

2001

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Recommended Citation

Baker, Mark (2001) "The Politics of Knowledge: the Case of British Colonial Codification of "Customary" Irrigation Practices in Kangra, India," *Himalaya, the Journal of the Association for Nepal and Himalayan Studies*: Vol. 21: No. 2, Article 7.
Available at: <http://digitalcommons.macalester.edu/himalaya/vol21/iss2/7>

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The Politics of Knowledge: British Colonial Codification of “Customary” Irrigation Practices in Kangra, India

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ABSTRACT

Colonial administrative rules in British India were often based on customary laws, considered to be important components and manifestations of the collective structure and history of communities. The requisite colonial knowledge for these rules was sought through the codification of Indian social customs, practices, and law. However, the project of gathering colonialist knowledge about “authentic” Indian traditions was fraught with challenges and contradictions, many of which are illustrated in this analysis of the codification of irrigation customs associated with the *kuhls* (gravity flow irrigation systems) of District Kangra. The *Riwaj-i-Abpashi* (Irrigation Customs), first compiled as part of the 1874 revised settlement of District Kangra and later revised in 1915, arose out of the desire by British colonial administrators to control and regulate the expansion of irrigated agriculture in order to generate greater revenue. This required the codification of irrigation customs, both for purposes of taxation and to resolve future water conflicts. Exceeding 700 pages in length (including maps), this text describes the origins and history, location, command area and methods of construction, and inter-village rights and responsibilities associated with the more than 715 multi-village *kuhls* in Palampur and Kangra *tehsils* of District Kangra. It also includes a glossary of specialized irrigation terminology and a section on the customary rules governing the construction of new *kuhls*. The extraction and classification of local irrigation knowledge and rights that the *Riwaj* entailed shifted power relations among local groups (generally in favor of already dominant groups), undermined the basis of authority of the *kohli* (watermaster), shifted the terms and contexts of water disputes from local, oral, and civil to general, written, and state-centered, and expanded the presence and influence of the state at the local level. However, rather than a unilateral extraction of information and revenue, the codification of custom also created new arenas for expressing and negotiating local claims to water. In recent years some irrigators have been able to defend successfully their water rights claims against competing state claims, using the colonial codification of their rights as the basis for their claims.

Colonial administrative rules in British India were often based on customary laws. The requisite colonial knowledge for this was sought through the codification of Indian social customs, practices, and law. From the tenure of Warren Hastings, the first Governor General of India, through to the last colonial census of India in the twentieth century, British rule in India was characterized by exhaustive efforts at cataloguing, classifying, and codifying custom. In large part this effort was motivated by the search for principles of law upon which to govern and adjudicate disputes. The orientalist scholars of the eighteenth century studied the Sastras and Koran and consulted with pundits in their search for authentic knowledge about Hindu and Muslim customs and law. By the nineteenth century,

when the frontier of colonial rule had shifted from Bengal to the Punjab, the orientalist scholar had been replaced by the settlement officer in rural villages who interviewed village elders about their customs as they practiced them. These were then recorded in the *wajib-ul-arz* (village administration papers) or *Riwaj-i-Am* (Customary Law) and used as the basis for allocating land rights in land and resolving disputes. In Bengal as well as the Punjab the search for authentic customs as the basis for law was based on the assumption that customary laws were important components and manifestations of the collective structure and history of communities. This assumption justified their codification and incorporation into formal legal frameworks.¹

The project of gathering colonialist knowledge about “authentic” Indian traditions was fraught with challenges and contradictions, not the least of which included the plurality and changing nature of customary practices, the inherent relations of domination and subordination that characterized interactions with colonial authorities, the strategic, pragmatic decisions villagers and village elders made about how to represent themselves to colonial rulers, and the various and at times conflicting frames of reference and conceptual assumptions of those who codified custom (particularly the debates between conservative traditionalists and utilitarian positivists and liberals) (Cohn 1987; Dirks 1985; Guha 1981; Raheja 1998). Thus, the codification of custom was not an objective, transparent, and clear “snapshot” of social practices, unencumbered by conceptual filters, contrary to the views of conservative colonial administrators who held that the purpose of state intervention was only to discover, record, and systematize custom.

British land settlements are good examples of the intended and unintended consequences associated with the codification of custom. The primary purpose of the land settlement process was to determine the nature of property rights in an area, identify rights holders, and establish revenue rates and payment schedules. In areas where irrigation augmented natural rainfall, the settlement report for a village would also include a description of the manner of irrigation, the area irrigated, irrigation rights, and sometimes notes on the social organization of irrigation management. Although ostensibly an exercise in elucidating and recording a region’s customs and laws relating to land rights, cultivation, and the distribution of agricultural surpluses, land settlements were heavily influenced by prevailing European social theories concerning private property, investment and productivity, anthropological theories about social evolution, and the successes and failures of prior settlements in other regions of India, all cloaked in the guise of debates over what constituted “local custom” (Baden-Powell 1892; Guha 1981).

