

Endling, the power of the last in an extinction-prone world

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Abstract:

In April 1996, two men working at a convalescent center wrote a letter to the journal *Nature* proposing that a new word be adopted to designate a person who is the last in the lineage: *endling*. This had come up because of patients who were dying and thought of themselves as the last of their family line. The word was not picked up in medical circles. But, in 2001, when the National Museum of Australia (NMA) opened its doors, it featured a gallery called Tangled Destinies and *endling* reappeared. On the wall above a case with a thylacine specimen was written: *Endling (n.) The last surviving individual of a species of animal or plant*. Since that appearance, the word *endling* has slowly seeped into popular culture, appearing in symphonic music, performance art, science fiction stories, comics, and other art works. This paper examines the cultural power of the concept of *endling* as the last of a species and the history of its mobilization in a world facing extinction around every corner.

Keywords: extinction, species, museums, culture, thylacine

In April 1996, two men working at a convalescent center wrote a letter to the journal *Nature* proposing that a new word be adopted to designate a person who is the last in his/her lineage: *endling* (Webster and Erickson 1996, 386). This had come up because of patients who were dying and were concerned that with their death, their family line would die out. The word was meant to recognize and honor the finality of the person's situation and their heritage. The suggestion of *endling* as the word for the last of a lineage was met with counter-suggestions in the May 23rd issue of *Nature*: *ender* (Chaucer used it to mean "he that puts an end to" anything), *terminarch* (because it has a more positive ring than *endling* which sounds pathetic according to the respondent), and *relict* (which means last remaining, but typically for a group). Nothing more appears to have been made of the suggestion or counter-suggestions in the scientific or medical literature. The word *endling* does not appear to have been used in scientific literature in the *Web of Science* database nor in any dictionary.¹

Yet the word certainly is a 'real' word. It has slowly seeped into popular culture, appearing in museum exhibits, symphonic music, performance art, science fiction stories, comics, poems, black metal music, and journalistic writing since 2001. *Endling* even has its own Wikipedia page (<http://en.wikipedia.org/wiki/Endling>). In these contexts, the word *endling* has been appropriated as the term for the last individual of an animal species. With the death of that individual (the *endling*), the species as a whole is extinct. This shifted the meaning of the word from human care of the elderly to environmental care, which implies that humans have an emotional and ethical stake in these animals (van Dooren 2014). This change gave the word new life.

This article examines the history of the word *endling* as a history of an idea to explore the ways in which a newly coined environmental word might diffuse culturally. Using a mixture of cultural artifacts, media accounts, and personal interviews, I construct the history of the word *endling* and the meanings it acquired through its usage. Each person who wrote, spoke, sang, or sculpted *ending* makes references to other usages, yet each user also makes meaning for the word by exploring what it means at a personal level. I argue that this history reveals that the concept of *endling* as the last of a species holds cultural power, encouraging its mobilization in a world facing extinction around every corner.

All indications are that the rate of animal species loss on Earth over the last few hundred years qualifies as a mass extinction event (Pimm et al. 2014; McCallum 2015). Up to a third of all vertebrate (backboned) species are thought to be globally threatened or endangered, and at least 322 vertebrates have become extinct since 1500 (Dirzo et al. 2014, 401). The high number of species either recently extinct or facing imminent extinction and the great speed at which extermination is happening even exceeds the most well-studied extinction event—the dinosaur extinction at the end of the Cretaceous period. Recognition

¹ I have searched available online dictionaries and have not found the word listed, including the *Australian Oxford Dictionary*, 2nd ed. (2004) and *Oxford English Dictionary* (online, update Dec. 2015). In my interview with the former National Museum of Australia curator Mike Smith, he said that the word had been listed in the *Oxford Concise Dictionary* around 2001 through the work of fellow curator Nick Dreyson, but I have found no corroborating evidence of that.

of the extinction event in which we currently live has spread beyond the natural sciences to mainstream popular prize-winning journalistic books such as David Quammen's *Song of the Dodo* (1996) and Elizabeth Kolbert's *The Sixth Extinction* (2014). Narratives of endangerment and extinction are pervasive in contemporary society, from literature and film to databases and artworks (Heise 2016).

Because the sixth mass extinction is happening on such a large scale, it can be difficult to personalize. According to philosopher Philip Cafaro (2015), there are three common ways in which negative effects of the sixth mass extinction are portrayed: as a loss of resources, as interspecies genocide, and as evidence that human dominance on the planet is inevitable. All of these are aggregate approaches that focus on the grand scale of planetary species loss. But what about the individual level? How can stories be told about the specific individual animals and the end of their lineages in ways that maintain the connection with the grand narrative? There can be a problem with harmonizing narratives at the ideal abstract level of species extinction with the concrete level of individual bodies that must disappear for extinction to take place (de Vos 2007; Jørgensen 2016).

