12 Experimenting with the Commons: A Comparative History of the Effects of Land Policy on Pastoralism in Two Former Homelands/Reserves, Southern Africa

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The settlements of Leliefontein and Okombahe came into being as a result of the impact of merchant capital and colonial expansion on pastoral societies made up of small, interrelated, kin-based clans. In a number of respects, the unfolding of the effects of colonialism in Namaqualand foreshadowed events in Damaraland by several decades, as waves of traders, mercenaries, missionaries, and displaced population groups pulsated northward away from the Cape. Leliefontein became a Baptist mission station in 1824, and Okombahe was settled by a Rhenish missionary in 1870. Both missions came about as a response to the chaos that *trekboers* (mobile settler farmers), traders, and commando groups brought to the lives of indigenous pastoralists. Weakened by raids, the curtailment of migratory herding practices, drought, and disease, local populations converged on the missions, initially as a place of safety (Leliefontein) or as destitute refugees (Okombahe). There they were converted to Christianity, encouraged to cultivate crops, and often became indebted to European traders. Both populations were made up of a disparate ethnic mix: Leliefontein was predominantly Nama speaking but soon incorporated Afrikaans-speaking "Basters"; Okombahe was predominantly Nama and Damara coexisting with small groups of Baster and Herero.¹

Leliefontein was first given formal recognition by the Cape government in 1854; Okombahe was afforded German "protection" 40 years later in 1894. By the early years of the twentieth century, the control of mission lands had passed to the state: Okombahe became a Native Reserve in 1904; Leliefontein, in 1909. It was not coincidental that such administrative developments accompanied the exploitation of minerals and the appropriation of the most productive land by White farmers in both areas.

During the first half of the twentieth century, communal areas were gradually transformed from refuges of peasant production of crops, livestock, or both to wage-dependent economies in which many households were semiproletarianized, although livestock farming remained the only viable internal

¹ The Baster surnames of Cloete, Beukes, and Josephs are common to both settlements—the first missionary to Okombahe was a Nama speaker by the name of Cloete.

economic activity. The economic depression of the 1920s, followed by the severe drought of 1930–33 throughout much of southern Africa, put pressure on production by peasants, but because reserve borders were still permeable at the time, communal farmers were able to migrate and exploit grazing on adjacent state or commercial land. During the following decades, livestock numbers soared, as did the reserves' human populations as a result of government policy (South African Department of Native Affairs controlled both reserves), which simultaneously consolidated White-settler farming on reserve borders, but also promoted territorial segregation hand in glove with the migrant-labor system.

Both reserves were governed by Management or Reserve Boards consisting of a number of locally elected representatives and a number of government appointees, the latter invariably having the power to overturn decisions made by the former. Formal rules governing rights of residence and access to grazing were instituted along with various taxes on livestock and on arable and residential land. The details of these arrangements varied between Leliefontein and Okombahe, as did the administrative reforms that were instituted in each reserve from time to time, and yet broadly similar systems were practiced in each reserve.

The Native Affairs Boards, Native Trusts, Boards of Management, and Advisory Boards, which were set up to administer the internal affairs of the reserves, were in effect institutions designed to ensure that the economic development of these areas was in line with the interests of White farmers. The flexibility inherent in early pastoral systems was first undermined by colonialism, but the livestock production systems that evolved under the "tribal" management structures imposed by the state were adapted by reserve inhabitants as a necessary but *useful* parody of precolonial herding and subsistence practices. Throughout the twentieth century, underfunding and overcrowding forced many reserve residents into the wage sector. The little agricultural development that was initiated by the state was tightly controlled, and support services were minimal. It was hardly an accident that communal agriculture in the Okombahe and Leliefontein "reserves" was effectively reduced to a residual, not a subsistence, sector by or before mid-century (Adams and Werner 1990). Neither was it an accident that these communal areas were agriculturally marginal. Both are arid rangelands bordering the desert that skirts southern Africa's Atlantic seaboard. Highly variable rainfall of about 200 millimeters per year² permits extensive livestock farming with a notional carrying capacity of approximately 30 hectares per large-stock unit.³ During the first half to the twentieth century, both

² Rainfall on the Kamiesberg, where the Leliefontein village is situated, goes up to 400 millimeters; however, across the reserve as a whole, the average is closer to 200 millimeters.

³ Stocking rates in Okombahe between 1970 and 1994 ranged from 16 to 100 hectares per livestock unit (an average of 32 hectares per livestock unit); stocking rates in (continued on the following page)

reserves were very similar in size, population density, socioeconomic conditions, and political structure. In 1947, Okombahe's population had exceeded 2,000 people dispersed across an area of 1,700 square kilometers; Leliefontein had a slightly larger population residing on 1,920 square kilometers.

Significant divergence in the policies that affected the Damara and Namaqua communal areas coincided with the ascendancy of the National Party in 1948, after which Namibia was increasingly treated as a fifth province of South Africa. Coinciding with many of the pernicious and ludicrous laws that this government enacted in pursuit of "separate development" based on race, from then on the Damaras (African Blacks) and Namaqualanders (Coloureds) were to be subjected to different policies based on the assumptions inherent in apartheid ideology. Put very simply, the expansion of communal tenure was thought the only suitable solution for "Blacks" such as the Damaras, while Coloureds, who were considered more "civilized" (whiter) were encouraged to take up commercial farming on "economic units," albeit only within their own Coloured Rural Areas.⁴

Economic Development and Agricultural Decline

Okombahe Reserve, 1947–63

Okombahe Reserve would eventually become one of 12 wards in an expanded Damara homeland, but its 1,700 square kilometers were only expanded piecemeal after 1947, when the reserve boundaries were extended to the north and west, effectively doubling the reserve's grazing-land base. As if to verify that nature abhors a vacuum, several waves of "immigrants" were forced to settle within the expanded reserve around this time. As the human population grew, so did livestock numbers, which also doubled during this period (Köhler 1959). The allocation of rights to these new resources involved a large degree of give and take among livestock farmers. Residence patterns were often determined by kinship, but a large degree of accommodation according to need was practiced. Access to limited natural resources—such as grazing, water, and wetlands for crop cultivation—were in theory open to all. Where conflict over resources arose, the headman and his councilors were responsible for resolving disputes: the internal affairs of Okombahe were to a large extent under the political control of the reserve residents and their elected officials, where a continuity in the

Paulshoek (Leliefontein) during this period ranged from 22 to 72 hectares per livestock unit (an average of 36 hectares per livestock unit).