The nineteenth century land settlements in the Punjab illustrate some of these themes. In the Punjab the settlement process, informed by an anthropological focus on genealogy and agnatic relationships, defined village property rights in terms of blood ties and patriarchy. This consolidated the land rights of coparcenary communities and

weakened the rights of persons unable to establish a genealogical link to the original founder of the village. The “native voice,” as it was filtered and interpreted during the codification and settlement process, was a “male, patriarchal voice, the voice of the dominant proprietary body speaking against the rights of non-proprietors, females, and lower castes” (Battacharya 1996:47). The rights to land held by non-agriculturalists and by women were considerably weakened during this process. And because rights to common property resources were based on ownership of agricultural land, the claims of women and non-agriculturalists to common property resources were also substantially undermined. These exclusionary effects have current relevance. For example, only those households whose ancestors’ names appear in the list of proprietors included in Anderson’s 1894 Kulu forest settlement are considered valid rights holders and thus eligible for compensatory remuneration in exchange for the annulment of their rights as part of the establishment and management of the Great Himalaya National Park.²

In District Kangra, Himachal Pradesh, the land settlement process included the codification of irrigation rights. However, the village-by-village approach to recording irrigation information employed in most areas of nineteenth century Punjab was unworkable in District Kangra. In Kangra, the *kuhls* (farmer-managed gravity flow irrigation systems) that irrigate rice and wheat fields were and still are exceedingly complex. They constitute a dense web of interlocking irrigation systems and channels etched into the landscape. Often one village uses water from several different kuhls to irrigate fields at different elevations, or concomitantly one kuhl might irrigate fields in as many as 30 or 40 different villages. The management of multi-village kuhls requires inter-village coordination for channel repair and maintenance and water distribution. A record of rights at the village level would thus reveal only a partial picture of irrigation organization and management. Realizing the limitations and inadequacies of village-level information, the settlement officer responsible for the 1874 revised settlement of District Kangra had prepared a watershed-scale record of irrigation rights for the two tehsils (subdistricts) with the greatest density of irrigation networks—Palampur and Kangra. The resulting compendium, known as the *Riwaj-i-Abpashi* (Irrigation Customs), de-

¹ The approach to custom as the basis for colonial law was assailed by utilitarian positivists who criticized this use of tradition because of its inherently conservative bias. Mill and other utilitarians influenced by Bentham argued that law should be a liberal force of social change. The responsibility of law-makers was not to search for “true” and “authentic” custom, but to develop laws as they should be, consistent with the universal principles of reason and utility, not tradition and custom (Battacharya 1996:24).

² Descendants of those families whose names do not appear on the list (most likely women-headed households, non-agriculturalists, and lower caste households) do not qualify for any compensation or government subsidies, even though from a usufructory standpoint, both they and their ancestors could have been as intimately engaged in the management and utilization of resources currently within the park boundary as those whose family names appear in Anderson’s settlement (see Saberwal and Coward, this issue).

scribes the origins and history, location, command area, methods of construction, and inter-village rights and responsibilities associated with the more than 715 multi-village kuhl in Palampur and Kangra tehsils. The *Riwaj-i-Abpashi* also includes a glossary of specialized irrigation terminology and a section on the customary rules governing the construction of new kuhl. The corresponding information regarding the more than 1500 smaller kuhl that irrigate one village or less was compiled as part of each individual village's settlement papers. The *Riwaj-i-Abpashi* was revised in 1915. The revised volumes are stored in the sub-district revenue department offices and are still used as the basis for adjudicating water disputes between and within villages.³

The *Riwaj-i-Abpashi* is a unique text because it represents an unusual, almost encyclopedic, compendium of detailed information from the late nineteenth century about what had hitherto been orally transmitted knowledge regarding local irrigation practices and customs. Within the context of small-scale, farmer-managed gravity-flow irrigation systems worldwide, and certainly within the South Asian context, such a document is comparatively rare. In this paper I examine the *Riwaj-i-Abpashi* from multiple perspectives. First, from an information standpoint, the text yields insight into the historical role of the state in kuhl management as well as the role of horizontal networks in enabling kuhl to persist despite perturbations such as floods and earthquakes. The contemporary implications of both insights are briefly touched upon. Secondly, I examine the *Riwaj-i-Abpashi* in relation to colonial agrarian policies, ideas about property, and the tensions and contradictions inherent in attempts to codify custom. Thirdly, I explore the text as part of the broader project of creating colonialist knowledge about India. Despite the text's self-presentation as an ostensibly transparent, apolitical, and impartial document, it is a colonial intervention, inherently bound to relations of domination, subordination, and representation. I attempt to uncover some of the transactional pragmatics (Raheja 1998) that governed the collection of information it contains and to discuss the social consequences that resulted from the codification of this local knowledge system.