This is where *ending* comes in. The ending label puts extinction on the human scale—it gives an animal a name, recognizes its worth, and asks for the human to empathize with the imminent end of a whole animal's line. The word recognizes the permanence of group extinction on an individual level.

A word of tangled destinies

Ending (n.) *The last surviving individual of a species of animal or plant.*

The definition pops out in black letters on the inside wall of the silver metal cube housing an exhibit of the thylacine in the National Museum of Australia (NMA). When I visited the NMA in 2016, a thylacine skeleton stood on the opposite side of the cube under the engraved word 'Extinct'. It gazes both toward the visitor and the definition of ending on the wall. The visitor knows instinctively that this is a story about an end.

In 2001, the NMA opened its doors to coincide with the centenary anniversary of the Australian Federation's foundation in 1901. The road to the museum's completion had been a long one. A national inquiry into the state of Australian museums issued in 1975, which became known as the Pigott Report, had identified the need for a national museum (Griffin and Paroissien 2011, 2). In spite of this conclusion, it would take until December 1996 for an official commitment to be made to open a physical museum (Drayson 2004, 3). Curatorial staff had been appointed much earlier, including the appointment in 1990 of the People and Environment section, which was responsible for collections attentive to the way environment shapes culture and vice versa (National Museum of Australia 1998).

As the planned permanent exhibition galleries of the NMA took shape, one of them was dedicated to the People and Environment section. This gallery was named *Tangled Destinies: Land and People in Australia* and included exhibits on scientific attempts to explain odd Australian animals such as the platypus, the introduction of animals to the Continent such as the rabbit, the conservation movement, understandings of deep time, the role of fire, and agricultural

technology (Smith 2004). The gallery was later renamed *Old New Land* and changed in response to a 2003 evaluation of the museum. Mike Smith, an archeologist and the senior curator who led the People and Environment section during the design of *Tangled Destinies*, explained in an interview with the author that he wanted to bring together three domains of information—environment, technology, and social history—a triad inspired by the work of environmental historian Donald Worster.²

A centerpiece exhibit of *Tangled Destinies* focused on the 20th century extinction of the thylacine, also known as the Tasmanian tiger and an iconic animal in Australian environmental thinking. Rhetorically the thylacine is bound up with identity of place in Tasmania (Turner 2009). Books about the Tasmanian tiger's extinction abound in Australia; the most well-researched and comprehensive recent treatments of the thylacine's history are Robert Paddle, *The Last Tasmanian Tiger: The History and Extinction of the Thylacine* (2000) and Carol Freeman, *Paper Tiger: How Pictures Shaped the Thylacine* (2014). The last known thylacine died in 1936 as a captive in the Beaumaris zoo in Hobart on its home island of Tasmania. The thylacine's decline had been rapid after British settlers arrived in 1803, primarily because it was hunted as an unwanted livestock killer by farmers. The government issued a bounty for dead thylacines in 1888, after half a century of private bounties issued by companies and individuals. The government bounty appears to have nailed the thylacine's coffin shut, so to speak. Although naturalists and scientists began warning of the thylacine's imminent demise in the first quarter of the 20th century, the species was not protected until 1936—the same year that the last known thylacine perished behind bars. The failure to locate another thylacine was eventually considered confirmation of its extinction (Jørgensen 2016). The thylacine has come to represent the environmentally destructive tendencies of Australia's colonial settlers and is a poster-child for the sixth mass extinction happening at the hands of humans. Remembering the thylacine's extinction also motivated the creation of Australia's National Threatened Species Day in 1996 on the 60th anniversary of the last animal's death.

The NMA exhibit module on the thylacine would take the name *Endling*. Smith said he chose the title as well as developed the concept for the exhibit, although a creative design company created the final visual presentation. As an archeologist, Smith was a regular reader of the journal *Nature* and had come across the letter correspondence from 1996 proposing endling as a term. Considering the heightened awareness of the thylacine tragedy with the founding of National Threatened Species Day that same year, connections between the proposal and the thylacine may have been easy for Smith to make. In an interview with the author, Smith called finding the word “serendipitous” with the gallery design process, a chance coming together rather than something intentionally sought.

The conceptual drawing of *Endling* by the design firm Anway & Company, Inc. features a walk-in box engraved with Endling on the top and the word

² Smith was referring specifically to Worster's three levels of environmental history defined in “Appendix: Doing Environmental History” (1988), 293. For critical analysis of the NMA exhibit as a mode of telling environmental history, see Walliss (2012).

projected through a stencil on the side so that the word is light on the floor of the box (National Museum of Australia 1999, 6). Inside, the drawing shows a thylacine skin with a monitor above it for video on one side. The actualized exhibit followed this general design with a few modifications: the lighted stencil was dropped and the galvanized iron metal box was engraved with the scientific and common names of Australian species, both plants and animals, which had become extinct since European contact (see Fig. 1).

