CHAPTER 3

THE QUEST FOR IMMORTALITY AND ETERNAL YOUTH

THE ANCIENT GREEKS were obsessed with eternal youth and everlasting life. In their myths, poetry, and philosophy, they devoted considerable thought to the desire to stay young and live forever. To somehow possess ageless immortality like the gods would be the ultimate achievement in a quest for artificial life. But the Greeks were also quite aware of the sobering ramifications should such boons be granted.

For the ancient Greeks, men and women's lives were measured by *chronos*, time divided into the past, present, and future. But if humans were to be set adrift in infinite time, *aeon*, what would happen to memories, or love? How might the human brain, which has evolved to accommodate seventy or eighty years' worth of memories, cope when asked to store centuries or millennia of memories? The interrelationship of human memory, love, and awareness of a finite life span was central to the modern science-fiction film *Blade Runner* (1982). The android workers in the dystopia are genetically engineered to have life spans of only four years—too short to develop a real identity based on memories or to experience empathy. In the film, renegade replicants desperately seek to increase their allotted time.[1]

The links interconnecting memory, love, and mortality also come up in Homer's *Odyssey*. In Odysseus's epic ten-year endeavor to reach his home in Ithaca after the Trojan War, he is detained against his will by the nymph Calypso. She keeps Odysseus as her lover for seven years (*Odyssey* 5.115–40). Calypso offers him eternal youth and immortality if he will stay with her on her island forever. She is incredulous when Odysseus refuses such a generous gift. The other gods insist that Calypso

must honor Odysseus's desire to build a raft to try to return to his wife, family, and friends, and to live out the rest of his days in his native land. As Odysseus explains to Calypso: "I know my wife, Penelope, does not have your beauty, because she is mortal. Even so, I long to go home, despite the dangers."

Lacking empathy, the immortal Calypso cannot understand Odysseus's yearning for his wife and his nostalgia for home. As classicist Mary Lefkowitz points out, the ancient story expresses "one of the most important differences between gods and mortals. Humans have ties to each other" and to their homeland, and "the intensity of these ties is all the stronger because they cannot last." Philosopher C.D.C. Reeve suggests that Odysseus knows he will lose his identity, precious not only to him but also to his family and friends, if he chooses to become marooned in immortality.[2]

Reaching for immortality raises other profound misgivings. Unlike human individuals, immortal gods do not change or learn. "For the immortals everything is easy," notes classicist Deborah Steiner. With few exceptions, the gods act "without visible effort or strain."[3] Without the threat of danger and death, what would become of self-sacrifice, bravery, heroic striving, and glory? Like empathy, these are distinctively human ideals, and they were especially salient in a warrior culture like that of ancient Greece. The immortal gods and goddesses of Greek mythology are powerful, but no one calls the gods courageous. Undying gods, by their very nature, can never gamble on high stakes, or dare to risk obliteration, or choose to struggle heroically against insurmountable odds.[4]

If our lives be short—may they be glorious!

According to Herodotus (7.83), the elite infantry of ten thousand warriors in the Persian Empire of the sixth and fifth centuries BC called themselves "the Immortals," not because they wished to live forever, but because they knew that their number would always stay the same. The assurance that an equally valiant warrior would immediately take the place of each dead or wounded fighter, thereby ensuring the "immortality" of the corps, fostered a sense of cohesion and pride. The lasting appeal of the

concept is evident in the name "Immortals" taken up by the Sassanid and Byzantine cavalries, by Napoleon's Imperial Guard, and by the Iranian army 1941–79.

In the great Mesopotamian epic *Gilgamesh*, the companions Enkidu and Gilgamesh face death heroically, consoling themselves that at least their fame will be everlasting. This idea is embodied in the ancient Greek ideal of *kleos aphthiton,* "imperishable glory." In Greek mythology, real heroes and heroines do not seek physical immortality. Indeed, no true hero desires to die old. Given a choice by the gods, heroic individuals like Achilles reject long lives of comfort and ease. To die young and beautiful in noble combat against an adversary who is one's match—this is the very definition of myth-worthy heroism. Even the barbarian Amazons of Greek legend achieve this vaunted heroic status, dying bravely in battle. In fact, not one ancient Amazon succumbs to old age.[5] In myth after myth, great heroes and heroines emphatically choose brief, memorable lives of honor and dignity with high-stakes risks.