Insights from the *Riwaj*: state involvement and social networks

A review of the information the *Riwaj-i-Abpashi* provides for each of the approximately 715 multi-village kuhl

³ The *Riwaj-i-Abpashi* is hand written in Urdu. Because the number of Urdu speakers is declining, Hindi and English translations of the text were provided to the district and tehsil offices of the Revenue Department in an effort to ensure access to this document.

in Kangra and Palampur Tehsils reveals the dominant role that pre-colonial state authorities played in some aspects of the construction and management of some kuhl. This belies the conventional wisdom that "traditional" or "community-managed" irrigation systems operate independently of higher levels of authority and governance. Instead, the *Riwaj-i-Abpashi* notes that pre-colonial mountain rulers sponsored the construction of eighteen kuhl in Palampur and Kangra Tehsils, were involved with kuhl management, and occasionally adjudicated conflicts between upstream and downstream kuhl during periods of water scarcity. While state-sponsored kuhl represent a tiny fraction of the total number of multi-village kuhl, they are the longest kuhl in the region, both in terms of length and command area. Their main-stem length often ranges from twenty to forty kilometers, and they convey irrigation water to several thousand hectares scattered across as many as fifty or sixty different hamlets. Coward (1990:82) suggests that some kuhl may actually have been the property of the Rajas who sponsored their construction, and that local elites may have held private property rights in the kuhl whose construction they sponsored; most kuhl were owned by the irrigators themselves as a form of common property. The bundle of ownership rights in kuhl was distributed in remarkably diverse ways across different kuhl.

Because the state received twice as much revenue from irrigated land as it did from unirrigated fields (half of the gross production, compared to as little as one quarter on unirrigated plots), it seems safe to assume that one reason for sponsoring kuhl was to increase revenue. Another motivation may have been to increase the ruling lineage's support and strengthen its political legitimacy. The benefits of kuhl water were enjoyed by a wide variety of people; artisans, traders, and shopkeepers, in addition to agriculturalists, benefited from the water a new kuhl brought. State-sponsored investments in irrigation systems that benefited a wide diversity of people likely increased support for the local ruler.⁴ Sponsoring the construction of a kuhl also strengthened the legitimacy of the raja's rule amongst the kuhl beneficiaries, as attested by stories from the Kangri oral tradition. Furthermore, by naming kuhl after themselves, rulers ensured that their name would endure.

Pre-colonial rulers were involved with the management of some kuhl. In the southern part of Kangra District bordering the Punjab plains, the ruler or his agent appointed individuals, known as *kohlis* or watermasters, to be in charge of water distribution and kuhl maintenance and re-

⁴ Kuhl water satisfied all domestic water needs such as cooking, washing (utensils, persons and clothes), and watering livestock and the small kitchen garden invariably found near the domestic compound. Kuhl water was also used by members of the basket making caste, and kuhl hydropower was used to turn potter's wheels and to husk and grind grain.

pair. During the colonial period this practice was discontinued and the farmers themselves began to choose their own watermasters, consistent with the practice elsewhere in the district. These are the kuhls that Coward suggests may have been owned by local rulers prior to settlement, whose ownership was perhaps transferred to the water users who were then reconstituted as rights holders (1990:82). The *Riwaj-i-Abpashi* also notes instances in which pre-colonial rulers exercised their authority to resolve upstream/downstream disputes between different kuhls, especially during periods of low water flow. Rulers would appoint an agent charged with apportioning water between upstream and downstream kuhls to ensure that the irrigators of upstream kuhls did not divert all of the scarce water from the feeder streams. This pattern of state involvement continued into the colonial period.

These examples of state sponsorship of kuhl construction, state involvement in kuhl management and conflict resolution, and possible state ownership of kuhls suggest that while most of the kuhls in Kangra were managed most of the time without any state involvement, for some kuhls and at some times the pre-colonial state did play important roles. The temporal and substantive diversity of precolonial state involvement in irrigation management in Kangra, and in other "community" managed irrigation systems such as in southern Tamil Nadu (Mosse 1997), suggests that prevailing views that tend to dichotomize state and locally managed irrigation systems as discrete entities do not accurately represent the nature of state-local relations for irrigation management. The plurality of state roles in "local" irrigation management in Kangra described in the *Riwaj-i-Abpashi* suggests that effective state intervention will take different forms in different places. This indicates that joint irrigation management and other contemporary models for devolving authority to local irrigator groups for irrigation system management will not be effective unless they incorporate a range of possible state roles in local irrigation management.

