ab antiquo* and unquantified in village record was pretty much a matter of government whimsy. Across the board this resulted in considerable hardship to

[31] The extent to which Baden-Powell managed to prevail can be seen from the draft of the forest bill he prepared, which incorporated the comments and statement of object and reasons by Brandis (1875) in his final memorandum to the government on the nature of the proposed forest legislation. Also see Baden-Powell and Gamble (1875).

[32] Marx's comment (1990 [1852]:31) on the French republican constitution of June 1848, that the document espoused "liberty in the general phrase, while abrogating liberty in the marginal note," would be apposite here.

[33] The authority to stop shifting cultivation was the work of Baden-Powell (1893), who argued that it was temporary and destructive, hence incapable of leading to any right of prescription or easement. For definitions of such legal terms as easement, subservience, prescription, protected and reserved forests, see Troup (1940).

[34] The rights enumerated included: grazing and pasture, grass cutting, lopping boughs and gathering leaves, wood rights, rights to dead and decayed leaves for litter and manure, rights to other forest produce, hunting and fishing (IFC 1906; Troup 1940). For similar, though more summary action in Java, see Peluso (1991).

TABLE 1

Commonly Reserved Species

Common name	*Botanical name*	*Region*
Sal	*Shorea robusta*	Oudh
Sissoo	*Dalbergia sissoo*	Oudh
Ebony	*Diospyros melanoxylon*	Oudh
Khair	*Acacia catechu*	Oudh
Teak	*Tectona grandis*	Central Province
Saj	*Terminalia glabra*	Central Province
Seeshum	*Dalbergia latifolia*	Central Province
Beejasal	*Pterocarpus marsupium*	Central Province
Thitkado	*Cedrela toona*	Burma
Kokoh	*Albizzia lebbeck*	Burma
Pingado	*Xylia dolabriformis*	Burma
Yemmany	*Gmelina arborea*	Burma
Unjun	*Hardwickia binata*	Ajmer
Babul	*Acacia arabica*	Ajmer
Sandalwood	*Santalam album*	Mysore
Lac	*Vattica califera*	Mysore
Poon	*Callophylum elatum*	Mysore

SOURCE: Compiled from the notifications reproduced in Brandis (1875).

local communities as their sustenance from the forests was sharply reduced (Singh 1986; Anderson and Huber 1988; Guha 1989; Nadkarni 1989).[35] Even in open forests, variously referred to as protected, unreserved, and district forests, the restrictions on cutting, girdling, and any manner of harvesting certain species by villagers were total.

Table 1 shows the commonly reserved species. The list of reserved species is not exhaustive but serves to illustrate the definite pattern of appropriation emerging in different parts of the Indian subcontinent. When the manner of exploitation of some of these tree species is examined further, specific clues about the imperatives of commerce and industry behind the process can be provided. More importantly, such unified reservation policies covering a range of species undermined the very basis of life and work among many communities, especially those not yet sedentarized and incorporated in commercial agriculture.[36]

[35] In his study of South India, Nadkarni (1989) has estimated the forest dependence of poor peasants at 25 percent of family income. He traced the local population's decline in the period from 1850 to 1900 to the abrogation of forest rights.

[36] This compilation of the reserved species reflects the outcome of early forest rules and regulations promulgated between 1865 and 1875 in the cited provinces. Teak, sal, unjun, and babul were reserved in several of the regions mentioned, even though they are not reflected in the table. For details, see Brandis (1875).

INSTRUMENTS OF POWER: SCIENTIFIC FORESTRY

In their pursuit of a self-professed brand of forest preservation, the British broke with the traditional pattern of authority, which was normative, flexible, and bound by a cultural and personalized idiom of reciprocity (Guha 1989).[37] This adversely affected the self-provisioning ability of the village and pre-capitalist agriculture (Blaikie and Brookfield 1987). As Marx (1990:123–4) wrote about pre-capitalist peasantries in eighteenth-century France, "each individual peasant family . . . directly produced the greater part of its means of life more through exchange with nature, than through intercourse with society." Policies like forest reservation and scientific forestry impinged in several ways on the "exchange with nature," exercising control over it both by confining peasantries and by altering nature. In this respect the British colonial administrators seem to have replicated the social upheavals that accompanied the transformation of the open-field agriculture of England through enclosure (Dahlmann 1980). Studying these changes, scholars have characterized this movement from community to household as the organizing principle of agricultural production (Roseberry 1991). The virtue of such change was proclaimed in the language of the same rational ideology. Thus, the lexicon of colonial forest management is crowded with words like conservancy and scientific forestry which need to be understood in their political economic and ideological context.

Conservancy came to denote the restriction of local rights and customary usage of the forest (Reports 1900–30). The forest settlement was, therefore, the most unpleasant task of conservancy, as it made the forester unpopular. However, any sense of moral disquiet within the forest service was quelled by the prevailing hegemonic idea that the villagers' greed for grass made them heedless of destroying timber (Parker 1923). Grass was important too to the early conservationists, for they were interested in preserving wildlife habitat as a sporting ground.[38] The first reported attempts at forest conservancy were made in western and south India by sportsmen naturalists—mostly civil servants and army officers who had a romantic fascination with the forest and enjoyed a good *shikar* (hunt). Lieutenant Michael of the Madras Infantry, working in the Annamali teak forests in the early 1840s, is credited with making the first attempt to protect Indian forests from fire.[39]

[37] The classic examination of the salience of violating the reciprocities between peasantries and the state is, of course, Scott (1976). I have gone into this question elsewhere in discussing the transformation of Bengal agriculture under colonialism (Sivaramakrishnan 1992).

[38] Insights into the motivations behind nineteenth-century conservancy ideas are often to be gained from biographical accounts of the forest service officers. For example, in one account, an officer of the Indian Forest Service is described as choosing the career out of his fondness for hunting and fishing, epitomizing the sportsmen-naturalists who initially dominated the service and were drawn from certain classes of Victorian genteel society (Burke 1955). See also Baker (1991:54), who describes the first Conservator of Central Provinces, G. F. Pearson, as "a romantic who loved the wild woodland and ever varying scenery."

