

## Perspective

# *Whistling for the Undead: The Moas*

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I HADN'T GIVEN moas any thought for years. Not since my childhood, when I was obsessed with birds and beasts, especially with Last Things. I had memorized the spot in Cork where the last Irish wolf had been killed; I knew the name of the last man to encounter a great auk; I knew the date and place where the last passenger pigeon had died. Moas — flightless birds up to twelve feet tall and weighing five hundred pounds — loomed large among my childhood fantasies of the disappeared.

So I hadn't expected the moas to return. I was alone that night and weary: I'd been driving all day through Arizona's Chiricahua Desert. It was 10:00 p.m. by the time I reached my motel and lingered on the balcony in search of a cool that wasn't there. Inside, the air-conditioner emitted an emergency ward quota of gurglings and chokings that made no impression on the heat. All night, eighteen-wheelers rumbled up and down the interstate ensuring that I remained on the wrong side of sleep. Somewhere in the early hours, I fumbled for the remote. The television crackled into life and I found myself back inside the Discovery Channel, my insomniac's solace, my home away from home.

I'd turned onto something that, at first, I couldn't make out. I was watching two men deep in a forest. They were small and Japanese and moved like hunters. They crouched and listened, then shuffled forward, then listened some more. They stepped lightly, taking care not to crack a leaf. They stepped with the tread of stalkers, tracking a wild turkey or a deer perhaps.

Slowly it emerged that the men were trying to ambush a moa. The moa was last seen in the seventeenth or eighteenth century, nobody is quite sure when. Chances are, at least two hundred years. It is possible that a few surviving moas still lingered in the New Zealand hinterland when Captain Cook's prow first nudged those shores in 1769. What remains certain, however, is that if these Japanese scientists discover a moa, they will be the first non-Maoris ever to have seen one in the flesh.

The two men continue to press forward, on the lookout for the neck of a mammoth ostrich forebear thrusting through the trees. The men tiptoe through the forest fringe, pause again, and listen. Nothing. Just the dead echo of a very old silence.

To flush a moa from the deep, the Japanese have brought state of the art recording equipment. They hold aloft a satellite dish which emits a creaking, grunting whistle. This is the moa call they fabricated or reconstructed in their laboratory back in Okinawa. It's a very mechanical noise, but an ancient one too, like a sound sample from a Victorian factory.

The mood of this scene is strange but not entirely foreign to me. Seduction by mimicry. When I was twelve or thirteen, my brother and I would sit quietly near some thicket edge and imitate the cries of birds. After a while, without fail, we would begin to attract the curious: parties of Starred Robins, Bleating Bush Warblers, and Paradise Flycatchers. Long after my childhood obsession with birds had passed, this sensation stayed with me: the power to bring a place to life with sound, colour, and movement where minutes before it had been empty and still.

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It's a seductive creature, the moa. Like the Maoris before them, European settlers became obsessed with the bird's gargantuanism. The evidence for this obsession lingers in myths and museum mounts, embellished by storytellers, taxidermists, and other makeup artists.

Our irrepressible romance with the outsize is further evidenced by moa nomenclature. Ornithological paleontologists have divided this King Kong of birds into nineteen species and baptized them with names like *Dinornis maximus*, *Dinornis*

*giganteus*, *Dinornis elephantopus*, *Dinornis altus*, and *Euryapteryx gravis*. To swell the bird's epic aura, ornithologists have given other moa species Homeric titles: *Dinornis hercules* and *Megalapteryx hectori*.

The ostrich is the largest remaining member of the ornithological family to which the moas belonged, the flightless ratites. (Ratite comes from Latin for "raft." The ostrich and its cousins are all raft-chested, lacking the standard keel-shaped sternum to which flight muscles are attached in other birds.) Two whole orders of ratites have disappeared: the moas and Madagascar's elephant birds. Shards found in ancient elephant bird nests suggest that moas' eggs were seven times the size of ostrich eggs or a hundred and eighty times as large as those laid by barnyard chickens. The elephant bird has proved just as mythically seductive as the moa. Marco Polo, in the thirteenth century, described it as a bird "so strong that it will seize an elephant in its talons and carry him high into the air and drop him so that he is smashed to pieces; having so killed him, the bird swoops down on him and eats him at leisure." Early Arab explorers of the Indian Ocean brought back equally flamboyant reports of soaring, elephant-carrying birds. That's how Sinbad the Sailor got his aerial views. An elephant bird (or roc) is said to have carried him off in wrath after Sinbad's companions broke its house-sized egg. Despite our ignorance about this vanished creature, one thing we know for sure. No elephant bird (estimated weight — one thousand pounds) ever flew unassisted by human imaginings.

Extinction feeds fantasy. Especially when a creature, like the moa, has dipped so recently behind the skyline of human memory. That sweltering night in my Arizona motel, an old black-and-white photo of a moa and two Maori moa hunters appeared on the television screen. The photo had been taken — or rather, composed — in 1903, in the Dunedin botanical garden on South Island. The moa in it rears up to three times the height of the Maori men, who cower below, torsos naked, loins ringed with foliage. The men brandish stone-tipped spears and look both awestruck and marauding as they gaze up at the towering bird. Later, my research reveals that the

two moa-hunters were in fact Maori medical students at Otago University. The photographer must have persuaded them to interrupt their studies, doff their modern clothes, and cross-dress as hunter-gatherers for the benefit of posterity.

This is not the only bit of fakery posturing as the past. The moa neck in the photograph stretches on and on and on like Alice's neck in her Wonderland or some chiropractor's nightmare. This "restored" moa, it emerges, is a portmanteau bird, a more subtle cousin of the jackelope. It has been assembled from a variety of skeletons and boasts far more vertebrae than any single bird could possibly have possessed.