That choice is the point of a legend about the Narts of the Caucasus, larger-than-life men and women who lived in the golden age of heroes. The Nart sagas combine ancient Indo-European myths and Eurasian folklore. In one saga, the Creator asks, *Do you wish to be few and live short lives but win great fame and be examples to others forevermore? Or do you prefer that your numbers be great, that you have much to eat and drink, and live long lives without ever knowing battle or glory?*

The Narts' reply is "as quick as thought itself." They choose to remain small in number and to perform bold deeds. *We do not want to be like cattle. We want to live with human dignity. If our lives are to be short, then let our fame be great!*[6]

Another antidote to wishing for immortality was the classical Greek ideal of calm, even cheerful fatalism. The attitude was plainly expressed in 454 BC, in a poem by Pindar (*Isthmian* 7.40–49) celebrating the life of a great athlete.

> Seeking whatever pleasure each day gives
> I will arrive at peaceful old age and my allotted end.

Some six hundred years later, in his *Meditations* (2 and 47) the Roman emperor and Stoic philosopher Marcus Aurelius linked the acceptance of

death with one's responsibility to live one's brief, fragile life well and with honor: "Dying, too, is one of our assignments in life," he wrote. What is worthy is to "live this life out truthfully and rightfully."

Many ancient travelers' tales revel in descriptions of fabled utopias, where the people are happy, healthy, free, and long-lived. An early example of the idea that a fountain of youth or springs of longevity could be found in some exotic land of the East appears in the writings of Ctesias, a Greek physician who lived in Babylon and wrote about the wonders of India in the fifth century BC. Around the same time, Herodotus told of the long-lived Ethiopians, who owed their 120-year life span to a diet of milk and meat and their habit of bathing in violet-scented, naturally oily springs. Later, an anonymous Greek geographer living in Antioch or Alexandria (fourth century AD) wrote about the Camarini of an Eastern "Eden." They eat wild honey and pepper and live to be 120 years old. All of them know the day of their death and prepare accordingly. Curiously enough, 120 years is the maximum human life span suggested by some modern scientists.[7]

A strange little myth about an eccentric fisherman named Glaukos was the subject of a lost play by Aeschylus and a lost poem by Pindar; further details also come from Ovid, Plato, and Pausanias. In the story Glaukos noticed that when he placed the fish he caught on a special sort of grass, they revived and slithered back into the sea. Expecting to become immortal, Glaukos ate the grass and dove into the sea, where he still resides as a seer or sea daimon covered in limpets and barnacles. Another odd myth about a different Glaukos, a boy who drowned but was saved, was the subject of plays by Euripides, Sophocles, and Aeschylus (all three plays are now lost). This Glaukos was the son of King Minos of Crete. One day the little boy was playing with a ball (or a mouse) and went missing. King Minos sent the sage Polyeidus to find him. Young Glaukos was discovered dead—he had fallen into a cask of honey and drowned. But Polyeidus had once observed a snake bringing a certain plant to resurrect its dead mate. Polyeidus resuscitated the little boy with the same life-giving herb.[8]

Pliny the Elder mentioned a group of people in India who lived for millennia. India also figures in the many legends that arose after the death of

Alexander the Great, collected in the Arabic, Greek, Armenian, and other versions of the *Alexander Romance* (third century BC to sixth century AD). It was said that the young world conqueror longed for immortality. At one point, Alexander engages in philosophical dialogues with Indian sages. When he asks, "How long is it good for a man to live?" they reply, "As long as he does not regard death as better than life." In his travels, Alexander is constantly thwarted in his search for the water of everlasting life, and he meets fantastic angels and sages who warn him against such a quest. The dream of finding magic waters of immortality persisted in medieval European folklore. The legendary traveler-storyteller Prester John, for example, claimed that bathing in the fountain of youth would return one to the ideal age of thirty-two—and that one could repeat the rejuvenation as often as one liked.[9]

On the other side of the world, in China, ancient folktales told of Neverdie Land (*Pu-szu chih kuo*) where people ate a miraculous fruit.[10] Several historical emperors dreamed of discovering the elixir of immortality. The most famous seeker was Qin Shi Huang, born in 259 BC, about a century after Alexander the Great. The Taoist legends told of *ti hsien*, people who never aged or died because they cultivated a special herb on legendary mountains or islands. In 219 BC, Qin Shi Huang dispatched an alchemist and three thousand young people to try to discover the elixir. They were never seen again.