[39] Reported by Lt. Col. Bailey, Director, Forest Surveys, in the Scottish Geographical Maga-

To these early advocates of conservancy, the indigenous people, being "ignorant", "careless" and undiscerning of the ecological functions of the forest, were destructive of forests. Thus, a report of the British Association to the East India Company in 1852 recommended forest regulation, arguing that it was necessary to maintain hydrologic regimes, water quality, and catchment protection. The Association claimed that native populations had recklessly ruined forests to meet insatiable consumption needs due to growth in their own and livestock populations (BAAS 1852). The report was heavily influenced by the ideas of Hugh Cleghorn, the surgeon naturalist from Madras Presidency and ardent early advocate of conservancy. The appropriation of this report to the emerging agenda of unambiguous state control, not entirely endorsed by Cleghorn and his ilk, was made possible by the interventionist and managerial notions that it fed by suggesting that the government should-assume responsibility for halting environmental degradation.[40] This view crystallized over the next decade as the Government of India wrote to the Home Government categorically stating that "personal interest cannot be made compatible with public in working of forests due to the lack of moral and social restraints on forest exploitation in India" (Stebbing 1922:526).[41]

In these famous dispatches the idea of formally segregating forest land so that it could be efficiently administered was mooted to secure the largest quantity of produce from forests consistent with their permanent usefulness. Thus were the concepts of maximum sustained yield (MSY) and scientific forestry introduced to India.[42] To accomplish rational forest management, the working plan was devised as a management tool. "A working plan sets forth

zine, 1897, and quoted by Birdwood, (1910). Birdwood also noted the widening of the conservation lobby by the surgeon-naturalists, something that finds detailed discussion in Grove (1993). The strong influence, culturally, of this phase of conservancy on the chronologically postcedent scientific silviculture is well conveyed by the approving tones in which Stebbing (1922) writes about the personalities involved and his own association with them. Even though he was a professional, trained forester, Stebbing called his autobiography, "Diary of A Sportsman Naturalist in India." I believe *shikari* is still noted on the masthead of the Pakistan Journal of Forestry (Michael Dove, personal communication).

[40] As Grove (1988) points out, the surgeon naturalists were influenced by the French Physiocrats and the radical-humanitarian ideas of Rousseau (also a botanist). So while he helped lay the groundwork for forest reservation, Cleghorn later became a critic of plantation crops in the Nilgiris, decried railway development and "consistently claimed that activities of European planters were far more destructive than long established shifting *kumri* cultivators" (Grove 1988:40). There is an interesting parallel to the preservationist ideas of George Perkins Marsh and the conflict with progressive conservation that developed in nineteenth-century environmental politics in the United States.

[41] The text of these despatches and the replies of the Secretary of State for India in London supporting the introduction of sweeping regulations may be seen in Stebbing (1922).

[42] An MSY forest has been defined by a professor of forest management at the Imperial Forestry Institute, Oxford, as: "a forest furnishing regular annual outturns in perpetuity, and producing the maximum outturn which the soil and climate are capable of producing" (Troup 1940). MSY forestry originated in eighteenth-century Germany and had been adopted in France by 1820 before reaching India (Lowood 1990).
This fixes the rotation age of the forest at the year when biological growth of stock is maximized but growth rate is zero.

the purpose with which a forest should be managed so as *to meet the interests and wishes of the owner* (emphasis added), and indicates the means by which this purpose may be achieved" (D'Arcy 1898:01). Generally these plans laid out long-term treatment, prescribed felling cycles and schemes for trees in different forest coupes, and detailed short-term silvicultural practices. Estimation of the growing stock of valuable species was crucial to the plan. Curiously, the forest department in India seems to have neglected the work of another German silviculturist, Faustmann, who, around 1850, had developed a different model of steady state forest harvesting which maximized revenue more efficiently. In this model the rotation age was fixed at the year the growth rate of stock equalled the real interest rate (Davis and Johnson 1986).

The silvicultural agenda of the forest service was chiefly the transformation of mixed forests into homogeneous stands of commercially valuable species. First sal, teak, and deodar were classified as the superior species, since they were most important to railways, ship building, and military needs (Parker 1923).[43] Then silvicultural research over the first sixty years of scientific forestry was directed to moving from selection and improvement felling systems to regeneration block systems, in which these desired species were raised and harvested in blocks (Trevor 1923). This necessitated the restriction of grazing and burning practices, thus disrupting traditional agrarian systems (Guha 1989). There was not only a resultant increase in forest law violations but also spectacular gains in revenue (Reports 1900–30).[44]

Not surprisingly, recent studies have argued that the overriding concerns of commerce have violated the *sine qua non* of scientific forestry by extracting more than the mean annual increment from the forest, over all periods, and in different parts of Asia (Ali *et al.* 1983; Repetto and Gillis 1989). Using case studies from the arid zone in western India, it has additionally been demonstrated that demographic changes adversely affected village forests when they had a poor intrinsic potential for regenerating (Jodha 1985). Unequal access to land and state control have accentuated deforestation by pushing local communities into antagonistic and differential patterns of forest dependance without giving them a stake in conservation (Dasgupta 1982; Etienne 1988; Nadkarni 1989).

The spread of commercial agriculture converted a limited and inelastic demand for biomass products into a limitless and elastic export demand that led to over-exploitation of land and forest (Repetto and Holmes 1983). Thus, the British struggled to set aside the deciduous monsoon forests of the Burmese highlands as protection reserves to conserve valuable teak and ironwood (*xylia dolabriformis*) building material but promoted wet rice agriculture by ravaging the Kanazo evergreen forests in the Irrawady deltaic lowlands. In this case the

[43] The continued interest in teak spanned more than a century, starting with the orders of the Bengal-Bombay Joint Commission in 1800 to ban felling of Malabar teak less than 21 inches in girth.

[44] Forest revenues went up from about 10.5 million current rupees in 1900 to 60 million current rupees in 1930, although the area of forests remained constant at 16,941 square miles in the Central Provinces, which had the largest forest area in any Indian administrative unit.

pursuit of scientific forestry in one region starkly contrasts with unmitigated deforestation in another, at the expense of vast pools of genetic material destroyed in the process (Adas 1983). The role of political economy in determining the sites of purported scientific practice can hardly be ignored here.

