

And important research by evolutionist Fred Spoor, using CAT scans on the portions of fossil skulls housing the organs of balance, indicated that the australopithecines he studied did *not* walk habitually upright, supporting Oxnard's claim that this was not upright walking as humans do.<sup>22</sup> This contradicts the confident claims of many evolutionists who argue from, for example, australopithecine pelvic anatomy.

Actually, a type of bipedal ability existed in other extinct apes, such as *Oreopithecus bambolii*, presumably not considered a human precursor because its evolutionary age ('7 to 9 million years') was too early, and because it was found in Italy, unsuitable as the cradle for 'early apemen'.<sup>23</sup> According to Henry Gee, "this creature is thought to have become bipedal independently and was only distantly related to hominids".<sup>24</sup> It is difficult enough to imagine apes evolving a form of bipedal locomotion once, let alone that it happened independently two or more times. It seems evolution can be accommodated to almost any scenario, and as such seems more of a belief system than science.

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## The Heart Mountain slide becomes more catastrophic

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The Heart Mountain Detachment northeast of Yellowstone National Park, in the northwest United States, is a slide of an enormous block of limestone about 500 m thick and about 1,100 km<sup>2</sup> in area.<sup>1,2</sup> The block of limestone slid southeast down what is believed to be a 2° slope, although the slope is actually toward the southwest today. The block broke up into 50 large fragments and slid more than 60 km, covering an area of about 3,400 km<sup>2</sup>.

Most of the blocks were subsequently covered by more than 1,500 m of Absaroka volcanic breccias, a deposit that represents hundreds of volcanic flows that now cover a large area of eastern and northern Yellowstone Park as well as outside the park from near Dubois, Wyoming, to Bozeman, Montana. The upper surface of the Absaroka Volcanics exhibits a flat planation surface,<sup>3</sup> and the extensive deposit has been dissected with valleys over 1,000 m deep carved into it. The Absaroka Volcanics are also the same formation in which the so-called 'fossil forests' with multiple levels of vertical tree trunks are exposed at many locations.<sup>4</sup>

A few blocks slid over the valley-fill sedimentary rocks in the Bighorn Basin and are now perched more than 300 m above the general level of the surface of the Bighorn Basin. Heart Mountain, just north of Cody, Wyoming, is the classic remnant of the slide. All this activity is supposed to have happened in the Eocene of the early Cenozoic era of the uniformitarian timescale.

### A much more catastrophic slide

Uniformitarian scientists have been arguing for years whether the Heart Mountain Detachment moved

catastrophically, as championed by William Pierce and associates,<sup>5,6</sup> or very slowly according to standard uniformitarian assumptions.<sup>7</sup> The latest apparent consensus is that the detachment moved catastrophically and was over within 30 min.<sup>8-11</sup>

However, some uniformitarian geologists now believe the Heart Mountain Detachment was even more catastrophic than previously believed. They believe the slide moved at 126 to 340 m/sec (450 to 1,220 km/hr) with the duration of emplacement less than 4 min!<sup>12</sup> This amazing result is based on analysis of a 1-m-thick carbonate ultracataclasite (broken, crushed and pulverized rock cemented by a finer grained matrix) at the base of the detachment below White Mountain:

“Thermodynamic and mechanical calculations based on possible frictional melting of calcite and other minerals, geochemical data, the characteristics of the carbonate ultracataclasite, and the geometrical characteristics of White Mountain suggest a possible initial upper plate emplacement rate of 126–340 m/sec and that the duration of the emplacement event was less than 4 min, too brief a time to develop an emplacement-related calcite twinning strain overprint in upper or lower plate carbonates.”<sup>13</sup>

### Creationist interpretation

Such rapid movement greatly strains the uniformitarian principle that past geological processes operated at the same sorts of rates as are observed today—much more of a strain than the previous belief of emplacement within 30 min. However, such rapid emplacement is not at all surprising given the geological processes associated with the cataclysm of the Genesis Flood.<sup>14</sup>

All indications are that the slide occurred underwater. First, the planation surface on top of the thick stack of Absaroka breccia flows was carved by water, as were the deep valleys subsequently carved into the

breccia flows. Also, the vertical tree trunks stacked within the breccia flows were brought together from widely different environments and finally the large Bighorn basin was extensively eroded by water after the slide. The erosional features on the deposit together with its late timing in geological history mean that the Heart Mountain slide would have occurred during the Retreating Stage of the Flood, which involved the uplift of the mountains and the continents. This would have caused gigantic earthquakes and provided the immense energy needed to trigger such enormous landslides. In addition, sliding friction would have been reduced underwater, meaning that the Heart Mountain slide would likely have been cushioned by water or steam, which enabled the slide to continue to move over very small slopes.

An analog for the emplacement of the Heart Mountain carbonate blocks is provided by even larger blocks of solidified lava that slid off the Hawaiian Islands into the deep sea.<sup>15</sup> The initial movement of the Hawaiian lava blocks was down a steep slope, but they kept sliding over a low slope on the bottom of the ocean. For the Heart Mountain slide, the initial energy probably was from giant earthquakes, likely accompanying volcanic eruptions.

Regardless, the late Flood was a time of rapid differential vertical tectonics and catastrophism.<sup>16</sup> These processes would have provided the enormous energy necessary to initiate and slide the gigantic carbonate blocks whereas the presently-observed geological processes invoked by uniformitarianism are wholly inadequate for the task.

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