

The History of Counting

by Manjil Saikia - Monday, April 25, 2011

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Mathematics began with counting and numbering. To understand the roots of Mathematics, we must go back to the time when numbers were first used which is a most difficult task.

The first motivation for people to create number was the human desire to the manyness of a set of objects. In other words, to know how many duck's eggs are to be divided amongst family members or even how many days until the tribe reaches the next watering hole, how many days will it be until the days grow longer and the nights shorter, how many arrow heads do one trade for canoe? Knowing how to determine the manyness of a collection of objects must surely have been a great aid in all areas of human endeavour.

The earliest direct evidence of counting is two animal bones which show clear group marks. One is a 35,000 year old baboon's thigh bone from the Lebembo Mountains of Africa and other is a 33,000 year old wolf bone from Czechoslovakia. The wolf bone found at ancient human campsite is especially intriguing. It was notched with fifty five marks, grouped in eleven set of five marks each.

Could counting be even older? Those humanoids living in Europe and the Middle East before human, going back as far as 130,000 years, were the "NEANDERTHALS". They were definitely not modern human, but brains larger than "Homo sapiens" or modern human. They were intelligent enough to build shelters, use fire, and make sophisticated tools and bury their dead with flower. They probably participated in religious rituals. In April 1996 Osear Todkoph of Hindenburg University discovered a 50,000 year old Mastodon tusk which had sixteen aligned holes in the surfaces. He believes it was a musical instrument which proves that Neanderthals participated in music - a very human characteristic. Could they count? We don't know, so we must wait to see if some lucky archaeologist discovers direct evidence.

If the Neanderthals could count, it could push back counting 130,000 years. It is possible that counting is older. A hominoid considerable older than Neanderthals was "Homo erectus" who flourished from 1.5 million years ago until approximately 300,000 year ago. They did not have the brain power of either modern human or the Neanderthals. But did they count? Again, we don't know, and place ourselves in the hands of the archaeologists for modern evidence. However, in 1994, Hartmuf Thieme of the institute for Historical Preservation in Hannover, Germany, discovered a cache of 400,000 years old spears in a coal pit east of Hannover. These well-crafted, weighted spears were probably made by a late "Homo-erectus".

400,000 year old spears found in Germany

If counting stretches back many hundreds of thousands of years and is in some way hard wired into our brains, then counting and numbers are parts of our very natures. To be human is to count and know numbers. Many of our games use numbers; we incorporate numbers into our music. We use them to identify our house and phone numbers. People study all kinds of complex number indices to watch the

stock market. The use of numbers, counting and simple arithmetic is everywhere. If human can be described as the tool making or fire using ape, then another appropriate description for us to is the counting ape.

(Source: "Mathematical Sorcery: Revealing the Secrets of Numbers" by Calvin C. Clawson.)

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