A second insight that emerges from the *Riwaj-i-Abpashi* concerns the ways in which inter-kuhl coordination reduces the destructive impacts of sudden shocks such as floods and earthquakes. Each year during the monsoon season the mountain streams from which kuhls divert water become raging and turbulent torrents that often destroy the kuhl's diversion dam and upstream channel portion. Occasionally landslides in the narrow headwater canyons create temporary dams that, upon bursting, send a destructive wall of mud, water, boulders, and trees downstream. Less frequent, but also destructive, are earthquakes that rumble through the seismically active Himalaya mountain range. The *Riwaj-i-Abpashi* notes the influence of these environmental shocks on kuhls and describes instances in which coordination between individual kuhl systems helped to mitigate the destructive effects of floods. For example, it

notes that the diversion structures for 22 kuhls were shifted (generally upstream) due to changes in the course of the river following flooding. It also mentions several instances in which, after a destructive flood or earthquake, adjacent kuhls that used to be managed independently became jointly managed. This joint management often entailed sharing a diversion structure and main channel section, with collective responsibility for its repair and maintenance, along with shared participation in the annual kuhl-related rituals. The role and importance of horizontal networks of local irrigators in kuhl persistence, especially under conditions of periodic flooding and/or earthquakes, as described in the *Riwaj-i-Abpashi* was confirmed during fieldwork (Baker 1994). Networks of inter-kuhl social relations facilitate the mobilization of labor following a destructive flood or earthquake and create the necessary social context to enable joint kuhl management and inter-kuhl water transfers. The potential for coordination and exchange among adjacent community-based natural resource management systems to promote their persistence tends to be underestimated; focusing on individual resource systems may mask the importance of wider networks of cooperation and conflict in which individual systems may be embedded.

The *Riwaj-i-Abpashi* and British theories of property

While the *Riwaj-i-Abpashi* provides insights into community-managed irrigation systems, it also exemplifies colonial notions of property and the importance the colonial administration attached to clearly defined property rights as the precursor to revenue collection and agricultural development. Indeed, the primary motivation for the compilation of the first edition of the *Riwaj-i-Abpashi* in 1879 was to facilitate and control the expansion of irrigation in the region. This was linked with a set of wider agrarian policies aimed at agricultural expansion that included monetization of the economy and the production of agricultural surpluses—in short, the rationalization of the agricultural production system and the imposition of a colonial development regime (Ludden 1992). The cornerstone of these policies and a necessary step prior to the assessment of tax rates was the recording and protection of rights in land. The assumption underlying the codification of property rights was that clear property rights and moderate assessments would inevitably lead to greater investments in agricultural productivity. This was the basis of the early British criticism of the manner of revenue collection prevailing in Kangra when they wrested control of the region from Sikh rulers in the mid-nineteenth century. Known as the Sikh farming system, it entailed payment by a wealthy individual to the government a fixed amount of revenue annually for a set number of villages. This person in turn attempted to maximize his profit by taxing the villages at often unsustainably high rates and retaining the difference between what was collected and what he had

contracted to pay the government. This short-term profit maximization approach, colonial administrators believed, mitigated against long-term investments for increasing agricultural productivity and provided perverse incentives for short-term profit.

Following the assumption of British control of Kangra in 1846 the first settlement officer initiated a series of administrative policies designed to create the conditions necessary for agricultural development consistent with prevailing utilitarian theories. The settlement officer, G.C. Barnes, fixed the revenue for twenty years in order to encourage investment in agriculture, commuted revenue payments in kind to cash, and initiated an exhaustive inquiry into the nature of property rights in Kangra (Barnes 1855). Although authorized only to record pre-existing customary land rights as the basis for British taxation, Barnes transformed the nature of rights in land in Kangra.

The colonial state, rather than legitimating pre-existing property rights systems (their stated intention), wrought dramatic changes in the nature of property in private cultivated land and collectively used uncultivated areas (the "waste"). Prior to the first settlements in many areas of the Punjab, cultivating households held allotments of land (shares) that consisted of strips of land of equivalent productivity.⁵ Appurtenant to these shares were proportional rights in the village commons or the uncultivated areas known as *shamilat*. Shares in the commons included usufruct rights to graze and collect wood as well as the right to break up and cultivate a household's "share" of the commons. Based on the size of their shares, allotment holders jointly contributed labor for collective investments in agriculture such as masonry wall building for irrigation, and they paid, generally in-kind, the revenue assessments of the pre-colonial state. The first regular settlements of the Punjab divided this agricultural community into two groups, cultivators and tenants, according to principles of ancestry that previously had no bearing on the work of agriculture or the allotment of rights in the commons, nor on the corporateness of the community of cultivators. Cultivators who were descendants of the founders of the village were classified as landowners, or proprietary rights holders, while cultivators who were not members of the founding lineage were classified as either hereditary or at-will tenants, depending on the number of years (twelve) they had been cultivating their allotment. Furthermore, because tenants were now no longer classified as shareholders, their shares (rights) in the village commons "passed into oblivion" (Smith 1996:32). Thus, the colonial administration had redefined the village community on the basis of

⁵ The allotment of shares was made on the basis of the productive capacities of individuals; it was subject to periodic reallocation, as those productive capabilities changed over time (Smith 1996:33).

genealogy, rather than on the actual pattern of land use based on allotments; in the process, "non-landowning" families were disenfranchised from legitimate use of uncultivated areas.⁶ While the effects of these transformations in property rights are most evident with regards to forest resources and the ability to expand agricultural production, they also affected the context of irrigation management.

