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# ‘Greening the Emirates’: the modern construction of nature in the United Arab Emirates

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As part of the project of postcolonial national modernization, the United Arab Emirates has seen the transformation of significant areas of the country’s desert environment into green landscapes, with enormous resources devoted to agricultural development, park landscaping and nature reserves. In addition, recent years have also seen the creation of a number of social institutions dealing with environmental issues. This paper critically considers this dual ‘greening of the emirates’. Analysing the material, cultural and social construction of this green nature, I argue that it must be seen in the context of a shift from a premodern to a modern relationship to nature. However, whilst in part this has meant the use of oil money to import what are seen as Western environmental technologies and ideas, it has also involved the construction of a distinctive Emirati form of modern nature. The paper concludes with a discussion of how this represents a case of the ‘glocal’ geographies of ecological modernization.

**E**stablished in 1971, the United Arab Emirates (UAE) is a federation consisting of seven tribal sheikhdoms (or emirates) on the Arab coast of the Persian Gulf. The president of the federation since its establishment is the sheikh of the largest emirate, Abu Dhabi, Sheikh Zayed bin Sultan Al Nayhan. Since the 1960s commercial oil exploration has dominated the economy, associated with a massive modernization programme including well-developed health care, social services and education. This modernization required a large input of labour, a need solved by immigration to the extent that immigrants now constitute the majority of the country’s population. Material standards of living for the indigenous population are high, and the Emiratis have among the highest per capita consumption levels of energy and water in the world.

As part of this national modernization, the Emirati state has transformed portions of the country’s desert environment into green landscapes, with enormous resources devoted to agricultural development, park landscaping and nature reserves. Although these green areas constitute only a small fraction of the total land area of the UAE, and are mainly concentrated near to urban centres, given the extremely dry and hot climate

their production is remarkable. Moreover, in the late 1990s a number of social institutions dealing with environmental issues have also been created. This article critically considers this dual 'greening of the Emirates'.<sup>1</sup> My analytical starting point is that 'nature' must be analysed as a material, cultural and social construction.<sup>2</sup> Thus, the greening of the Emirates has three facets: material constructions of greenery (plantations); cultural constructions (relating to both a green cosmology and a green identity for the state); and the social construction of nature (through both various environmental institutions and socially organized labour). Fieldwork on these processes was carried out over the period 1997–2001, both through interviews with representatives of environmental organizations and the nowadays urbanized older generation, which has lived through the changes in the last decades, and through critical studies of the environmental discourse presented in newspapers, official documents and by NGOs. Based on these empirical materials, and in distinction to romantic Euro-American constructions of environmentalism and modernization as inherently opposed, I suggest that the greening of the Emirates is a crucial and uncontested part of the Emirati project of national modernization. This has used oil money to import what are seen as Western environmental technologies and ideas, but in turn has fashioned them into a distinctive, local form of modern nature.

## **Modernization and the changing relationship to nature in the UAE**

Prior to the oil era Emiratis lived 'close to nature', as Bedouins (camel and goat pastoralists), farmers, fishermen or pearl divers, inhabiting a harsh environment with an extremely hot, dry and humid climate. The ethnographic representations that exist portray them as premodern, embedded in their natural environment both through the concrete, physical relationships with land from which they fashioned livelihoods and through the place of 'nature' as an unconscious part of the life-world – an immediate experience, not a conceptual abstraction. The following portrait of the Al Murrah Bedouins, a tribe that partly lived within the Emirati area, exemplifies the point:<sup>3</sup>

Most of the skills and knowledge of the Bedouin are directly related to their herding activities, which require both a keen sense of observation and a wide knowledge of geographical features and of desert plants and animals. . . . The Al Murrah are renowned as trackers. . . . All the members of a *bayt* know the individual footprints of their own camels and at least some of the footprints of their kinsmen's camels. . . . Another skill that invites the description of extraordinary is their sense of direction. . . . Whenever they travel, the Al Murrah are careful observers of the land, the plants that grow there, the location of wells, and the people who live there. Every major feature in the landscape of Arabia is given a proper name, as well as being classified as being a member of a certain type of general phenomena. . . . They also know the types of grasses and bushes that grow in each area and are capable of recognizing by name all of the different species of plants that grow in the territories they frequent. . . . The stars are there every night of the year for everyone to see, and it is not difficult to understand how the Bedouin can tell the seasons and the time at night by looking at the heavens. They learn what they know from experience and from listening from the talk of their elders. There are no schools and no initiations into the lore of the tribe. *They learn by immersion in their environment.*<sup>4</sup>

In the late 1960s and throughout the 1970s the young Emirati nation initiated intensive settlement projects for the Bedouin tribes, providing free state housing in an effort to discipline politically and spatially a problematically mobile population. As a consequence of this settlement, the indigenous Emirati population more or less gave up their traditional economies, livelihood being gained instead through employment by the state or through the generous social security system, funded by the oil economy. Furthermore, this new 'productive' economy was associated with a new highly consumerist lifestyle. The result, I want to suggest, is that in the course of modernization and the development of the oil economy nature has changed from being an unreflected upon part of the life-world of the Emiratis into an object of consumption.

