News Climate Unearthed ice may be the Arctic's oldest buried glacier remnant A landslide in thawing permafrost has revealed 770,000-year-old buried ice An exposed patch of gray, layered glacier ice is exposed in a brown, earthen headwall. Researchers are shown digging into the remnant glacier ice, which became exposed by the thawing and slumping of previously frozen ground. Stephanie Coulombe Share this: Email Facebook Twitter Pinterest Pocket Reddit Print By Nikk Ogasa January 21, 2025 at 9:00 am On a remote island in the Canadian Arctic, researchers have discovered the remains of an ancient glacier that could be over a million years old. Like notes in the pages of a logbook, the gas bubbles, compounds and particulates trapped in a glacier's icy layers can yield information about the atmospheres and climates of bygone millennia. Stephanie Coulombe What's more, in the sediment layers overlying the ice, the researchers discovered a flip in the alignment of magnetic minerals that corresponded with a reversal of Earth's magnetic field roughly 770,000 years old, indicating the ice was at least that old. In 2009, Fortier and colleagues were studying a buried fossilized forest on Bylot Island, in Canada's Nunavut Territory, when they stumbled across the sites of some recent landslides that had been triggered by the thawing of permafrost. While climate projections suggest permafrost will completely thaw in many regions by the end of the century, this preserved glacier has persisted through interglacial periods that were warmer than today, he notes. For researchers keen on studying the glacier, the clock is ticking, as human-caused climate change has exposed the long-preserved ice to melting.