The emperor sought out magicians and other alchemists, who compounded various broths containing ingredients believed to artificially confer longevity, from hundred-year-old tortoise shells to heavy metals, especially *tan sha*, red sand or cinnabar (mercuric sulphide). In antiquity, mercury's mysterious liquid state and astonishing mobility led people to consider quicksilver a "living metal" (see chapter 5 for mercury used to power automata). Qin Shi Huang died at the relatively advanced age of forty-nine in 210 BC. His immortality came in the form of his lasting legacy as the first emperor of unified China: he was the builder of the first Great Wall, the great Lingqu Canal, a magnificent mausoleum guarded by six thousand terra-cotta warriors, and a tomb with underground rivers of mercury.[11]

In contrast to Qin Shi Huang's anxieties about dying, Marcus Aurelius (*Meditations* 47 and 74) crystallized the Stoic view, pointing out that "Alexander the Great and his mule driver both died and the same thing happened to both. They were absorbed alike into the life force of the world or dissolved alike into atoms." Think of every person and creature who has ever lived and died, "all underground for a long time now. What harm does it do them?" The historical Alexander's own acceptance of his mortality was neatly distilled in a famous quip. It was recorded by several of his biographers near the end of the arduous campaigns in India. Alexander had already conquered the Persian Empire and had survived numerous serious battle wounds. Some men in his entourage had even begun to hail him as a god. In the midst of the heavy fighting in 326 BC, an arrow pierced Alexander's ankle. As his companions rushed to his side, Alexander smiled ironically and quoted a well-known passage from Homer: "What you see here, my friends, is blood—not *ichor which flows from the wounds of the blessed immortals*."[12]

Like Alexander—who would perish young and beautiful three years later (323 BC)—the great heroes of classical antiquity ultimately came to terms with their impending physical death, consoled by winning an everlasting "life" in human memory—even though it meant they must join Homer's sad "twittering ghosts" in the Underworld.[13] The ancient myths about immortality deliver an existential message: not only is death inescapable, but human dignity, freedom, and heroism are somehow intertwined with mortality.

The flaws inherent in seeking immortality come to light in myths about the most fearless mortal heroes. Take the case of Achilles. When he was born, his mother, the Nereid Thetis, sought to make him invulnerable by anointing his body with divine ambrosia and then "burned away his mortality" by holding him over a fire. According to the more famous version of the myth, she dipped baby Achilles in the River Styx to render him immortal. In both myths, Thetis had to hold Achilles by the heel, which remained his vulnerable spot (Apollonius *Argonautica* 4.869–79; Statius *Achilleid*). Years later, on the battlefield at Troy—despite his valor—the best Greek champion did not expire in the honorable face-to-face combat

that he hoped for. Achilles died ignominiously because an arrow shot by an unseen archer homed in on his heel, the seemingly insignificant weak link in his body. Likewise, the god Hephaestus and King Minos of Crete did not anticipate that the bronze robot Talos could be toppled by Medea's simple operation on his ankle that drained him of ichor (chapter 1). Unforeseen vulnerabilities are always the Achilles's heels of cutting-edge *biotechne*.

Many ancient myths also ask whether immortality can guarantee freedom from suffering and grief. For example, in the Mesopotamian epic the hero Gilgamesh resents that only the gods live forever, and he fears his own death. He sets off on a quest for the Plant of Immortality.[14] But if Gilgamesh were to achieve his desire for everlasting life, he would eternally mourn the loss of his dear mortal companion, Enkidu.

And consider the fate of the wise centaur Chiron, teacher and friend of the Greek hero Heracles. During a battle, it happened that Chiron was accidentally struck by one of Heracles's poison arrows. The arrow, tipped with venom from the Hydra monster, inflicted a terrible wound that would never heal. Wracked with unbearable pain, the centaur begged the gods to trade his immortality for blessed death. Some myths claimed that Prometheus, the Titan who secretly taught humans the divine secret of fire, offered to exchange places with Chiron. Zeus's notorious punishment of Prometheus was designed to cause interminable torture. Zeus chained Prometheus to a mountain and dispatched his Eagle to peck out his liver every day. The regenerative power of the liver was known in antiquity.[15] Accordingly, in the myth the immortal Titan's liver grew back overnight, for the Eagle devour again. And again. Forever.