Another important aspect of scientific forestry was the diversification of research to broaden the band of species being exploited commercially. The First World War gave considerable impetus to this process (Stebbing 1926). By 1920, the properties of lesser known species were being investigated. Softwoods other than Himalayan conifers came into use for tea boxes, matches, and pulp (Parker 1923). Even earlier, Brandis had spearheaded research on creosoting (chemical treatment) chir pine (*Pinus longifolia/ roxburghii*) for railway sleepers when teak and sal became scarce in the 1880s (Brandis 1897).[45] Research on medicinal plants and pesticides for timber species was frequently reported in special technical bulletins designed and published by provincial governments.[46]

The commencement of systematic forest research in India can be dated to 1906, when at the instance of Sir Eardley Wilmot, then Inspector General of forests in India, the Imperial Forest Research Institute was established at Dehradoon in northern India. The main branches were silviculture, zoology, botany, economics, and chemistry. Even though a chronicler of this process felt that research facilities developed in the face of opposition from the government (Hart 1922:247–8), they were soon harnessed to priorities fixed by the state. The main lines on which research was organized can be classified as wood technology, timber testing, timber seasoning, and woodworking (Rodger 1925). A lasting irony of the silvicultural research carried out in India was the continuous struggle to come up with systems that could be used to generate pure stands of valuable species in a situation where most of the important timber species (notably teak and sal) did not grow in large pure stands (Joshi 1980).[47]

The Imperial Forest Research Institute at Dehradoon carried out elaborate tests on hitherto useless jungle woods to evaluate their performance as structural timbers for use in bridges, buildings, and so on. Indian *Terminalia tomentosa,* after creosoting, was found superior to American *Quercus alba* (white oak) as sleeper wood. *Parrotia jacquemontiana,* previously known as a forest weed, was developed for various manufacturing applications, especially serving the department of military stores (Stebbing 1926). Yet another area of research was in growing seeds on different sites as a precursor to

[45] Creosoting refers to the chemical treatment of wood to impregnate it with creosote oils. This is a dark-colored, heavy oil that consists chiefly of liquid and solid aromatic hydrocarbons, tar acids and bases obtained by the distillation of coal tar. Creosote acts as a preservative for wood, serving as an insecticide.

[46] See, for example, the work on white ants (Ribbentrop 1902) and pepsin substitutes (Umney 1896) published by the Central Provinces administration.

[47] The case of sal (*Shorea robusta*) is particularly revealing in this respect and has been examined in detail as part of my current research.

introducing what were considered valuable species into new territories. From these nurseries were launched massive exotic breeding programs that led to the export to Africa of teak, sal, mahogany, and sandalwood, among other lumber species (Schabel 1990). A more detailed review of forest research in India over the past hundred years is likely to reveal strong continuities in priorities, suggesting that the comprehensive extraction of commercial value from the reserved and protected forests was a greater cause of deforestation than population growth per se. In fact, studies of demographic trends and forest dependance have argued this point both for the Himalayan region and for south India (Saxena 1987; Nadkarni 1989).

Thus, the edifice of state forestry was erected on the foundations of law, bureaucratic structures, and scientific knowledge that excluded contiguous village communities from forests in two ways. First, physical access was restricted. Second, the use value of the forest for subsistence was minimized by altering species composition and reducing biological diversity. This two-pronged strategy moved forests from the margins of subsistence agriculture to the center of commercial biomass production. At the larger level, discourses of protest mirrored these fundamental transformations of forest use and management. A consideration of the idioms and rhetoric of social protest is therefore necessary. However, when we proceed to the particulars of practice, policy and protest do not fit neatly into an impact-response model. Resistance, power, and cultural constructions of nature all interact to modulate state practice and re-organize peasant lives around forests in diverse ways that need to be situated in their specific histories of development and change.

ISSUES AND IDIOMS OF PROTEST

Speaking on the degradation of the environment and its effect on the subsistence economies of the rural poor, Chandi Prasad Bhatt, a noted leader of the Chipko forest protection movement in the western Himalayas, lambasted the abrogation of natural and legal rights of forest communities by a culture of state forestry that sought to optimize the yield in timber and generate revenue (Bhatt 1987). He was voicing the logic of a narrative in which the men and women of Uttarakhand, in the Indian Himalaya, have literally wrapped themselves as human shields around trees marked for felling, creating a discourse variously labelled as conservation, subversion, and a struggle for survival.

The marginality experienced by forest dwellers, while perceiving the interconnections with other discourses of resistance and official ideologies, merits examination on its own terms. Limited work has been done in this direction. Guha (1989) and Guha and Gadgil (1989) are fine examples of recent historical-sociological analyses of forest movements as autonomous discourse, somewhat in the subalternist tradition. The weakness of this approach, as more generally of much of the compilation called *Subaltern Studies* (Guha 1982–89), is the neglect of the dialectic between discourses of rule and discourses of

protest arising from the search for essential subaltern ideologies. The manner in which indigenous groups as communities of resistance are imagined has much to do with this.

At the risk of over-simplification, it can be said that Gadgil (1985), Agarwal (1986), Shiva (1988), and Guha and Gadgil (1989) provide an environmental variant of what has become a major theme of nationalist rhetoric against colonial rule, namely, its penetration and destruction of self-sufficient village communities. For instance, Gadgil and Guha (1992:114) say that "despite the grave inequalities of caste and class . . . pre-colonial Indian society had a considerable degree of coherence and stability. This permitted a rapid turnover of ruling dynasties without major upheavals at the level of the village . . . cultural traditions of prudence ensured the long-term viability of the system of production." All of these writers forcefully argue that pre-colonial Indian tribal and caste Hindu peasant communities understood their intimate dependence on nature and had developed systems of husbandry attuned to nature's regenerative cycles. Such respect for nature translated into a conservation ethic, which for Shiva (1988) especially could be retrieved from Sanskritic texts. In another more recent work, Shiva (1991:15) restates this claim of indigenous conservation practice based on the knowledge that recognized the same ecological processes that scientific forestry sought to safeguard, a practice embedded in social norms rather than laws or elite expertise.