⁴ Legislation from the early twentieth century was aimed at encouraging the creation of "economic units" in Coloured areas. Attempts were made to strengthen the law in 1963, and again in 1978, although actual implementation did not take place until the 1980s. Unlike for Damaras (who were classified as Blacks), it was not compulsory for Coloureds to remain domiciled within the reserves.

operation of informal institutions was maintained within an imposed formal "tribal" structure.

In 1947 a dairy scheme was also introduced in Okombahe, leading to a rapid growth in cattle numbers; within a decade the livestock and dairy industries became a widespread and significant source of income for Okombahe's inhabitants. During the 1950s, nearly every family owned cattle and one in three of these sold cream on a regular basis.⁵ Very few Damara men (less than 6 percent) were employed at local mines, but up to 25 percent of men between the ages of 20 and 60 left the reserve as migrant laborers, many of whom reinvested at least some of their earnings in livestock in the reserve.⁶ A combination of factors, including favorable climatic conditions (rainfall averages were almost double those of the previous 30 years), *laissez-faire* internal political control, highly developed marketing networks, and improving opportunities for education and health contributed to the positive advance in Okombahe's fortunes.

The late 1950s and early 1960s were a watershed for Okombahe's social economy. Around this time, the Republic of South African began a process leading to the full administrative integration of Namibia into the republic and the implementation of "grand apartheid" principles of division and fragmentation.

This process required a deconstruction of the integrated colonial South West Africa. Administration was, at the time, based on a racial division between settler and native but not then on apartheid principles of "ethnic" divisions and fragmentation. It appears that the agricultural effect of adopting apartheid was an almost immediate decline in dairying, crop cultivation, and individual or co-operative enterprise in the reserves (Lau and Reiner 1993).

By the 1960s, Okombahe's surplus in marketable meat and dairy products was declining and the dependent nature of Namibia's economy in relation to that of South Africa was more than apparent (Gurirab 1988). The severe drought between 1958 and 1962 decimated the cattle herds of Okombahe—a process that was exacerbated by the rigorous enforcement of pass-laws, the ever tightening restrictions on herder migration to state land, and the final appropriation of surrounding grazing land by White settlers.

These political, economic, and demographic trends meant that "traditional" responses to drought were no longer possible; the focus of social reproduction became concentrated within the village as it became a magnet for the population exodus from surrounding stock posts. Many elderly Damara farmers remember the drought of 1958–62 as a time when they lost all of their cattle. With the col-

⁵ One in every two adults (including women) owned livestock in 1957. Distribution of livestock ownership was relatively even, with the median of 20 large-stock units per owner falling close to the mean of 25 large-stock units per owner. (These data were derived from Köhler [1959].)

⁶ A seemingly disproportionate number of elderly people inhabited the reserve during this time, contrary to the commonly held assumption that this skewing of the population is only a recent phenomenon; in fact it was more prevalent in the past.

lapse of the dairy and livestock industries, goats and sheep constituted the bulk of Okombahe's livestock.

During the next 10 years, the population of Okombahe reserve remained static while the village expanded four-fold to absorb almost half the reserve population. Many of these new villagers had lost their stock in the recent drought and arrived from outlying settlements seeking government work; others were nearly destitute and had nowhere else to turn. These processes of impover-ishment and the growth of disparities in livestock ownership that accompany drought and the introduction of a wage or cash economy are similar to those that have been well documented in many other parts of Africa.⁷ The growth of village populations in the Leliefontein reserve were a result of the same processes, many of which had begun several decades before those described for Okombahe.

Leliefontein, Namaqualand, 1940-62

Leliefontein, like its counterpart Okombahe in Namibia, was one of a cluster of several small, fragmented communal reserves. Here in Namaqualand, the Land Settlement Act of 1940 provided grazing licenses to White farmers that were eventually converted to ownership rights. Up until this time, many Whites were little better off than the reserve inhabitants, both of whom had suffered during the prolonged depression (Sharp and West 1984). In 1950 almost 10 percent of Leliefontein's population consisted of Whites (some of whom had immigrated from as far afield as Cornwall and St. Helena) and mixed marriages were common (Leeuwenburg 1972; Sharp 1984). All this would change with the introduction in 1950 of The Group Areas Act, which confined "Coloureds" to the reserve areas, thereby denying communal farmers access to nonprivatized, state land across the reserve borders (Archer and Meer 1995).

Not only did the Group Areas Act result in a dramatic increase in the reserve population as a result of forced removals from other parts of the country, but with the provision of pensions, many retiring Coloured farm workers "returned" to the reserves, often with their families and livestock. This expansion of the reserve population within a limited land base was exacerbated as the new owners of adjacent commercial farms now fenced their land on the reserve boundaries.

