

1A Big Questions: A Framework for Exploring Death

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Death is an incomprehensibly vast subject, extending to virtually every facet of our lives. It pervades our news: disease, mass shootings, war. We encounter it when beloved characters are killed off in books, films, and television shows. The dead surround us when we trace our ancestry or study history. And inevitably, we experience the deaths of loved ones—a grandparent taken by cancer, a friend suddenly lost in a car crash, or a beloved pet that needs to be put down.

Nevertheless, Americans often struggle to talk about death (Doughty 2019). Many of us are sheltered from thinking about death as children, and we deny its inevitability as we age. The alarming result is that about 63 percent of American adults have not made formal end-of-life plans (Yadav et al. 2017).

This was the challenge we faced when developing *Death: Life's Greatest Mystery*, a new traveling exhibition from the Field Museum of Natural History. How do we inspire our audience to engage with a topic they are so reluctant to acknowledge? How can we create an environment where visitors are comfortable pondering their own death, and discussing it openly with friends and family? And how can we explore this broad topic in a way that feels satisfyingly diverse but not overwhelming?

Why Questions?

As Michael Spock, former Public Programs Director at the Field Museum, once said, the best exhibitions are “for someone, not about something.” With a topic so broad and sensitive, we paid special attention to understanding who this exhibition was *for*. We interviewed death professionals—hospice nurses, hospital chaplains, funeral directors, suicide hotline workers, and others who deal with death regularly. They offered valuable insight into how people imagine death: *personally*, in relation to themselves or their loved ones.

Further, visitor tracking data from other Field Museum exhibits demonstrated that displays organized around questions resulted in longer dwell times than other organization schemes, such as timelines (Roberts et al. 2018). Synthesizing these findings, we opted to organize the exhibition around five universal but personal questions:

What is death?
Do I have to die?
What will happen to my body?
What will happen to my spirit?
How will my death affect others?

Each gallery in the exhibition is devoted to one of these Big Questions, which serve as launchpoints for stories told with objects from the Field Museum's collections (Figure

1.2). Of course, none of these questions can be answered comprehensively or definitively, so each display is a case study that provides a potential answer to the gallery's question. *What will happen to my body?*, *What will happen to my spirit?*, and *How will my death affect others?* emerged quickly as questions that framed the topics that most intrigued visitors during audience surveys. We arrived on “What is death?” and “Do I have to die?” more gradually; many versions of these questions were explored as we worked to unify more existential ideas like social death and concepts of immortality.

Balancing Culture, Making Space for Nature

Visitors enter each gallery with a key personal question in mind, and each display, a possible answer from nature or culture, is an opportunity to reinforce or challenge their preconceptions about death. Visitor surveys demonstrated strong interest in both cultural views of death and examples from nature. The Big Questions framework was an opportunity to produce an explicitly interdisciplinary exhibition, pulling from nearly every collection at the Field Museum and blending multiple realms of expertise and ways of knowing.

Several cultural stories were co-curated or advised on by descendant community members. For example, community members in Skidegate provided critical context to Haida memorial and mortuary poles, and Seth Kane Kwei's grandson advised us on the legacy of Ghanaian fantasy coffins. Additionally, a few stories showcase works created especially for the exhibition, such as an *ofrenda* by Norma Rios Sierra.

Although cultural stories form the majority of displays in *Death: Life's Greatest Mystery*, natural history examples are an important complement. Audience surveys demonstrated that this balance was correct: in a survey of nearly 2000 visitors, 90 percent were somewhat or very interested in how animals deal with death. Examples from nature provide an approachable on-ramp for visitors to grapple with challenging concepts inherent to discussing death. For instance, early in the exhibition visitors encounter a diorama of a whale fall ecosystem (Figure 1.3). When a whale dies, its body becomes host to a unique collection of deep-sea organisms that live off the remains for decades. The underlying concept—death is not an endpoint, and is frequently a beginning—is simple but essential, and applicable to many of the cultural traditions explored elsewhere.