Having constructed a pre-colonial society untouched by baneful commerce and competition for resources, colonial impact is then described as entirely external, completely new in ideologies of resource control, and, given the power balance, disruptive of ancient equilibria. Tribal people (the ultimate subalterns) are presented not as people who were pushed to margins but as groups found on the advancing frontier of colonial expansion. The cumulative impact of commercial forestry is seen to result in the increasing exposure of autochthonous primitive isolates to processes of degradation (Guha and Gadgil 1989:148–50). The danger of such an approach is to place hunting and gathering and sedentary agriculture on opposite ends of an evolutionary scale that has come in for criticism even within human ecology (Orlove 1980; Wilmsen 1989). For our purpose, the outcome is the analysis of domination and resistance within the framework of an impact-response model in which subaltern protest emerges from an autonomous subaltern identity and collides with monolithically conceived imperial states.

However, this is not to deny insights provided by the systematic analysis of ecological factors and their meshing with peasant practice or colonial definitions of silvicultural science. Eric Stokes did some of the earliest work on the relationship of ecology to peasant movements in India. In his analysis of peasant disturbances in central and north India, the roots of revolt were found not in the frustrations of degraded proprietary classes but in pockets of poverty caused by ecological differences and British land settlement policies. For

instance, he found greater unrest among graziers and semi-nomadic communities of central India like the Gujars, Bhattis, and Rangars who were forced to accommodate sedentary agriculture in their pastoral economy (Stokes 1986). He enriched the focus of his material by allowing such imponderables as the loss of honor, withdrawal of richer groups from traditional patterns of marital alliance, and the desecration of traditional rank by colonial state power to creep into his framework; but ecology became the fundamental explanatory variable, while caste, mentalities, and culture seemed to refer ultimately back to the fickle environment for food production.[48]

Along with the work of Metcalf (1979), this ecological approach also led to a geographic distinction of rebellious and loyal areas, on the basis of the degree to which tenurial arrangements and commercial agriculture favored the emergence of cooperative elites who used their prosperity to dilute potential protest. The poverty of the argument is the way ecology remains tied to economics, leaving undescribed the conditions of marginality as they came into sharp relief in generating protest. If market incorporation was the magic touch that removed disaffection, the question remains, how did forest movements develop around resistance and hostility to commercial forestry? It can be argued, remaining within economistic terms of debate, that the nature of commercialization was substantially different. Subalternists recommend the insertion of religion and the fashioning of a distinctive consciousness thereby into the framework of analysis.[49]

Describing the wave of fish pond looting and the violation of restrictions on forest rights that broke out in Midnapore district of Bengal, Sarkar (1984) points out that the movement was rooted in the resentment engendered by the Midnapore Zamindari Company and the construction of railways that impinged on Santhal (tribal villagers) use of the forest but that the movement was activated by a memory of times in the recent Santhal past when jungles were open and ponds freely available for fishing. This collective mentality favors subaltern militancy when reality is constructed in subaltern consciousness as a period of breakdown in the patterns of hegemony and coercion. Such construction uses as its raw material rumors, contingent events, and norms of resistance inculcated by the Gandhian movement. However, in Sarkar's version, the actual subaltern outburst is mediated by the "magico-religious character of peasant society . . . untouched by creeds of secular progress" (Sarkar 1984:308–9).[50] While Sarkar seems to argue a distinctive ontology for peasant consciousness based on the Santal tribal case, Hardiman (1987) shows that

[48] For the Marxist/nationalist critique of Stokes and the relative underestimation of colonialism in his and similar explanations of economic change in the British period, see Habib (1985).

[49] The subaltern school critique of Stokes is best read from Guha (1982) and Pandey (1980).

[50] The value of the historical contingency argument is evident from Sarkar's description of the way widespread violation of forest laws restricting collection of building materials in Chittagong erupted into the burning of forest offices in the aftermath of the non-cooperation movement in 1921–22; but by the same token, similar evidence seems to erode the plausibility of his structuralist formulations as determining forms of protest.

adivasis (tribals) have cultivated land in diverse ways, engaged in extensive economic interchange with other ethnic groups, and shared religious belief and practices with caste peasantries.

Nevertheless, we have to be dissatisfied with the way *Subaltern Studies* treat collective traditions and cultures of subordinate groups. An ahistorical, consensual, and undifferentiated notion of primordial loyalties permeates much of the work.[51] Guha (1989), who included in this book an earlier essay from *Subaltern Studies IV* on forest movements in British Kumaon, frequently resorts to such treatment of the ecological consciousness of the Chipko agitators, even though the book is full of rich ethnographic material showing the separate construction of the ideology of protest by women, men, villagers, and leaders.[52] The deleterious consequence of this portrayal is that "it restores within a redrawn and smaller notion of the collective exactly that notion of unity . . . of the absence of the relations of power, which is the subject of attack" (O'Hanlon 1988:212). The point is that a shared moral economy is itself a contingent historical creation, which is modulated and contested and used both for internal solidarity and repression.[53]

Seen from this perspective we can identify the historical creation of a tribal world that came to be treated as autochthonous primitivity by the sympathetic ethnography of the 1930s and 1940s.[54] By implementing a forest policy that denied property rights in woodland to tribals and other rural poor, the state generated a discourse of exclusion that made subaltern marginality an historically emergent condition. To take but one example, Baker (1991:356) notes that "while the administration sought to confine tribals to *malguzari* villages, it also excluded them from forests. Settlement officers simply forbad Baigas from cultivating in the forest and sought to confine them, to certain localities." This sedentarization project of the late nineteenth century divested the affected populace of material claims to the forest, leaving them no recourse other than to assent a religious affinity to the forest. Albeit in a different context, but still pertinent to our discussion, Foucault tells us that the establishment of territorial, administrative, and colonial states frequently was

[51] See the articles by Chatterjee (1982) on communalism in Bengal, Chakrabarty (1983) on jute mill workers, and Sumit Sarkar's ideas about shared structures of religiosity previously discussed.

[52] The environmental movement's appeal to a pre-capitalist notion of community as an essentializing stereotype is discussed in the context of progressive politics in the industralized states by Paehlke (1989), in a manner that provides interesting parallels to our more localized case.

[53] See for instance the excellent discussion in Thapar (1989) of the modern construction of Hinduism which draws on pre-colonial and Orientalist texts in the historical processes of colonialism and nationalism.

