

Ethiopian traditional tapestry-like grain sowing practice, or the onslaught of marijuana growers and hybrid introduction schemes on indigenous Mexican maize diversity, the bottom line is the same—our agricultural heritage is in peril. Nabhan illustrates examples from his travels that grass-root initiatives can stay the attack. Yet, the industrial and academic world of agricultural specialists represents an irresistible force engaged in hybrid deployment at a great long-term cost to regional, if not international, food security. Meanwhile, the peoples whose daily lives are the collective memory of human-plant interactions are being swept away, often quietly.

Nabhan's book easily serves as a text on its own, teaching both history and the importance of agrobiodiversity. His writing is consistent and clear, and reminds a broad audience of the importance of preserving agrobiodiversity. Nabhan, through Vavilov, demonstrates that the challenges of the future often lie in the stories of our predecessors. Vavilov's experience is a testament to the scientific ambitions of the twentieth century and his collections remain a seminal document of humanity. Nabhan's retelling of Vavilov's conservation efforts shows that the preservation of the species germane to our agrobiodiversity, including the human contribution, is central to future agendas in plant science and our long-term survival.

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Sacred Spaces and Religious Traditions in Oriente Cuba. Dodson, Jualynne E. 2008. University of New Mexico Press, MSC04 2820, 1 University of New Mexico, Albuquerque, NM 87131-0001; www.unmpress.com. xiv + 210 pp. (hardcover). USD 39.95. ISBN 978-0-8263-4353-6.

This book may turn out to be a *non sequitur* to those familiar with sacred wildlife habitats protected by indigenous societies. Dodson describes the spaces of diverse religious performances, and their cultural and political meanings, not ecological implications. These sacred spaces are either in private homes or in community dwellings, and have no explicit animistic association with plants, animals, or their habitats. Dodson's sacred spaces are altars and temples.

The diversity of cultural-religious performances at these sacred spaces indicates a rich semantic confluence and transculturation from different and seemingly contrasting religious traditions. The word "transculturation" was used by Don Fernando Ortiz in 1947 in his description of the process of multi-religious confluence in Cuba. Over sixty years later, Dodson has re-traced Ortiz's work in excruciating detail, albeit confined to historic Oriente Province.

By itself, the complex admixture, and in some cases, interpenetration of several religious traditions brought by immigrants from Africa, Latin America, and Europe is fascinating. More interesting are the descriptions and photographs of altars, variously adorned with images of Native American leaders, heroes of liberation movements, and religious icons and saints. Community memories of their ethnic past, historical events, and mythologies, all combine to form a common idea of sanctity, which transcends the bounds of religious significance of these spaces, and relates to the history of power relations between different ethnicities of Cuba.

Dodson describes how past ethno-political tensions gave rise to some unique rituals in Oriente Cuba. A prominent example is *Espritismo de Cordon*, in which people of black and white descent form a human circle to invoke spirits for guidance and success. Toward the end of the nineteenth century, many Oriente inhabitants of African descent, supported by their Chinese compatriots, rose in arms against the colonial oppression. This uprising for a "*Cuba libre*," to end slavery and bonded labor, was mercilessly quelled by the Spanish army. The frightened freedom fighters resorted to the *Cordon* ritual, a heritage of the African Kongo immigrants.

Today, the *Cordon* is performed in temples. The evolution of *Cordon*, from its psychological function of delivery from fear of battlefield death to its function as a healing ritual is an example of what Boyd and Richerson (1985) calls "run-away evolution" of cultural traits.

Cordon and other rituals also signify a covert political subversion by the underdogs of the Spanish Christian liturgical practices during the colonial period. The Native and African Cubans found a common political cause by infiltrating public holidays and celebratory activities designated by the rulers—by “restructuring and reinterpreting them into Africa-based occasions.” The African cultural elements were made to appear as Hispanic art, and incorporated into institutional public celebrations.

Dodson describes how political resistance finds covert expression in new religious rituals, containing cultural cognitive elements subversive to the Establishment. Her findings should elicit interest of cultural evolution theorists. There is ample evidence in this book of cultural runaway selection. Furthermore, the semiotics of imitative learning, diffusion of group-specific cultural traits and cognitive interpretations of rituals with social feedbacks in connection with respective sacred spaces, seem to be supportive of Sperber’s “cultural cognitive causal chains” model (Sperber 2006), which may explain the local diffusion and stability of the different rituals described.

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California’s Fading Wildflowers. Lost Legacy and Biological Invasions. Minnich, Richard A. 2008. University of California Press, 2120 Berkeley Way, Berkeley, CA 94704; <http://www.ucpress.edu>. xiv + 344 pp. (hardcover). USD 49.95, GBP 35.00. ISBN 978-0-520-25353-7.

In *California’s Fading Wildflowers*, Minnich debunks the myth that California’s “native” plain vegetation is bunchgrass community dominated by *Stipa pulchra* (= *Nassella pulchra*). Instead, the earliest European observations of the coastal and

interior plains of California document what were essentially managed wildflower fields.

Minnich, a plant biogeographer, argues that the baseline for native California vegetation is erroneously established on post-Gold Rush observations and theories of vegetation, specifically those of Frederick Clements. Minnich sets as a baseline the earliest recorded observations of California’s vegetation: journal entries taken during the first Spanish land expeditions in California. The two largest and earliest were those of Gaspar de Portolá (with journals written by Juan Crespi) (1769–1770, 1772) and Juan Bautista de Anza (1774, 1775–1776). Journals were critical for identifying local resources, vegetation, pasture, timber and fuelwood, information that in turn helped determine the financing of missions, presidios and/or pueblos. The journals provide remarkable detail. Entries were made daily, at a geographic resolution of 5–10 km/day (Crespi), and up to 30 km/day for Anza.

Both expeditions were offered baskets of chia (*Salvia columbariae*) almost every day by various indigenous groups. In springtime, indigenous management practices like burning and harvesting were ubiquitously observed, especially along the coast. The extent of the burning frustrated the Spanish, who repeatedly lamented the scarcity of unburned forage for their horses. In 1793, the Arrillaga Proclamation banned the firing of pastures. The Spanish also recorded that seed-gathering grounds were occasionally fought over.

Minnich discusses at length the transformation of California’s managed wildflower fields into today’s “brome fields.” For inland California, Minnich dismisses the bunchgrass-grazing hypothesis, which posits the replacement of *Stipa* communities by exotic annual forbs and grasses due to overgrazing, by arguing in part that the livestock economy was restricted to the coast during both the Spanish (mission) and Mexican (ranch) periods. The missions were the impetus for the first large-scale arrival of exotics, such as leguminous fodder and oats used to seed coastal pastures. Minnich argues that such “Franciscan exotics” have not significantly expanded their ranges since the mid-19th century.

In contrast, a second, more destructive, and still expanding wave of “true” weeds (e.g., *Bromus madritensis*, *B. diandrus*, and *Avena barbata*) arrived after the Gold Rush. These grasses invaded California’s interior valleys largely on their own accord. Their furious response to rain