After 1950, copper and diamond mining and the fishing industry expanded rapidly, producing low unemployment, "a modest prosperity for most, and a resurgence of the material differentiation within the reserve population which had begun in the nineteenth century" (Sharp and West 1984, 11). Employment opportunities gave both White and Coloured Namaqualanders a chance to overcome the uncertainty attached to farming in a marginal environment with an

⁷ Choosing from a large body of literature on the subject. See, for example Dahl and Hjort 1976; Horowitz 1986; Baxter and Hogg 1987; Glantz 1987; De Waal 1989; Vedeld 1994; Hiernaux 1996.

unpredictable climate. Whites were able to invest capital in commercial farming by amalgamating private farms, while many non-Whites moved off the land altogether. This depopulation of privately owned farms made it possible for Whites to increase the size of individual land holdings, making commercial livestock farming that much more viable.⁸ White commercial farmers often bought second farms in the summer-rainfall Bushmanland region to the west of Leliefontein, or in the succulent rich *sandveld* toward the coast, thereby increasing their management options and effectively mimicking precolonial transhumance herding patterns, a practice that continues today among some White farmers.⁹ The effect of this economic growth on local people who had in the meantime been classified as Coloureds was somewhat different: the continuous process of class differentiation found its most perverse expression in racial separation (Boonzaier 1984), which was objectified in the physical division between private and communal land. The viability of commercial livestock farming was enhanced at the expense of communal farming: newly erected fence lines coupled with a prohibition against Coloureds' farming outside of the reserve meant that from now on pastoral mobility, as a response to drought and seasonal grazing conditions, became increasingly difficult for communal farmers.

The socioeconomy of Leliefontein was similar to that of Okombahe insofar as it depended considerably on migrant labor. It has been argued (Sharp 1984) that, since Coloured people were not restricted by pass-laws and they were not forced back into the reserves from urban areas like many Africans (Hendricks 1997), permanent out-migration from the reserves made it possible for remaining reserve inhabitants to engage in local agriculture. Such out-migration also enabled social relationships of reciprocity to evolve (Sharp 1984), while it freed the reserves from the leveling effects of progressive overcrowding leading to absolute poverty. However, in contrast to Okombahe during the 1950s, many reserve inhabitants did not own livestock. The processes of agricultural marginalization had come to Leliefontein 20 years earlier than Okombahe. Severe drought would be the final mechanism of impoverishment for communal farmers in both areas, but a lack of markets coupled with population growth within a limited and static land base resulted in a steady decline in the economic importance of agriculture in Namaqualand.

⁸ The surveying and allocation of farms in much of Damaraland also took place around this time—the size and the multiple ownership of extensive livestock operations in both areas mimicked precolonial and communal pastoral systems insofar as this enabled seasonal transhumance and migration during drought years. The advantages of the "camp system," which commercial farming introduced to these arid areas, was that it focused less on the management of grazing resources per se and more on saving on the costs of herding labor.

⁹ More than 40 percent of the farmers on the borders of the Leliefontein communal area also own land in other areas (Archer, Hoffman, and Danckwerts 1989).

At this stage, at the low ebb of communal agricultural production, it is tempting to assume that the fault lies with the communal system itself, rather than with the structural constraints within which communal farmers are forced to live. Up until the 1960s, both reserve areas had been subject to roughly similar conditions and policies. All this changed with the imposition of grand apartheid, when a schizophrenic government implemented a set of opposing policies (ostensibly to address the social and economic problems that had evolved in the reserves)—privatizing the commons on the one hand, expanding the commons on the other.

Land Reform under Apartheid

Contracting the Commons: Economic Units in Namaqualand

The Coloured Rural Areas Act of 1963 gave power to the Minister of Coloured Affairs to radically reform communal land-tenure within the reserves. It was now possible for the minister to unilaterally divide and allocate communal land on the basis of individual tenure to "bona fide farmers," although this would not happen until the 1980s under even more radical legislation. It was in keeping with the prevailing dysfunctional policy of grand apartheid that this reform should have come at the same time as the publication of the Odendaal Report regarding the creation of "homelands" in Namibia.

Leaving aside for the moment the validity of claims that uncontrolled communal access leads to environmental degradation, the notion that communal tenure itself is to blame for poverty, social conflict, and low productivity is based on flawed assumptions. The function of communal agriculture as an instrument of redistribution—as a medium of reciprocity—was ignored in official thinking. No one seems to have inquired into the actual workings of communal tenure in Namaqualand or to have arrived at the obvious conclusion that the communal system's greatest weakness was a land shortage. It was simply assumed that the system of community membership that gave all residents access to the commons, even when most of them were not actively engaged in using these rights at any one time, was superfluous to the social reproduction of reserve communities (Boonzaier, Hoffman, and Archer 1990).

Such assumptions were implicit in the legislation aimed at "reforming" the communal land base of Leliefontein (and the other Namaqualand Reserves) in the 1970s and 1980s. Moves to implement such polices were activated in the context of the destabilization politics that underpinned national governance at the time: a clear political interest in privatizing the reserves was aimed at maintaining a Coloured middle class as part of an overall strategy of control by cooption (Marinus 1997). The provisions of the 1963 Coloured Rural Areas Act, its amendment in 1978, and its successor, the 1979 Rural Areas Act, all provided for the separation of residential and agricultural zones and promoted the subdivision of agricultural commonage into privately leased, so-called economic

units. This scheme was first applied in the Namaqualand during 1978 and implemented in Leliefontein during 1984.

Leliefontein was subdivided into 47 farming units ranging in size from 1,500 hectares to 6,175 hectares, 30 of which were rented to individuals or syndicates (Archer, Hoffman, and Danckwerts 1989). The remaining 17 units were set aside for communal use by 230 farmers who had been excluded from the "economic-unit" scheme. The timing of implementation could not have been worse, coming as it did in the midst of drought. As a result of being even more confined to limited grazing, many of the herds of these 230 farmers were decimated.