[54] See Elwin (1936, 1938, 1942, 1950, 1989) and the Hyderabad phase work of Cristoph von Furer-Haimendorf (1943, 1945, 1948). For the retention of this powerful trope and hence the treatment of Indian tribes continuously isolated from surrounding high civilizations of Hindus and Muslims, unaltered therefore in their backwardness (thereby lacking in history), until the extension of state power in the nineteenth century to hills and forests by the British, see von Furer-Haimendorf (1982). A fuller critique of subaltern studies and their use of anthropological discourse may be found in Sivaramakrishnan (1994).

accompanied by the efflorescence of moral and religious issues relating to governance and its legitimacy. "There is a double movement . . . of state centralization on the one hand and of dispersion and religious dissidence on the other: it is, I believe, at the intersection of these two tendencies that the problem comes to pose itself with peculiar intensity" (Foucault 1991:88).

FROM RESISTANCE TO POWER

For these reasons, ultimately, resistance becomes a limiting construct for the analysis of disputes over forests in India and the more general consideration of the creation, sustenance, and alteration of discourse and the technology of power. A tendency develops to romanticize resistance and read all forms of resistance as signs that the systems of power are ineffective, thus inferring that the human spirit is resilient and creative in its refusal to be dominated. Guha (1989) defines the problem in the context of forest movements in India by demonstrating that structural organizational histories and cultural-symbolic anthropologies, in explaining peasant protest in Uttarakhand, have been artificially segregated to the detriment of the analytical product. What he leaves undone is the cohesive treatment of instrumental and expressive aspects of protest to evolve a single, integrative explicatory model. We need to explore further the idea of multiple resolutions to tussles among peasants, landlords, and the state, as Brenner (1976) has evocatively argued, by examining institutions of power and ideology that intervene in political structures. These structures have specific histories encompassing movements of population, conquest, and subjugation; the stabilization of complex relations of obligation and reciprocity within local society; and incorporation into larger structures. This would require understanding not only local but also multi-faceted elite cultures. In the case of forestry, these cultures were manifested in the interpretation of imperial imperatives and the structure of scientific forestry.

We cannot confine ourselves, then, to considering the voices of discord and the agenda of protest. A complete inquiry into human agency would entail uncovering cooperation, as well as conflict and complicity, interleaved in resistance. An account would be incomplete if it did not analyze the manner in which the local communities interacted with the edifice of forest administration to influence its shape and design as it was being erected. Much of the reconstruction of human agency can emerge from the skillful interpretation of historical record, even when it has been generated by state authority (Sabean 1984).

We are told that conventional social science in India ignored many resistive events merely because they went down in the official record as outlawry, dacoity, or some other form of statutory crime (Dhanagare 1983). Guha (1987) has demonstrated how the judicial record can be utilized in the manner that Sabean suggests to recover protest and its special cultural forms in the case of the subaltern. This requires making the minuscule grain of history

visible in order to expose the exchange between familiar and remarkable, the quotidian and the historic. The exchange develops into a struggle between state and community, appropriating the story of the crime as a discursive site. Thus, the details of clashes between villagers and forest officials may be gleaned from statistics of crime in the forest reported annually by the Revenue and Forest Department.

For example, the introduction of "early burning" as a silvicultural practice in certain Himalayan provinces of India was motivated ostensibly by efforts to propagate chir pine monoculture for commercial uses; but it also served to pre-empt such conflict (Guha 1989). In this context, reports of increased violation of grazing regulations lend themselves to a variety of explanations, depending on the analytical perspective. Very often they were symptomatic of fundamental disagreement in the exercise of property rights.[55] The government reports merely note the correlation between commodity price fluctuations and the incidence of forest offenses (Reports 1900–30). The same trends have been noticed in contemporary conflicts, indicating a basic competition over natural resources between rural subsistence and urban commercial economies in times of intensified demand on a shared, shrinking base (Agarwal 1984; Sivaramakrishnan 1987). In all periods the influence of these dialectical exchanges on redefinition of state attitudes and priorities is understated.

The case of *dhya* cultivation in the Central Provinces presents a more complex case and a paradigm for appreciating the interaction of colonialism with swidden agriculture,[56] which was the most widespread form of shifting cultivation by the Gonds, who ploughed the ashes of burnt trees into the soil to grow light millets for subsistence. The forests, according to Stebbing (1922:398), had "been devastated by the cutting and burning of the best timber to form ashes and manure fields of coarse rice and pulses." The dhya cultivator would select teak stands for slash and burn because teak ash was the best fertilizer for the broadcast crop. As the Chief Commissioner of the Central Provinces, Sir Richard Temple, put it, "the best ground for this peculiar cultivation is precisely that where the finest timber trees like to grow" (Dyer 1925:349). Because teak and sal were the most valuable hardwoods for the forest department, the conflict was direct.[57] Not surprisingly, the forest act

[55] See, for instance, the discussion of firewood thefts from commons as an assertion of endangered rights by tenant farmers in eighteenth-century England (Thompson 1978). The manner in which the assertion occurs has to do with a pragmatism which in turn had to connect with a popular complicity of groups engaged in poaching, firewood collection, and so forth by the blurring of certain proprietary boundaries, even as others were asserted. For a similar discussion of wood theft from Teak forests in Java, see Peluso (1992).

[56] Shifting cultivation is known by various names, such as dhya in central India, kumeri and podu in south India, jhum in Bengal and eastern India, taungya in Burma, and ladang and tegal in Indonesia.