Creating Space to Engage

Our roundtables with death professionals yielded other valuable insights. Advisors told us about the value of humor, which can break tension and help people cope. They also stressed the importance of ritual action—

opportunities to do something or leave something behind as an outlet for grief. We incorporated this advice throughout the exhibition. Moments of levity, such as a display where a cartoon chicken demonstrates different forms of cremation, provide breaks between heavier topics. We incorporated ritual action in two key areas: the “spark a memory” interactive display allows visitors to contribute memories of their loved ones to a tree of light, and a version of artist Candy Chang’s community art project *Before I Die* invites visitors to share their hopes and dreams for their lives and afterlives.

Conclusion

To inspire engagement with a difficult topic, we organized this exhibition to meet visitors where they are: thinking about their own deaths, and the deaths of those close to them. Starting from this very personal place, we positioned stories from nature and culture as possible answers to their big questions—answers that will either reinforce or challenge their existing ideas about death. To keep the

exhibition approachable and emotionally satisfying, we interspersed humor, areas to take breaks, and opportunities to take ritual action.

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Alternative perspectives on the relationship between life and death are addressed by Kyrah Malika Daniels and William Schweiker, who reflect on religious traditions from Africa and its diaspora on one hand, and on the Jewish and Christian worlds on the other. In the former essay, Daniels takes us through the ways in which communities in Africa and its diaspora in the Atlantic world understand death and its place in the human experience. She draws on and references several of the stories told in the exhibit, with a special focus on African-descended peoples in Haiti and contemporary Haitian Vodou, which emphasizes core principles of longevity, livity, and the vibrancy of life. Examining these principles reveals how life’s vital force is sustained through balance, ritual, and the fortification of souls and divine energies in Africana religions.

This perspective from Africana religions is complemented by perspectives from the Indigenous cultures of Latin America. The Atlantic World Diaspora is often seen as the European exploitation of African bodies, and rightly so. But it also involved the appropriation of the lands of Indigenous peoples of the Americas and the usurpation of their bodies and labor as well. Daniels’ essay and the stories that accompany it highlight the perspectives on death that African, African Diaspora, and native Latin American peoples contribute to understanding death and beyond.

Daniels’ work is accompanied by other perspectives on death from Africa and the Americas. From the Yorùbá traditions around twins in West Africa, the *ere ibeji* (“born twice”) statues explore the powerful spiritual forces present in twin births, which are highly elevated in Yorùbá society. Wooden figures representing a twin become important representatives of the deceased in the rites and rituals of the living. Foreman Bandama examines how the loss of a twin or of twin children reverberates within Yorùbá society. Since the soul of a twin is shared between them, maintaining balance requires the soul of the departed to have an *ibeji* statue to dwell in. Failing to provide one could have catastrophic consequences for those who remain.

From the other side of the world, the importance of life force is explored in Moche (200–900 CE) representations of death, sexuality, and being that challenge our conceptions of how life animates the world. Luis Muro Ynoñán reveals insights into the nature of life and death through an interpretation of Moche ceramic figurines from Peru. They are engaged in sexually explicit acts that help us understand that death, procreation, and bodily fluids are all entwined in Moche cycles of life. In fact, it is not sexual acts that are the focus, but the passing of vital fluids between entities that is important. And these entities were not only humans, but animals, skeletons, and other beings intimately connected to the reproduction of life.

Figure 1.3. The life-sized whale fall diorama. Blue Rhino Studios.



The Inca *capac hucha* presents a South American Andean perspective on the meaning of death, where the sacrifice of noble children shows us that the moment of death is not always easily defined. Patrick Ryan Williams explores the meaning of the *capac hucha* to the Inca (1400–1532 CE) understanding of death. Here, the line between life and death is also challenged as it is in the Haitian and Yorùbá cases. As the children are removed from their communities, they begin the transition to a new existence weeks or months before their biological death. They become different social beings in that transition. Even interred on a snow-capped mountain peak or an island in the middle of the Pacific Ocean, they continue to play a role as messengers to the ancestors. Even in death, they continue to serve the Inca.