The implementation of the economic-unit system exacerbated existing class divisions. Those who supported the economic units tended to be the holders of these new units: they were mostly Management Board members and their immediate families, who also happened to be the wealthier and larger livestock farmers. The Management Boards were, on the whole, unrepresentative, incompetent, unaccountable, and unpopular. On the other hand, the supporters of the communal system tended to be the majority of poorer people who were obliged, under the reserve system, to apply to the Management Boards for basic land-tenure rights and who suffered directly from the unfair privatization of common land under the economic-unit system (Archer 1993).

Apart from the technical issue of whether or not the subdivision of communal land actually constituted economic farming units,¹⁰ the social and economic costs to the majority of communal farmers and their families seemed to have been completely left out of the reform equation. No compensation was offered to all those who had lost access to the commons; recommendations that progressive Coloured farmers be given access to land within the White commercial farming areas were also ignored. The result was grossly unfair, technically incompetent, and led to tremendous hardships in the Reserves. Bitter opposition to the reforms finally resulted in a case being brought before the Cape Supreme Court in 1988, which ruled in favor of the communal farmers on a technical point of law. Communal land was officially reinstated in Leliefontein, as well as in other Rural Areas.

The struggle that polarized the Reserve population between those who were for and those who were against the economic units had its origins in a long-standing process of class formation and the destabilization politics of the ruling National Party. It is hardly surprising that such a division should have arisen in circumstances that blatantly favored the advancement of the elite section of the community at the expense of the majority. With the reinstatement of communal land, bitter divisions remained that have yet to be completely re-

¹⁰ These units were in fact far from "economic." Using the Department of Agriculture and Water Supply's own calculations, the size of these units would need to be doubled to be potentially profitable. See Archer, Hoffman, and Danckwerts (1989) for a technical analysis of farm viability in relation to economic units in Leliefontein.

solved by the reform of local government and a redefinition of the democratic structures that will henceforth regulate communal land.

Land policy in the communal areas of Namagualand has consistently failed to recognize that land has always been used in common and has been open to all community members.¹¹ While control of community membership and access to residential sites and crop lands have been more or less formally regulated by reserve authorities, control over grazing has been left in the hands of farmers themselves. As the reserve populations grew, effectively intensifying grazing resources, the patterns of transhumance narrowed. During the last 50 years, farmers have been more or less restricted to their village grazing areas, ranging in extent up to 25,000 hectares (or approximately the size of a large, Whiteowned commercial farm). Within this area, farmers practice a variety of grazing strategies ranging from the relatively sedentary, to seasonal transhumance, to more frequent movements between stock posts, water points, and seasonal grazing depending on a variety of complex factors. These include the availability of grazing, water, and labor; changes in herd composition or ownership; seasonal conflicts related to arable crop production; the exigencies of the family life cycle; sickness; employment opportunities; and other factors relating to individuals' personal circumstances.

Up to a point, communal farmers in Leliefontein make collective decisions about the setting aside of grazing reserves or the resting of heavily used areas.¹² While in theory all community members have access to the commons, in practice stock posts are "informally conceptualized by local farmers as a "territory marker" in which the grazing area available to the whole community is divided into loosely defined grazing areas around each stockpost" (Marinus 1997, 70). Cooperative and kin-based networks for herding and stock-post management are examples of how informal arrangements determine the manner in which the land is managed by particular farmers. Social sanctions and controls relating to communal property relations are expressed in deeply held social values and beliefs. These are often based on the need to maintain broad networks of reciprocity and exchange. The ethos underlying such informal systems of resource management reflect an awareness that survival depends on the conservation of the land. While farmers in Leliefontein have successfully resisted the repeated attempts by the state to curtail access to and control over communal grazing, the ability of

¹¹ Membership of the community is automatic ally conferred through kinship and family. "Outsiders" have become community members after a probationary period with the approval of local authorities. Under the new South African Constitution, rights to reside in the Namaqualand Rural Areas is no longer restricted to formal membership.

¹² The issue of the effective management of grazing resources by communal farmers is addressed at length later in this chapter. However, at this point, it is relevant to point out that farmers are much better at responding to climatic variations and grazing resources governed by "pulse activity" in response to rain than to governments or any other rigid structure of authority.

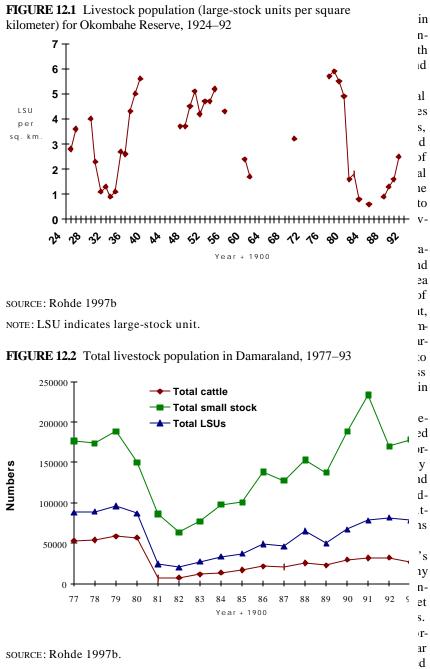
farmers to conserve their grazing resources has been severely restricted by the scale of the commons.