Smith wanted the exhibit to be a “memorial” since “Australians often memorialize extinct animals” (Smith interview). The box does feel like a mausoleum as it stands in the middle of the gallery floor towering above the visitors. The written names engraved on the outside, as well as the word “Endling” on the front side, are reminiscent of names in the wall of a family tomb (see Fig. 2). The visitor does not see the entrance to the box from the gallery entrance, but two open doorways are on either side. The visitor walks through one of these doorways to see the vestiges of extinction.



Figure 1. The Endling cabinet within the Tangled Destinies exhibit. Photograph by author, 2016.

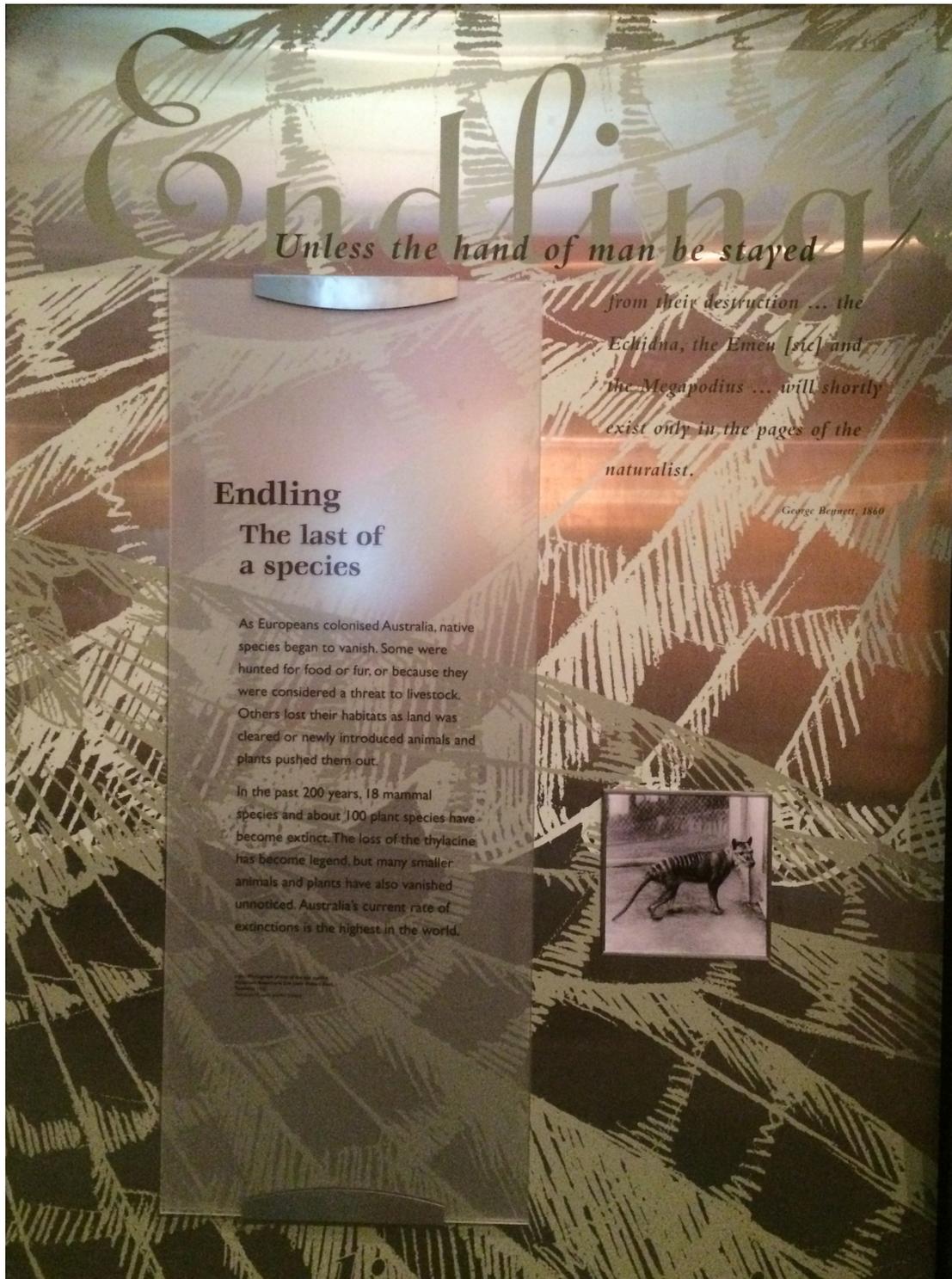


Figure 2. Close-up of the text on the outside of the Endling cabinet. Photograph by author, 2016.