Today, the most common interactions with nature are family picnics in the green city parks, and visits to zoos and other 'nature parks'. The promotional self-portrait offered by Sharjah Natural History Museum and Desert Park, for instance, exemplifies this modern way of interacting with nature:

The Natural History Museum and Desert Park is a venue that provides people with a chance to *learn about the flora and fauna* of the arabian desert, while at the same time *having a relaxing and fun time*. . . . In accordance with the concept launched by His Highness, the Desert Park with its various departments will be *a centre for learning and enjoyment* for people of all ages, as well as a place where *original research* can be carried out by the next generation of students. Next to the exit, there is a well-stocked elegant cafeteria and souvenir shop, which raises money for wildlife conservation. The spacious café-restaurant offers *delicious and nutritious food that can be enjoyed while watching small sandgazelle* in a nearby enclosure. *Birdwatchers will be thrilled with good views* of desert larks, bee-eaters, rollers, finchlarks, hoopoes and other interesting birds, which are either resident or just passing through. The outside gardens have picnic tables and there is plenty of space for children to run around and play. The museum and surrounding grounds are *an ideal place for a day's outing*, both in cool and hot weather.<sup>5</sup>

Here, we find nature as an object for varying practices of consumption, framed within a 'day's outing'. The logic is paralleled in another common way in the UAE of 'meeting nature', off-roading, especially in four-wheel-drive vehicles. More complexly, one could point to the local practice of periodically going out into the desert and living in a tent. This 'camping', especially apparent in the Emirati winter, obviously references traditional Bedouin lifestyles, as Emiratis stay some weeks in the desert living with their extended families. More generally, some informants said that they still collect the herbaceous desert plants that are used in traditional medicine, which is still widely practised. On the other hand, the tents used for camping are not the traditional black tents made of goat wool, instead being made of synthetic materials, and invariably equipped with electricity, bathroom and TV. Rather than being an indigenous, traditional practice, this camping in the desert could be compared with the 're-traditionalized' holiday activities of many other modernized societies, such as going to summer cottages. Overall, then, even those practices that echo traditional lifestyles and ways of relating to nature actually represent a fundamental transition to modernity.

## **The material construction of nature: rolling back the desert**

Traditionally, in the area now designated as the UAE it had only been possible to cultivate land near the oases and in the mountains. Today, large areas in the desert have been cultivated by the use of intensive irrigation and other technologies of constant care. This greening of the Emirates, often described as 'rolling back the desert', is promoted as a source and symbol of national pride. Although official statistics need to be treated with some caution, they provide a sense of the scale of the ecological transformation. The private department of Sheikh Zayed claims that more than 20 million date palm trees have been planted and more than 200 000 hectares of land have been brought into cultivation in the emirate of Abu Dhabi alone since 1971.<sup>6</sup> The UAE Ministry of Culture and Information states that more than 100 million trees have been planted in the Emirates as a whole.<sup>7</sup> Within the urban centres, extensive planting of trees, flowers and other greenery has beautified the desert cities. Dubai municipality had achieved the greening of 3 per cent of the emirate's area, with the eventual goal being eight per cent.<sup>8</sup> All citizens of Abu Dhabi are entitled to receive free plants from the municipality, with hundreds of thousands distributed every year. Along all major highways trees have been planted. A great number of parks and protected areas for wildlife have been created. Agriculturally, a central legitimization of this greening is the survival motive, often expressed as 'we can't eat oil'. According to the official yearbook, the UAE is now exporting vegetables and fruits, although other sources report that 75 per cent of all foodstuffs are imported.<sup>9</sup>

This material construction of a green nature has gone hand in hand with a number of environmental problems. The pollution in the sea from oil spills is a severe problem in the Gulf, though informants were keen to emphasize that most spills came from non-UAE vessels. The extremely high rate of subsoil water loss, including non-renewable fossil water resources, is another specific environmental problem in the Gulf states. The UAE has the highest consumption of water per capita in the world, but only 13 per cent of this is for domestic needs, whilst 80 per cent of water consumption is used for different greening projects (both agriculture and parks).<sup>10</sup> Water demands are also met by the desalination of sea water, a process that requires huge amounts of energy and releases large amounts of carbon dioxide.<sup>11</sup> Officials state that the growing use of sewage water together with better techniques such as trickle irrigation will decrease the use of fresh water.<sup>12</sup> The hope is also that when the trees grow to maturity their roots will reach down to the natural water beneath and they will survive with little attention. However, it is uncertain whether the trees will develop such roots because they are always being watered. Local varieties of shrubs and trees such as date palms, acacia and casuarina are being planted, as well as imported varieties from other arid areas. This new greenery in the Emirates has created an environment for many new species unseen before in the area. Some of these species have been introduced artificially, whereas others, for instance birds, have found their own way to this new environment. A representative from a natural history group expressed some caution regarding the newly introduced species, suggesting that in the long run it is possible that these newcomers will oust the local

flora and fauna. He also stressed that the undisturbed desert regions are now threatened environments in the UAE due to the many development projects.

