# Evidence some woolly mammoths asphyxiated from dust

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Occasionally, observational data provides confirmation of creationist predictions. An example is the prediction by Humphreys of the magnetic fields of the solar system planets.[1,2] Another is the prediction that some woolly mammoths in the permafrost of Siberia, Alaska, and the Yukon Territory of Canada died of asphyxiation while breathing blowing dust.[3,4]

## The prediction of death by breathing blowing dust

The top of the thick permafrost found in Siberia, Alaska, and the northwest Yukon Territory of Canada is frozen loess. Loess is mostly composed of silt from blowing dust but has a small proportion of clay and sand. Woolly mammoths are predominantly interred in loess in the lowlands in these areas. It is interesting to note that during the Ice Age these lowlands were never glaciated. It is difficult for climate models to produce glaciation, but some models, if tweaked enough, will produce glaciation, even over Alaska and Siberia, both mountains and lowlands.[5] Years ago, I deduced that some Ice Age woolly mammoths and other animals were most likely asphyxiated by breathing blowing dust, before the animals froze. At the time, there was no evidence that some of the animals died by suffocation.

At the end of the Ice Age, dry, windy storms blew vast amounts of dust over huge areas of the world and deposited the dust in thick layers. The dust storms would have been generated by a combination of factors, including increased sea ice. The sea ice would have cooled the air and reduced oceanic evaporation, resulting in cold, dry air in the mid and high latitudes. The effect would have caused colder winters than today with little additional snowfall, but summers would have been warmer with more sunshine, resulting in net melting of the ice sheets.

At the same time the subtropics were becoming warmer. The north–south temperature difference between high and low latitude would have been significantly greater than it is today. A basic principle in atmospheric science is that temperature differences drive the jet stream. The westerly winds aloft would have generated powerful surface winds. The wind, in combination with the colder, drier atmosphere at the end of the Ice Age, would have caused intense dust storms over much of the Northern Hemisphere. These conditions would have been further enhanced by the passage of cold fronts when the winds aloft descended to the surface. These horrible conditions can account for the mass extinctions that took place on all continents at that time. Mass extinctions are another mystery for uniformitarian science, especially since it holds that deglaciation would have improved the climate and expanded the grazing territory.

After the ice sheets melted, the unique atmospheric conditions would have ceased. Warmer temperatures in the Arctic region would have melted some of the permafrost. Local melting would have formed hollows and lakes, but most of the woolly mammoths and other animals would still remain interred in the residual hills, called yedomas or edomas.

## Two baby mammoths died of asphyxia by inhaling 'mud'

Two very complete baby woolly mammoths have recently been found in Siberia. The frozen mummy of 'Lyuba' was found in 2007 along the banks of the Yuribey River in the Yamal Peninsula of northwestern Siberia.[6] 'Khroma' was found in 2008 in northeast Siberia.[7] They both died at one to two months old and were well fed at the time based on the abundance of fat and the milk residues in their stomachs.

The baby mammoths have undergone extensive analyses using sophisticated technologies. As a result scientists have been able to extend their (previously incomplete) analysis. They discovered that both mammoths died of asphyxia after aspirating 'mud'.[7,8] Mud is technically defined as a combination of silt and clay, but sand[9] was also found. The mud was packed extensively in Lyuba's mouth, oral cavity, trunk, and lungs. Although most of Khroma's trunk and lungs were scavenged, the CT scan was able to show a column of sediment packed her trachea, oral cavity, and nasal passages.[7]

## Mammoths did not drown

At first researchers thought the findings indicated death by drowning, but it soon became apparent that neither animal died by drowning.[7,8] The abundant milk in the stomach of Lyuba cannot be explained by drowning: "… she could not have drunk milk *after* drowning … [emphasis in original]".[10] Moreover, the lung sediments were not due to post-mortem entry by perforation. Additionally, the distribution of blue-coloured vivianite, a hydrated iron phosphate mineral, showed that Lyuba did not drown.[11] The packing of sediments into the breathing structures is also unexpected during drowning.