Expanding the Commons: The Creation of Damaraland

The creation of a Damara homeland was proposed during the 1960s as part of the Grand Apartheid scheme and put into effect during the following decade. The Odendaal Report of 1963 formulated the creation of the communal area of Damaraland, an administrative entity equivalent in size and agricultural potential to the whole of the magisterial district of Namaqualand. Two hundred twentythree commercial farms, most of them only surveyed and settled since the 1930s, were to be bought from their White owners at land values that included generous allowances for improvements. These farms varied in size from 4,000 to 25,000 hectares and were typically extensive cattle and small-stock enterprises depending almost entirely on Black labor. These previously White-owned, commercial farms, comprising an area of nearly 20,000 square kilometers, were amalgamated with existing "Native Reserves" (one of which was Okombahe) and state land, thereby expanding the communal land base by a factor of five (Odendaal Report 1964; Wellington 1967). Bear in mind that this scheme was proposed in the same year as economic units were legislated for in Namaqualand.

Damara farmers began moving into the new "homeland" during the late 1960s and early 1970s. During the early years of resettlement, permits were issued by White commissioners, under the existing pass-laws. which allowed Damaras access to farms on an ad hoc basis. With the abolition of Namibian pass-law legislation in 1976, Damaras willingly "immigrated" or were forcibly resettled here from various parts of the country; what little planning existed was based on trying to disperse the population as evenly as possible by restricting the numbers of farmers at each settlement according to a notional "carrying capacity." No formally codified, "traditional" land-allocation systems were in place, unlike in most other communal areas of Namibia. It took until 1978 to set up a "second-tier authority" in Damaraland and only in 1985 did the Damara Council finally codify the structure of a "tribal authority" in accordance with the ethnic obsessions of state apartheid. In the meantime, informal institutions continued to operate effectively.

During the communalization of Damaraland, the process of establishing settlement rights was nominally carried out through the administrative framework of extension officers working within the Damara Council's Department of Agriculture. In practice, rights of access to land were negotiated on an informal basis, and disputes were rarely taken above the level of the ward leadership. Furthermore, it was common for headmen to consult their councilors and community before granting or denying rights of residence to incomers. Incomers generally gravitated toward farm settlements where relatives already stayed, thereby minimizing social resistance to the sharing of water and grazing. Refusal of applicants was uncommon. Membership of a specific—largely ethnically defined—community, conveyed automatic rights to land (Fuller 1993). In cases



NOTE: LSU indicates large-stock unit.

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farmers to migrate to areas of better grazing in northern Damaraland. In 1994, this pattern was reversed when drought affected northern Damaraland and once again mass movements of people and livestock were accommodated in previously drought-affected areas in the south.

The collapse of Damaraland's administrative structure did not result in a -for-all" open-access regime leading to the collapse of resource management institutions: although rights of access and rights of exclusion were not codified or controlled by formal institutions, they existed. Neither were predictions of imminent environmental degradation, due to the drought-induced migrations of people and livestock, subsequently borne out. Grazing management and boundary regulations were maintained in a flexible, permeable state subject to constant revision. Access to water and grazing were negotiated on an ad hoc basis, with few if any strict rules governing the resolution of inevitable conflicts of interest. In cases where incursions into grazing areas were recurring against the express wishes of the farm occupier, overt violence was rare. While the notion of restricting rights to grazing was commonly expressed by those who had conserved some grazing for their herds, in practice, some form of accommodation was the norm. The result was a pattern of social interaction arising from necessity, shrewd opportunism, hard negotiation, and a large measure of tolerance among farmers.

It is tempting to view these movements of people and livestock across this expanded communal landscape as chaotic—a desperate scramble for scarce resources—and yet something almost intangible seemed to order this fluid process. Communal farmers were able to accommodate substantial influxes of livestock from drought-affected areas with a minimum of conflict and in the absence of strict regulation of pastoral resources. Damaraland might be conceived of as one large farm, supporting more than 33,000 people and 100,000 large-stock units within its borders; the equivalent amount of land in adjacent, privately owned commercial farms supports only a fraction of this human population and produces less per hectare in spite of its higher agricultural potential.¹³

This "do-it-yourself" system has its roots in Damara social order and the exigencies of environmental constraints. It works because it "makes sense" that livestock farmers are able to respond quickly and intelligently to unforeseeable challenges and opportunities (Behnke 1994). Such common-sense management

¹³ The old administrative district of Outjo contains some 330 commercial farms, and its usable farming area is roughly equivalent in size to that of Damaraland, which borders Outjo to the west. (Commercial farms in Outjo District total 24,000 square kilometers; only 46 percent or approximately 19,500 square kilometers of Damaraland is suitable to livestock farming.) Outjo District receives more than twice the average annual rainfall as Damaraland and yet sustains fewer livestock per hectare. In 1993, Outjo's stocking rates equaled 20.5 hectare per large-stock unit, while Damaraland's averaged 20 hectare per large-stock unit. (Statistics were derived from the Department of Agriculture, Veterinary Services Livestock Census 1993.)

is a form of adaptive coping rather than optimization and control. It presupposes a quid pro quo of use rights in marginal nonequilibrium environments where migratory "tracking" strategies depend on the negotiated use of other farmers resources. Such mechanisms are essential to coping with the extreme situation arising out of prolonged drought.

The process of defining boundaries and rights to communal resources by farmers in Damaraland exhibits a certain conceptual and practical flexibility that has its counterpart in other areas of communal life, such as kinship, settlement patterns, economic strategies, and politics. These sociological constructs are lived as a total, whole, and unbounded environment in which expedience and the practicalities of survival are the grounds of improvised action, rather than as rule-bound domains of "social life."

Discussion

Farming Systems and Control of Grazing

In tracing the parallel and yet divergent histories of Okombahe and Leliefontein this chapter has emphasized those aspects of land policy that have had a direct impact on the ability of farmers to cope with living in an uncertain environment. The many variables that intersect this history make an exacting comparison impossible, but enough similarities of socioeconomic trends and farmer responses to episodic drought, government policy, and economic opportunities exist to draw some broad lessons.