Some positive environmental impacts are also claimed for the greening. In particular, the afforested green areas are often believed to create more rain. Many informants stated that the weather has become better because of the greenery. In spring 1996 the Emirates had substantial rainfalls for about nine days, compared to the normal rainfall of only a day in a year. The private department of Sheikh Zayed stated in 1997 that the greenery has 'helped in moderating the climate . . . and reducing the atmospheric temperature itself'.<sup>13</sup> However, although the greening can have effects on microclimates, most researchers believe that the rainfall of 1996 was just part of a wider macro-climatic pattern in which the Middle East area has suffered a severe drought over the last few years and upon which afforestation and other planting has little impact. More generally, though, the irony is that the money that paid for these 'green achievements' comes from oil, which is perhaps the cause of the major global pollution problem, and which in future will create severe climatic changes threatening many environments. Like all oil-producing countries in the Middle East, the UAE is opposing the proposed EU hydrocarbon tax.<sup>14</sup> The UAE delegation rejected the notion of oil as environmentally problematic at the Rio earth summit of 1992.<sup>15</sup> In the end the exchange of oil for greenery is an example of the consequences of 'general-purpose money' in a capitalist market system, a process Hornborg has described as the 'semiotics of ecosystem dissolution'.<sup>16</sup>

## The cultural construction of nature: Zayedism and a green ecocosmology

The greening of the Emirates is therefore an active material *construction* of a nature. However, this emphasis on construction needs to be carefully considered. A purely constructionist position would be that there is nothing 'natural' about nature, and that no essential nature can exist separated from culture and society.<sup>17</sup> However, the striving for a green nature in the UAE is a cultural sensibility that is in turn related to greenery's natural *absence* in the area. This becomes clearer if we now turn to the cultural constructions of green nature in the state's ideology of Zayedism and wider currents of Emirati ecocosmology.

The greening project is closely linked to the legitimization of power for the ruling sheikhs and the political system of paternalism that has come to be termed Zayedism.<sup>18</sup> Sheikh Zayed is portrayed as 'the leader who prefers green color',<sup>19</sup> and promoted as one who loves nature and who alone has devoted himself to the greening of the desert. He is well aware of the doubts expressed about his greening projects, but these only go to increase the magnitude of the achievement:

Agriculture never got the support from experts. They used to say it has no future in the type of land we have and under the severe climatic conditions that prevail. But we told them to give it a try. It was through God's blessings and our determination we succeeded in transforming this desert into a green land. This encouraged us and we never looked back.<sup>20</sup>

By conquering a hard nature, leaders demonstrate their power and care for their subjects: 'By the Grace of the Almighty and with the determination of Zayed, the leader, our country has become a model, that has *challenged the hard nature*. Agriculture in the emirate of Abu Dhabi tells the *success story* of a man's *determination to challenge difficult situations* and *to achieve, what some people call, the impossible*.'<sup>21</sup> The leader is also deeply concerned about environmental problems, according to the official discourse:

From his boyhood, when *local tribesmen taught him how to survive in the harsh desert environment*, Sheikh Zayed has developed not only his *intimate knowledge of the country and of its wildlife*, but also *his belief, founded upon his devoutly-held Islamic faith, that it is the duty of man to care for the world in which he lives*. . . . If environmental attitudes are one of the key criteria for assessing whether or not a country *has reached the stage of being a developed state, it is clear that the United Arab Emirates passes the test*.<sup>22</sup>

So, Sheikh Zayed's interest and knowledge in nature is explained in part as a result of local embeddedness and his Islamic faith. 'Caring for nature' – a typically modern notion – is interpreted as an Islamic duty. At the same time 'development' is also invoked as an argument for caring about nature. This is a typical example of how the triad of modernity, Islam and tradition are invoked equally in the legitimization of power in Gulf states,<sup>23</sup> not least to avoid the cultural alienation between ruling elites and the masses that might lead to revolution and civil war.<sup>24</sup>

