

Crater-like landform in Bayuda desert (a processing of satellite images)

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Scientist googles crater find

Stuart Gary
ABC

Monday, 16 August 2010

Scientists using Google Maps have discovered a new crater like structure in the Bayuda Desert of Sudan. If confirmed, it will be the second such discovery using the popular online mapping tool and could spawn a new generation of home-based amateur crater hunters.

Assistant Professor Amelia Sparavigna from the [Politecnico di Torino](http://www.polito.it/index.en.php) (<http://www.polito.it/index.en.php>) in Italy has detailed her discovery on the pre-press website [arXiv.org](http://arxiv.org/) (<http://arxiv.org/>).

She says she got the idea from Italian researcher Vincenzo de Michele who reported in the journal [Science](http://www.sciencemag.org/) (<http://www.sciencemag.org/>) that Google Earth images allowed him to identify an impact crater in the remote desert of southern Egypt in 2008.

Based on that observation, the 45-metre wide Kamil crater was confirmed, reasonably well-preserved, in the desert rocks.

Sparavigna used satellite images obtained through Google Maps to study a ring structure enclosed by a bend in the River Nile.

Located between the fourth and sixth cataract, the area is characterised by basaltic rocks from ancient volcanoes.

Sparavigna noticed two points of interest, one on the west bank showing a crater-like structure about 10 kilometres across, the other on the eastern bank, which she describes as "a non-perfect round shape about 40 kilometres in diameter".

To enhance key features in both areas, Sparavigna processed the original Google Maps satellite image with an astronomical image-processing program that she had developed with a friend.

She admits she doesn't know if these new structures were caused by volcanic activity or impact craters.

Opening a new door

Professor David Cohen, a geologist with the [University of New South Wales](http://www.unsw.edu.au/) (<http://www.unsw.edu.au/>), says the paper demonstrates a new way to generate data bases.

"Aerial photography is expensive and satellite imagery doesn't always have good enough resolution. But in this case they have been able to generate some interesting images which have been further enhanced," says Cohen.

He says the images clearly show circular structures running counter to the general fabric of the geology in the area.

"These don't mean they're impact craters. It could be the collapse of a magma chamber," says Cohen.

"The only way to be certain is to go there and look at the mineral evidence."



Using special software scientists enhance this Google Maps satellite image to clearly show a 10 kilometre wide crater shaped feature. (Google Earth)

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