[57] Pejorative description of shifting cultivation in the context of forest conservation remains prevalent in the hegemonic discourses of World Bank reports. See, for example, Binswanger (1989) on the deforestation in Amazonia. This challenges recent research, especially in the neo-

of 1878 emphatically ruled that "the practice of shifting cultivation shall in all cases be deemed a privilege subject to control, restriction and abolition" (Legislative Department 1890:13).[58]

In carrying out this explicit legal mandate, provincial governments were frequently placed in difficulty. In some areas, tribal resistance to curbing *jhum* was violent and confrontational.[59] Tribal resentment displayed a range of other responses as well. Forsyth, the most extensive surveyor of the forests of the Central Provinces, found non-cooperation in the building of a forest rest house in Pachmarhi. He wrote, "I saw the chief himself and his advisors hated our intrusion . . . they feared we [had] come to break up . . . their untrammeled barbarism" (Forsyth 1889:100–1). Others like the Baiga slipped away when they spied approaching officials. Religion was sometimes invoked to stall attempts to take over the forests.[60] All manifestations of protest were regarded as "rejection of development and progress" (Baker 1991:347).[61]

The consequences of resistance to jhum control were diverse. In some areas, small demarcated zones were given up to this "intractable tribal practice." The state's most innovative response was the introduction of modified taungya systems.[62] According to Leach (1977), this traditional technique of highland Burma for shifting cultivation had clearly distinguishable subsystems, depending on climate and physiography. The British developed an agro-silvicultural system based on Burmese taungya in which tribal villagers were allowed to grow rice, millets, tobacco, and poppy among rows of teak seedlings (Blanford 1925, 1958). Once again the ubiquitous Brandis was in the forefront, taking direct credit for the introduction of taungya forestry in Burma. He records that "as soon as I had seen the first Karen taungya in 1856, I determined to deivse some method, by which this mode of cultivation might be utilized for planting teak on a large scale in the forest" (Brandis 1897:37). Traditional agriculture was melded in this way with commercial forestry, the

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tropics, which has shown that basic traditional practices for swidden fallow agro-forestry are adaptable to varying ecological and economic situations (Boom 1987; Gholz 1987; Henley 1982). Shifting cultivators in Asia, Africa, and the Americas have been reported to plant tree species in their fields.

[58] This legacy of the Brandis era remains with us in the form of the conviction that shifting cultivation is ecologically unsound and exhibits cultural primitivity. Even the otherwise democratically worded National Forest Policy of 1988 says, "shifting cultivation is affecting the environment and productivity of land adversely. Alternative avenues of income, suitably harmonized with *the right landuse practises* (emphasis added) should be devised to discourage shifting cultivation" (Government of India 1988:04).

[59] See the vivid accounts of Saora protest in the Central Provinces and Guden-Rampa uprisings in Madras (Elwin 1945; Arnold 1982; and von Furer-Haimendorf 1945).

[60] On the religious idiom of peasant protest, see Guha (1983). Also see the detailed discussion of precise forms taken by the idiom and the lexicon of religious discourse as protest in Hardiman (1987) and Arnold (1982). The latter remarks on the later *fituris* becoming overtly religious when the issue of customary forest rights came to the fore.

[61] For an excellent detailed discussion of forest policy towards shifting cultivation in the Central Provinces and resistance, see Rangarajan (1992).

[62] On earlier forms of taungya in Asia, see Menzies (1988). It was clearly a very old and indigenous system of agriculture.

former proving a source of cheap labor for the latter. As a method of coopting the intransigent *jhumia* this mode of cultivation obviously met with considerable success and spread to different parts of India. In 1868, the first large-scale taungya teak plantations were made; by 1895, they covered 15,000 hectares in Burma alone, and annual yields of teak had doubled. In that region, teak came up in bamboo forests (mainly *Dendrocalamus strictus* and *Bambusa polymorpha*) which were periodically burnt to push back the canopy and to provide light for teak seedlings.[63] By the last decades of the nineteenth century, *taungya* had been introduced in Java. In this variant, peasants moved on every two years, giving up all usufruct rights in the *taungya* field and leaving behind a young stand of teak saplings (Peluso 1991).

The more lasting and powerful response to shifting cultivation, as to all forms of nomadism, was the sedentarization of mobile groups.[64] Drawing on European and Indian pasts, a complex discourse of representation and rule was created as the colonial state grappled with what were called criminal tribes throughout the nineteenth century. Radhakrishna (1989) has argued, regarding the notification of criminal tribes in Madras, that forest policy restrictions on grazing and the collection of forest produce traditionally bartered for salt, railway expansion, government takeover of the salt industry, and famine were all instrumental in destroying the livelihood of many wandering tribes like Korava, Koracha, and Yerukula, who were later declared criminal, settled, or transported. Settlement schemes tended to coincide with labor requirements for newly established quarries, mines, factories, tea and coffee plantations. Nigam (1990) presents similar evidence of the transportation of Bawarias from Uttar Pradesh to clear forests in the Dehradoon hills.

Forest policy interacted with the creation of a distinctive colonial anthropological discourse as part of the enduring sedentarization project of the nineteenth century which sought to delegitimize the life and culture of banjaras, jhumias, shikaris, Rangars, Bhattis, Mazhabis, Meenas, Mevs, Bhils, and a host of peoples who were itinerant traders, nomadic pastoralists, shifting cultivators, and so on. According to Bayly (1990), through most of the nineteenth century the crucially scarce factor of production in the agricultural sector was labor, not land; and dealing with this shortage drove colonial

[63] A curious sidelight is that Brandis (1897:40), otherwise more concerned about local rights in forests than his contemporaries making forest policy, also could not countenance shifting cultivation, as the following words clearly bring out. "This destructive mode of cultivation is now confined within definite limits . . . the Karens are gradually abandoning their nomadic habits, they establish permanent paddy fields in the valleys and by terracing the hills they plant gardens and groves of fruit trees. The money they have earned by timber work and by planting teak enables them to purchase cattle, and they thus gradually rise in the scale of civilization."

[64] Treating nomadic pastoralists as robbers and socially disruptive elements to be converted to settled agriculture is a discourse formation that runs through Mughal politics and colonial state making in India (Zaidi 1989; Nigam 1990). In Africa, similar state intervention has been observed to precipitate a gradual dismantling of common property resources in favor of privatization by sedentary groups at the expense of pastoral nomads like the Orma in Kenya (Ensminger and Rutten 1991). Another example would be the gradual decline of the Kalahari San as the water holes crucial to their lifestyle came under the control of Tswana herdsmen (Wilmsen 1989).

policy. Tucker (1989) certainly proves this in the conversion of forests to plantations in Assam and Kerala.

However, the strategies of power and the discourses in which they were enmeshed cannot be disentangled from the political economy that provided the discursive background. Mayaram (1991) has shown how the colonial state appropriated narratives of self-constitution among the Mevs of Rajasthan in their reconstitution as a criminal tribe. Such narratives had the potential to represent the negotiation of an internal solidarity that would be inimical to the effective penetration of state power. This might have caused the state to view certain cultural forms with suspicion. Frietag (1985) proceeds on these lines to suggest why the British were more perturbed by collective crime than individual criminality. Even a sympathetic, Indophile bureaucrat like A. O. Hume believed that criminal tribes lay "like an infernal machine beneath the keel of good government . . . a sudden mischance calling forth to rapine and murder the jungle thousands that haunt the delta of the Jamuna" (Nigam 1990:151).