More generally, the use of greening within Zayedist ideology relies upon a cultural valuation of the green environment as better than the 'natural' dry desert. One possibility in this regard is that the Emiratis love the greenery simply because they are Muslims, and they believe in a green Paradise. In the Qur'ān, Paradise is described as a green garden with rivers and fountains, cool shades and all kinds of fruits in bounty, a place that should be contrasted with the roasting flames of hellfire. It should be noted that green is also traditionally the colour of Islam and its prophet. The oneness of God expressed in the concept *tauhid* also includes the oneness of creation (man and nature), as it is an expression of the only God's creative will. Furthermore, the Arabic term *ayat* is the collective word used in the Qur'an to denote both the holy verses and the signs of God in nature. These signs are exposed in nature as well as in the book. Thus, the recent discovery of oil has been interpreted as a gift from God connected with a divine responsibility.<sup>25</sup> The greening of the Emirates is therefore understood in terms of these religious underpinnings, and interpreted at least in part as an Islamic act. This is one explanation for how and why the greening projects (including the rulers) remain relatively free of criticism.<sup>26</sup>

However, it is necessary to make a distinction between what we might term Emirati ecocosmology and an emerging Islamic ecotheology. The latter's ecological interpretation of the holy scriptures is a modern activity undertaken mainly by Islamic academic scholars living in the West.<sup>27</sup> One of the few attempts in the Muslim world at an ecological interpretation of the Islamic law is the so-called IPCNE (Islamic Principles for the Conservation of the Natural Environment), produced in 1983 by a team of Muslim scholars.<sup>28</sup> In contrast, the new environmental law in the UAE of 1999 has no reference

to Islam whatsoever.<sup>29</sup> Emirati ecocosmology combines scripture and (social memory of) lived experience. For instance, during my fieldwork a woman showed me the 'bride's house' in a reconstructed 'heritage village'. She pointed out that the bride's dress, the decorations of the wall and the cushions were all green: 'We love the green . . . the life is green . . . everything which is green is life.' In my understanding, the cultural importance of the greenery is that it marks the difference between life and death. The Bedouins living in the desert were always looking for the sparse vegetation in the desert as pasture for their animals. The farmers in the oases and up in the mountain relied on date palms and the few vegetables it was possible to produce there. The UAE Ministry of Information and Culture writes that the country today has 'become one where *greenery* can be seen not only at the centres of population, but also deep *in the sand dunes*. From that, its people believe, *a lesson can be drawn that will be of benefit for mankind as a whole*'.<sup>30</sup> In the difference between the sand dunes of the desert and the greenery mankind will learn a lesson, the lesson of survival. The environmental history of the emirates is a story of a transformation from one extreme to another: from extreme poverty in a 'harsh environment' to an extremely affluent society with the possibility of reconstructing nature according to cultural and political desires.

## **The social construction of nature: local elites, immigrant labour and environmental institutions**

Harvey has argued that 'societies strive to create ecological conditions and environmental niches for themselves which are not only conducive to their own survival but also manifestations and instantiations 'in nature' of their particular social relations'.<sup>31</sup> In the UAE greenery represents man's, or more specifically some men's, ultimate victory over the Emirati nature. As well-arranged and highly ordered landscapes of production and consumption they act as typical manifestations of modernity itself. The greening comprises extremely costly and prestigious projects associated with the ruling elites, and hence manifests the power of that group, the national welfare state and the distribution of oil wealth to the nation's citizens.<sup>32</sup> Such efforts gain credibility and legitimacy for ruling elites and the paternalistic state, particularly because they combine their evident modernity with a widely reported lack of support from Westerners. So although both intensive agriculture and the garden aesthetics required by the Emiratis in their nature parks originated from Western traditions, the green projects are cast as expressions of the young nation's independence and a break from its past as a British protectorate. The means of modernity are used in a project of Islamic state-building. Complicating the picture still further, the greening endeavour is also designed for international audiences as part of the theatre of global prestige. International awards are some indication of this. Sheikh Zayed himself received an award from the UN's Food and Agriculture Organization in December 1995 'in recognition of his achievements in greening the country's deserts', and was also granted the Golden Panda Award by the World Fund for Nature Conservation in 1997.

That the green landscapes of the Emirates should come to represent the work and



energy of local elites is predictable, of course, but it still deserves comment. These green landscapes are actually made through a much wider social organization of labour. In particular, it is the place of labour as a commodity in the capitalist world market that has made it possible to employ a large number of workers to maintain the greenery. The green nature may be the order of the ruling elites, but its realization is due to this imported labour. Thus, the greening could serve as a sign of the particular social relations of production in the UAE, and the rather different engagements with global modernity that different classes of Emiratis have. Furthermore, access to this socially produced green nature is also socially distributed. The space designed for the national Arab elite is generally planted, while the residence areas of immigrants are characterized by a significant absence of greenery. Poor immigrants live in shanty blocks in the city centres, while the locals have their large residential 'palaces' in the outskirts of the cities. Green parks also often have an entrance fee, which may exclude some social groups.

