good fortune that he left us this vibrant account of his forty years as a ranger.

Grant and Wenonah Sharpe

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Have the wild lands of the American West always attracted eccentric people? Or did that western wilderness, with all its solitude and isolation, simply foster odd behavior, turning otherwise ordinary folks into self-centered eccentrics? The reissuing of Ruxton of the Rockies, first published in 1950, makes one ponder the first question. The study of a very unusual personality in John Otto of Colorado National Monument addresses the behavior of a real eccentric, basically disproving Ruxton's observation that westerners were wastrels.

Many readers may already be familiar with Ruxton of the Rockies. It is a biographical account of writer and traveler George Frederick Ruxton. Clyde and Mae Reed Porter collected the early writings of Ruxton during the late 1940s and skillfully compiled a chronological account of Ruxton's life. The result, for all practical purposes, is an autobiography, with minimal annotations by the editors.

Ruxton's noteworthy career was brief but adventurous. Born in England in 1824, he was hardly a scholar, always a wanderer. At the age of sixteen he traveled to Spain, where he joined the English Squadron and fought in the Carlist Wars from 1837 to 1839. Over the next seven years he served the English army in Ireland, the West Indies, and Canada, and traveled to Africa and Mexico.

Ruxton's journey through Mexico, then northward through Santa Fe and along the Rocky Mountain Front Range, proves to be the highlight of this volume. From observations made during this expedition came two books that made Ruxton's reputation: Adventures in Mexico and the Rocky Mountains and Life in the Far West. Adventure abounds in his works. He was a keen observer of both people and scenery, but his smug English civility made him an active critic, hardly objective. For example, Mexico City, he writes, "is the headquarters of dirt. The streets are dirty, the houses dirty, the men are dirty and the women dirtier and everything you eat and drink is dirty" (p. 112). All along that frontier trail Ruxton found hospitality (albeit meager), yet the majority of Mexicans remain "cowardly" or "lazy," the Indians "bloodthirsty," and the Americans "half savages, and perfectly uncivilized."

Though Ruxton found most of the western inhabitants repugnant, the landscape itself enchanted him. He found solace in the wilderness, away from the corrupting centers of frontier commerce. He retreated to Colorado's South Park to enjoy a solitary hunt. "Surrounded by stupendous works of nature," he discovered, "there was something inexpressibly exhilarating in the sensation of positive freedom from all worldly care" (p. 261). Shortly thereafter he returned to England, wrote his highly acclaimed narratives, and planned a second sojourn in the "Wild West." But his health failed and he died, at age twenty-seven, in St. Louis, Missouri, on his way west. If he had lived longer, the power of his descriptive pen and his clear affection for wilderness might have done for the Rockies what John Muir later did for the Sierras.

John Otto of Colorado National Monument displays yet another character enamored of Colorado's scenery. If George Ruxton toyed with a hermit's life, John Otto embraced it. Born in Missouri in 1879, Otto wandered through the Far West during his teenage years, finding part-time work in the mining districts. In May of 1903 Otto arrived in Denver and began exhibiting some bizarre behavior. He wrote strange letters and appeared to threaten the governor. He was arrested and was found to be suffering from "acute mania." He was released to the care of his family.

But 1907 found Otto back in Colorado, now near Grand Junction. He later retreated into nearby Monument Canyon. Over the next thirty years John Otto's unusual life was linked to the fate of the 13,853-acre Colorado National Monument. He became a prime booster for the area in 1908, saw its designation as a national monument on 24 May 1911, and became its first custodian (with a salary of one dollar a month).

Alan J. Kania shows us Otto's obsession with the tedium of trail building, his penchant for patriotism, and his active boosterism, the latter illustrated by lengthy quotes from Otto's letters to Grand Junction's newspapers. Eventually, National Park Service officials realized that Otto's dollar a month might be better spent on improved management for the area. In 1927 Otto resigned his position and "the National Park Service made no effort to try and talk him into returning to duty" (p. 123). Otto retreated to Yreka, California, where he died in 1952.

The eccentric life of John Otto seemed to reflect the rock formations and wild canyon lands. Whether building trails, naming landforms, or acting as a guide, Otto's personality merged with that of the Colorado National Monument. Like Ruxton roaming the Rockies, the eccentric Otto found a landscape broad and engaging enough to match his mind.

C. W. Buchholtz

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The Amazon Basin is the home of the world's largest tropical forest system. It contains more than 50 percent of the total remaining undisturbed forest on earth. Yet each year in Brazil alone, an area is deforested that is roughly equal in size to Portugal, which is cause for alarm if continued unchecked.

Stephen G. Bunker, in this ambitious work, examines the social forces that are fueling this rapid exploitation of the Brazilian rain forest. He argues that "when natural resources are extracted from one regional ecosystem to be transformed and consumed in another, the resource-exporting region loses values that occur in its physical environment; these losses eventually decelerate the extractive region's economy" (p. 22). Paradoxically, then, all of the efforts to "develop" the Amazon Basin are resulting instead in its "underdevelopment." One force behind this process is the
world market for the riches—lumber, mineral, animal pelts, and so forth—that the Amazon has to offer. But the Brazilian government also contributes to underdevelopment by treating the Amazon as a vast wilderness that must be tamed, utilized, and integrated into the Brazilian national state—to benefit the established centers of economic and political power.