Other effects accompanied the first regular settlement. In Kangra, as in the plains districts of the Punjab, the "ancient and time-honored custom" of paying rent in kind was reversed by commuting in-kind to cash payments (Barnes 1855:52). The switch from in-kind to cash payments was consistent with the prevailing utilitarian philosophy of agricultural development in Europe. That Barnes embraced this philosophy is strongly suggested by his comments on the effects on farmers of substituting cash for in-kind payments: "it has taught them habits of self-management and economy, and has converted them from ignorant serfs of the soil into an intelligent and thrifty peasantry" (1855:52).

The cultivated area in Kangra also increased after the first settlement. By 1890 it had increased eight to ten percent. Hill slopes that had been infrequently cultivated previously were terraced and cultivated annually, and forested areas were converted to agriculture. This agricultural expansion, consistent with that described by Chakravarty-Kaul (1996) for most of the Punjab, but on a much smaller scale, was facilitated by a provision of the first regular settlement that shifted the authority to control the expansion of agriculture into uncultivated areas from the ruler to the landholders of a hamlet. This "revolution in the old state of property" (Lyall 1874:19) converted the landholders of each hamlet into a co-proprietary class and transferred to them ownership rights in the uncultivated areas to which they had previously only had usufruct rights.⁷ By converting usufruct rights into ownership rights, treating landowners as co-parcenary groups that were now jointly responsible for paying the land revenue and granting them the agree-

⁶ Smith notes that "In the ideal conception now, a village community was defined by descent from a village founder,... Having a share in common property was considered the sign of superior status in a village, as a member of the ancestral core of proprietors whose genealogy and history were now matters of official record (1996:47). Similarly: "A village community is a body of proprietors who now or formerly owned a part of the village lands in common, and who are jointly responsible for the payment of the revenue" (Douie 1899:61).

⁷ This transfer of property had many implications. It nullified the rights of landless households to forest resources collected from unenclosed uncultivated areas. Revenue from these areas, previously paid to the ruler, was now collected by the *lambardar* (village tax collector) and distributed to all landholders in proportion to the amount of revenue each paid. And now landholders, rather than the state, had the authority to grant permission to an individual to reclaim and cultivate an uncultivated tract.

gated right to collect certain miscellaneous rents from the waste, the settlement process, in effect, created a type of community which had hitherto not existed (Chakravarty-Kaul 1996:75).⁸

The transfer of rights to landholders may have been an unintended consequence of the application of land use categories from the plains to the hill states, or it may have been an intentional, if implicit, policy to promote agricultural expansion and intensification by simplifying the process of bringing new areas under cultivation and more intensively using already cultivated areas. Evidence suggests that it may have been the former. In the Punjab, early village settlements were conducted by field surveyors (known as *amins*—derogatively referred to as a “host of harpies” by a contemporary British settlement officer) from the Northwest Provinces (NWP) who went from settlement to settlement working on a pro-rata basis (Smith 1985:159). As the village-level record of rights (known as the *iqrar-nama*, and later, *wajib-ul-arz*) in Kangra was most likely drawn up by itinerant *amins* from the NWP, there would have been a high likelihood of importing land use categories from the plains to the hills. Barnes’ admonition to a subdistrict Tehsildar “to write down the actual practices as observed . . . and not to fill up details (of the *iqrar-nama*) after his own imagination” (1855:67) suggests that this was a real threat. This possibility is made more plausible by the fact that Barnes noted that in the preparation of the record of rights for each hamlet he himself gave the subject headings and elicited information with questions and even suggestions. Even if trained local *patwaris* (village Revenue Department accountants), and not itinerant *amins*, did compile the record of rights in Kangra, the possibility for importing non-local forms of property was high because the *patwari* training manual “Educational Course for Village Accountants” was based on the author’s experiences in the NWP. Furthermore, the author, Ram Saran Das, was transferred from the NWP to oversee settlement operations in the Cis- and Trans-Sutlej territories following their acquisition by the British after the 1846 Sikh War. Therefore, whether the Kangra Settlement was conducted by *amins* from the NWP or by *patwaris* whose training was based on Ram Das’s manual, land use categories from the NWP could easily have been transferred to Kangra despite the lack of local referents for those categories.

The history of the term “*shamilat*,” referring in Kangra to village common property, exemplifies this process.

⁸ During the pre-colonial period revenue was assessed on the basis of cultivated area per family holding, not village-wise as in the plains. This reflects the severalty model of tenure known as “*rai-yatwari*” (Baden-Powell 1892:II:537) that existed in Kangra prior to British rule. In this system holdings were separate and not part of a joint estate, there was no joint responsibility for revenue payment, nor were there joint shares in the waste that could be partitioned accordingly.

