

The history of wetlands and people

The relationships between wetlands and people are many, varied, and frequently very close. Many of today's important wetlands are of great antiquity and may show clear signs of early human uses, whilst even areas now dry may have been wetlands in remote times and may still preserve significant evidence of the human past. Along the African Rift Valley, former lake shore wetlands have preserved early hominid sites such as those in the Olduvai Gorge, which may be two million years old or more. In the bed of the River Jordan, at Geshar Benot Ya'acquov in northern Israel, the extraordinary persistence of wetland conditions has led to the survival of evidence for human activity in the valley from 800,000 years ago. Animal bones, stone tools and a great diversity of plant remains indicate that people came to the valley wetlands to hunt or scavenge, and that they used wetland vegetation for food and raw materials.

Many wetlands in temperate and sub-arctic zones, on the other hand, came into being only about 12,000 years ago, when the glaciers of the last Ice Age began to melt and sea levels rose. Other wet-

lands are still more recent and may even owe their presence to human activity. We know from archaeological and documentary evidence that the Norfolk Broads of eastern England are the result of peat-cutting 500-700 years ago and in many places, over the past 200 years, gravel extraction on floodplains has been followed by the appearance of lakes and marshes. This close relationship between earlier societies and water is repeated all over the world: peo-

ple beside the stream at Monte Verde in Chile, people beside a spring at Boxgrove in England, people on the shore of Lake Mungo in Australia. These sites are of very different ages, but each represents some of



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A 1000-year old wooden face-mask found by archaeologists in wetlands in Florida, USA.

the earliest evidence of human activity from its respective continent.

Looking back, we can identify various different ways in which people have been associated with wetlands. In the great raised bogs of northwestern Europe, for example, wooden trackways dating from prehistoric to medieval times show that people persistently sought to travel into and across the bogs. In New Zealand, in the period before European contact, the Maori built *pa*, defensible settlements on hilltops and in swamps – those associated with the swamps around Lake Mangakaware on North Island were heavily defended with wooden palisades, behind which people lived in substantial wooden houses.

At times, people have regarded wetlands as suitable places to bury their dead, and archaeological excavation has recovered evidence for the ceremony and ritual associated with the burials. One remarkable

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site is the pond at Windover, near Cape Canaveral in Florida, which was used for burials about 8,000 years ago. Some 300 people were buried here, wrapped in mats or blankets made from plant fibres and accompanied by grave goods made from bone, antler and plant materials. Perhaps the most poignant evidence from Windover is the skeleton of a child who suffered from spina bifida, a disease still afflicting humans today. The Windover people were nomadic and must have carried the child, and devoted special care to it, for all of its 15 years.

Wetlands have been seen as a link between daily life and other worlds, a place where it is possible to come closer to gods and spirits, a place indeed where some of those other beings lived. In this light, wetlands can become places to make offerings. In northern Germany and Denmark nearly 2,000 years ago, in the long narrow valley of Nydam in southern Jutland, warriors offered to their gods the booty from successful expeditions, including spears, swords, painted wooden shields, and at least three large and impressive ships.

How have we documented so much information about the development of wetlands and their long association with people? Quite simply through the painstaking work of archaeologists. Their efforts have traced wetland development over thousands of years through scientific analyses of the deposits laid down in the wetland body – the clays, silts and peats which lie between bedrock and the surface. Information about local vegetation has come from analysis of pollen and other plant remains; molluscs and insects such as beetles shed further light upon local conditions in the past. Even changes in the water quality of a wetland, such as levels of salinity, pH and temperature, can frequently be determined. Such studies often provide information about environmental development in the region surrounding a wetland, leading to a better understanding of cultural developments in the same area over time.



SOMERSET LEVELS PROJECT

Archaeologists working in a fragile wetland site in England uncovering a trackway built in 3600 BC across the marshes.

In wet temperate climates, some areas of wetland have developed into raised bogs, great domes of mossy *Sphagnum* peat. Conditions in a raised bog particularly favour the preservation of environmental evidence and of a range of organic archaeological material, including wooden structures and objects and occasionally the remains of people themselves, including skin, hair, clothing as well as skeletal remains – even evidence of their last meal!

Wetlands of great antiquity, as well as those of recent times, thus contain the evidence of their own history, and of conditions in the surrounding region during their lifetimes. They have the potential to preserve significant testimony of human activity, of the cultural values that people attached to the wetlands in the past. Wetlands have always been vitally important to people in a variety of ways at any point in their history and, as such, they form a significant component of our cultural history. In their efforts to manage wetlands so as to alleviate ongoing threats to their natural functions and values, environmentalists are increasingly coming to understand the necessity for planning so as to conserve this irreplaceable cultural heritage as well.

The Ramsar Bureau

Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel.: +41 22 999 0170
Fax: +41 22 999 0169
E-mail: ramsar@ramsar.org
Web site: <http://ramsar.org>



CONVENTION ON WETLANDS
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