

REFLECTIONS

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FINDING THE MOUNTAINS OF MADNESS

H.P. Lovecraft is best known for his powerful tales of supernatural horror, many of them dealing with Elder Gods who once conquered the Earth and now lurk in the oceanic abyss, awaiting their moment to emerge and take possession of our world once more. This series, now collectively known as the Cthulhu Mythos, can technically be called science fiction, I suppose, since we are told that the Elder Gods are alien visitors from another world. But the tone and affect of the stories is that of creepy fantasy (“In his house at R’lyeh dead Cthulhu waits dreaming”), and many of them deal not with sinister Cthulhu and his eerie companions but with the modern cults that have sprung up around them.

Lovecraft, odd duck though he was in many respects, was basically a rational man, however, well grounded in twentieth-century science—especially astronomy—and he did write two superb novellas that must be regarded as pure science fiction, not horror stories. I speak of “At the Mountains of Madness” and “The Shadow Out of Time,” both of which were first published in the 1930s in *Astounding Stories*, the dominant science fiction magazine of the day. “The Shadow Out of Time” tells of Nathaniel Peaslee, a professor at Miskatonic University, whose mind is captured by a time-traveling entity living in Australia one hundred and fifty million years ago, where a race that had come from the stars had built its capital city. Peaslee is able to roam the library of that ancient race and learn its history; and also he encounters other victims of this mind exchange whose native eras range across much of Earth’s past, present, and future. (“There was a mind from the planet we know as Venus, which would live incalculable epochs to come, and one from an outer moon of Jupiter six million years in the past. Of earthly minds there were some from the winged, star-headed, half-vegetable race of paleogeon Antarctica, one from the reptile people of fabled Valusia. . . .”) The effect of the story is one of cosmic grandeur. And in “At the Mountains of Madness,” an Antarctic expedition from Miskatonic University ventures into Antarctica’s central plateau, which then had never been entered by real-world polar explorers, and discovers there, surrounded by mountains higher than the Himalayas, the stone city of a different alien race that had settled there fifty million years ago—the Old Ones, star-headed winged beings who would briefly be glimpsed in the later story, and who had built their city with the aid of an enslaved race of monstrous protoplasmic creatures that Lovecraft called Shoggoths. The walls of the city are conveniently covered with well-preserved carvings that vividly depict the rich civilization of that ancient race, which Lovecraft recreates for us with breathtaking effectiveness.

Because he was so well known as a writer of supernatural horror, and because these two stories were longer than his usual ones, he ran into difficulty getting them published. “At the Mountains of Madness,” which Lovecraft wrote in early 1931, was rejected by the magazine where his work had customarily appeared, *Weird Tales*, on the flimsy ground that it was “not convincing,” but probably because it was insufficiently weird. There was no other market for a novella of that sort, and he put it aside. When he wrote “Shadow Out of Time” in the fall of 1934, he was hesitant even to send it to *Weird Tales*, and in the end never did.

But in the fall of 1935 Lovecraft encountered Julius Schwartz, a young science fiction fan who had just founded a literary agency. Hearing that Lovecraft had two unpublished science fiction novellas on hand, Schwartz asked to see them, and boldly

offered "Mountains of Madness" to F. Orlin Tremaine, whose *Astounding Stories* had often shown itself willing to explore new trails in science fiction. Tremaine bought it immediately, perhaps just on the strength of Lovecraft's name, without even reading it. He paid three hundred and fifty dollars for it, a huge sum in that Depression-era day, and ran it at once as a three-part serial, beginning in the February 1936 issue. Soon after he purchased "Shadow Out of Time," which appeared in a single installment in the June 1936 issue. Reader reaction was mixed: some of *Astounding's* readers, aware of Lovecraft only as a writer of grim tales of horror and spurning that entire genre, declined to read it. But those who did were very favorably impressed; and indeed the two novellas have remained much-reprinted classics of science fiction to this day.

When they appeared in 1936 they could readily be regarded as science fiction, because, only eighty-five years ago, most of Antarctica was still *terra incognita*, its frozen interior as yet unexplored. As recently as 1888, the novel *A Strange Manuscript Found in a Copper Cylinder*, set in a part of the Antarctic continent where volcanic activity allowed a tropical lost world to thrive, could be published without seeming utterly fantastic. So it was a reasonable speculation in the 1930s to postulate a mighty range of enormous mountains at the heart of the continent and, for all anyone knew, an ancient city built by extraterrestrial visitors.