A horror of monstrous regeneration also drives the myth of the many-headed Hydra monster. Struggling to kill the writhing serpent, Heracles lopped off each head, and watched aghast as two more grew back in its place. Finally he hit on the technique of cauterizing each neck with a flaming torch. But he could never destroy the immortal central head of the Hydra. Heracles buried the indestructible head in the ground and rolled a huge boulder over the spot to warn off humans. Even buried deep in the earth, however, the Hydra's fangs continue to ooze deadly venom. The myth makes the Hydra a perfect symbol of the infinitely proliferating consequences of immortality. Indeed, Heracles himself was doomed by his own Hydra-poison *biotechne*. Because he treated his arrowheads

with the monster's venom, he possessed an unlimited supply of poison projectiles with their own chain of unintended disasters. The centaur Chiron was only one of the victims. The great Heracles himself perished ingloriously, in agony from secondhand Hydra venom.[16]

An interesting variation on the theme of nightmarish regeneration appears in the old story of an automaton in the form of a broom. The "Sorcerer's Apprentice" tale was recounted by Goethe in 1797 and popularly retold in the episode starring Mickey Mouse in Disney's 1940 animated film *Fantasia*. In fact, the original tale first appeared in written form in about AD 150, told by Lucian of Samosata, a novelist of satire and speculative fiction (now called science fiction).[17] In his story *Philopseudes* (*Lover of Lies*), a young Greek student travels with an Egyptian sage, a sorcerer who has the power to make household implements, such as a broom or pestle, into android servants that automatically do his bidding. One night while the sage is away, the student attempts to control the wooden pestle by himself. He dresses it in clothes and commands it to bring water. But then he cannot make the automaton stop carrying buckets of water. The inn is flooding, because he lacks the knowledge to turn the automaton back into a pestle. In desperation, the student chops the unstoppable servant with an axe, but each piece becomes another water-carrying servant. Luckily, the sage returns in time to save the day.

Several ancient Greek myths caution that cheating death causes chaos on earth and involves grievous suffering. "Sisyphean task" is a cliché connoting futile, impossible work—but few recall *why* Sisyphus must push a boulder to the top of a hill forever. Sisyphus, the legendary tyrant of Corinth, was known for his cruelty, craftiness, and deceit. According to the myth, he slyly captured and bound up Thanatos (Death) with chains. Now no living things on earth could die. Not only did this deed overturn the natural order and threaten overpopulation, but no one could sacrifice animals to the gods or eat any meat. What would happen to politics and society if tyrants lived forever? Moreover, men and women who were old and sick or wounded were condemned to suffer interminably. The war god Ares was especially irritated because if no one was in danger of dying, warfare was no longer a serious enterprise. In one version of the myth,

Ares freed Thanatos and delivered Sisyphus into the arms of Death. But then, once in the Underworld, the cunning Sisyphus managed to convince the gods to release him to rejoin the living, temporarily, to attend to some unfinished business. Thus he slipped out of Death's grasp again. In the end, Sisyphus died of old age, but he was never enrolled among the shades of the dead fluttering uselessly about the Underworld. Instead, he spends eternity in hard labor. The story of Sisyphus was the theme of tragedies by Aeschylus, Sophocles, and Euripides.[18]

In the realm of myth, then, immortality posed dilemmas for gods and humans alike. In chapter 2, the old men Aeson and Pelias sought to turn back the clock but died anyway, and the myths of Talos, Achilles, Heracles, and others also point to the impossibility of preparing for every potential design flaw in the quest to become something more than human. Yet the dream of eternal, ageless life persists.

The myth of Eos and Tithonus is a dramatic illustration of the jinxes that lurk in the desire to surpass a natural human life span. The tale of Tithonus is quite old, first recounted in the *Homeric Hymns*, a set of thirty-three poems mostly composed in the seventh and sixth centuries BC. The story tells how Eos (Dawn or Aurora, the "rosy-fingered" goddess of morning light) fell in love with the handsome young singer-musician of Troy named Tithonus. Eos took Tithonus to her celestial bower at the end of the earth to be her lover.

Unable to accept the inevitable death of her mortal lover, Eos fervently requested life everlasting for Tithonus. In some versions, it is Tithonus himself who longed to be immortal. At any rate, the gods granted the wish.

In typical fairy-tale logic, however, the devil was in the details. Eos had forgotten to specify eternal youth for her beloved. For him, the years pass in real time. When loathsome old age begins to weigh upon Tithonus, Eos despairs. In sorrow, she places her aged lover in a chamber behind golden doors where he remains for eternity. There, devoid of memory or even the strength to move, Tithonus babbles on endlessly. In some versions, Tithonus shrivels into a cicada, whose monotonous song is a never-ending plea for death.[19]

FIG. 3.1. Eos (Dawn) pursuing Tithonus, Attic red-figure cup, Penthesilea Painter, 470–460 BC, inv. 1836,0224.82. © The Trustees of the British Museum.