Recently a number of state institutions dealing with nature have been established in the UAE. Sheikh Zayed's private department has made great afforestation efforts and has also worked in the field of environmental protection, a concern which has developed from a longer-standing interest in the protection of game for hunting by social elites. The sheikhs have always been considered the owners of the land, and as such have been able to use it as they like.<sup>33</sup> Their interest in conserving the local environment has made the establishment of numerous nature reserves and green areas unproblematic. Expatriates (often Westerners) are employed as environmental experts to manage these reserves according to the precepts of modern ecological science and technology. In addition, the Environmental Research and Wildlife Development Agency (ERWDA), established in 1997, is an independent governmental agency of Abu Dhabi and an umbrella organization for various research centres. Every emirate in the federation has its own environmental regulations. The organizations that execute the practical environmental work are the ministries and municipalities. In order to achieve a unified approach towards environmental issues, the Federal Environmental Agency (FEA) was established in 1993 with the purpose of conducting environmental research, examining plans and their effects on the environment, controlling development projects and increasing environmental awareness. The FEA presented a new federal environmental law in 1999, notably including a stipulation of the death penalty for the dumping of nuclear waste or other hazardous substances within the UAE's territory.

Environmental groups are also emerging in the UAE, often through state sponsorship rather than grass-roots politics. The Environment Friends Society (EFS) was established through a decree of the Ministry of Labour and Social Affairs in 1991 but has the formal status of a NGO. Active members in the EFS must be UAE nationals, and the society's motto sets out a vision of national(ist) and global modernity: 'The pursuit towards a better environment for the welfare of today's and tomorrow's mankind. Safeguarding the environment is a national obligation and a civilized behaviour.' The Emirates Environmental Group (EEG) is a NGO sponsored by the Department of Economic Development, Government of Dubai and Dubai Municipality, as well as other official agencies,<sup>34</sup> with a particular remit to 'encourage and invite participation by individuals from the business community who are experts in those environmental issues which we

concentrate on'.<sup>35</sup> The Emirates Natural History Group (ENHG) was established in Abu Dhabi in the early 1970s, with the aim of studying the natural history of the UAE.<sup>36</sup> This group organizes excursions into 'nature' in the UAE, and its members are almost exclusively expatriate Westerners working in the Emirates.

Commercial as well as state support for such groups is common. Oil companies helped in the establishment of the ENHG and give them ongoing support.<sup>37</sup> The EFS in Abu Dhabi has awarded ADGAS (Abu Dhabi Gas Liquefaction Company) its golden honorary membership 'in recognition of its commitment to the cause of clean environment, and to thank its positive and effective contributions to the Society's activities'.<sup>38</sup> *The wastepaper*, published by EEG, is sponsored by Emirates Can Company Ltd., DUBAL (an aluminium company in Dubai), Land-Rover, Shell and McDonald's. Beyond such familiar corporate appropriations of environmentalism, the wider point is that in the UAE business, and especially the oil industry, has played a leading, not a secondary, role in forging Emirati environmentalism.

Certainly, my experience during fieldwork was of no profound environmental awareness among most UAE citizens. Mostly, environmentalism was located as an 'imported' discourse, not deeply rooted in the Emirati context. For example, the EFS wrote on the occasion of Arab Environment Day on 14 October 1997:

As to contemporary economical situation of poor Arab Countries it is inevitable to *confirm to the principles of Environment*, this fact is due to *the basic condition required by UN organization in obtaining assistance in all forms*, economical or other wise (sic)... *Experiments and studies have proved the fact that firms which have adopted principles have managed to attain profit in business and maintain competitive edges amongst their peers*. In the light of this background could the Arab Business establishment succeed in these fields? Will The Arab Environment Day, be the first step towards achieving this success. We all hope that *'God' may help in attaining this goal*.<sup>39</sup>

To be sure, environmental awareness is expressed here through pan-Arabic nationalistic sentiments and 'God' is also called upon. However, adhering to environmental principles is primarily framed as a requisite for obtaining UN assistance and for keeping up with international business trends. In consequence, environmentalism sits happily with other imported elements of modernity. I have already noted how consumerism is strongly encouraged in the UAE (for example through annual events such as the Dubai Shopping Festival). In the West, radical environmentalist movements have warned that a consumerist lifestyle is environmentally problematic.<sup>40</sup> In contrast, during my fieldwork in the Emirates I encountered no identification of a negative relationship between material consumption and environmental protection.<sup>41</sup>

