## GROUND BREAKING DISCOVERIES ABOUT HUMAN ORIGINS SHOWCASED AT NMMU

BY JESICA SLABBERT - FEBRUARY 14, 2017



Over the past decade, archaeologists have made radical discoveries about the origins of the human species in caves located along South Africa's southern Cape coastline where inter-disciplinary research teams from Arizona State University in the United States, the Nelson Mandela Metropolitan University (NMMU) and many other institutions have been working.

The research has included the collection of archaeological, botanical, geological, climate-related data in and around the Pinnacle Point caves, which are located near Mossel Bay.

Here, it is believed, that a small group of humans survived a global Ice Age between 195,000 and 123,000 years ago, and could very likely be the ancestors of everyone alive today.

"The fossil record and the genetic record tell us that the modern human lineage appears sometime between  $200\,000\,\text{and}\,150\,000\,\text{years}$  ago.

"And that time from 200 000 to about 130 000 years, saw the world in a glacial phase," described Professor Curtis Marean, a Paleoanthropologist from the Institute of Human Origins at Arizona State University.

"We think that there were probably about four to six pockets a place in Africa where people could have been living, surviving during that much colder period. And of the richest places in terms of food is the South Coast of South Africa. So, we have hypothesised that the origin population evolved here and eventually spread throughout Africa and then throughout the rest of the world."

The researchers have also uncovered an array of evidence that suggests modern humans first developed intellectually along this piece of coast. Various artefacts found show they used fire to engineer weapons out of stone; used red ochre for purposes of decoration; and perhaps even read the lunar cycles to know when the tides would be low enough to forage for shellfish.

This advanced intellectual development may have played a key role in the survival of our species.

It is these groundbreaking findings are now being showcased in a unique exhibition at NMMU, titled "Point of Human Origin".

The exhibition was formally launched on Monday at the Exhibition Centre at the NMMU's Second Avenue Campus – and will be open to the public from Tuesday, February 14, until the end of the year.

The exhibition includes a recreation of part of Pinnacle Point's cave PP13B – the handiwork of Bayworld exhibit builder, Marvin Carstens, who has over 20 years' experience in exhibit building, including being contracted by National Geographic and various museums and institutions, to design and create both static and interactive exhibitions.

For this exhibition, Carstens has also recreated a number of artefacts found in or near the caves, including the skull and horns of a prehistoric buffalo.

Dr Erich C. Fisher, an Assistant Research Scientist at the Institute of Human Origins at ASU and an expert in archaeoinformatics (computational archaeology), provided many of the photographs that are on display as well as several videos. He also co-created the exhibition's touch screen virtual tour of one of Pinnacle Point's excavation sites.

Apart from photographs, information panels and video footage about the caves, visitors can access additional information via their mobile phones, at the exhibition's "augmented reality" points.

Marean, Cowling and NMMU Dean of Arts, Prof Rose Boswell, as well as Dr Peter Nilssen, who codiscovered the caves, will participated in a panel discussion at the launch, in which they debated how and why the human ability to cooperate evolved.

"There were so many people who all contributed passionately to this exhibition," said exhibition curator, Christelle Grobler, from the NMMU's Archives and Exhibition Centre.

The exhibition is open to the public from 9am to 4pm on Mondays to Fridays. The exhibition will run until the end of the year.

Caption from left to right: Professor Curtis Marean, a Paleoanthropologist from the Institute of Human Origins at Arizona State University, Professor Richard Cowling, director of NMMU's Centre for Coastal Palaeoscience (CCP), co-principal investigator, Doctor Alastair Potts, national deputy director of the CCP, Bayworld exhibit builder Marvin Carstens

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