Gods and goddesses, forever young and glamorous, were believed to grieve over the death of their children conceived with mortals. In the myth, Eos and Tithonus had a son, Memnon. The Ethiopian ally of the Trojans in the legendary Trojan War, Memnon fought courageously against the Greek hero Achilles. Memnon was killed. The dewdrops that appear at dawn were said to be the tears of Eos, mourning for her son. Zeus took pity on Eos and granted her plea that Memnon would live eternally on Mount Olympus. This time, Eos remembered to request that her son would remain as young as he was at the moment of his death.[20]

Just as mortals regret their own mortality, the gods regret the mortality of their human favorites. But gods are especially averse to the natural progression of old age and decrepitude, particularly in their human lovers. In Homer's *Odyssey*, mentioned above, the nymph Calypso complained bitterly that the other gods begrudged happiness to goddesses like her and Eos who fall in love with mortal men. In the archaic *Homeric*

FIG. 3.2. Eos (Tesan) and Tithonus (Tinthun), Etruscan bronze mirror, fourth century BC, inv. 1949,0714.1. © The Trustees of the British Museum.

Hymn to Aphrodite, the goddess of love herself callously takes leave of her own mortal lover Anchises. "I would not choose to have you be immortal and suffer the fate of Tithonus," Aphrodite explains to Anchises. "If only you could retain your present appearance and stature, then we could remain together. But soon savage old age will overtake you—ruthless old age, which we gods despise as so dreadful, so wearying."[21]

Itself ageless, the Tithonus myth has been immortalized by artists and poets over millennia. Early modern artists tend to emphasize the contrast between the white-haired oldster and the ever-rosy Dawn.[22] But the myth's darker message is the focus in the ancient Greek illustrations. Vase painters depicted the young musician nervously fleeing capture by the lustful Eos, as though he already senses how the story must end. Love matches between pitiless gods and mere mortals end tragically. A similar foreboding affected the young maiden Marpessa, who was wooed by the handsome god Apollo and by a mortal named Idas. In that myth,

FIG. 3.3. Tithonus turning into a cicada, engraving, Michel de Marolles, *Tableaux du Temple des Muses* (Paris, 1655). HIP / Art Resource, NY.

Idas and Apollo fought for her hand, but Zeus allowed the girl to chose between the suitors. Marpessa chose Idas because she knew that Apollo would desert her in old age (Apollodorus *Library* 1.7.8).

A fragment of a verse by the great poet Sappho (ca. 630–570 BC) written on scraps of papyrus was deciphered in 2004. The verse is known

as the Tithonus or old age poem. Lamenting that she is growing old and gray, Sappho recalls the myth of Tithonus and urges younger songstresses to revel in their music while they may. Along similar lines, in the first century BC, the Roman poet Horace refers to the misery of Tithonus and other would-be immortals in his ode (1.28) warning of the perils and the false allure of immortality, which "entails a fate worse than death." Many centuries later, in a poem penned in 1859, Alfred Lord Tennyson imagined the heartbroken Tithonus, consumed by the cruel curse of immortality, not only exiled by his unnatural longevity from his beloved's embrace but cast out of humanity. A senescent Tithonus, a pitiful shadow of a man isolated by dementia, is attended by young Eos in a haunting poem by Alicia E. Stallings ("Tithonus," *Archaic Smile*, 1999). This depressing myth about the "horror of aging" would have been forgotten thousands of years ago if the message did not somehow give people subconscious comfort about the inevitability of death, declares Aubrey de Grey, a gerontologist who seeks limitless rejuvenation through futuristic science.[23]

In the Homeric imagination, gods and goddesses remained youthful and vital forever because of their special diet. They were sustained by ambrosia and nectar, which produced ethereal ichor instead of blood. Ambrosia (the term derives from a Sanskrit word for "undying") was also a protective and rejuvenating body lotion used by goddesses (Homer *Iliad* 14.170). In the *Odyssey* (18.191–96), Aphrodite gives Odysseus's wife, Penelope, "immortal gifts" including ambrosia to maintain her youthful beauty. As with the mysterious "waters of life," the actual composition of ambrosia and nectar was never specified. Deities could give ambrosia to mortals to make them invulnerable, as Thetis attempted with her son, Achilles (above) or to confer agelessness and/or immortality on chosen humans, as was done for Heracles (chapter 2). An intriguing fragment of a poem by Ibycus (sixth century BC), preserved by Aelian (*On Animals* 6.51), refers to an ancient story about Zeus rewarding the humans who tattled on Prometheus "with a drug to ward off old age." About a thousand years later, the poet Nonnus (*Dionysiaca* 7.7) cynically complained that Prometheus should have stolen the nectar of the gods instead of fire.