Colonialism defined and thus reproduced an indomitable sense of community inimical to the individualizing state. Contrasting such essential communal solidarity of peasantries against the depredations of the rational state based on contracts has become a powerful metaphor in the hands of popular environmentalism in post-colonial India. This needs to be placed in the context of the cultural constructions of nature that environmental politics draws on and reproduces.

THE CULTURAL CONSTRUCTION OF NATURE

In the study of colonial and post-colonial complex state agrarian societies, the vision of an equilibrated relationship between man and nature is a pervasive metaphor, in which predation and symbiosis were held in a fine balance until the advent of European expansion. The present constitution of New World biota and society is, according to Crosby (1986), a distinctive product of the European portmanteau and the ecological change it wrought. Intersecting ecology, politics, and culture, the capitalist transformation of world biota then provides elements of a shared past.

This notion of something shared but not entirely is conveyed by Scott (1990:100) in his statement that "myths, hegemonic ideas, are the product of joint struggle in which the basic terms are shared, but in which interpretations follow widely divergent paths in accordance with vital interests." I would like to proceed with such an approach. For instance, the placement of forests at the margin of agriculture, as an appendage to the food production system, may be shared as a cultural formulation of the relationship between forest and agriculture, both among peasants and colonial administrators in British India; but interpretation varied to the extent of fuelling violent conflict between the state's powerful impulse to preserve the forest and that of the peasant commu-

nities to use the forest. This had much to do with the communities dependent on forests being on the margin of caste and the periphery of power structures that summed up caste and class.

The use of religion and other large mythic structures was often innovative when a resistive discourse was fashioned from the kind of ambivalence mentioned above. The Chipko agitation reached out to over-arching Hindu belief when the Gita was read in the forest to protest the trees being cut down. This was crucial when successfully appealing to non-local labor used by timber contractors. Equally, the act of hugging trees by women, the traditional controllers of the hearth, was aimed to strike a chord in an ethic of shared subsistence that transcended differences of territory, gender, and caste. Religion was important precisely because it developed syncretic forms using adivasi rites and Hinduism. Fifty years earlier, the incorporation of adivasi religious sites into Koya and Bagata pantheon became important to the rebellious hillmen Arnold (1982) writes about. This incorporation demonstrated autochthonous origins for the hillmen's faith among the hills and streams where they lived.

As Lévi Strauss (1972) shows, tribesmen do not use religion and myth as devices to repudiate reality. Rather, religion and myth provide structures for comprehending the immediate reality and responding to them. In the Gudem-Rampa case, religion was used to express dissatisfaction with subjugation and frame the terms of deliverance in a known model that provided symbolic capital to counter the superior control of economic capital exercised by oppressors. Travelling ecclesiastes (*sivasaris*) moved through the region, with the prophecy of one Bodadu (in 1886) that God had ordained a successful *fituri* (rebellion). This was rendered authentic by the encounter of Bodadu with the five *pandavas* (the redemptive brotherhood of the Mahabharata epic in the Hindu tradition) in the jungle, a symbolic mediation of local and national culture that was politically expedient for integrating hillmen with supporters in the plain (Arnold 1982). At a later stage, RamaRaju, a *telugu kshatriya* leader of the agitation against forest reservation, gained local control through his knowledge of astrology and medicine, giving him magical powers in the eyes of the hillmen. However, by advocating temperance and *khadi* (homespun cloth), he also strategically allied with Gandhian politics (Arnold 1982).

Thus, we can see that the cultural construction of nature is grounded in practice and that a holistic view of such a practice must be taken to relate systematically disjunctive moments to conjunctive ones by going from resistance to power and from the religious idiom of confrontational protest to the religious idiom of complicit modulation of social processes. To communities dwelling in the forest, the forest was a source of sustenance, so their religion led them to make special sacrifices to forest gods. It is striking to see in how many myths and legends a deep sense of identity with the forest is sharply

etched. Law and policing could not take away from the forest villages their heartfelt ownership of the forest (Anderson and Huber 1988). The clash between state forestry and village management was not only an economic one. The contending management styles rested on radically different systems of meanings. The social idiom of protest reflected the threat to traditional cultural and communal values that commercial forestry has represented. Therefore, that idiom invoked both an alternate system of use and an alternate structure of meanings.

To comprehend the finely interwoven language and substance of debate, it is necessary to examine these constructions of nature implicit in the philosophical ways that different societies used to deal with forests. In their review of sacred groves, Gadgil and Vartak (1976) have pointed out that these systems of indigenous conservancy arose in hunting and gathering communities. In a later work, Gadgil and Malhotra (1983) argued that prudent and sustainable use of natural resources was instrumental in the stability of the caste Hindu society and its resistance to transformation. All this points to the existence of traditional forms of forest conservation contradicting colonial forest histories which describe local communities as "careless and ignorant" in dealing with forests. These need some elaboration.

In pre-colonial India, a variety of social groups exercised claims on forest resources in different regions—hunters and gatherers, shifting cultivators, plough agriculturists, pastoralists, and artisans. This led to a diversity of arrangements for communal management of the forest, consisting of religious proscription, communal sanction, and active tree planting. Sacred groves were one such mechanism and are still in existence in the Himalayas and coastal south India. Their connection with religious practice, as revealed by their proximity to temples, is often explicit. The biological diversity of tropical forests, preserved in little patches where these groves exist, are recognized even by colonial foresters (Brandis 1897; Edwardes 1922).