One of the most striking constants that can be observed in Damaraland and Namaqualand throughout recent history is the communal farming system itself, along with indigenous conceptions and practices relating to communal grazing—indeed they go hand in hand. The farming system, based on movable stock posts, is a practical response to herding in a marginal environment. In spite of the state's tendency to regulate every other aspect of communal life, control over grazing was (and is) almost always devolved to the most local level on an informal basis (see Krohne and Steyn 1991). In the expanded commons of Damaraland, farmers are able to exploit kinship and exchange networks across a much wider landscape than in the Namaqualand reserves. This mobility and geographic interconnectedness reveals an essential facet of social and economic relations implicit to pastoral practice: conceptions of property, rights to natural resources, and flexible notions of kinship are inherently malleable and contested areas of communal life. "Certain critical ambiguities as to who owns what and can go where provide a degree of fluidity which suits everyone's purpose" (Behnke 1994, 15).

Several different and noncomparable forms of wealth exist in the communal social economy: access to water, housing, land, livestock, kinship networks, commodities, consumer goods, and cash are all "domains of wealth" connected or excluded from commodity "pathways" that structure the whole notion of property and exchange (Ferguson 1992). However, grazing land is an overarching environmental given, not a commodity in itself—it is a domain of exchange upon which kinship and the cash economy pattern relations of production. Communal-tenure systems in Damaraland and Namaqualand assign different rights to various types of grazing land—to different categories of water points, arable field sites, transhumance routes, trees, riparian woodlands, wet-season pastures, and so on. Different categories of resources are not generally held by a single "ownership" unit, nor are these ownership types territorially distinct; mobility is possible precisely because overlapping and potentially conflicting rights to different categories of resources exist in one area (Behnke 1992).

This pattern of property relations among farmers, and the interrelationships between farmers and their environment generally correspond to a central tenet of complexity theory that posits that such living systems are adaptive, responding to outside influences or internal contradictions. In such systems, selection or learning drives the system toward the edge of chaos. As Stewart (1993, 3) says,

> Systems which are too simple do not survive in a competitive environment because more sophisticated systems can outwit them by exploiting their regularities. But systems which are too random do not survive either. It pays in survival terms to be as complicated as possible without becoming structureless.

The expansion of the commons in Damaraland has not only enabled farmers to move across a wider geographical area in response to localized conditions of drought, it has also enabled them to expand existing kinship and exchange relationships across this landscape. The resulting "complexification" of the social matrix—involving flexible, negotiable, and reciprocal rights and obligations—has enhanced the range of coping or survival strategies available to farmers. Leliefontein, on the other hand, illustrates the deleterious effects of oversimplifying the communal system by imposing strict, formal bureaucratic structures of control and trying to make it a parody of private commercial farm-land.

Questions of Productivity and Degradation

Several objections to the view of the commons outlined above have become common justifications for policies of reform. Communal tenure is said to result in a degraded environment, low productivity, and the creation of irreconcilable class divisions. Even the most generous assessment of communal tenure in contemporary southern Africa rarely goes beyond the observation that "problems exist to the extent that what is actually present in the Rural Areas is a departure from communal tenure" (Sharp 1990, 15). The definition of such a departure usually implies that the only "real" communal system is one that replicates practices that existed before colonialism.

The same argument also suggests that pastoral practice before colonialism was somehow more environmentally attuned and "sustainable." The myth of the "balanced community" and the distinction between "stable nature and disturbing

humanity" (Griffiths 1997) is part and parcel of western scientific thought and the ensuing imperial history that created the reserves in the first place. Degradation narratives have clothed colonial endeavors and political agendas all over the world—Namaqualand and Damaraland are no exceptions. The problem has been that imperial science has consistently ignored communal areas, so that very little empirical evidence exists to substantiate such claims, let alone to understand the dynamic ecological relationships between communal farming and "disequilibrium" environments.

Recent studies of environmental history in Damaraland (Rohde 1997b; Sullivan 1997) are consistent with environmental studies of other African communal areas¹⁴ that suggest that the human, livestock, and environmental interactions that evolve within communal systems are often environmentally beneficial rather than the opposite. Studies of Okombahe and similar settlements in Damaraland (Rohde 1997a) found that woody vegetation in such highly stochastic arid environments is "patchy," even in the absence of intense human impacts. Disturbance in the form of either climatic or human and livestock impacts tends to increase the effects of "patchiness": resilience in vegetation recovery, recruitment, and regeneration in response to the stochastic disturbance associated with heavy use of vegetation would seem to be a defining characteristic of this environment, up to certain limits. The discovery that these limits are far higher than previously accepted is one of the most important results of this analysis.

One indication of the resilience inherent in the Okombahe's environment and communal farming system is reflected in the fluctuation of stocking rates, which shows a high correlation to cyclical rainfall patterns. Stocking densities have ranged between less than 1 large-stock unit and more than 5 large-stock units per square kilometer several times during the twentieth century, in **e**sponse to drought and subsequent recovery. With the expansion of the commons in the 1970s, Damaraland's communal farmers were able to withstand this century's deepest and most prolonged drought, recovering to predrought stocking levels within 10 years.

Stocking rates in Namaqualand have decreased by more than 50 percent during the twentieth century and recent studies¹⁵ have concluded that these decreases are directly related to a decline in rangeland productivity, rather than to state policy or market forces. Dean and Macdonald (1994) argue that irreversible degradation has taken place because of overstocking in the past. According to them, stocking rates in Namaqualand have fallen from 4.27 large-stock units per square kilometer between 1911 and 1931 to 1.41 large-stock units per square kilometer between 1971 and 1981. However, livestock data from the communal rangeland of Leliefontein show just the opposite: here stocking rates have risen

¹⁴ Such as Fairhead and Leach 1996; Leach and Mearns 1996; Tiffen, Mortimer, and Gichuki 1994.