Tantalus was another figure who was eternally punished for misdeeds against the gods. One of his crimes was his attempt to steal divine ambrosia and nectar to give to humans to make them immortal (Pindar *Olympian* 1.50). It is interesting that the mythic key to eternal youth and life was nutrition: the gods had a special diet of life-giving food and drink. Notably, nutrition is the most basic common denominator that distinguished living from nonliving things in Aristotle's biological system. Hoping to unravel the mysteries of longevity, Aristotle investigated aging, senescence, decay, and death in his treatises *Youth and Old Age, Life and Death*, and *Short and Long Lifespans*. Aristotle's scientific theories about aging concluded that senescence is controlled by reproduction, regeneration, and diet. The philosopher noted that sterile or continent creatures live longer than those that drain energy in sexual activity. Perhaps it is no surprise that modern life-extension researchers also focus on nutrition and caloric restriction. And Aristotle would be gratified to learn that there is indeed an evolutionary trade-off between longevity and reproduction, and that long-term modern studies suggest that sexual abstinence can add years to individuals' life spans.[24]

In all the iterations of the Tithonus myth, ancient and modern, the final image of the once-vital singer is one of lost dignity. His awful fate—"life detested but death denied"—casts a heavy shadow over the practical and spiritual problems of stretching human life spans far beyond natural limits, thanks to advances in medicine.[25] As Sophocles remarked in his play *Electra*, "Death is a debt all of us must pay." Echoing the prescience of Greek mythology, more than two millennia ago the philosopher Plato had Socrates argue that it is wrong to keep people alive when they can no longer function. Medicine, Socrates asserts, should be used only to treat curable diseases and to heal wounds, not to prolong a person's life beyond its proper time (*Republic* 405a–409e). Today, however, rejuvenation researchers and optimistic transhumanists believe that science can make death optional. Modern immortalists look forward to living indefinitely through utopian diets, medicine, and advanced *biotechne*, merging humans and machines or uploading brains into the Cloud (and its technological progeny).[26]

But human cells are naturally programmed to age and expire; bodies have evolved to be disposable vessels for transmitting genes from one generation to the next. This fact is recognized by scientists as the "Tithonus dilemma," namely, the consequences of longevity without health and vigor. The dilemma plagues the project of keeping people alive indefinitely without their bodies and brains succumbing to age and cellular decay, like Eos's tragic lover in the myth. Aubrey de Grey believes that modern humans need to overcome what he calls the "Tithonus error," the humble acquiescence to aging and death. To counter the Tithonus dilemma, he founded SENS (Strategies for Engineered Negligible Senescence) Research Foundation in 2009, with the mission of supporting scientific innovations to bypass or switch off the natural decrepitude of cells as death is increasingly postponed. Failure raises the specter of a future dystopia populated by myriad transhuman Tithonus-like wraiths, a prospect even more hellish than the Homeric Underworld of gibbering ghosts.[27]

Tithonus embodies a stark tale: for human beings, excessive life, inappropriate or unseemly survival—living too long—could be more horrifying and tragic than dying too soon. Living forever robs memories of human meaning, just as surely as a life cut too short precludes a store of memories. The Tithonus story and similar myths give voice to anxieties about "overliving," continuing to exist beyond what should mark a natural death. As we saw, overliving also concerned ancient philosophers. Those who overlive become superannuated, obsolete, pitiable. Even agelessness—eternal youth—offers no solace. This idea suffuses Anne Rice's influential modern gothic novels *The Vampire Chronicles* (1976–2016) and the film *Only Lovers Left Alive* (2013, Jim Jarmusch). The immortal, ever-youthful vampires are lost, wandering souls who grow more world-weary, more jaded and bored with each passing millennium.[28]

Overliving, overreaching: a host of myths and legends reveal the folly of seeking immortality. But if turning back old age and postponing natural death were unreasonable and forbidden, as Medea cautioned Jason (chapter 2), then could mortals at least hope to somehow enhance their physical capabilities—which are so paltry compared to those of the

gods? Even some unthinking animals enjoy more magnificent powers than do weak, vulnerable human beings. Another thought-provoking body of Greek myths about artificial life investigates whether *biotechne* might be used to "upgrade" nature and somehow engineer hyperhuman powers.