The main artifacts displayed in the Endling cabinet alternated between a thylacine skin and a thylacine body preserved in formalin when it was newly opened (these have since been replaced with a skeleton, see Fig. 3). The skin had been a controversial acquisition made by Smith (Robin 2009). Although complaints had been made that the NMA should not collect natural history specimens, Smith believed that the cultural history of the skin was paramount.

The skin belonged to one of the last wild thylacines—it was trapped in 1930, which was the last year any wild thylacine was killed. The skin had been passed down through the family until it was sold in 1987 to Cascade Brewery in Hobart, Tasmania, which displayed the skin along with its logo that features a pair of thylacines. NMA bought the skin in 1999 (Smith 2004, 100). The preserved body of a young thylacine was from the Australian Institute of Anatomy collection housed at the NMA. Libby Robin, one of the curators who worked on the early exhibit design, commented on the “emotional rather than horrifying sight” of the “partially flayed and eviscerated” tiger with “a rather beautiful face” (Smith 2000, 521). Images taken in the Beaumaris zoo in Hobart of the last live thylacine complemented these still artifacts.³



Figure 3. Inside the Tangled Destinies Ending exhibit module as it opened in 2001. The controversial thylacine skin was on display at that time. When the author visited in 2016, a thylacine skeleton was in this spot. The ending definition is on the wall opposite this one. Courtesy of the National Museum of Australia.

Above the artifacts on the opposite wall is the text: *Endling (n.) The last surviving individual of a species of animal or plant.* The form of this text is striking. Smith wrote the definition on the wall in the form of a definition copied from a dictionary complete with the part of speech designation as a noun. Yet as mentioned, there is apparently no Australian dictionary (or any other) that defines endling. The definitional form gave the word validity, making it appear as accepted, standardized word. I would note that the definition the museum exhibit displayed is not exactly what the original *Nature* letter had defined

³ The existing film clips of the last thylacine are now available online at <http://www.naturalworlds.org/thylacine/captivity/films/films.htm> (clips 2-4).

endling as—it ignores the main goal of the authors to describe “the last person surviving or deceased in a family line” (Webster and Erickson 1996, 386). It is also unclear from the exhibit design how endling was supposed to be read in conjunction with the artifacts on display, as neither the skin nor the preserved body was the true endling, the very last thylacine. The film did show the last known live animal, but the text would seemingly belong to the whole display, not just the film. Those ambiguities aside, putting the definition of endling on the wall was a powerful move.

The first publication in *Nature* that named endling as a term was a short, relatively insignificant text; it threw the suggestion out there, but it didn’t immediately get any positive attention. The word had reached a dead end until the museum staff took the endling concept and made it real. The museum, as a scientific institution, legitimized endling by adopting it and exposing it to the world.

Making endling news

After the National Museum of Australia opened, the word travelled, appearing in a variety of contexts, often through the actions of specific individuals who had seen or read about the *Endling* exhibition.

Professor of journalism Eric Freedman was one of the first who picked up the word. In 2001, Freedman was an assistant professor of journalism at Michigan State University and was leading the university’s Australia: Media, Environment and Culture Program when he visited the NMA in Canberra. He encountered the word endling as well as saw for the first time the film clips of the last thylacine (Freedman pers. comm.). Freedman, a practicing science journalist in addition to a professor, published an article on the extinction of the thylacine in his local university’s journalism magazine in 2002. In the article he lamented the last Tasmanian tiger (which has been erroneously called Benjamin in many sources)⁴: “Too little by far, too late by far for Benjamin, which thus became what scientists call an endling, the last survivor of a species. Endling. A word with finality” (Freedman 2002, 17). Freedman used the word six times in addition to its appearance in the headline. In the last of these, he applied endling to another species, the Australia’s paradise parrot, which was last confirmed seen in 1927. In an article published in 2003, Freedman also applied endling to another species, this time the Turan tiger of Uzbekistan where the last known survivor died in the 1970s and is displayed as a taxidermy mount in the remote city of Nukus.

Nearly a decade later, Freedman described the last passenger pigeon, who was named Martha and died in 1914, as an endling (Freedman 2011). Freedman documented his journey to see the endlings—Martha’s body in the Smithsonian, film clips of the thylacine in Hobart, and the Turan tiger in Nukus—and his

⁴ According to detailed analysis of the thylacine’s history in Paddle (2000), Frank Darby, who claimed to be a former keeper at Hobart zoo, gave the animal’s name as Benjamin in an interview in 1968. Other sources, including the last zoo curator and the former publicity officer for the zoo, denied that the name Benjamin was used for the animal. Paddle (2000: 199-200) concluded that although the name Benjamin has often been repeated in sources since then, the animal was not called Benjamin during its lifetime.

efforts to “make the reality of extinction tangible.” The word endling appears in the text as a marker both of the finality of extinction and the “human authorship” of endling status. “They died because we killed them,” is Freedman’s claim. In addition to killing them, humans have named endlings (like Martha or Benjamin), but Freedman points out that most endlings “won’t get a name, or even a numbered box in a museum, or a plaque at a zoo. In most cases, we’re unlikely to even know the endling, let alone name it. The species simply disappears, anonymously.” The title endling, then, is a mixed blessing for Freedman because it allows him to name the last, yet it also reveals the futility of the attempts to save them. In Freedman’s use of endling, we see the move toward making extinction something personal, something that deserves our empathy.