Shamilat is a term that was imported from the plains. There, it was used to refer to the uncultivated common lands within a village and also to the large expanses of uncultivated areas in the drier western and southwestern portions of the Punjab that were primarily used as grazing lands by transhumant nomadic groups. Throughout the nineteenth century and especially during the latter decades of the century, British agrarian policy in the Punjab, articulated through the land settlement process, sought to reduce the extent of both of these categories of *shamilat*. This occurred through processes of enclosure and privatization and conversion of village *shamilat* from pastoral to agro-pastoral and agricultural land use. State investment in canal irrigation during this period, combined with the practice of granting large tracts of newly-irrigated land at low rents to dominant groups, further reduced the extent of uncultivated land and the customary rights of grazers who had previously depended on those areas (Gilmartin 1994; Ludden 1999). Property rights in *shamilat* resources were converted from “communal control and joint use to individual property and limited access” (Chakravarty-Kaul 1996:25). While these policies contributed to dramatic increases in the region’s cultivated area during the late nineteenth century, they also weakened village communal resource management institutions, dramatically reduced the extent of *shamilat* areas, displaced pastoral and agro-pastoral people, and weakened the property rights of non-landowning groups in the village commons.

In Kangra, the term *shamilat* was first introduced as a land use category during the first regular settlement; it had no pre-British referents in Kangra.⁹ The introduction in Kangra of *shamilat* as a land use category encouraged the expansion of agriculture because it conferred on landholders the right to break up and cultivate previously uncultivated areas, free of extra revenue, for the duration of the settlement. With one stroke of the pen, usufruct rights to uncultivated areas had been converted to proprietary rights and the basis of ownership narrowed to agnatic relations with a founding ancestor. How did this occur? Twenty years after the first settlement Lyall argued that landholders had not manufactured their own title to the wastes by putting “*shamilat*” in the village record of rights, but rather that “the real inventors of the definition (of *shamilat*) were the native officials and clerks who worked under Mr. Barnes” (1874:31), who had inserted *shamilat* as the heading in the village records.¹⁰

⁹ See Smith (1996, Chapters 1 and 2) for an insightful discussion of the distinction between the colonial definition of “*shamilat*” and the pre-colonial nature and extent of rights in the commons in the Punjab plains.

¹⁰ This was consistent with colonial policy encouraging agricultural expansion and conversion of forests to agricultural lands in other regions during the preceding decades, such as the Ganga-Jamuna doab (Mann 1995:211-212).

Following the transfer of rights in uncultivated areas from the state to the newly-created community of co-proprietary landholders and its designation as “*shamilat*,” Revenue Department officials attempted to privatize as much of it as they could. Barnes described how he approached areas described as *shamilat* in the following manner:

Whenever . . . I saw an opportunity, I insisted on a partition of the estate according to the number of shares. Every inch of profitable ground was divided and allotted to one or another of the co-partners. I ignored as far as my means would allow the very name of “*Shamilat*,” for experience has assured me that the smallest portion left in common will act as a firebrand in the village. It is sure to lead to dissension, and forms, as it were, a rallying point for the discontented and litigious to gather round (1855:67).

Quite possibly the “discontented and litigious” people Barnes referred to were those whose usufruct rights had been nullified through the vesting of common lands in the community of landowners, as had occurred on the Punjab plains.

The politics of recording irrigation rights

It was as part of the effort to record rights in land that irrigation rights were first recorded and published in 1879. By this time the effects of a fixed revenue, in combination with rising grain prices and improved transportation, had resulted in agricultural expansion and the construction of new kuhl; progress, consistent with India’s development regime, was taking place. In order to exercise control over the construction of new kuhl as well as to resolve conflicts over irrigation rights, existing kuhl were mapped and attested records of irrigation rights were compiled. This constituted the first edition of the *Riwaj-i-Abpashi*.

Recording customary irrigation rights provided almost as many opportunities for transforming irrigation rights as had the recording of land rights twenty-five years earlier. As with other efforts to codify custom, colonial administrators portrayed codification as transparent, noninterventionist, and apolitical. This facade of neutrality conceals the politics of recording custom and the transactional pragmatics (Raheja 1998) that invariably accompanied the self-representation of tradition to colonial rulers. Indeed, the creation of colonial knowledge was a form of intervention, inherently bound to relations of domination, subordination, resistance, and representation. As Battacharya notes, “the rhetoric of custom becomes a new language of power and legitimation” (1996:21). The *Riwaj-i-Abpashi* also represents an attempt to incorporate a pre-colonial knowledge system into the broader superstructure of colonial rule, and to harness that system to the larger project of increasing

agricultural production. The *Riwaj-i-Abpashi* “designated certain practices as belonging to a time apart from and before colonial rationality, and it tried to bring them into the present constituted by colonial rationality by codifying them, in what it thought was their irreducibility, within colonial rationality” (Skaria 2000:271).¹¹

Settlement officers began by asserting state title to streams and rivers. They argued that state claims to the natural waterways of the district represented a continuity rather than a change from previous customs. Lyall (1874:56) wrote that,