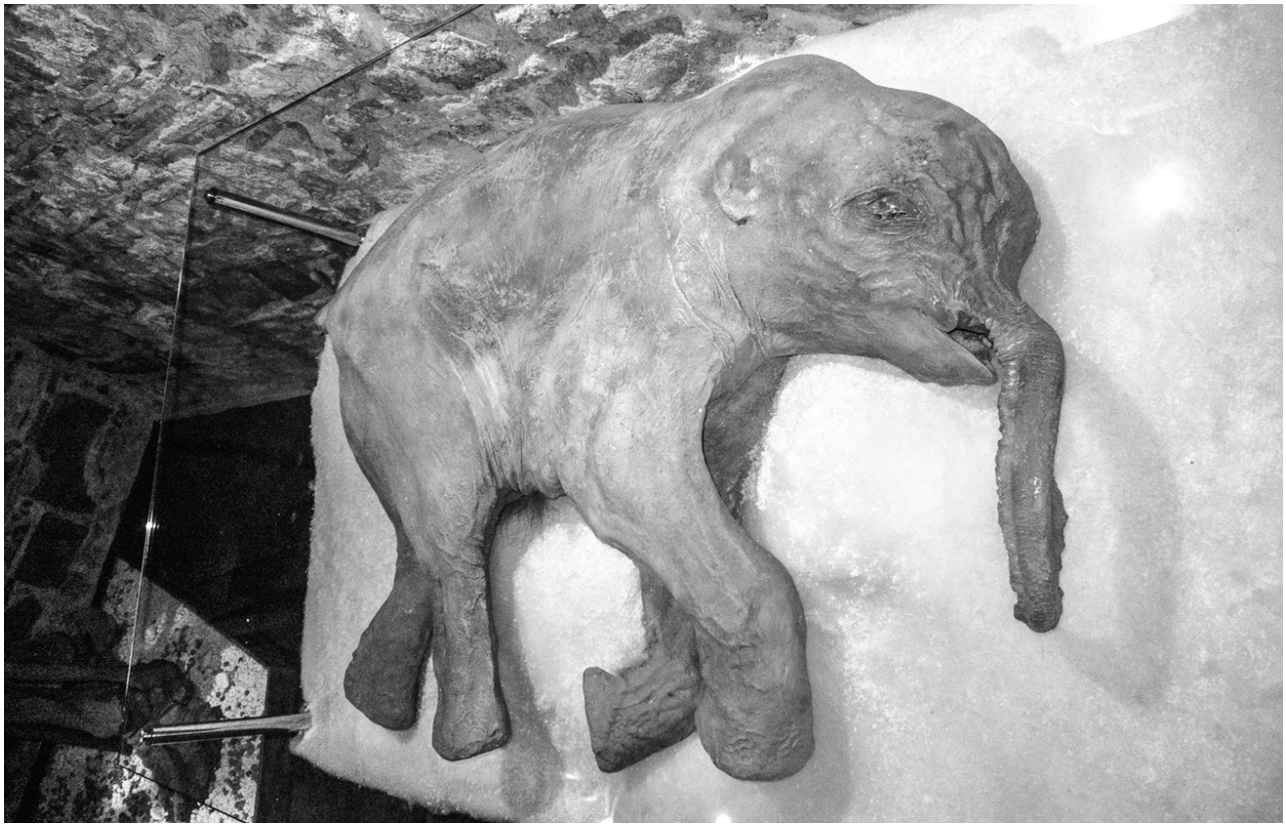

**Figure 1.** Cast of Lyuba, a baby mammoth found in Siberia, from Barcelona, Spain

## The wild guess of asphyxiation by mud

The researchers felt a need to define a cause of death that met these facts. They concluded that both mammoths died by ingesting mud:

> "As an alternative to drowning, we propose that Lyuba died of asphyxia or breathing dust after forceful, reflexive inhalation of a viscous 'mud' composed of the fine-grained vivianite that now occupies her trachea and bronchi."[10]

They suggest that Khroma could have asphyxiated in a mud flow or a river bank collapse.[12] However, some researchers have commented that their scenario is inconceivable for Lyuba because her mother would have rescued her, which the researchers acknowledge could be the case.