At the same time, the state's promotion of these imported modern discourses 'repatriates' them.<sup>42</sup> In this process the Emirati state and its elites enact their own modernity, but also connect that modernity to senses of (now nationalized) culture, history and tradition. Thus, despite the evidently transformative character of the greening project, there is an emphasis on the environment as a component of national heritage in need of protection. MacCannell has suggested that the victory of modernity is not the disappearance of the non-modern world but its preservation and reconstruction.<sup>43</sup> In modern Emirati society, 'nature' is viewed as a national cultural heritage (here it is worth

noting that the most recent of the environmental organizations in the Emirates is a branch of the Emirates Heritage Club).<sup>44</sup> Sheikh Zayed said in his speech on the first national Environment Day in 1998:

For us, the conservation of our environment, of its habitat and of the wildlife that lives within it is not a new concern. It is genuine and deep-rooted and we have called for it for years. It was a subject of importance to us long before it became one of the great international topics of the closing years of this century. We cherish our environment because it is an integral part of our country, our history and our heritage. On land and in the sea, our forefathers lived and survived in this environment. They were able to do so only because they recognized the need to conserve it, to take from it only what they needed to live, and to preserve it for succeeding generations.<sup>45</sup>

Thus is environmentalism localized, and the premodern past reconstructed in terms of modern conservationist ideas.

## The glocal geographies of ecological modernization

In conclusion, I have suggested that Emirati environmentalist discourse corresponds with the paradigm of modernity, or rather a particular understanding of modernity. The greening of the Emirates has been a central part of its modernization. As such, one could argue that it is a case of that strand of environmental discourse Hajer identifies as *ecological modernization*.<sup>46</sup> This discourse is based on the claim that society can modernize itself out of ecological crises with existing political, economic and social institutions, by means of calculating environmental degradation and reducing any environmental crisis into a problem of management.<sup>47</sup> For Hajer the notion of 'sustainable development',<sup>48</sup> in which environmental sustainability is good for economic development and vice versa,<sup>49</sup> is emblematic of this discourse, and has successfully forged a 'global discourse-coalition in environmental politics'.<sup>50</sup> In the case of the UAE, this global discourse is evidenced particularly acutely by the highly intensive industrial production of green landscapes and the easy coexistence of environmental ideals with high consumerism. Certainly, for the UAE the greening project has been tremendously successful in creating a global image of being a modern, environment-friendly society (and forging that link between modernization and environmentalism). For instance, the assistant director-general for environment and public health affairs in Dubai said on the second national Environment Day in 1999: 'The day is a *symbol of progress* and reflects our concern for the environment as we wish to make *the UAE a perfect modern state* free from pollution and its causes'.<sup>51</sup> Caring for the environment is a symbol of the success of modernity in the Emirates.

On the other hand, in the preceding account I have also taken pains to tease out the distinctive character of environmental discourse in the UAE. So whilst environmentalism and 'greening' have come to the UAE as part of a global spread of modern culture, replacing the embeddedness in nature characterizing the premodern Emirati society with a nature related to through practices of consumption and industrial production, they have also been, to use Arjun Appaduari's term, repatriated locally.<sup>52</sup> In other words, ecological modernization has been articulated through a process of 'glocalization'.<sup>53</sup> The

discourse of ecological modernization has been imported to the UAE along with other globalized items for consumption in a homogenizing process. However, the global discourse of ecological modernization becomes indigenized in the local.<sup>54</sup> The Emirati environmentalist discourse therefore contains elements that could be seen as specific *glocal story-lines*.<sup>55</sup> Examples would include: the reinterpretation of traditional embeddedness in nature in terms of modern ideas on nature conservation and protection; the presentation of the greening project as the result of one man's determination and care for his subjects, and thus an expression of the particular political discourse of Zayedism; finally, one might point to how the reference to Islam in this glocal green discourse reveals that modernization can take many forms and does not necessarily imply secularization.

More narrowly, my aim in this paper was to reveal some paradoxes in the 'greening of the Emirates'. The glocalization of ecological modernization into the UAE has cut off the Emiratis from the historical background of much Western environmentalism, in which environmental and economic interests are so often understood as incompatible. Thus one gets paradoxes, inherent in capitalism, such as the trading of oil for greenery, or the exhaustive use of water and energy in the UAE devoted in part to maintaining a green image in the global arena. On the other hand, I am wary of overestimating the particularity of this case (especially given how such particularity is all too often the defining characteristic of studies of Muslim cultures). Nor do I want simply to point out the flaws of Emirati environmental discourse. The paradoxical combination of oil production, consumerism and the alleged 'care for the environment' in the UAE, a newly modernized nation in the Middle East, resonates much more generally (not least to those of us in the West who are the buyers of oil and the exporters of consumer goods). The need for critical reflection on the discourses of 'greening' is not limited to the UAE alone.