Why is it that we want them big? And when we find them big, we want them bigger still?

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The pictures we possess of moas are approximations pieced together from Maori myth and excavated bones. The birds appear typically to have been small-headed, pin-eyed, and thunder-thighed. The word moa is Maori for chicken, which suggests that the Maori run a nice line in understatement.

There is something chickenish, though, about the moa's face at least. Looking at the Discovery Channel's moa — a cooperative approximation by a taxidermist and a paleontologist — I begin to see how the Maori acquired their myth of a giant rooster-man. He was a fearsome, beak-faced, winged human being who dwelled on the wilder of New Zealand's main islands, high up in the Southern Alps. Two monster lizards, it was said, guarded his mountain lair. This rooster-colossus could eat whatever he breathed, living on nothing but air.

Moa remains have been found only in New Zealand. No one knows how the birds got there. Some scientists believe that all the world's large flightless birds — moas, ostriches, Australian emus, and cassowaries, South American rheas, and the extinct elephant birds of Madagascar — can be traced to a common stock in Gondwanaland. When the super-continent split up eighty million years ago, a rich diaspora of giant birds evolved.

However, not all scientists agree that moas arrived in New Zealand courtesy of continental drift. Some maintain that it is

more probable that the birds flew to the Antipodes: their vestigial wings suggest former powers of flight. Perhaps the moas' wings withered over time in an insular land devoid of humans, carnivores, or rivals for their line of food. This seems, in evolutionary terms, quite plausible. And imaginatively, it offers a spectacular alternative, conjuring in the mind's eye an avian armada of jumbo jets traversing the Indian Ocean.

Moas prospered until the arrival of New Zealand's first settlers, the Maori, who canoed down from Polynesia between 1000 and 1350 AD. These immigrants soon developed a taste for moa hunting. They trapped the giant birds for meat, ate their eggs, turned the shells into beadwork, carved the bird-bones into fishing hooks, and saved the feathers for chiefly decoration. The moa, like the ostrich in years to come, proved to be the most versatile of birds. So useful that it became extinct.

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The European fascination with moas began with the discovery of a formidable femur in 1839 wedged in the roof of a Maori home. The bone was promptly dispatched to England but defeated all efforts at identifying it. Some examiners believed it had to derive from an ox. Others, pointing to the bone's hollowness, insisted that it came from a bird. Soon sketches of flying oxen were circulating in England. Richard Owen, Professor of Anatomy at the Royal College of Surgeons, offered a compromise interpretation. The femur, he declared, evidenced some unknown bird, bigger than any yet imagined and "far heavier and more sluggish than the ostrich."

Four years later, another Englishman, out on a New Zealand stroll, stumbled upon a valley carpeted with bones, which, from their honeycomb texture, he deduced could only come from birds. More intriguing finds were to follow: bone hillocks alongside pit ovens, evidence that humans had once butchered and eaten these creatures in enormous communal barbecues.

Among New Zealand's white settlers and back in England, moa mania took hold. In 1844, an Auckland newspaper foresaw the day when moas would be seen "striding among the emus and ostriches in Regent's Park" — premonitions of Steven

Spielberg there. A rash of sightings followed. But they all appear to have been fossil-induced. Otherwise, how is it that during all the decades of European contact and occupation nobody had chanced upon a moa? And that suddenly, during the 1840s and 1850s and 1860s, in the aftermath of fossil finds, monster birds were materializing all over the islands? None of the reputed sightings could be confirmed, nor is there osteological evidence to support them.

Radiocarbon dating suggests that moa-hunting flourished between the eleventh and seventeenth centuries. Most of the major moa deposits have been unearthed in the coastal swamps, caves, and sand dunes of New Zealand's rugged South Island. In one of the largest deposits, at Wairu Bar, ninety thousand moas were butchered over the centuries and roasted in a hundred and twenty pit ovens. Moa bone chisels have been found alongside the massed skeletons of seals: the tools were light but strong, useful, it seems, for slashing and skinning.

Some of the most striking finds appeared in the 1930s, just a few years after Howard Carter entered Tutenkhamen's tomb. New Zealand, like much of the Western world, was newly enthralled with Egyptology. When farmers drained a lagoon, exposing the relics of two and a half thousand moas, they named the site Pyramid Valley. Anxious to deepen New Zealand's human history, colonial paleontologists started musing about a misty civilization of moa hunters — lost Europeans perhaps — a culture more venerable and elusive than the Maoris'. Could it be, they fantasized restlessly, that New Zealand possessed its own Tutenkhamen's tomb, or perhaps King Solomon's Mines? So centuries later, the leftovers from those outsize ostrich-banquets gave the colonials rumbling dreams.

In recent years, DNA studies have strengthened our grasp of both moa evolution and the bird's place in Maori custom. At some sites, skin scraps and feathers have been found: the feathers are not downy like ostrich plumes but coarse and hairy, more like the globbed bristles of a paintbrush that has gone unwashed. But these feather and skin traces are enough to excite bold fantasies among DNA "reanimators" who envisage one day breathing life back into moas, elephant birds, sabretoothed tigers and woolly mammoths.

The Japanese scientists, struggling through the New Zealand forest, are also dreaming in their own way of becoming reanimators. It's just that they, with their satellite dishes and their stalking methods, have adopted a different approach. As the credits roll down, the men are still out there, pushing back the fronds of giant ferns and emitting their moa cries.

Is it optimism or pessimism, hubris or despair, this desire to call it all back?