The researchers further propose that Lyuba must have ingested mud from a lake because the sediment had to have been packed with the aid of water:

> "…but our central tenet is that there is no force other than the reflexive inhalation of a frantic animal that would be capable of drawing a continuous column of sediments into the airways. … If this material had been suspended in a liberal amount of water, it would have been carried more pervasively into peripheral parts of the lung."[11]

## Creationist considerations

I believe a post-Flood rapid Ice Age provides a better explanation of the facts.

### Death by dust storms

The mammoth data can be explained better by their inhaling wind-blown dust. This could have easily packed the mammoths' breathing apparatus and caused a well-fed, healthy woolly mammoth to asphyxiate. The dust would be interpreted as mud by uniformitarian scientists. Death by severe dust storms would not be considered because they believe the area was mostly wet tundra, as it is today. This would make dust deposition a local and, at best, insignificant event. However, severe dust storms would have been pervasive at the end of the post-Flood rapid Ice Age. The fact that the two woolly mammoths were found 5,000 km apart indicates the extent of the dry, cold, windy climate.

### Rapid interment into permafrost

Uniformitarian scientists wonder how the animals could have been interred in the permafrost and yet still remain in excellent condition. They propose that their decay was inhibited for years as the corpses were somehow gradually incorporated into the permafrost:

> "This process could have retarded breakdown of soft tissues, permitting Lyuba's body to remain intact during the interval of time—possibly years long—during which Lyuba's death and burial site was gradually incorporated into permafrost."[13]

However, this is a general statement with no support.

The creationist model predicts that moderate dust storms would gradually have covered animals that died from the climate change, preserving their bones and tusks in excellent condition. However, severe dust storms would have resulted from the passage of a strong, dry cold front. These dust storms could easily have suffocated and buried the animals, with some in a general standing position. The cold temperatures would have frozen them quickly from the cold air above and from the permafrost below as it would gradually have risen to incorporate the newly laid dust. The freezing process would have been fast enough in some cases to preserve carcasses from decay. This model provides a better explanation of why the mammoths' lungs and stomachs were filled with 'mud'.

### Broken bones from permafrost faulting

The baby mammoths also had broken bones. Lyuba had jaw fractures and Khroma, a mid-thoracic fracture. These bones are large and dense and not easily broken. Although a bank collapse is suggested for Khroma's burial, it is questionable whether a mudflow could break large bones. More importantly, a bank collapse does not explain how dust or mud was packed deep into Khroma's breathing apparatus and stomach, after burial. It has been suggested that Lyuba's broken bones are a result of permafrost processes.[14] I agree, permafrost faulting is the best explanation for Lyuba's broken bones. It also explains Khroma's injuries.

### What is the origin of the loess?

Another perplexing observation is the sponge spicules found in the ingested 'mud' of both mammoths. Sponges are normally marine organisms, but they are also found in some freshwater lakes. Spicules are (often needle-like) skeletal structures left over after a sponge decays. The researchers automatically assumed the sponges came from a freshwater environment.

Uniformitarian science has a difficult time explaining the massive amount of loess that is found in the lowlands of Siberia, Alaska, and the Yukon Territory. It is much greater than the glacial grinding of bedrock in the mountains could generate because glacial grinding is an inefficient process for creating loess.[15] The origin of the loess, which can be up to 60 m thick in river valleys, requires an alternative explanation.

Loess could result from reworked mud that was deposited by the retreating floodwater.[15] After the mud dried, strong winds at the end of the Ice Age would have caused some redeposition. The sponge spicules would have been in the original mud from the Flood.

The Palouse Formation in eastern Washington, USA, provides data suggesting that the loess could have formed from Flood-deposited mud. The Palouse 'loess', or formation,[16] averages about 30 to 40 m thick. It is considerably more extensive than would have come from postulated glacial grinding. Dr Harold Coffin discovered abundant sponge spicules at all 19 locations he sampled within the Palouse 'loess'.[17] Furthermore, the lower layers of the Palouse 'loess' contain rounded, coarse gravel, indicating water deposition. The top of the Palouse formation would have been reworked by wind after the Ice Age. Palouse sponge spicules provide a clue as to the Flood origin of the original mud, both in eastern Washington and in the far north.

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