Focusing on the very last individual, the endling itself, may indeed be a hopeless endeavor, but instead of lamenting the last, an alternate reaction to the idea of endling is to actively work to avoid them. This is the case with the book *No More Endlings: Saving Species One Story at a Time* (2015), a collection of personal conservation stories edited by Allison Hegan. The endling idea functions as a negative in this book—it is the thing to shun. Hegan, who studied at the University of Queensland, Australia, and graduated with a degree in People-Environment Geography from the University of Wisconsin-Madison, has designed the book so that the word endling is a call for action. According to Hegan (pers. comm.), she encountered endling as a word in reference to the last thylacine and decided to use it in her title because the word “left some mystery to grab people’s attention and spur them to ask, ‘what is an endling?’” The word also carried with it the ability to spur connections with other concepts. She noted that

“the word is reminiscent of ‘earthlings’. I think this is powerful, because it reminds us that we are all earthlings—humans, animals, and plants alike. I’ve always been drawn to powerful words that can symbolize a lot on their own, and ‘endlings’ definitely falls into this category.”

Choosing the word endling, instead of writing ‘the last’ or ‘soon-to-be extinct’ or the many other possible phrases, is deliberate for writers like Freedman and Hegan. The word itself has particular aesthetic appeal. Helen Lewis, Deputy Editor of *New Statesman*, published an article “Sense of an endling” on the death of the last Pinta island tortoise, George, in June 2012. She began: “There’s a wonderfully Tolkien-esque word for the last animal of a species: an ‘endling’” (Lewis 2012). Tom Webb of The Royal Society wrote: “There can be few words as poignant as ‘endling’, the name given to the last surviving individual of a species” (Webb 2013). In both cases, the journalists are pointing out that the word has power—it is Tolkienesque, it is poignant.

The association of *endling* with J. R. R. Tolkien, whose *Lord of the Rings* trilogy features halflings (the other name for hobbits) and who was a member of a discussion group with C. S. Lewis known as the Inklings, is telling. As a scholar of the English language, Tolkien was particularly interested in linguistic aesthetics, especially phonosemantics, which is the relationship between sound and meaning (Smith 2006). Tolkien believed that how we use words and we react to them is partially dependent upon their sound. The *-ling* suffix he used has Old English roots and means, in a general sense, a person or thing belonging to or concerned with the noun it is attached to, although it also often takes on a

diminutive force so that it is associated with young, such as a baby duck being called a duckling (OED Online 2015). Words with *-ling* are quite uncommon in modern English, so Tolkien's use of them was a deliberate harkening back to older language to evoke a particular aesthetic of relationship and diminution. Similar to Tolkien's use of *-ling*, Webster and Erikson (1996) chose *endling* to represent the end of line as a mirror to *foundling* as the founder of a new line (because the found child is an abandoned orphan and the parents cannot be traced, a foundling is the start of a new genealogical line). This suggests an outdated, yet aesthetically pleasing, language. The sound of *endling* as a word would turn out to be a large part of its attraction.

Artistic license

The *Endling* exhibit with the power of the word *endling* complemented by the reclined preserved body of a young thylacine and a vibrant striped skin made a deep impression on some of its viewers. Choreographer Phillip Adams was one of those. Adams, a performing artist specialized in contemporary dance, had founded his BalletLab in Melbourne in 1998. Adams explained in an interview with the author that he visited the NMA in Canberra shortly after its opening and was struck by the word *endling*: "How beautiful is that word, and at the same time how devastating. The end of a bloodline. Apocalyptic. Cinematic." He wondered to himself why he hadn't heard this word, which he classified as both "romantic" and "Gothic", before. At the exhibit he connected with the pictures and film of the last thylacine "pounded, caged up" which died of "absolute neglect". Adams commented that he believed that the animal in the photographs "understood it was the last."