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## Notes

- <sup>1</sup> The expression has been taken from a publication by the UAE Ministry of Information and Culture, *The United Arab Emirates* (Dubai, Motivate Publishing, 1995), p. 34.
- <sup>2</sup> I have identified three fields of analysis in the construction of nature: a material, cultural and social construction. By 'material construction' I mean the presence of nature as material culture. By 'cultural construction' I refer to what is in people's minds, i.e. the interpretive and semiotic construction of nature; see K. Milton, *Environmentalism and cultural theory: exploring the role of anthropology in environmental discourse* (London, Routledge, 1996), p. 62. Social construction is here defined as social organization in the Marxist sense used by S. Vogel, *Against*

- nature: the concept of nature in critical theory* (New York, State University of New York Press, 1996), p. 36, i.e. nature as constructed through socially organized mediations such as labour.
- <sup>3</sup> This account refers explicitly to the Al Murrah in Saudi Arabia, but the quotation is chosen because of the lack of ethnographic data on the typical Emirati Bedouin tribes such as Bani Yas or Manasir.
- <sup>4</sup> D.P. Cole, *Nomads of the nomads: the Al Murrah Bedouin of the Empty Quarter* (Chicago, Aldine, 1975), pp. 54–58 (emphasis added).
- <sup>5</sup> Sharjah Natural History Museum and Desert Park, homepage on <http://www.sharjahmuseums.com/natural/> (21 Jan. 1999) (emphasis added).
- <sup>6</sup> Private Dept of HH Sheikh Zayed bin Sultan al Nahyan (booklet about Sheikh Zayed's work for the environment in the UAE) (1997), p. 9.
- <sup>7</sup> UAE Ministry of Information and Culture, *The United Arab Emirates*, p. 34.
- <sup>8</sup> *Khaleej Times* (16 Oct. 1998).
- <sup>9</sup> A.H. Cordesman, *Bahrain, Oman, Qatar, and the UAE: challenges of security* (Boulder, CO, Westview Press, 1997), p. 309.
- <sup>10</sup> *Ibid.*, p. 311.
- <sup>11</sup> M.F. Al-Rashed and M.M. Sherif, 'Water resources in the GCC countries: an overview', *Water resources management* **14** (2000), pp. 59–75.
- <sup>12</sup> Concerns for the environment are taken into consideration, and efforts are made towards a more sustainable desert landscaping, in some more recent developments in the Middle East. See e.g. *Sustainable landscape design in arid climates* (Geneva, Aga Khan Trust for Culture).
- <sup>13</sup> Private Dept of HH Sheikh Zayed bin Sultan al Nahyan (1997), p. 29.
- <sup>14</sup> *Emirates News* (4 Mar. 1997).
- <sup>15</sup> P. Wapner, 'Reorienting state sovereignty: rights and responsibilities in the environmental age', in K.T. Litfin, ed., *The greening of sovereignty in world politics* (Cambridge, MA, MIT Press, 1998), pp. 275–97.
- <sup>16</sup> A. Hornborg, 'Money and the semiotics of ecosystem dissolution', *Journal of material culture* **4** (1999), pp. 143–62.
- <sup>17</sup> S. Vogel, *Against nature*.
- <sup>18</sup> E.M. Koury, *The United Arab Emirates: its political system and politics* (Maryland, Institute of Middle Eastern and North African Affairs, 1980), pp. 136–41.
- <sup>19</sup> Foreword to *Green process' landmarks*, published by Abu Dhabi Municipality and Town Planning to mark 'Afforestation Week' in Feb. 1999.
- <sup>20</sup> Private Dept of HH Sheikh Zayed bin Sultan al Nahyan (1997), p. 7.
- <sup>21</sup> *Ibid.*, p. 9 (emphasis added).
- <sup>22</sup> UAE Ministry of Information and Culture, information text on UAE University home-page, <http://www.ueau.ac.ae> (2 Dec. 1996) (emphasis added).
- <sup>23</sup> P. Ouis and A.S. Roald, 'Modernitet, genus och makt i den muslimska gulven', *Tidskrift för mellanösternstudier* **2** (1999), pp. 16–42. For further explorations on modernity, tradition and Islam in the UAE, see P. Ouis, 'Nature as power, person and place: modernity, tradition and environment in the United Arab Emirates' (forthcoming doctoral thesis, Lund University).
- <sup>24</sup> M.Z. Husain, *Global Islamic politics* (New York, HarperCollins, 1995), pp. 35–6, 226.
- <sup>25</sup> B. Lawrence, *Defenders of God: the fundamentalist revolt against the modern age* (London, I.B. Tauris, 1989), p. 195.
- <sup>26</sup> With reference to Paradise as a garden, many Muslims appreciate the greening of the Emirates. However, some verses in the Qur'an warn against people who lived in luxury with lush gardens. These people were destroyed by God; see e.g. Qur'an 6:6, 18:32–43, 34:15–16 and 44:25–9. However, these divine objections are not referred to in the Emirati environmentalist discourse,