In order to retain in its hands the power of making new irrigation channels where needed, the Government directed all Settlement Officers to assert its title to all natural streams and rivers. In Kangra the title of Government, by *old custom of the country*, was particularly clear, and I accordingly asserted it subject, however, to existing rights of use possessed by shareholders of canals, owners of water-mills, or persons entitled by custom to erect “chip” or fish-weirs in certain places.....The actual beds of streams and the water in them belong to the Government. (emphasis added)

Settlement officers attempted to ascertain the irrigation customs and practices relating to a specific kuhl by calling a public meeting in one of the villages irrigated by the kuhl in question and asking those who came to describe their irrigation customs and practices. After they were written down, they were read aloud, suggested changes were incorporated, and then local elites and village leaders attested to the veracity of the statement with their thumbprint or signature. The resulting document constituted a legally binding record of rights. Lyall himself acknowledged the difficulty of such an endeavor. He admitted that “probably these statements are sometimes incorrect. . . . [T]he custom is often vague and difficult to define” (1874:243). While irrigation customs may have appeared vague to a settlement officer who may not have known the local mountain dialect, one wonders if they appeared equally vague to the farmers whose harvest depended on reliable water supplies? Or, factions well represented at the general meeting

¹¹ In his essay “Cathecting the Natural,” Skaria identifies the *Riwaj-i-Abpashi* as an example of “technologies of primitivism”—those elements of the natural that are necessarily produced by and incorporated within the Indian nation-state and its development regime. Skaria argues that the idea of development, with its attendant notions of progress, time, modernity, and the nation-state, requires primitivism. Primitivism is necessary as the “other” of development. The *Riwaj-i-Abpashi*, as a technology of primitivism, is incorporated within, and yet remains separate from, colonial or post-colonial rationality. Thus it simultaneously exemplifies a “superceded past” and enables “the extension of the power of development regimes” (2000:272).

may have presented the settlement officer with a picture of rights in a kuhl that favored their own interests. The *Riwaj-i-Abpashi* occasionally explicitly acknowledges these conflicts; in some cases after describing inter-village rights and responsibilities with regards to a specific kuhl, it notes that members of a hamlet contested the version of rights that were recorded and refused attestation. On-going litigation concerning contested water rights is mentioned in the *Riwaj-i-Abpashi*. Social groups appear to have taken full advantage of the new arena to assert competing claims to kuhl irrigation water and to negotiate favorable rulings regarding inter-village distribution of responsibility for kuhl maintenance and repair.

The process of recording irrigation rights created new arenas for negotiating water rights between different water users and between water users and the government. Groups that were in conflict over water allocation probably saw the creation of the *Riwaj-i-Abpashi* as an opportunity to solidify their contested water claims, or at the very least to express their discontent with the existing manner of water distribution. In one case, that of Kanduhl Kuhl, the *Riwaj-i-Abpashi* describes the distribution of water between twelve different villages in terms of the numbers of days and nights each village can claim the kuhl's water and in what order. It also mentions that a measured portion of the kuhl's flow is to be reserved always for the village of Kandwari, whose local elite in the late eighteenth century mobilized labor to repair the previously defunct kuhl and then named it after their village. The text notes that the residents of Kandwari contested the water rights the other villages claimed and argued that these villages were claiming new rights that had not existed in the past. It also states that farmers from three villages alleged that the residents of a cluster of four villages were claiming water rights earlier in the season than was their right. The entry for this kuhl concludes by noting that the claims of the cluster of four villages were rejected, and that all present except the residents of Kandwari agreed to the final statement of rights. A reference to an 1889 civil court case concerning Kandwari's rights to the kuhl's flow indicates that the conflict between Kandwari and neighboring villages had been ongoing.

The process of recording irrigation rights provided some groups with an arena for advancing new water claims (which may or may not be recognized as legitimate) and for debating old water conflicts. The negotiations that occurred during the preparation of the record of rights were important, as no doubt the participants recognized, because the written record became the template against which future disputes over water were to be resolved, as it remains today. In many cases it served to reinforce dominant power relations that existed at the time of its preparation, thus strengthening the position of local elites and weakening the basis for future counterclaims.

One example of this is a kuhl known as Sappruhl Kuhl, named after the Girth (agricultural caste) clan that constructed the kuhl in the late eighteenth or early nineteenth century. Before bringing water to the Girth village, the constraints of elevation and gravity dictated that it flow through an upstream high caste Rana village. The *Riwaj* notes that the Ranas forcibly appropriated all the kuhl's water, killed some of the Girths, and forced the rest to leave the area. While higher-caste Rajputs now live in the area that the Girths left and use water from this kuhl, conflicts with the upstream Ranas continue to this day and require the downstream Rajput farmers to carefully organize water guarding by patrols of six to eight pairs of male water guards armed with staves round the clock. The act of writing did not solidify previously fluid relations, but it did serve to further marginalize already marginal groups and strengthen the dominant position of others. This is the bias inherent in any process that seeks to codify custom, and this is why liberal utilitarians fought against the codification of custom as the basis of colonial rule.

