

Abstracts

Socio-Ecological Transformation from Rural into a Residential landscape in the Matadepera Village (Barcelona Metropolitan Region), 1956-2008

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Mediterranean countries are experiencing the fastest rates of urban sprawl in Europe, and concern about potential negative environmental effects is increasing. This expansion is occurring in a context of declining rural activities, where highly diverse cultural landscapes are giving way to homogenous low-density housing developments and entirely new forms of human-nature relations. In the present study we offer an analysis of the socio-ecological transformation of Matadepera, a wealthy suburb of metropolitan Barcelona that evolved out of a rural village inhabited by poor peasants who farmed rain-fed cropland and managed the forest. By cross-checking data from land-cover maps, documentary sources and semi-structured interviews with elderly local peasants, we managed to gain a detailed understanding of the driving forces behind land cover transformation and give voice to perceptions of landscape change among a quite neglected social group. Our results indicate dramatic urban sprawl onto former fields and woods over the last decades, driven by a combination of different factors. They also show that oral sources can yield information on landscape changes not available from any other kind of source. Moreover, by recovering valuable and so far neglected personal memories we hope to provide further stimulus to policy actions aimed at charting a more balanced development path for the area.

Artificial Apple Production in Fraiburgo, Brazil, 1958-1989

Jó Klanovicz

This article explores connections between the “domestication” of apples in Southern Brazil, the polemic on contaminated apples in 1989, and the reactions of the apple industry to the news published in the press on the use of pesticides in Brazilian orchards. The issue is viewed in the wider context of notions of toxicity and “danger”, nature control, correction of nature, and temperate climate agriculture in Brazil, which have become very influential both in the public conscious-

ness and in individual awareness, in connection with aspirations to healthier and safer food. The article states that apple producers' responses to the issue can be much better understood through a historical examination of the agroecology of the apple monoculture, as well as the structures, agents, and discourses informing perceptions of the environment in apple-producing regions.

Zimbabwe's Chinhoyi Caves: 1845-1945 **Vimbai C. Kwashirai**

This study historicises environmental issues at the Chinhoyi Caves that are of contemporaneous resonance with the ecological crisis faced by the modern world. It deals with important themes like water-resource management, indigenous knowledge and its efficacy in the preservation of nature, colonialism and its environmental implications, forest use and deforestation, dislocation and displacement of indigenous people, and the interaction of the local with the global. The subject addressed here has global dimensions and is related to the ongoing debate on Western-indigenous and human-nature interactions. From about 1845 to 1890, the Leya and Kore Kore communities strategically established homesteads, pastures and hunting grounds in proximity of the Chinhoyi Caves, Chinhoyi District, northern Zimbabwe. They survived on the available natural resources: fertile and well-watered soils for the production of various food crops, particularly millet, pastures for livestock, as well as edible wildlife and spontaneously growing fruit and roots. As a strategic niche offering a source of water as well as protection from enemies, the Chinhoyi Caves played a role in political conflicts. The caves also had significant cultural and religious importance, as they served as a sacred religious centre for rainmaking ceremonies (*mupwerera*). Sacred forests around the caves (*rambotemwa*) could only be cut with political and religious sanction. Indigenous knowledge and practices of water-forest consumption and conservation were embedded in religion and taboo. These customs were changed from the 1890s under British colonialism. The caves came to international prominence in 1888, when hunters and travellers like Frederick Selous wrote about them. European settlers of Italian origin expropriated indigenous lands, displacing the Leya and Kore Kore onto dry and infertile areas. A wealthy Italian officer, Margherito Guidotti, sponsored the first agricultural group settlement scheme, involving ten Italian settler farmers. In 1900, the caves were gazetted as a national park. From a sacred site, the Chinhoyi Caves thus became a tourist destination.

Green Colonialism and Forest Policies in South India, 1800-1900 **V.M. Ravi Kumar**

British colonial rule and its impact on the environment of the Indian sub-continent has made for a fascinating historical research subject over the last three

decades. While exploitation of forests and the socio-economic impact of the process on tribal and other forest-dependent communities are well documented, the role of scientific discourse in facilitating the hegemonic control of the colonial state over forests had not been adequately treated in the existing literature. This article looks at the history of colonial forest policies in South India to argue that initially British destroyed most the accessible forests by logging them for ship-building, railways and the requirements of the military and public works departments. When the sustainability of the wood supply emerged as a problem, desiccationist ideas began to be systematically propagated. The desiccationist discourse branded forest utilisation by the natives as the main culprit for deforestation and the consequent reduction of the water flow of some rivers in South India. This alarmist discourse facilitated the control of the colonial state over most of the forests in South India by establishing a rhetoric of the preservation of forests as a means to save the environment and irrigation as prerequisites for the well-being of the agrarian economy. This article illustrates how desiccationist fears were used to justify the colonial state's monopolistic control over the forests of South India.

Netting the Global Forest: Attempts at Influence

John Dargavel

This paper looks at the history of attempts to influence the conservation and management of the world's forests through the creation of international organisations since the 1890s. The attempts are seen in the context of changes in the world political economy, changes to the forests themselves, and changing ideas about how forests should be conserved and managed. The turning points between stages of increasing organisational complexity were the Second World War, the 1972 UN Conference on the Human Environment, and the 1992 UN 'Earth Summit' Conference on Environment and Development. The numerous organisations and their inter-relationships have created a network of influence that spans the world's forests in the twenty-first century. It is a phenomenon of globalisation that is regarded as an additional layer to the forms of forest conservation and management.

Virtual Water as a Tool to Protect Water Resources at the Local and Global Level

Desirée A.L. Quagliarotti

Virtual water is the water used in the production process of a commodity. International trade implies long-distance transfers of water in virtual form: imports of water-intensive commodities – such as agricultural products – reduce national water demand; reversely, exports of water-intensive commodities raise national water demand and thus water scarcity at local level. While trade patterns influence the level of water use, spatial differences in water availability do not have a meaningful influence on trade patterns. The reason is that water inputs rarely con-

tribute to the overall price of traded commodities. Water use efficiency at global level can be increased only when worldwide water will be priced according to its real economic cost. In arid and semi-arid countries, such as North Africa and the Middle East, knowing the real value of water can be useful towards determining how best to use the scarce water available.