Stretching from the Khasi Hills of northeast India to the *Devara Kadu* of the Coorg in the southwest, Brandis notes the occurrence of sacred groves in different parts. "These sacred forests as a rule are never touched by the axe, except when wood is wanted for the repair of religious buildings" (Brandis 1897:12). One problem with this view is that it makes pre-colonial practices frictionless and devoid of conflict. Indigenous conservation ethics seem to be embedded in the structural-functional perceptions of the societies espousing them. The environmental movement has sought to naturalize sacred groves as an icon of indigenous conservation, placing them outside politics precisely to make them a more potent political symbol in the struggle between peasants and the state, on issues of forest use and management.[65] As Sahlins (1981)

[65] The sacralization of resource management institutions has its own political history—a narrative of contest and accommodation that has to be uncovered. Examining the history of the

has suggested, the ritual power of tabu encompasses the protection of property, and this could become transformed in pragmatic structures of trade. The manner in which such ritual conservation is remembered and reconstituted in contemporary power relations would be influenced by the history of tabu and its implication in historical power structures. Alongside the designated sacred groves, village communities practiced a system of managing woodland by rotation and also regulated the supply of fuel, fodder, and small timber from the forest to individual households. Sanctions in the form of fines and social boycott were imposed by the community on those who violated these regulations (Guha 1989). In Kumaon (Uttar Pradesh, North India), unofficial *lath panchayats* composed of village elders protected village forests (Somanathan 1991). The modern system of *van panchayats* both continues and appropriates this practice.

Sometimes resources were conserved by partitioning land among different social groups on a seasonal basis. Examples are the seasonal sharing of the forest and grazing lands between nomads and sedentary agriculturalists, in which the nomads repaid access to land by providing manure and other services, and the allocation of different wildlife species among different hunting castes (Gadgil and Malhotra 1983). There is also evidence of tree planting in which the choice of species and crop management reveals the care bestowed by the forest communities on their habitat. For instance, the Apatani peasants of Kumaon planted trees that had a span of maturity far exceeding a human lifetime (Pant 1922). In addition to notions of enduring potential of enhanced resources, apparently selfless and genuinely cooperative use of natural resources has emanated from ecological histories of uncertainty and the need for minimizing risk (Fernandez 1987; Wade 1988).

In contrast, the dominant European view of nature, as it emerged with the spread of capitalism, was qualitatively different. Landscapes were seen as commodities, and members of an ecosystem were treated as isolated, extractable units (Polanyi 1957; Cronon 1983; Merchant 1990). This perception was dominated by ideas of exploitation and appropriation which viewed nature as a machine given by God to man to be managed for maximal productivity (White 1967). At the same time that Dr. Gibson, the first Conservator of Forests in Bombay, was preparing his reports on the consequences of forest destruction for water supplies, soil erosion, and siltation of rivers, ardent naturalists were making similar associations of human influence and resource degradation in the New World (Cox *et al.* 1985; Glacken 1967). The vital difference was that, in the colonies, the critique was of "unreclaimed backwardness," while in the free world it was more introspective. In both situations, however, the idea that the state should control forests was evolved as a modified utilitarian vision of conservation and of the spirit of free enterprise to promote maximum sustained

processes whereby sacred groves and such institutions of nature conservancy came to be established in India is a methodological and theoretical challenge still to be taken up by scholars.

yield and multiple-use forestry (Hays 1959; Pinchot 1947).[66]

We must, however, be wary of the incipient dichotomization emerging out of the preceding discussion. Recent environmentalist and polemical literature has seized selectively upon the complex history of forest conservation and degradation in India to sharpen the edge of this idealized antinomy.[67] Many historians have worked with the assumption that the environmentally destructive aspect of the colonial experience had to do with imperialist attitudes to the environment. The problem with this has been the concomitant tendency to characterize attitudes to nature "by a simple dualism of Arcadian attitudes on the one hand and imperialist attitudes on the other" (Grove 1988:20). Even Guha and Gadgil (1989:177) conclude their fine study of forest conflicts in the colonial period by referring to "two opposed notions of property and resource use: communal control over forests being paired with subsistence . . . state control with commercial exploitation." The social construction of forests that underlies this formulation is clearly intended to provide the contemporary environmental movement with history and antiquity, a discursive strategy deriving from the era of freedom struggles in the colonized world (Anderson 1991). The problem that remains is how do we incorporate into this model the most recent struggles in Uttarakhand—the home of the chipko movement—where traditional roles have been reversed? Those who inherited the chipko legacy are conducting a violent agitation against the Forest Conservation Act of 1980, seeking development, self-determination, and forest clearance in a way that fundamentally breaks with much of their past and yet remains encapsulated in the modern debates of nation-states.

CONCLUSION

Ways of imagining the past simultaneously construct and are shaped by the historical circumstances in which human agents are placed. Unpacking this dialectical process in the case of colonial forestry and of relations between peasants and the state in India has involved the discussion of administrative structures, legal frameworks, scientific programs organizing knowledge, and the discursive formations in which they were located. The attempt of this study has been to integrate such a discussion into one of resistance and indigenous knowledge systems, which are often treated as reactive or autonomous discourses.

Another facet of the several fusions undertaken in my project is the belief that culture and political economy combine in complex ways as the past is imagined and that they are then used in contesting and negotiating relations of power, which lead to the creation and perpetuation of certain ideologies. These ideologies are inflated into discourse formations and hegemonic structures as the politics of representation unfolds. Instrumental to this process is

[66] For a detailed discussion of the intellectual approaches to conservation introduced to the West by the work of colonial surgeon naturalists in India, see (Grove 1988).

[67] See especially Bandhopadhyay and Shiva (1989) and Shiva (1991).

the propagation of a theory of knowledge. This theory of knowledge is "a dimension of political theory because the specifically symbolic power to impose the principles of the construction of reality . . . is a major dimension of political power" (Bourdieu 1977:165). Such a combination of power and knowledge also elevates ideology to wider representative authority by generalization and naturalization—"to claim for specific interests a natural universality" (Kelly 1991:423). As was demonstrated, both the ideologies of rule and the rhetoric of resistance made selective use of the past, precisely to attain these effects, by developing their naturalized accounts of forests and their use in India.

The central concern of this essay has been to describe the practical world in which the articulation of hegemonic and counter-hegemonic discourses occurs. Equally, the point stressed is that we need to shift our focus from the dichotomous polarities of these discourse formations to their construction inside fields of power and within ongoing processes of contention and struggle. As O'Brien and Roseberry (1991:18) have recently reminded us, "metaphorical oppositions give us imagined pasts . . . that . . . are bound together in a unified set of social, political and cultural processes."

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