Adams decided that *endling* would make an "explosive title" with its "epicness" and wrote a contemporary ballet piece *Endling*, which was part 1 of his *Self-Encasing Trilogy*. The show was first performed in February 2002 in the Bodyworks festival held in Victoria, then again in June 2002. The piece, which Adams classified as a meeting of performance dance and visual art, was a "surreal" commentary on the "emotion of extinction." Adams, whose choreographic work in general aims to create "heightened sensations of life", wanted to point out "the human error and responsibility for the eradication of the thylacine." Scenes included a "shooting gallery" with a hunter shooting dancers masked as thylacines (like a "trashy carny sideshow" according to Adams), animal skins strewn across the floor, a diorama backdrop painted as a bush scene to evoke a natural history diorama, and a video clip of the last live thylacine in the Hobart zoo. Adams sought to convey the idea of the last thylacine through a combination of cinema, objects, skins/furs, and sound. The whole piece was designed for the "audience to experience the devastation" of feeling "now that's the end."

The visuals of Adams' *Endling* referenced the thylacine in multiple ways, from the skins on the stage to the video clips shown during the performance. The advertising poster for *Self-Encasing Trilogy #1: Endling* featured a photograph of the last thylacine in its cage in Hobart (BalletLab 2002). Significantly Adams chose one of the images in which the animal is calmly standing rather than other commonly reproduced images of the animal jumping up on the fence or yawning to show a large gape, which thus appears threatening. The Tasmanian tiger as species was intertwined with *endling* as concept in Adams' presentation.

Endling was again shown to be an evocative word. Encountering it brought the whole ballet into being for Adams. It shows how a word like endling can be generative—it leads viewers thoughts in particular directions yet it can also be filled with their own meanings.

A similar experience would happen to music composer Andrew Schultz. Schultz, an established Australian composer and Professor of Music at University of New South Wales, was commissioned in 2006 to write a piece for the Tasmanian Chamber Orchestra. During an interview with the author, Schultz explained that as he was contemplating what to write for the commission, several strands of thought came together. He had become aware of the *Endling* exhibition at the NMA, although he had not visited it, and he knew that the topic of extinction was “especially poignant and lively in Tasmania because of the tiger.” Schultz had previously worked for the Tasmanian Chamber Orchestra, including composing (?) the piece *Southern Text* for orchestra and choir in 1999, and had visited the Tasmanian Museum and Art Gallery on several occasions. He had been moved by the museum’s video of the last thylacine in the Hobart Zoo, “an anxious looking-animal, destitute in a cage.” The film resonated with Tasmania’s “terrible history in regard to indigenous people” who had been relocated to remote islands with the intent, Schultz claimed, of “making people extinct.” In addition, Schultz said he had been thinking about extinction after reading Tim Flannery and Peter Schouten’s *Gap in Nature*, a beautifully illustrated compendium of extinct animals published in 2001.

Schultz decided to pen an orchestral piece called *Endling, op. 72* for the commission. He chose the title specifically because it was a “beautiful sounding word”. During the interview, Schultz remarked on the “bit of curiosity” built into the word endling because the reader knows it “has something to do with the end, closing” but it invokes “surprise and engagement.” He noted that if he had called the piece Extinction, it would have been too obvious, losing the transformative power of language. The composer notes for *Endling, op. 72* published in the performance program, on the recorded CD insert, and online, make it clear that extinction, environmental destruction, and commercialism all played a part in Schultz’s conceptions for the orchestration:

This piece flows from a feeling of immense regret and sorrow about all that has been lost from the face of the earth. Beautifully adapted plants, animals and societies that are no more and have been replaced by what? A world of ugliness, material obsession, perpetual and pointless change, and the hideous “marketing” of everything from a symphony to a child’s smile. And we are all utterly caught up in it, in the postGod world, where even repudiation is another category fit for commercial exploitation.

There is only a stoic solitude – the resignation of the endling – and the pure core of human experience to sustain us (Schultz 2006).

Yet, Schultz also pointed out that there is a paradox in the work. It is not dark, but rather “lovely sounding, transcendent.” He wanted it “to be beautiful instead of ugly” in order to “stand above the anger and pain” (Schultz interview with author).

According to Schultz, when *Endling, op. 72* was debuted in Hobart, “people were obviously really moved” – so much so that he got his one and only piece of hate mail ever after the performance from a woman complaining that his piece was anti-Tasmanian forestry industry because it blamed commercial

exploitation for extinction. *Endling, op.72* is one of Schultz's most requested pieces for concert performance, including presentations in Australia, Ireland, and England (Australian Music Center 2016). The language of music in conjunction with the linguistic power of a word has made it a stand out piece.