Taking the concept of life trajectories anew, the peoples of pre-Hispanic Mesoamerica conceived of distinct realms inhabited by the living and dead. Certain beings and places facilitated the communication and movement between these realms, between living and dead, and thus blurring the distinction between life and death. Gary Feinman discusses the three realms of the Mesoamerican universe: the overworld, middleworld, and underworld and the portals that connect them. It is not unlike the conception of the universe in the Andean world of *hananpacha*, *kay pacha*, and *ukhupacha* that Luis Muro Ynoñán relates. Life, death, and renewal are all connected in the Mesoamerican world, and places like the pre-Hispanic Mesoamerican ballcourts (1200 BCE–1520 CE) or beings such as dogs assisted in passage through those realms. Maize was also a central metaphor in this worldview, and the seeds of life are embedded in the growth and death of maize from seed to corn to stalk.

In his essay, *Performing Death*, Luis Muro Ynoñán takes us through how ritual and grief help us cope with death in different cultural and social contexts. In the final two chapters of this volume we see the social impacts of death on individuals and communities. In the final essay, Gary Feinman and Patrick Ryan Williams take this perspective further to examine the long-term impacts of death on society writ large. In Muro Ynoñán's essay, however, grief and ritual take center stage in elaborating how we deal with the loss of a loved one in the immediacy of their passing, both physical and spiritually. Muro Ynoñán highlights funerary behaviors in the human past and present as how humans uniquely deal with the grief through ritual. Mortuary ritual also involves the transformation of the person and the body, and that process involves both the personal wishes of the deceased, but especially the inscription of their surviving community's meanings on them. The dead are washed, dressed, feted, and buried in accordance with prescribed identities by those who inter them. Some of the deceased become important ancestors and, in some

cases, in the absence of a body, representations of the deceased take on new meanings to their communities.

The ritual treatment of the dead is explored through the ways in which bodies were prepared and buried in coastal Peru 600 years ago among the Chancay. Nicole Slovak discusses how the Chancay treated the bodies of the deceased and the importance of preserving the body in Chancay society (1000–1400 CE). In particular, the deceased continued to engage with the living, even after interment, as deceased individuals were re-dressed, fed, and commemorated multiple times after their burial. Before the arrival of the Europeans, numerous other Andean communities also returned to commiserate with the dead, and to care for the ancestors' bodies for years after their burial. Life, it seems, does not entirely leave the body on death, or at least the physical self continues to be fed and clothed long after clinical death has occurred.

Mummification, preserving the body for the afterlife, was a key means of performing death in ancient Egypt as well. The circumstances of Egyptian mummification were very different from the Andean case, as Emily Teeter explains. In Egypt, while the spirit requires an earthly home, and a preserved body to inhabit, the spirit is transformed into an imperishable god that dwells forever in the afterlife. Not all those who died were mummified in Egyptian society, and it was an elaborate process in its most developed form among the elites; most of the aspects described here date to ca. 1000 BCE. For them, the preservation of the bodily remains was key to the spirit living an eternity in the afterlife. Unlike the Andean case, the mummified deceased no longer actively participated in the world of the living. However, disturbance of their earthly remains could imperil their existence in the hereafter.

In present-day Accra, Ghana, a tradition of burial in elaborate coffins representing professional or personal aspirations, character, or status has emerged from a ritual celebrating chiefly power. Foreman Bandama discusses changes in burial traditions under British colonial rule that removed the deceased from burial in their homes to public cemeteries and the simultaneous adoption of a new burial practice in elaborate fantasy coffins. Beginning with the Ga people, and spreading to many other Ghanaian peoples, the tradition grew out of the sedan chairs used by Ghanaian chiefs. Today, these coffins are made for both burial and as works of art specifically for museum display. The Ghanaian coffin tradition shows how much can change in the course of a century in mortuary tradition and also reminds us that death is about remembering and honoring the deceased.

And in Tsavo, Kenya, an ancestor lost to slaving whose body could not be claimed for inclusion in an ancestral

shrine is represented by an animal skull. Chapurukha M. Kusimba describes the migration of the peoples of the Tsavo plains to the upland hills as they fled the slave trade, drought, and disease in the sixteenth to nineteenth centuries CE. They took their ancestors' skulls with them and built shrines in their new mountain homes, where they lived nomadic lives as refugees for several centuries. Among these crania, one was that of a sheep or goat, which represented an ancestor who was lost in a slave raid and whose skull could not accompany those of his kin. Contact with the physical remains of the ancestors kept the continuity between generations. A loved one who was ripped from their social group died a social death in the eyes of those they would never see again and needed to be represented despite knowledge of their bodily death and lack of their physical remains.