¹⁵ See Dean and Macdonald 1994; Milton et al. 1997.

steadily from 2.3 large-stock units per square kilometer in 1890 to 3.8 largestock units per square kilometer between 1972 and 1987.¹⁶

Ecological research in Leliefontein indicates that some communal rangelands are degraded compared with adjacent commercial farms (Todd 1997; Vetter 1996). Preliminary studies of vegetation change, using repeat ground and aerial photos in Leliefontein,¹⁷ suggest that recruitment and diversity have increased rapidly on destocked commercial farms during the last 30 years, while the communal areas have remained relatively static in terms of vegetation cover, diversity, and livestock productivity. If Namaqualand's communal farmers had been given access to an expanded commons, recruitment of palatable plants (similar to that which occurred on the destocked commercial farms after they were fenced during the 1950s) probably would have increased as a result of fallow periods made possible by increased mobility.

Policies of confinement have resulted in patchy environmental degradation, where palatable perennials have been replaced by weedy annuals and toxic perennials, especially in overgrazed, continuously stocked village pastures. The cumulative effect of land policy in Namaqualand has been to severely restrict the ability of farmers to move during times of drought, thereby enforcing sedentarization. Property relations have become objectified in rigid, communal farmboundaries and formal, village-based institutions of resource control. While this can be seen as an expedient response to the confinement of relatively large human and livestock populations in a marginal environment, it has curtailed the ability of farmers to reduce risk, leading to increased poverty and the exacerbation of social divisions.

Questions of Productivity and Equity

When critics of communal land-use raise the specter of "lost traditions" (Sharp 1990; Hendricks 1997), they are forgetting that such "traditions" arise directly out of real social and physical conditions, and not out of some imagined past situation. Communal tenure is a "natural" response to the high transaction costs inherent in controlling low-productivity, marginal environments. The example of Damaraland is a case in point. Here is a group of people who were defined by apartheid as ethnically residual precisely because of their perceived lack of traditions but who, when they were thrown together in a newly expanded commons, quickly created appropriate "traditions" of leadership, pastoral practice, and resource management (Rohde 1994; Sullivan 1996, 1997).

The attempt in Namaqualand to promote economic units, apart from its obvious class bias, was premised on assumptions about the relationship between

¹⁶ Data were derived from Leeuwenburg (1972) and Simon Todd (through personal communication in 1997).

¹⁷ From research being conducted by R. F. Rohde as part of the Global Change and Terrestrial Ecosystems project's Global Change and Subsistence Rangelands of Southern A frica—Paulshoek Project, 1998.

ownership and productivity. What is often ignored in the analysis of communal productivity is the social function of Ivestock, and the economic context in which communal farmers live. Many communal economies have been reduced to a subsistence level, where livestock and livestock products are integral to people's survival but are not easily computed in cash terms. The few detailed studies that have quantified the use value of communal livestock show that communal farming is far more productive than previously thought.¹⁸

Until very recently, even critics of the failed economic-unit policy were wondering whether land reform should promote "a revamped version of communal tenure or a renewed attempt at individualisation" (Hendricks 1997, 56). The premises that underlie such questions are often concerned with the historic development of class divisions within the Namaqualand reserves. Conflicts of interest between large and small livestock farmers are not inevitable-the same processes of class formation existed in Okombahe, but there, in an expanded commons, the interests of both large and small farmers converged around common interests. In Damaraland, when the transaction costs of communal farming outweigh the risks involved in buying a private farm, the wealthiest communal farmers leave the commons. The farmers with large herds who remain in the communal areas are often the spokesmen and -women who champion the cause of their poorer neighbors. Wealthy farmers are employers, entrepreneurs, politicians, and businessmen. Without them, the rural population might be reduced to an even more impoverished residual category. It is not the communal reserves where disparities of wealth and class divisions are critical; it is in the postapartheid society at large, where inequality frames the conditions under which the poor of the communal areas survive.

Land Reform and the Future

Land reform is on the political agenda once again: both Namibia and South Africa are actively involved in seeking ways of transforming the socioeconomic legacies of apartheid through a restructuring of land ownership. A National Land Reform Conference was convened in Namibia shortly after independence in 1991 and resolved to work within the terms of the constitution to bring about just redistribution of private land and to retain the principles of communal tenure in the former homeland areas. Since then, very little has taken place in the way of legislation. Draft reform bills addressing communal land suggest that Namibia will follow the model of Botswana and create a number of (tribal) land boards that will function as the tools of central government to control communal tenure and resource use. This formalized regulation of communal land on a national basis is likely to be insensitive to local social, economic, and environmental variations; in this way, an opportunity to strengthen local government and grassroots democracy will be lost. Draft legislation also provides for the

¹⁸ See Lane 1991; Maddox, Giblin, and Kimanbo 1996; Scoones et al. 1996.

granting of 99-year leases at the discretion of the central-government ministers. This will have the effect of privatizing significant tracts of communal land. Such "reforms" are being consolidated under much the same alliance of interests as that of the old regime: the conservationist or environmental lobby, bureaucrats and planners, politicians, and the elite all have an interest in controlling the use of communal resources. The hegemonic discourse continues.

