912B- Scientific Discoveries in 2009

or

Discovery of Pre-Human Fossil Cited as Breakthrough of the Year

by Art Chimes | Washington, 23 December 2009

http://www1.voanews.com/english/news/science-technology/Discovery-of-Pre-Human-Fossil-Cited-as-Breakthrough-of-the-Year-80011487.html

The prestigious journal *Science* is out with its top 10 breakthroughs of 2009. They include developments in anthropology, astronomy, and biology.

The breakthrough of the year was 15 years in coming. That's how long it took for an international team of scientists to excavate and analyze the fossilized skeleton of a 4.4 million year old human ancestor, Ardipithecus ramidus, which was discovered in Ethiopia. *Science* magazine deputy news editor Robert Coontz said "Ardi," as the creature was nicknamed, was especially surprising to scientists because of how she walked.

"The main thing was that it walked upright, just as we do. But what's unexpected about that is that our closest evolutionary relatives, chimpanzees and gorillas, don't do that. And so there was an assumption that our common ancestor with them would have been something that also walked that way. And it turns out that, no, Ardipithecus was designed for walking in trees or climbing trees."

Several of *Science* magazine's notable breakthroughs of the past year focused on astronomy and space. The journal cited the astronauts' service call to the Hubble Space Telescope, which gave the orbiting observatory a new lease on life. And editor Robert Coontz says the top 10 breakthroughs also included the discovery of water on the moon by the LCROSS mission.

"The poles of the moon have dark craters that never see. So if any ice were to wind up there, it really wouldn't go anywhere. So this year NASA sent up a spacecraft and sent the rocket stage right into the moon to 'bomb' the moon, basically, and see what came up. And they looked at it with a spectrometer and they found that the molecules that were coming up included water."

In the life sciences, the journal's editors noted advances in gene therapy — something that has long seemed on the verge of a breakthrough.

"This year, however, there were some very promising clinical results that indicate that it may be starting to work the way that people always hoped that it would. There was a form of inherited blindness, and some researchers in Britain injected patients with these viruses attached to genes. And it turns out that the patients actually did regain some of their sensitivity to light."

Coontz says some of the children in the study actually regained enough eyesight to be able to play sports normally.

Science magazine reports on these and the rest of its breakthroughs of the year online at ScienceMag.org. You'll have to register, but there's no cost.

At the website you'll also get a hint about areas to watch for breakthroughs in the coming year, including America's human spaceflight program.

"NASA is going to have to decide what it's going to do about the human space program. It will determine the whole direction that the future space program of the United States is going to take, and so that's something that we'll be looking at very closely."

Science magazine editor Robert Coontz says other areas to watch in 2010 include stem cell research and possible new cancer treatments.

Vocabulaire du fichier vidéo : à chercher dans http://dictionary.cambridge.org/.

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breakthroughs	/ˈbreɪk θruːz/	fossilized	/ˈfɒs ɪ laɪzd/
skeleton	/ˈskel ɪ tən/	*Ardipithecus ramidus*	
Ethiopia	/ˌiː θiːˈəʊ piə/	Robert Coontz	
nicknamed		*chimpanzees*	/ˌtʃɪm pæn ˈziːz/
gorillas	/gəˈrɪl.əz/	*assumption*	
cited	/saɪt ɪd/	Hubble	
lease	/liː s/	LCROSS mission	
craters	/ˈkreɪ təz /	*wind up*	/ˈwaɪnd ʌp/
stage	pb oral	*'bomb'*	/bɒm/
gene	/dʒiːn/	therapy	/ˈθer ə pi/
verge	/vɜːdʒ/	*viruses*	/ˈvaɪ rəsəz/
eyesight		*whole*	/həʊl/ (idem *hole*)
direction	US: /dɪˈrek ʃə n/	stem cell	

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SCRIPT EXACT du document sonore :

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