

Walking with cavemen

Want to know who was in your grotto during the ice age? Call in a Kalahari tracker, says **Christopher Kemp**

IN THE darkened recesses of a remote cave in the Pyrenees, three Namibians crouch over something in the ground. They have travelled to France from the Kalahari desert, more than 7000 kilometres away. The cave is cold and wet, and they are wearing waterproofs, hard hats and headlamps. Each holds a laser pointer. As they huddle together, talking in Ju/'hoan – their native dialect – red points of light bounce around the cave floor, finally settling on a semicircular depression. It is a print made by a human heel.

The footprint dates from the Magdalenian period of the European Upper Palaeolithic – about 17,000 years ago. The Namibians are San bushmen who were brought here by archaeologist Tilman Lenssen-Erz of the University of Cologne in Germany. He and Andreas Pastoors from the Neanderthal Museum in Mettmann, Germany, believe these three men can read the contours of the footprint with greater insight and accuracy than anyone else in the world.

Scattered across the south-west of Europe are approximately 350 caves decorated with vivid Palaeolithic art. A handful of lesser-known ones also contain something just as spectacular: ice-age human footprints, preserved by a thin crust of calcite.

Three of these caves – Les Trois Frères, Tuc d'Audoubert and Enlène, collectively known as the Cavernes du Volp – are

hidden in the Pyrenean foothills. Owned for generations by the aristocratic Bégouën family and closed to the public, they form a series of limestone chambers twisting and corkscrewing underground, carved by a subterranean stream.

The caves are like windows on life during the last ice age. But only to those who can read what was left behind.

Seventeen-thousand years ago, southern France was a cold, treeless landscape sparsely populated by semi-nomadic people. They hunted bison, reindeer and wild horses using spears and traps. They made tools and clothing. And they filled the caves with art, including paintings, figurines and clay sculptures (see below).

The clay bison of Tuc d'Audoubert

The Namibians are not here for the art. The San are renowned trackers, and they are here to read the footprints.



MAIN PHOTO: SÍSSE BRIMBERG/NATIONAL GEOGRAPHIC CREATIVE

Back home, life has changed for the San. People no longer rely on hunting to survive. Most of them own cellphones and have jobs; traditional skills are mostly forgotten. But the men Lenssen-Erz has hired are different.

“All three learned tracking from their fathers,” he says. “They have been working all their lives, mainly for trophy hunters. Their tracking skills are highly developed and used on a daily basis.”

The project began in 2010. Lenssen-Erz says he was interested in using trackers from the beginning. Through Megan Biesele, a US anthropologist who has worked in the Kalahari since the 1970s, he hired Tsamkxao Cigae, a young tracker who also became their interpreter. Cigae brought on board two more experienced trackers, C/wi/Kunta and C/wi G/aqo De.lu.



“The three men can read footprints with greater insight than anyone else”

Lenssen-Erz visited the trackers in Namibia several times to prepare them for what lay ahead. They went tracking together. “We went to some dried-out salt pans where there are a lot of tracks,” he says. “We made a square of something like 4 by 4 metres, and we asked them, ‘Could you tell us the story of this place?’”. The San were able to narrate the movements of animals that had passed over the area in the previous 72 hours.

He also took them to a cave in Botswana – an environment they had never encountered before. On another occasion, they visited Cologne zoo in Germany to look at bear tracks, which they had never seen before but expected to find in the caves.

In July, the team was ready. They headed to France and entered Tuc d'Audoubert. For two weeks, they crawled through the cave, allowing the bushmen as much time as they needed to inspect the prehistoric spoor.

“We had laser pointers and we handed them to the trackers while they were discussing the spoor,” Lenssen-Erz says. “They were using them extensively, so we would always know what they were talking about. They passed minutes and minutes discussing small depressions or small elevations in the ground.”

Female, 28 years old

After discussing a footprint, the bushmen were able to confidently state the sex and age of the person who had made it 17,000 years ago. “They never get lost in speculation,” says Lenssen-Erz. “They would be standing there discussing among themselves and then Cigae would say, very clearly: ‘Female spoor, 28-years-old,’ or ‘This is a young man of 18 years.’”

Using information gathered by the trackers, Lenssen-Erz built a detailed census of the individuals who had used the cave for shelter during the last ice age.

“We have a spectrum of ages, from the very young to the very old,” he says. “The youngest is a 3-year-old boy, and the oldest is a 60-year-old man. In between, there are people of all ages. The demography that we have now is about something like 28 people, which is very nice because we have very little data in archaeology on demography.”

The project is ongoing and translators are currently transcribing recordings ▶



The trackers in the Pyrenees (above); ice-age footprint (left)



ALL PHOTOS: TRACKING IN CAVES

of everything the trackers said during their time in the caves.

Some of the information the trackers gave conflicted with previous studies. For instance, one set of tracks had previously been interpreted as being made by several people performing a ritual dance. The San trackers, however, say those marks were left by a single person – a 14-year-old girl – playfully pushing her feet into the soft ground.

Researchers have used indigenous people to assess prehistoric footprints before. In 2003, while doing fieldwork in a remote part of New South Wales in Australia, anthropologist Steve Webb of Bond University in Queensland discovered a site covered with human footprints left about 20,000 years ago. “We revealed more and more prints – prints of children, women, men hunting.”

Webb contacted the Pintubi, an indigenous people, to tell him more. “These people live by marks on the ground,” he says. “They started to say, ‘These are children of this age, and that’s

“The marks were left by a girl playfully pushing her feet into the ground”

a woman over there. She’s got a baby in her arms.’ I was stunned.”

Despite his own successes, Webb warns that the technique has limitations. In particular, he doubts that ice-age people survived to 60. “I don’t doubt there were old people,” he says, “but it might be that, in fact, they’re not actually that age. They could just have bodies that are worn out, because it’s a hard life.”

Lenssen-Erz and Pastoors plan to return to the caves with the trackers in 2015 to get a better understanding of how the San gather so much information from a print. “When we tried to find out how they do it they just said, ‘they look different,’” says Lenssen-Erz. “It’s like asking a sommelier to explain how they differentiate one wine from the other. They would just say, they are different. They just taste it. And the San just see it.”

Webb agrees. “It was like we were blind before,” he says. ■

Christopher Kemp leaves tracks in the Michigan snow

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