Other musical artists have likewise been inspired by the idea the endling. The Doom metal band Cull from Portland, Oregon, released the album *Endling* that included six songs, one of which is titled "Endling," in 2012.⁵ The song features exceptionally deep, slow and dark vocal track overlaid by rhythmic electric guitar in a higher register. The album featured a bird-like skeleton on the cover, invoking death and decay. Doom metal as a genre focuses on bleakness and despair, with a slow tempo and lyrics emphasizing mourning, ruin, and tragedy (Sargon the Terrible 2004; Metal Descent ND). This makes the theme of extinction and the endling as an end point particularly appropriate for the genre. In June 2012, when Lonesome George the last Pinta Island tortoise died, the band posted a link an article on their Facebook page (<https://www.facebook.com/cullpdx>) with the comment "RIP". Unlike Lewis's article "Sense of an endling," this particular article (Vidal 2012) did not use the word endling but did discuss George as the last of his kind. Yet the band must have associated the idea of endling with the last Pinta Island tortoise. The explicit invocation of an animal endling by Cull should not come as a surprise. Metal music has picked up on environmental themes, particularly on the hypocrisy of modern society and its destructive relationship to nature, which is a trait discussed by Timothy Morton (2013) in his analysis of the music of the black metal band Wolves in the Throne Room. Cull had already decided to break up before the release of *Endling*, so the message of the endling as the last of a species at the end of this band's existence held emotional meaning.

Visual artists have likewise adopted endling as a central theme. Laura Ball, a watercolor artist specializing in environmental art who lives in San Diego, California, presented an exhibition titled *Endlings* in autumn 2014 at the Morgan Lehman Gallery in New York City. The fluid undulating and emanating masses and strings of color and vegetation in Ball's work give a feeling of life and movement, yet the subject is extinction and the end of life. She features extinct and endangered animals, often in evocative groupings and mythical landscapes. The exhibition text placed her work as a manifestation of endlings:

In this series of watercolors, Ball has turned her eye to endangered and extinct animals with her focus on endlings – the very last of a species. Endlings exist alone, left behind as a remnant of their disappeared forefathers. While some endlings live out their last years in captivity, many more pass through life unseen and undocumented. Once gone from the world, they, and all like them, will exist only in dreams as subliminal expressions. Ball's watercolors act as a symbolic ark where the extinct animals can find refuge in the primordial jungle of the collective subconscious (Morgan Lehman Gallery 2014).

⁵ Endling by Cull, *Encyclopaedia Metallum: The Metal Archives*, <http://www.metal-archives.com/albums/Cull/Endling/364211>. There are a few bands named Endling, including a black metal band from Michigan that released its first EP in 2014, an experimental electronic pop group from Texas that released its debut the same year, and a rock group from North Carolina.

The endling's finality in this world, but continuation through dreams, memory and the subconscious, is a different take on the endling than the artists discussed previously. The creature's end is also a new beginning. Ball has been inspired by Jungian psychology and the emphasis on the subconscious and dreams (Anderson 2014). She positions her work as environmental activism, with animal imagery contributing to "growing awareness of the importance of retaining the biodiversity of the planet, and how vulnerable that is" (Anderson 2014, 75).

Ball's *Endlings* featured several works named after known animal lasts, including *Incas* (Carolina parakeet, d. 1918), *Booming Ben* (health hen, d. 1932), *Benjamin* (thylacine, d. 1936), *Celia* (Pyrenean ibex, d. 2000), and *Lonesome George* (Pinta Island tortoise, d. 2012).⁶ All of the pieces named after an endling use a circular motif so that the dead endling is connected to a circle of life built from the parts and bodies of other animals and vegetation that loop and swirl to engulf the bodies. Ball's other pieces in the exhibition take up the themes of animal endangerment and protection but do not focus on the last. Like Schultz who wrote his orchestral work to be beautiful rather than ugly while still commenting on the devastation of extinction, Ball's work conjures up beautiful dreams of creatures that are somehow still haunting and full of loss.

Literary bents

In the realm of literary fiction, the idea of the last of a race has a long history in works such as James Fenimore Cooper's *The Last of the Mohicans: A Narrative of 1757* (1826), but the word endling has added a new label to the phenomenon. Instead of focusing on animal species, fiction works apply endling to humans or other sentient humanoid species. In practice this makes sense because most literary fiction is about humans or humanoids, rather than animals. On a philosophical level, this move shows the interpretative flexibility of endling as a concept, and in some ways harkens back to the original proposal to use endling to represent the end of a human genealogical lineage.

The earliest of these was "The Endling", a science fiction short story written by Michael Barry in 2002. Barry, too, was inspired to write the story while "standing in front of the exhibit of the last Tasmanian tiger at the New National Museum of Australia" (Sparks 2002, 281). In the story, a robot called Endling meets a young slave boy Servitor in Rome of an alternative far future when the sun has become a giant swollen star. The robot explains the name that the people call him: "An Endling is the last surviving member of its species; the individual whose death spells extinction" (Barry 2002, 278). The robot had lived for millennia and travelled to other worlds, something that Earthlings were no longer able to do. With such a long history, the robot is a reminder of ceaseless change and that all things must come to an end. Just before he expires, Endling tells Servitor: "Remember, everything dies. Every species must have its Endling" (Barry 2002, 280). The end is inevitable, perhaps even welcome after you've

⁶ The pieces can be viewed on the Morgan Lehman Gallery website. All of them were painted in 2014. Ball also has a watercolor named after Nola, one of the last four northern white rhinoceroses who died in 2015, the year after the piece was made. Nola lived in the San Diego Zoo where Ball would have often seen her since she regularly visits the zoo to take photographs of animals to use as models (Anderson 2014, 73).

seen all that Endling has seen. As Barry envisions it, all species will come to an end eventually, thus there must always be an endling. The implication is that this will happen even for humans.

