

ARCHAEOLOGY

# STONE COLD IN SITKA

A devastating landslide near the city of Sitka in Alaska last September has unearthed evidence of early human occupation in the region – a prehistoric hammer or ‘handmaul’

Seven inches of rainfall in a 24-hour period triggered last year’s Sitka landslide, which brought down over 100 acres of mountainside, virtually destroyed the Starrigavan valley and damaged watershed restoration projects in the area. Hydrologists Mart Becker and KK Prussian were looking for stone samples and carrying out geological mapping in the area affected when they discovered a strange stone sitting in the rubble.

‘I thought it was just a cool weathered rock and held it in my hand and started walking back down to KK,’ says Becker. ‘As I was walking, it suddenly hit me this thing was really comfortable and so I took a closer look at it.’

Becker had found a prehistoric hand tool, a T-shaped handmaul. The stone tool is common in Northwest Coast native cultures from the Columbia River to Yakutat and were used until 700-800 years ago, according to the Canadian Museum of History.

‘It would have been used for driving wedges made from softer material, such as wood, antler or sea mammal. A tool of this type is akin to a prehistoric sledgehammer,’ says Jay Kinsman, a Forest Service archaeologist in the Sitka Ranger District.

‘There are much older signs of damage to the maul, likely from the time of original use. One of the ears - or tangs - was broken off this particular maul at some point in time,’ adds Kinsman.

The maul also has some minor damage from being churned among the soil rocks and trees in the landslide, according to Kinsman. ‘It is likely that the former owner of this maul was utilising cedar for one of the many resources derived from it on the slopes above Starrigavan creek,’ he says.

‘The owner would have likely cached the maul and wedges for future use rather than haul them back and forth with an already heavy load of planks,’ he adds.



UNITED STATES FOREST SERVICE (2)



CARTOGRAMS

# HUMAN WORLDS

BY BENJAMIN HENNIG

The effects of humans on the global environment are perceived to be so significant by some scientists that there is a currently running argument that as a species we have become a major driving force in environmental change on a par with the forces of nature. It is this rapid impact that has led some geologists to unofficially name (but not, as yet, officially recognise) this very recent period of Earth’s history as the Anthropocene.

Putting criticism and disputes over the geologic validity of this idea aside, the effects of human population and

economic development as part of the processes of globalisation influence the natural environment as much as the natural environment previously determined the existence of human life across the globe. The major communication and transport infrastructure links that shape the human planet form one part of our footprint.

The information of an interconnected world redrawn in the above map was assembled by Globaia, an organisation which raises awareness concerning the global changes that characterise the Anthropocene. The individual layers that emerge in the image show built-up areas and the light pollution of cities (white/yellow over land), roads (green), railway lines (orange) shipping routes (white/blue over sea), pipelines (red), transmission lines (blue) and submarine cables (yellow over sea).

In this gridded population cartogram the most populated areas get most space (reducing the depopulated areas), re-projecting the layers of human action and interaction accordingly. The cartogram puts a special focus on the dense network of links within the areas where people live. Rather than being a mere image of densely built up areas with a clutter of infrastructure, this map highlights some

significant differences: The distribution of lights from the brightest cities where all the global connections merge dominates the wealthier parts of the world. In addition, areas such as the east of the United States show a complex cobweb of all other elements displayed in the map.

The African continent is characterised by having far fewer communication lines and even far less railways than many other parts of the world. Similar characteristics emerge in the shipping routes, giving an indication of the unequal connections of global trade routes and the imbalance of the underlying patterns that have such a high impact on the planet’s resources.

The human impact affects the entire planet, but for a large part of the world’s population the planet is far less a global village than a one-way street that channels its resources such as oil or gas to the spaces that are the real worlds of the Anthropocene.

*Benjamin Hennig is a senior research fellow in the School of Geography and the Environment at the University of Oxford. He is involved in the Worldmapper project and maintains the visualisation blog [www.viewsoftheworld.net](http://www.viewsoftheworld.net)*