In the penultimate essay, William Schweiker's treatise on death in the Christian and Jewish traditions brings us closer to an understanding of death from "the West," that of two of the prominent religions of the Indo-European world. It reminds us that the medical definitions of death are accompanied by rich theologies of thought on the finality of death and the continuation of the being on the demise of the body. In particular, the religious perspective articulated here examines why death exists and its theological origins, how life and death are intertwined, how to prepare for death, and what lies beyond our bodies' death. Schweiker reminds us that, in Christian doctrine, the origin of death was due to the sin of Adam and Eve being exiled from the Garden of Eden to live and die in a sinful world. Death exists because all humans are born with original sin, and only through Christ's atonement for sin can humans be saved. Ultimately, Christ's resurrection from the dead is the victory over death by God.

Christian and Jewish religious traditions also relate the challenges of mortality and living as mortal beings to morality and the importance of following a moral life in the Church. The first Christian sacrament, baptism, is seen as a ritualized death when the individual is raised into a new life in the body of Christ. And in both Jewish and Christian religions, the ideal is to love one another and be a light to the world. Preparing for one's death or the death of a loved one espouses this perspective of love and understanding. Allowing for confession of sins before death, accompanying the dying and mourners in their grief, and providing consolation are all important tenets of preparations for death. Finally, religious doctrine speaks to what lies beyond death, and Schweiker outlines the perils and possibilities of different religious perspectives on the afterlife. Here, the potential of a Second or Eternal Death in Christian and Jewish thought, in which the soul is forever separated from the divine, represents a far more terrifying fate than death itself. These ideas

are explored in more depth in several of the stories that accompany the essay.

When the spirit passes, the body remains and must be buried quickly in the Jewish tradition. Those who clean the body before burial perform a solemn duty, the *chevra kadisha*. Laurie Zoloth takes us through a personal reflection on this rite and an analysis of its meaning in Jewish life. She reminds us that once medical death is proclaimed, the body in modern society is treated as an empty vessel, sent to a morgue as an item stored. The ritual rehumanizes the body for burial, as she so eloquently describes, and reminds the participants that they, with the deceased, are part of a community with God. The *chevra* also enlightens us about the rituals and performances surrounding death and their meaning to the communities of practice that envelop them. This discrete tradition reminds us that death is a humbling and humanizing experience, and one that also brings one in touch with the shared experience.

The Guna of Panama bring the Christian story of the Garden of Eden into their own interpretation in the elaborate *molas* they weave. Alaka Wali shares the meaning of the *molas* with us, noting that the story of Adam and Eve as depicted in the *mola* was built on the concept of "original sin," but that likely does not conform or resonate with the Guna weavers over the past 150 years. Some Christian denominations would argue that being spiritually alive requires an acceptance of Christ into one's life. The rejection of God, and Christ his Son, means that one no longer lives in the light of the lord; that one is spiritually dead without God. The Guna artist who created this *mola* may not have been invested in that theology, Wali argues, but appreciated how the elements of the design accorded with Guna principles: the balance of male and female and the representation of the natural world (manifested by a palm native to Panama instead of an apple tree). The meanings of stories can be adapted and changed to meet the realities and traditions of adopting groups.

The Day of the Dead reminds us in another way that the Catholic religion as practiced in Mexico and other parts of Latin America is a rich syncretism of the Christian faith and the traditions of Indigenous belief systems that existed in the New World millennia before that religious conversion. Álvaro Amat shares his personal experience growing up in a Mexican family with a Spanish–Cuban matriarch. The contradictions of Indigenous practices adopted by many Mexican Catholics were in discord with a conservative perspective.