Bunker focuses especially on the government and its "Polamazonia" program, in which numerous agencies, each identified by acronym (INCRA, CIBRAZEM, EMATER, IBDF), confront the Amazonian ecosystem. The bureaucracy applies the same procedures here as in the south-center of Brazil, rationalizing land tenure by dividing the land into lots, registering individuals and their titles to land, supplying technical assistance, and building roads and other infrastructures.

This system promoted sustained agricultural development on previously forested lands in some other parts of Brazil, but the Amazon poses different bureaucratic, technical, and environmental problems. First, the bureaucracy systematically frustrates rather than aids many of the colonists. Brazil's dispossessed, who are fleeing into the Amazon from the drought-ridden northeast or the south of Brazil, lack the personal identity documents and the familiarity with the bureaucracy required to move smoothly through the government's land-granting system. Even when the colonists obtain title to land, bureaucratic delays and corruption slow or even block agricultural warehousing and processing. Second, the rudimentary and unreliable transportation systems on the frontier slow the processing of land titles as well as the marketing of crops. Finally, Amazonian soils and climatic conditions often respond poorly to technologies and crops imported from other regions. The region has supported Amerindian systems of shifting agriculture and hunting for centuries and the similar forest subsistence strategies of rubber tappers (called caboclos) for decades. Yet crop failure often leaves the new colonists bankrupt after only one or two seasons.

Bunker has had considerable firsthand experience with the government projects he describes. This careful recounting in detail of his experiences is a valuable aspect of this book. Simultaneously, however, Underdeveloping the Amazon is intensely theoretical. Bunker rejects established theories of modernization, underdevelopment, and world systems in favor of an emphasis on the one-way energy flow from extractive (essentially mining or unstable agricultural economies) to what he calls productive (industrial or stable agricultural) economies. He argues that this flow "reduces the complexity and power of the first and increases complexity and power in the second" (p. 21). Thus the extraction of energy from the Amazon contributes to the social complexity and political power of the coastal cities in Brazil and of industrial areas elsewhere in the world but breaks down the social and political systems of the Amazon itself, including the new structures created by the Brazilian government to promote colonization. From Bunker's point of view, therefore, bureaucratic bungling, corruption, and environmental disaster are the inevitable local results of extracting products from the Amazon for the benefit of other regions.

One can question whether this global theory is the best way to account for the underdevelopment of the Amazon basin. However, Underdeveloping the Amazon represents the most comprehensive and thought-provoking work yet to have appeared on the Brazilian government's specific programs in the region and makes a valuable addition to the library of students of the global history of forests.

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Greg Urban


The forests of Ireland resulted in the intensive cultivation of the land, even very marginal mountain and moorland, for cereal crops and pasture. This cultivation has continued right up to the present, as every tourist knows who has marvelled at the well-kept stone walls marking tiny fields throughout the west of Ireland. Despite these conditions, there has been an awareness in Ireland for many years of the importance and value of timber production and the need for sound forestry practices.

Sheila Pim's subject, Augustine Henry, was one of the major figures in early twentieth-century Irish forestry. Henry's path to forestry was not a direct one, as she points out, and indeed his career was most extraordinary. Born in 1837 in County Antrim, Henry studied medicine at University College Galway and Queens College Belfast, after which he entered the Imperial Chinese Customs Service in 1881. While in rural China Henry trained himself in botany, becoming world famous as a collector and discoverer of Asian plants. In the aftermath of the Boxer Rebellion in 1900, Henry retired from the Customs Service and devoted himself to further plant study in London. At this time, Henry renewed his Irish interests. He knew people in both the Irish Literary Renaissance and the Irish nationalist movement, and wanted to do something for Ireland also. By 1902 he decided that he could make a contribution by learning something about forestry.

There were not many full-fledged forestry schools in Europe in 1902, but Henry got an appointment to the French School of Forestry at Nancy. A year later he was given the opportunity to collaborate with H. J. Elwes in writing the monumental seven-volume The trees of Great Britain and Ireland. These books made Henry an authority on dendrology, took him to forests in Europe and America, and introduced him to foresters such as Gifford Pinchot. In 1907 he was made the head of the new School of Forestry at Cambridge, and in 1913, was offered the first Chair of Forestry at the College of Science in Dublin. At last he had his opportunity to serve Ireland.

In addition to the students he had in Dublin, Henry lectured across the country, gave advice to the Department of Agriculture on both policy and forest management practices, contributed to the National Botanic Gardens in Dublin, conducted experiments to discover the most suitable commercial trees for Ireland, and wrote steadily for the Journal of the Department of Agriculture and the Proceedings of the