- so in spite of the fact that objections of this kind exist in the holy text, they have no function in the debate itself.
- <sup>27</sup> For a further discussion on Islamic ecotheology, see P. Ouis, 'Islamic ecotheology based on the Qur'an', *Islamic studies* **37** (1998), pp. 151–81, and P. Ouis, 'Towards an Islamic ecocosmology', *Islamica* **4** (1998), pp. 19–32.
- <sup>28</sup> Ba Kader, A.B. Sabbagh, A.L. Glenid, M.S. Issi Dien and M.Y. Izzi Dien, *Islamic principles for the conservation of the environment*, IUCN Environmental Policy and Law Paper 20 (1983; 2nd expanded edn 1994, ed O. Llewellyn and M.Y. Izzi Dien).
- <sup>29</sup> UAE Federal Environmental Agency, Federal Law No. 24 of 1999 for the Protection and Development of the Environment.
- <sup>30</sup> UAE Ministry of Information and Culture, *The United Arab Emirates*, p. 35 (emphasis added).
- <sup>31</sup> D. Harvey, *Justice, nature and the geography of difference* (Oxford, Blackwell, 1996), p. 183.
- <sup>32</sup> I asked one informant her opinion of Sheikh Zayed. She looked very surprised, and said: 'But don't you understand what he has done for us? . . . Look around . . . all this used to be desert.'
- <sup>33</sup> F. Heard-Bey, 'The tribal society of the UAE and its traditional economy', in E. Ghareeb and I. Al Abed, eds, *Perspectives on the United Arab Emirates* (London, Trident Press, 1997), pp. 254–72.
- <sup>34</sup> Emirates Environmental Group, information booklet (1998), p. 9.
- <sup>35</sup> *Ibid.*, p. 11.
- <sup>36</sup> P. Hellyer, 'The natural history movement', in P.J. Vine, ed., *Natural Emirates: wildlife and environment of the United Arab Emirates* (London, Trident Press, 1996), p. 11.
- <sup>37</sup> *Ibid.*, p. 16.
- <sup>38</sup> *Environmental issues* **7** (1998), p. 16 (journal published by Environment Friends Society, UAE).
- <sup>39</sup> Environment Friends Society (UAE), *Arabic environment and future challenges* (booklet, 1997), p. 1 (emphasis added).
- <sup>40</sup> D. Pepper, *Modern environmentalism: an introduction* (London, Routledge, 1996).
- <sup>41</sup> This is a rather different situation to the paradox noted in the West that the 'very development of consumerism has itself helped to generate the current critique of environmental degradation and the cultural focus on nature': P. Macnaghten and J. Urry, *Contested natures* (London, Sage, 1998), p. 25.
- <sup>42</sup> See A. Appadurai, *Modernity at large: the cultural dimensions of globalization* (Minneapolis, University of Minnesota Press, 1996).
- <sup>43</sup> D. MacCannell, *The tourist: a new theory of the leisure class* (New York, Schocken, 1976), p. 8.
- <sup>44</sup> The latest of these environmental organizations is the Commission of Environmental Research of the Emirates Heritage Club, established in 1999.
- <sup>45</sup> I. Al Abed and P. Vine, eds, *United Arab Emirates Yearbook 1998* (London, Trident Press, 1998), p. 236.
- <sup>46</sup> M.A. Hajer, *The politics of environmental discourse: ecological modernization and the policy process* (Oxford, Clarendon Press, 1995).
- <sup>47</sup> *Ibid.*, pp. 25–6.
- <sup>48</sup> World Commission for Environment and Development, *Our common future* (Oxford, Oxford University Press, 1987).
- <sup>49</sup> Macnaghten and Urry, *Contested natures*, p. 214.
- <sup>50</sup> Hajer, *The politics of environmental discourse*, p. 14.
- <sup>51</sup> *Kbaleej Times*, 3 Feb. 1999 (emphasis added).
- <sup>52</sup> Appadurai, *Modernity at large*.

- <sup>53</sup> R. Robertson, 'Glocalization: time-space and homogeneity-heterogeneity', in M. Featherstone, S. Lash and R. Robertson, eds, *Global modernities* (London, Sage, 1995), pp. 25-44.
- <sup>54</sup> This is the original meaning of the concept of glocalization, i.e. the adaptation of global capitalist products to local and particular conditions.
- <sup>55</sup> Story-lines are defined by Hajer in *The politics of environmental discourse* (p. 62) as 'narratives on social reality through which elements from many different domains are combined and that provide actors with a set of symbolic references that suggest a common understanding'. He further explains a story-line as 'a generative sort of narrative that allows actors to draw upon various discursive categories to give meanings to specific physical or social phenomena. . . . The underlying assumption is that people do not draw on comprehensive discursive systems for their cognition, rather these are evoked through story-lines. As such story-lines play a key role in the positioning of subjects and structures' (p. 56).