We see an alternative theology to the Judeo-Christian one as practiced in Asia through the lens of Buddha's teachings. Buddhists do not see the body's demise as the ultimate death. For Buddhists ultimate enlightenment

comes after many lives lived and many bodies passed. Mitch Hendrickson brings us through Buddha's (sixth to fifth century BCE) teachings and the representation of the final death that Buddha passed through in the many depictions of his *parinirvana* state. The cycle of death, rebirth, and suffering continues until one achieves enlightenment. A being can experience many physical deaths, but they are fleeting, as it is the final spiritual release in which enlightenment is obtained. We learn that the moment of physical death (or deaths) is not the end of existence or suffering; that requires reaching *nirvana*.

Finally, Gary Feinman and Patrick Ryan Williams explore the role of society as a living entity in which death is part of and a challenge to the ongoing social networks that define us as members of a community and collective with an existence that transcends the individual. We delve into the history of human commemorations of the dead and their meaning to societies across thousands of years. In exploring the earliest examples of memorials to the deceased by human ancestors, we find no clear answer to what precipitated these traditions. However, their increasing complexity and scale may be linked to increasing population densities. This behavior certainly pre-dates settled village life, but it may be related to habitual return to certain places in the landscape of our early ancestors. As social aggregation increases, more elaborate memorials take hold and, in some cases, vast amounts of resources and labor are invested in tombs to the dead.

The origins of social remembrance delve deep into our human past. The burial of the Magdalenian Woman reminds us that well before the advent of agricultural societies, human ancestors convened to commemorate the dead in an effort to build a community. The burial took place in the Cap Blanc rock shelter in current-day France, probably between 9000 and 17,000 years ago (there is some ambiguity in the different radiocarbon dates processed from the remains). The rock shelter also contains an incredible sculptured frieze more than 40 feet long, depicting horses, bison, and reindeer. The young woman was likely deliberately interred here as her body was arranged in a flexed fetal position that suggests her body was arranged when placed for burial. No grave goods are associated with her burial, though the placement of her body and the locale in which she was placed may indicate an early concern with memorialization.

The Haida Gwaii show us how their ancestors continue to play essential roles in the community through the placement of mortuary and memorial poles from the nineteenth century to the present. As Luis Muro Ynoñán and Gary Feinman explain, both mortuary and memorial poles help communities remember and keep

ancestors connected to their kin who dwell here. They are real manifestations of the rights and the histories of the families that own them, and they are intimately related to the family ancestors as a bridge to the afterlife. Mortuary poles, for example, place the ancestral remains high in the air and help push them into the next realm. In a future generation, those same poles help the soul of the ancestor return to the village in the form of a spirit or reincarnated being. Memorial poles serve a similar purpose in assisting the ancestor's spirit to find their way back to the village, especially in cases where they died while away. They are a beacon that brings the ancestors home and continues to rejuvenate life in the community through the ancestors' return. The Haida have thus perpetuated their communities for thousands of years, reinvigorated by the ancestors who are always a part of them.

Hopewell society 2000 years ago built inclusive and extensive social networks with great burial mounds for their dead (100 BCE–500 CE) in what is today the state of Ohio. These were not just cemeteries, as Brad Lepper describes, they were central places on the landscape of the mobile Hopewell groups dedicated to world renewal ceremonies. Linked not only to the renewal of the living world, these Hopewell earthworks were also the engines of renewal for the entire cosmos. And of course, for the living who came to bury their dead and participate in these ceremonies, they reaffirmed their social ties to the larger Hopewell community. This may have been the place where life partners were found, where inter-community relationships were confirmed, and where distant kin were reacquainted. Death and renewal became central to the social network that constituted Hopewell life. Without these ceremonies and places, Hopewell as a society could not exist.

And across the world past and present, memorials to the dead anchor their descendants and forge the basis for social ties that last for generations. Donna Nash helps us understand the difference between collective memorials and those monuments dedicated to elite rulers. She reminds us that the monuments to the dead can be sources of collective inspiration that draw societies together like the Hopewell, Stonehenge, and Göbekli Tepe. Powerful rulers may also expend great resources to memorialize themselves and reinforce the dominance of their lineage and descendants for generations. Here Khufu's pyramid at Giza, Shah Jahan's Taj Mahal, and Tikal's Temple 1 built by Jasaw Chan K'awiil are evocative examples. Regardless of their original purpose, these memorials take on a life of their own in society as they are used to project ideas about nationhood, power, and social unity. The dead continue to exert their influence on the living through their impacts on generations to come.