Today we know that no such titanic mountain range exists, and the story must be regarded as pure fantasy. The demystification of Antarctica was a gradual and arduous process—the Norwegian Roald Amundsen was the first to reach the South Pole, in December, 1911, a long journey by dog-sled after several earlier attempts had failed—but the coming of aviation made it possible to survey the unknown interior of the continent in a way that was then beyond the capability of surface travelers. Admiral Richard E. Byrd made several much-publicized expeditions in a Ford tri-motor plane in 1929 and 1930, flying over the Pole in sixteen hours—it had taken Amundsen three months to get there—and later going into a previously unvisited area of eastern Antarctica where he discovered an extensive mountain range and a vast ice-bound plateau behind it. (The mountains were less than half the height of those Lovecraft would later write about, and there was no ancient city on the plateau.) Other airborne expeditions followed, and by 1938 it was clear that Lovecraft's Mountains of Madness must be regarded wholly as a work of the imagination—but what an imagination, and what a wondrous vision of a lost world in the midst of the frozen continent!

And now, decades later, twenty-first-century technology is giving us an actual view of the vestiges of lost continents hidden a mile and a half and more beneath the Antarctic ice layer. So far we have seen no trace of a pre-human city down there, no footprints of star-headed Old Ones or shambling Shoggoths, but how delighted Lovecraft would have been to learn of these mysterious hidden relics of the earliest eons of Antarctica!

The work was done by GOCE—the Gravity field and steady-state Ocean Circulation Explorer—a space satellite that orbited the Earth from March 2009 to November 2013 under the auspices of the European Space Agency. The primary aim of GOCE was to measure the pull of Earth's gravity with greater precision than ever before. Traveling at an altitude of only about a hundred miles, it charted local gravity gradients everywhere on Earth by measuring the contours of the entire planetary surface until atmospheric drag finally pulled it from its orbit. The scanner was able to penetrate even the thick shield of ice that covers most of Antarctica, and the results, analyzed for the Space Agency by researchers from Kiel University of Germany and the British Antarctic Survey, had interesting Lovecraftian implications.

“The satellite gravity data,” said Dr. Jorg Ebbing of Kiel University, “can be combined with seismological data to produce more consistent images of the crust and upper mantle in 3D, which is crucial to understand how plate tectonics and deep mantle dynamics interact.” From the GOCE scans of Antarctica came images of dense rocky zones called *cratons*, where the crust of the Earth has been folded into mountain ranges whose existence, until now, has been concealed by the impenetrable ice shield Antarctica has built up over the millennia.

We know, from fossil evidence, that there once was a time when the Earth’s climate was vastly different and Antarctica had a mild climate where tropical plants, notably giant ferns, could flourish. As early as 1893, explorers found specimens of petrified wood on the shores of the Antarctic, and, later, other plant fossils, sponge-like creatures, shells, and the bones of extinct giant penguins (modern survivors of which Lovecraft, who kept up with scientific news, mentions briefly in “Mountains of Madness”—“this white, waddling thing was fully six feet high. . . . a penguin, albeit of a huge, unknown species.”) Now GOCE has revealed to us an immense hidden mountain range under the ice, not quite the size of Lovecraft’s mountains, but impressive enough.

If we keep looking, will we find the citadel of the Old Ones down there? Will we find, as Lovecraft’s explorers did, a few surviving Shoggoths nesting cozily beneath the ice? I doubt it very much. But Lovecraft, being Lovecraft, wanted to leave us with a warning of the dangers of peering too deeply into these mysteries. The narrator of “Mountains of Madness” tells us that Miskatonic University intends to make a second Antarctic expedition, which will seek to penetrate deeper into the ice of the plateau: “Pabodie had worked out a plan for sinking copper electrodes in thick clusters and melting off limited areas of ice with current from a gasoline-driven dynamo,” the goal being to find fossil specimens of the creatures of that paleozoic era when then-tropical Antarctica teemed with life.

But at the end of his tale our narrator reveals that his companion in the exploration of that eons-old city had been driven mad by what he saw there, and now is given to “whispering disjointed and irresponsible things about ‘the black pit,’ ‘the carven rim,’ ‘the proto-Shoggoths,’ ‘the windowless solids with five dimensions,’ ‘the nameless cylinder,’” and various other macabre Lovecraftian items hinting at hideous, dreadful discoveries that await those who probe the ancient site. And so, we are told, “I am forced into speech because men of science have refused to follow my advice without knowing why. It is altogether against my will that I tell my reasons for opposing this contemplated invasion of the Antarctic—with its vast fossil hunt and its wholesale boring and melting of the ancient ice caps. And I am the more reluctant because my warning may be in vain.”

That warning will surely go unheeded. Today we have devices far beyond the comprehension of anyone of Lovecraft’s era that before long will be prying into that hidden world beneath those miles of Antarctic ice. The Shoggoths await.