

Ancient Pacific islanders brought to light

December 21 2009



The archaeologists found that Vanuatu skeletons are headless.

(PhysOrg.com) -- A find of 60 headless skeletons summer 2009 may reveal the identity of the people who first inhabited the Pacific Ocean archipelago Vanuatu 3000 years ago.

When a team of archaeologists began excavating an old coral reef in Vanuatu in 2008 and 2009, they soon discovered it had served as a cemetery in ancient times. So far, 71 buried individuals have been recorded, giving new information on the islands' inhabitants and their funeral rites.



"This is a groundbreaking discovery, as it is the oldest and biggest skeleton find ever in the <u>Pacific Ocean</u>; bigger cemeteries found further east are much younger", says Mads Ravn, head of research at the University of Stavanger's Museum of Archaeology in Norway.

Relatives did not treat their dead gently. Besides being headless, some of them had had their arms and legs broken, in order to fit into the coral reef cavities. Ravn suggests they may have been left to rot first, and buried later as skeletons.

The local museum's staff of the Vanuatu Culture Centre, a range of researchers, lead by Stuart Bedford and Matthew Spriggs from the Australian National University (ANU), forms an international and crossdisciplinary team, working to gather information about the Pacific islands' inhabitants. Mads Ravn's expertise in migration and colonising over great distances, as well as in digital excavation documentation and recording, makes him an important contributor to this cooperative effort.

Coral reef tomb

Vanuatu is a nation of 83 islands, located 1,750 kilometres east of Australia. The soil contains remnants from a violent volcano eruption, believed to have taken place exactly 3000 years ago. Scientists have found no sign of human activity predating this event.

"The way these people are buried, bears witness of a body concept which is different from the whole-body concept in Europe the last 5000 years," says Mads Ravn.

"There was no sharp divide between life and death, and the dead were participating in the present. A few decades ago in Bali and other Pacific islands, people were putting their ancestors' skulls on display in their homes," he adds.



This may explain why the Vanuatu skeletons are headless. One <u>skeleton</u> was found with five skulls on his chest, and Ravn believes the heads may have been used in ancestral rituals.

The islanders usually removed the volcanic ash before burying their dead under ashes and sand. Each grave is marked with a pottery jar decorated with intricate patterns, possibly stamped by small pieces of worked bone. The ceramic also depicts faces and eyes, perhaps images of their ancestors.

"I have never seen such beautiful artefacts before. These must be the world's finest pottery jars of that age," says Ravn.

Long distance voyages

Vanuatu's first inhabitants probably came from Taiwan and the Philippines, having travelled thousands of miles by outrigger canoes equipped with sails and big enough to contain large families. The canoers settled on the uninhabited islands, and supported themselves by fishing and cultivating the land. Giant tortoises were abundant and easy to catch. Volcanic ashes from 3000 years ago contain many tracks of tortoises, but these are entirely non-existent 100 years on.

"It is very interesting to observe the consequences of human beings taking possession over virgin land," says Ravn.

Over a few centuries, several species went extinct -- the giant tortoise among them. Traces of mussel shells also bear witness of excessive consumption. The shells diminish in size as the sediments get younger. According to Ravn, the inhabitants quite simply overextended their resources.



Strong and adventurous

The skeletons' DNA profiles should be ready later this winter, and the scientists hope to uncover kinship links among the dead. But there are already some findings of their health condition.

"People were suffering from gout and caries - both diseases associated with the good life. But we can tell from our samples that the inhabitants were laborious and strong. They were simply genetically disposed to contracting gout from eating shellfish. And starch in food such as Taro and sweet potatoes induced caries," says Ravn.

Tooth analyses also revealed what these first islanders looked like.

"They were most probably fair skinned of Asian origin, unlike the present day Melanesians, whose skin is dark. The original settlers probably travelled on, or mixed up with the Melanesians that arrived later," "But future DNA studies and isotopic analyses may later confirm that", Ravn says.

It is believed that the first Pacific seafarers were spurred on by overpopulation, or by rules of inheritance which granted the first born child the right to inherit land, making it hard for younger siblings to settle down.

But one should not exclude desire for travelling and a spirit of adventure, says Ravn. The desire to venture out has probably been a driving force at all times.

The first Vanuatuans remained on the islands for years, until some of them, probably driven by lust for adventure and fortune sat sail further out in the Pacific Ocean again, heading eventually for the Easter Islands. Over two short centuries, the Pacific Ocean was colonised all the way to



the Tonga <u>Islands</u>. By then, a distance of more than 3000 kilometres had been covered - by canoe.

The research project "Persistence and Transformation in Ancestral Oceanic Society: the archaeology of the first 1500 years in the Vanuatu archipelago" was initiated by Stuart Bedford and Matthew Spriggs in ANU in collaboration with the Vaunatu cultural Centre in Vanuatu and sponsored by the Australian Research Council. It aims to find out how Vanuatu was colonised and developed over time. The University of Stavanger's Museum of Archaeology is one of many research partners. Excavations will continue until 2012, expanding to different parts of Vanuatu over the coming years. Scientists expect to find more headless skeletons and other objects which may explain why colonisation took place. Their findings will be published in articles and books.

Provided by University of Stavanger

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