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The Journey from Life to Death: Biology of the Human Life Cycle and Our Attempt to Control It

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Abstract: Like most other many-celled animals, every mammal species has a characteristic life cycle, beginning with a sperm fertilizing an egg and ending with death. For mammals generally—including humans—major milestones are conception, birth, attainment of sexual maturity, and the end of life. Typically, before they die, individuals experience a period of physical decline in old age (*senescence*), which may be brief but is quite extensive in humans. And in each mammal species those principal life stages have typical durations, beginning with gestation in the mother's womb and then proceeding through infant and juvenile development into adult life. In every mammal species, the overall lifespan also has a typical duration. Death from natural causes is universal among mammals and its timing is fairly predictable for any particular species, given the existence of a species-specific maximum lifespan. Nevertheless, artificial extension of the lifespan—perhaps culminating in immortality—has long been a cherished goal in human societies. With the advent of modern medicine, it may seem as though long-term postponement of death has become a realistic prospect for the future. But this may well be a vain hope. The much-vaunted “improvement” in human longevity attributed to continued improvements in medical care may be an illusion. In the end, we all must learn to live with death. Content articles explore decay, immortality, and longevity in human societies.

Resumen: Como la mayoría de los animales multicelulares, cada especie de mamífero tiene un ciclo de vida característico, que comienza con un espermatozoide que fertiliza un óvulo y termina con la muerte. Para los mamíferos en general—incluidos los seres humanos—los principales hitos son la concepción, el nacimiento, el logro de la madurez sexual, y el final de la vida. Por lo general, antes de morir, las personas experimentan un período de deterioro físico en la vejez (*senectud*), el cual puede ser breve, pero es bastante extenso en los humanos. Y en cada especie de mamífero, esas etapas principales de la vida tienen duraciones típicas, comenzando con la gestación en el útero de la madre y luego avanzando a través del desarrollo infantil y juvenil hasta la vida adulta. En cada especie de mamífero, las etapas de vida en general también tienen una duración típica. La muerte por causas naturales es universal entre los mamíferos y su momento es bastante predecible para cualquier especie en particular, dada la existencia de una esperanza de vida máxima específica de la especie. Sin embargo, la extensión artificial de esta esperanza de vida, quizás culminando en la inmortalidad, ha sido durante mucho tiempo un objetivo preciado en las sociedades humanas. Con el advenimiento de la medicina moderna, puede parecer que el aplazamiento a largo plazo de la muerte se ha convertido en una perspectiva realista para el futuro. Pero esto bien puede ser una esperanza vana. La tan deseada “mejora” en la longevidad humana atribuida a las continuas mejoras en la atención médica puede ser una ilusión, y quizás una trampa. Al final, todos debemos aprender a vivir con la muerte. Los artículos contenidos en esta sección exploran la decadencia, la inmortalidad, y la longevidad en las sociedades humanas.

How different are human beings from other animal species? Is there something in our biology that makes us particularly distinctive from them? Each multicellular organism has a characteristic *lifecycle*, beginning when a sperm fertilizes an egg and ending with death. For mammals generally—including humans—major milestones are *conception*, *birth*, *attainment of sexual maturity*, and the *end of life* (Healy et al. 2014). Typically, before dying, mammals experience a period of physical decline in old age (*senescence*) (Finch 1990), which may be brief but, for some reason that will here be explored, can be more extensive in humans. And in each mammal species those principal life stages have typical durations, beginning with gestation in the mother's womb and then proceeding through infant and juvenile

development into adult life (Charnov and Berrigan 1993). In humans, pregnancy (*gestation*) lasts nine months, physical maturity is typically reached by about 21 years of age (with sexual maturation somewhat earlier), and an individual can potentially live for over a century (Figure 2.1). However, in spite of the similitude, humans are the only mammals that have developed strategies to extend their natural lifecycles. This chapter will explicitly address biological aspects of human development; how our body progressively degenerates; how our lifecycles can be culturally manipulated; and the potential effects that such actions produce on our biology. Will the manipulation of our lifecycles prevent us from advancing toward our inexorable demise? Can we control all those variables that can potentially affect our chances of survival?