The recording of irrigation rights was not only imbricated in local processes of negotiating water rights, it also contributed to the decline of the *kohli's* (watermaster) authority. The *kohli* was responsible for mobilizing labor for annual kuhl maintenance and repair, the performance of ritual aimed at ensuring adequate water and warding off destructive floods, the supervision of water distribution within the kuhl and resolution of related conflicts, and occasionally coordination with other up- and downstream watermasters. The codification of custom created an alternative repository of knowledge regarding water rights, the *Riwaj-i-Abpashi*, that constituted legitimate evidence in an alternative dispute resolution arena—the district courts. As alternative, state-sanctioned sources of expertise and conflict resolution mechanisms, they tended to undermine the specialized knowledge of the *kohli* and his ability to resolve conflicts in local resolution arenas. The creation of a competing source of expertise and a competing arena in which that expertise circulated weakened the power of the *kohli* to resolve disputes. The long term decline of the *kohli's* authority, more recently exacerbated by recent regional economic changes, especially the increasing importance of nonfarm employment and remittance income, extends back to the codification of irrigation custom.

The emergence of the district court as an alternative to local dispute resolution arenas has several implications. First it suggests that the codification of irrigation custom did not necessarily ossify fluid social relations, as has sometimes been argued regarding the effects of colonialist knowledge, but rather that it helped to create a new arena within which to negotiate contested social claims to water. This new arena operated according to a different legal logic and jurisprudence tradition than had existed previously in this region. To operate effectively within this arena required

a different set of skills and forms of expertise. Kuhl committees are an organizational form that emerged in the mid-twentieth century partially in response to the exigencies of interacting within these new bureaucratic arenas. Kuhl committees are similarly structured formal organizations with elected officers and extensive written records, whose purposes include the effective representation of the interests of the kuhl's irrigators in court and lobbying the district administration for grants for kuhl repair. Committees also serve as a vehicle for defending water rights in court. For example in the late 1980s farmers whose water supply was threatened by a government-sponsored expansion of an upstream kuhl formed a kuhl committee for the express purpose of representing their interests in court. They successfully sued the state of Himachal Pradesh. The lawsuit hinged on the *Riwaj-i-Abpashi*, which described the nature of the farmers' water rights, including injunctions against upstream diversions that might threaten the kuhl's water supply. In this case farmers used the colonial codification of their "customary" water rights and a "modern" dispute resolution forum to successfully defend their "traditional" water rights against the state's attempts to expand irrigated agriculture and promote development.

Conclusion

The *Riwaj-i-Abpashi* arose out of the desire by British colonial administrators to control and regulate the expansion of irrigated agriculture in order to generate greater revenue. This required the codification of irrigation customs, both for purposes of taxation and the ability to resolve future water conflicts. The creation of the *Riwaj-i-Abpashi* was part of the broader project of codifying and systematizing customary practices as one of the foundations of colonial rule. The history of the use of the term "shamilat" in Kangra indicates the vagaries of that process. The extraction and classification of local irrigation knowledge and rights that the *Riwaj* represents shifted power relations among local groups (generally in favor of already dominant groups); undermined the basis of authority of the *kohli*; shifted the terms and contexts of water disputes from local, oral, and civil to general, written, and state-centered; and expanded the presence and influence of the state at the local level. However, rather than a unilateral extraction of information and revenue, the codification of custom also created new arenas for expressing and negotiating local claims to water. There is a wry irony in the fact that in recent years some irrigators have been able to successfully defend their water rights claims against competing state claims using the colonial codification of their pre-colonial irrigation practices and customs. While it stands in stark contrast to the exclusive list of proprietors in Anderson's Kulu settlement and the exclusionary effects of using that list to define legitimate beneficiaries of GHNP-

related compensation programs and policies, one wonders if there might be other instances in which the incorporation within colonial (and post-colonial) rationality of customary rights and practices provides footholds for challenging undemocratic state actions that threaten environmental values and discriminate against relatively disenfranchised groups.¹²

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¹² A good example of this from the United States are the treaties signed in 1854 and 1855 between the federal government and many of the American Indian tribes of the Pacific Northwest. These treaties, negotiated by Isaac Stevens, governor of the Washington Territory, contained the provision that the tribes would have "[t]he right of taking fish, at all usual and accustomed grounds and stations...". This key phrase, which incorporated customary fishing rights into the United States legal code, was to become the linchpin in lawsuits and court decisions throughout the 20th century that repeatedly affirmed and eventually quantified the valuable fishing rights of American Indian groups in this region (Wilkinson 1992).

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Acknowledgements

This research project was partially funded by an Intramural Faculty Fellowship from the University of North Carolina at Asheville. I am indebted to Mr. Krishan Kumar Sharma, Mr. Chaman Lal Sharma, and Mr. C.B. Shukla for their work in translating the Riwaj-i-Abpashi from Urdu to Hindi and English.