The label endling is often applied to stories of the last human, particularly within self-published books and online publications. The serial webcomic *The Endling* by Jonathan Larson about a time travel encounter between scientists in the 21st century and the last genetically human of the future is a typical offering in this genre (Larson 2013-14). Samantha Perkins' *Fictions of Science* (2015) is the story of the last human, who, after his woman partner died, was the last of the humans kept as slaves to a new master race on Earth. The opening page of the book features two sentences centered on the page: "The last individual of a species is called an endling. When it dies, the species is extinct" (Perkins 2015, 1). It is common for fiction works using the title Endling to start with a definition of the word; for example, the novella *Endling* by Stuart Williams (2012) and the serial online novel *Endling* by Finas Janabi (2012-2013) follow this pattern with definitions on either the title page or cover.

Endling in this literature serves as a portent for the human future—or lack thereof. Writers attempt to see the world at the end of human existence, which means necessarily the beginning of an existence without the human.

A beginning for endling

As this essay has demonstrated, in the twenty years since endling was first proposed as a word, the term has migrated and circulated into various genres, remaining relatively stable in meaning since in the NMA exhibit. At each appearance, the word, as something sounding familiar and yet unfamiliar, has needed to be defined. One of the consistencies across genres has been the urge to include a definition of the word as a part of the text. In venues ranging from the NMA exhibit to the *Endling* Symphony, from a watercolors show to news stories, authors and artists framing their work in terms of the endling have included a definition of it—be it on the wall, in a program book, or on a title page. One of the first things a visitor, audience member, or reader encounters is some version of the NMA's definition "*Endling (n.) The last surviving individual of a species of animal or plant.*"

The definition may not exist in any dictionary, but it does exist in the world's most consulted internet source, *Wikipedia*. The article for "Endling" was originally created in 2007 by a user called Uneffect, who based on their editing history appears to be Australian. The original Wikipedia entry (25 November 2007) defined endling as "the name given to an animal that is the last of its species" and included a paragraph on the last thylacine who died in 1936 and a sentence on the quagga (an extinct subspecies of plains zebra from South Africa, whose last specimen died in 1883). The article linked to the NMA's educational guidebook for the *Tangled Destinies* gallery and Freedman's "Cut from History" article. The linkages in creating the Wikipedia article were thus tied directly to the NMA exhibit.

Since its inception the Wikipedia article has grown to include a longer list of notable endling examples (added in 2012), potential endlings (in 2015), and

more citations.⁷ The Wikipedia entry is sometimes cited as the source of the definition of endling (e.g. Durbin 2014, chapter 3; Mitchinson et al. 2013, page 335 sources). Wikipedia, like so many online sources today, has a circular nature to it—in this case, the Wikipedia entry was modified on 27 January 2014 with a citation to a blog post written by the author (Jørgensen 2013) about endlings, which was inspired by and referenced the Wikipedia page itself. This circular nature of knowledge and the creation of meaning for endling shows how there is no simple genealogical lineage of a word.

To sum up, the NMA exhibit *Endling* has had a profound effect in nurturing the endling idea. Yet words and their meanings do not follow a simple dissemination model, but rather circulate. The NMA spurred on the creation of these meanings, but it did not control them. Some of the journalists and artists have stayed close to the Australian subject of the thylacine and the extinction of animals; others, particularly the fiction writers, have deployed endling to discuss the end of the human species. Interestingly, no one seems to use endling to represent the end of a human family lineage as originally proposed by Webster and Erickson. This is likely because a familial meaning of endling does not have the same cultural currency as talking about species extinction.

As we live now in the sixth mass extinction event, artists, writers, and even museum curators are searching for poignant and memorable narratives to remember those species we have lost, and encourage action to avoid more extinctions in the future. The endling is liminal, offering a viewpoint on the transition from life to death happening all around us, out of sight. The concept of endling, with its ability to bridge the gap between species extinction as an abstraction and the death of an animal as a concrete event, offers a new way of thinking about extinction. It can make the narrative personal while retaining the universality of extinction—when this individual is gone, the whole species is no more. By offering a narrative that is simultaneously big and small and which also allows for individuals to fill the word with their own meanings and emotions, endling can be the beginning, but not the end, of new extinction stories.

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⁷ See *Wikipedia*, "Endling: Revision History," <https://en.wikipedia.org/w/index.php?title=Endling&action=history>.

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