In contrast, South Africa has moved quickly to institute wide-ranging legislation on land reform, within which land-tenure reform aims to provide legally secure forms of land rights with a variety of options as to what form these rights take—ranging from fully individualized, to strong group, systems of tenure. New legislation is being drafted that will create strong, protected rights on land that is nominally state owned, with the option that full ownership may be taken if a legal entity is formed to hold land. In group systems, these rights will be vested in the people who are the holders of land rights, not in institutions such as local or tribal authorities, and give to those rights (for example, in land allocation procedures). This policy, if implemented, has potentially major implications for the administration and management of communal land.

Presently, communal Namagualanders have two basic routes to transforming the status quo with regard to land. One option open to individual villages in Leliefontein is to create a network of communal property associations (CPAs) under the Act of 1996, which will in effect give each small community ownership rights over its land and control over membership and resource use. While this might enable communities to share grazing and other resources through formal channels (for example, in times of drought or for purposes of establishing seasonal migration patterns), such arrangements might tend to become bureaucratic and contentious as the need for flexible grazing patterns asserts itself over formal "ownership" boundaries. Another danger is that the formal rules created under the CPA legislation will be ignored as informal patterns reassert themselves in favor of powerful interest groups. However, these are not inevitable outcomes. Given the strong rationale for sharing grazing territories, it is surely not beyond local decisionmakers to agree on flexible grazing patterns, effectively making the CPAs strong vehicles for local democracy and thereby preventing the imposition of outside bureaucratic control.

The other option is through the Department of Land Affairs' policy on commonage, under which local authorities in Namaqualand are applying for additional common land. Commercial farms on the borders of Leliefontein are in the process of being purchased for this purpose. Part of the criteria for securing such additions of commonage is the agreement on a management plan between the local authority and the "community," with the stipulation that such land will not be used for settlement. Impending legislation that will transform local government structures makes this process somewhat uncertain, as does the difficulty of defining a "community" of interests among the various villages of Leliefontein. However, apart from this, the thrust of the policy is one that is in danger of

being usurped by the proponents of the old idea of economic units. In spite of the intention that additional commonage should benefit the poorer, disadvantaged members of the community, the prohibition on settlement and the necessity for contractual leases and management agreements mean that larger, wealthy farmers will be in a much better position to take advantage of this opportunity. Under such a scenario of "born-again economic-units," there is little possibility of achieving the critical scale necessary to creating a dynamic, selfregulating, expanded commons, however, the process is at present a "terrain of struggle," and the final outcome remains, for the time being, an open question.

At the time of writing, we, the authors of this chapter, remain hopeful that the eventual creation and management of an expanded commons will be based on broad democratic principles aimed at the resolution of disputes and conflicts, rather on rigid, top-down rules and regulations. However, a strong bias inherent in the planning and development process tends toward the atomization of the commons into small, easily administered units controlled through formal rules that limit stocking rates and tenancy arrangements according to a notional carrying capacity: a rebirth of economic units. Instead, we would support a more egalitarian, decentralized, flexible institutional order based on access to an expanded commons. In such a scenario, the modern democratic state becomes an essential ally in this process only to the extent to which it acts to enable and facilitate the process of majority (local) decisionmaking in order to ensure equity and transparency in the (local) control of communal land.

On Sustainability

Most, if not all, contemporary debates about common-property rights, pastoral risk-reduction strategies, and livelihoods center on the effects of pastoralenvironmental interactions, and are predicated on an ideal of sustainability. In presenting this case study of the effects of expanding or contracting the commons, we have followed this pattern. While this presentation of the empirical evidence (such as the analysis of stocking rates, productivity, climate and vegetation change, social and cultural processes, and farming practices) has many gaps, and much work remains to be done in substantiating the environmental history of Damaraland and Namagualand, we would also support the contention that explicit knowledge and rationality are insufficient tools for the sustainable management of ecological relations (Hornborg 1996). The human imprint on the natural world is so deep "that we must confront the awkward reality that we may search in vain for a recognizable and definable state of nature" (Beinhart and Coates 1995, 3). Human knowledge of the "natural" world is neither a representation of something that exists outside the human species, nor merely a social construction—it is a negotiated relationship based on meaning (rather than fact), which actually reconstructs nature in the process of representing it. We argue, therefore, that localized, embedded, and decentralized social systems are better suited to regulating local ecosystems sustainably than the global economy or its instrument, the state, although we recognize that global and state structures interpenetrate the local in complex and inevitable ways.

The concept of the ecosystem is not simply descriptive, "it is also "performative"; the ecosystem concept and actions informed by it are "*part of the world's means for maintaining, if not indeed constructing, ecosystems* aport 1990, 69 [italics added]). Understanding the people and their environment in places like Leliefontein or Okombahe might best be conceived of in terms of performances, and seeing these performances as embedded in social relations rather than in terms of "systems of knowledge" or human nature dichotomies. We wish to stress that environmental knowledge is as much to do with the "physicality of "living in the world," the interlocking *habitus* of action, belief, experience, engagement" (Bender 1993, 248) as with anything that we identify as objective, empirical, or disembedded.

While we believe that research into human ecology and environmental history is relevant and urgent, we also believe it is time for the debate to become somewhat more reflexive about the effects that researchers' attempts at conceptual encompassment have upon local meanings and ecological resilience. The danger is that normative statements of what constitutes environmental sustainability will usurp the place of apartheid ideology. One way of avoiding this is to recognize the sheer complexity and specificity of fluctuating ecosystemic interrelationships, while at the same time conceding that optimal strategies for sustainable resource-management are best left in the hands of those who have direct and long-term experience of a specific environment and with a special stake in the outcome. We have tried to show that the goal of expanding the commons to increase complexity, and at the same time devolving decisionmaking over the management of common land to the lowest possible level, is a more effective and sustainable policy option than attempting to impose regulatory controlsystems based on highly formalized definitions of property rights and decontextualized models of ecosystem dynamics.

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