

NEW TREND ALE-RT!

The latest thing in microbrewing? Archaeologists, palaeontologists and beer makers creating beverages "old" enough to put that 30-year-old single malt to shame. Here's to science! **KN**

BONE DUSTERS PALEO ALE, VIRGINIA

How: Brewed using *saccharomyces cerevisiae* yeast found on the fossil skeleton of a 35-million-year-old protocetid whale.
Taste: "Sweet and toasty," says Jason Osborne, cofounder of science nonprofit Paleo Quest, which brewed it with Lost Rhino Brewing Co.



KVASIR, DENMARK

How: Uses a grog recipe that is based on chemical analysis of residue from drinking vessels found in a 3,500-year-old Danish tomb.
Taste: "Fruity and intensely spiced," says biomolecular archaeologist Patrick McGovern, who worked on the drink with Dogfish Head brewery.



STALLHAGEN HISTORIC BEER 1842, FINLAND

How: Based on samples taken from five 170-year-old bottles of beer found in a shipwreck 50 metres beneath the Baltic sea.
Taste: "Like wine - fresh and fruity," says brewmaster Mats Ekholm, who worked with the Technical Research Centre of Finland.



PHOTOGRAPHY: PHILIP HAYNES. ILLUSTRATION: TONY SUICKLAND



Musical chairs

A PLUG-IN SENSOR FOR IPHONES AND IPADS IS DESIGNED TO BRING OUT THE MUSICAL PROPERTIES OF ANY SURFACE YOU PLACE IT ON

» Bruno Zamborlin wants to turn the world into a musical instrument. The London-based music researcher has created Mogeess - a pocket-sized sensor for your iPhone that transforms any surface into a playable, programmable synth. Stick a Mogeess sensor on to a chair, for example (*as Zamborlin, above, has*), and a finger tap becomes an elegant keyboard trill. "The goal," he says, "is to help any object create its own sound."

Developed by Zamborlin during a joint arts and computer science PhD at Goldsmiths University, and by IRCAM in Paris, Mogeess' sensor uses a contact microphone to convert the vibrations of a given surface into an electrical signal. A software model then analyses the material's acoustic properties to produce a sound. "Mogeess extracts features such as the frequency, timbre, time

decay and amplitude to analyse any gesture you make," explains Zamborlin. Notes are mapped to a specific song or scale - so a palm slap may produce a low A, a light fingernail tap a high E - and users can adjust settings via an iOS app.

Having raised £96,338 on Kickstarter, Zamborlin plans to release Mogeess in August. It has already piqued the interest of London-based electronic duo Plaid (*above, rear and right*), who have constructed an instrument from five materials, each with its own Mogeess sensor. "The amazing thing for me," says Zamborlin, "is to see how people use it to make music in all these different ways." **OF** mogeess.co.uk

As well as Plaid, musicians including Imogen Heap and Rodrigo y Gabriela are using the device