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# BEYOND DEATH:

## USING DESIGN TO TRANSCEND LIFE, MEMORIES AND TRADITIONS

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### Abstract

Sustainable design provides benefits across a product's lifecycle, particularly for end of life. Designers and end users are aware that as much as product lifetime can be extended, no artifact can last forever. But when looking at end of life in human beings, most people are not comfortable with dealing with death whether is their own or of someone else's. Sustainability can provide initial strategies for designing for human death but in order to make a significant contribution to this area, designers need to address a wider set of needs that also include social, emotional and psychological issues. Models such as Maslow's hierarchy of human needs can provide a good framework for identifying the necessary dimensions that involve designing for death. This paper describes design strategies that align with Maslow's list of needs and uses design projects from industry and academia as examples of how to apply them. The objective of presenting these ideas and case studies is to generate awareness and discussion in an important area of design that is sometimes overlooked. Death is imminent for all human beings and design has the ability of removing pain, anxiety and fear that is often associated with it.

**Keywords:** *Design, death, life, emotion, sustainability.*

### Introduction

The prevalence of sustainability in design practice provides a deep understanding of the lifecycle in manufactured goods. This understanding leads to design decisions that minimize environmental impact particularly for end of life (Gehin et al, 2008). Strategies such as materials selection, design for disassembly, repurposing and recyclability, all provide effective alternatives for disposing of an artifact once is no longer functional or needed. Designing for end of life of living beings, however, is significantly more challenging and unclear. Death is a topic that is hard to assimilate for most individuals and many cultures avoid talking about it unless absolutely necessary (Lee, 2008). Sustainable design can provide a base framework for envisioning death as an imminent step in the lifecycle, whether applied to objects or to people. As death is imminent for every living being, it needs to be planned for. However, addressing death as a simple step in the lifecycle is not enough to address the complex needs that people have when facing death-related issues. Multi-dimensional models of human needs such as Maslow's hierarchy of needs provides an integrated view of elements that need to be addressed for human end of life, which normally involve issues around emotions, love, safety, traditions, and physical wellbeing, among others.

Current efforts in design for death integrate strategies such as increased human interaction during illness, planning of death, traditions for funerals and burials, enabling lasting memories of people who are no longer alive and objects that reflect the impact that someone's life had in society. A series of examples of commercial products and academic projects provide ways of addressing emotional and practical needs of people who are dying as well as their loved ones. This paper aims at generating awareness and discussion in this area so that designers can be mindful of how their designs can improve experiences in extreme situations such as end of life. By working in this important design category, designers also have the opportunity to reflect on the impact that their personal work can have in society when their designs help people facing difficult situations as well as promote cultural change for generations to come.

## End of life in product design

A key strategy in sustainable design whenever developing new concepts is to pay attention to all steps in the lifecycle, from fabrication to distribution and use, to end of life. Awareness of these stages allows designers to anticipate consequences derived from potential features and to make decisions that minimize environmental impact. The result of this process is products with longer useful lives that are easier to repair and upgrade. Once their inevitable end of life arrives they also are easier to dispose of, recycle or repurpose. These benefits add value to products and make them more appealing to users and to the environment (Lobos & Babbitt, 2013).

As designers embrace whole lifecycle thinking, they become familiar with accepting death as part of any product's cycle. Death is an inevitable step of the natural cycle that nevertheless opens up space for new life to emerge and thrive. Every designed artifact will go through a natural flow of turning from something useful into something no longer needed (McDonough & Braungart, 2002). Commonly known as end-of-life, designers need to be aware of its implications and design products around it. Whether by product wear, failure, or in other unfortunate cases, by planned obsolescence, products cannot last forever and will stop being useful or functional at some point.

## Understanding human end of life

End of life in human-made objects is expected and in most cases, easily accepted. As much as consumers hate to have their favorite products break down, they are used in general to having to replace objects that no longer meet their needs. However, when thinking of end of life in living things, most people have a hard time accepting death, even if deep down they know that is unavoidable. Death in most cultures is a hard concept to assimilate and people struggle when dealing with the death of others around them, not to mention their own. People who lose someone that they care about frequently go through periods of anxiety and denial before they begin to accept their death (Kastenbaum, 2012) as part of a mourning period which can be painful, disruptive and detrimental for their own wellbeing. Methods for confronting end of life range from practical to spiritual. After people die their body needs to be disposed of in a safe and respectful way and it is common to have a public memorial ceremony of some sort, where the life of the person is honored and remembered. These ceremonies seem to be an important step in the mourning process that involves accepting the passing of a loved one (Hanington, 2004).

Design can play a big role in helping people go through the painful moments around death. It is during moments like these where design's empathetic approach becomes more useful. In a recent article from UK's Design Council about design for death, critic Alice Rawsthorn describes how a designer's ability of "analysing the strengths and weaknesses of present systems and rituals with an open mind, and applying grace, foresight, rigour, sensitivity and imagination to envisaging better outcomes could help us to die more humanely" (qtd. in Pallister, 2015). There is a growing interest across various communities of making death a topic that is discussed more openly and directly. Our Common Practice (<http://ourcommonpractice.com/>), a Philadelphia-based company that works with hospital and healthcare organizations, facilitates discussions about death among healthcare professionals and patients in order to reduce uncertainty and anxiety around the topic. Modern Loss (<http://modernloss.com/>) is an online network that brings people together to talk about loss, grief and death. Wake Up to Dying Project (<http://www.wakeuptodyingproject.org/>) is an organization that collects writings and stories about death, dying and life. At the academic level, several institutions such as University of Glasgow, University of Cambridge and Royal College of Art have research centers that include design for end of life in their project lists. Drexel University has offered a course named "It's a Beautiful Life." Led by professor Kenneth Bingham, the writing course matches students with terminal patients at a local hospice, enabling a

space where students can learn more about end of life and interact with people in who are dying. The industrial design graduate program at Rochester Institute of Technology (RIT) recently developed a project led by the author named “Design your Death” where students developed concepts that improved situations around death. One of the first exercises that students in this course did was to write their own obituary, which helped them in reflecting on the impact that they wanted to have as individuals and as designers. The examples mentioned above are just a small sample of the work that is being generated for improving death-related issues. An important element that all of these initiatives have in common is that they open up discussions about death as a way of accepting it and enabling more fulfilling lives. Going through their stories, projects and testimonials makes it evident that their focus is not to look at death as a dark, morbid event but rather as an opportunity for living to the fullest, regardless of the amount of time that people have ahead of them.

## Key elements in design for death

The apparent complexity of design for death might can be simplified by identifying key areas that need to be addressed. By taking Maslow’s hierarchy of needs as point of reference, it is possible to categorize strategies that build up from basic tangible needs for survival up to more more complex, psychological ones (Figure 1).



Figure 1. List of strategies for Design for Death according to Maslow's hierarchy of Needs

When looking at products out in the marketplace that make death more approachable, it is possible to align them with the categories mentioned above. It is important to understand that products that address only a limited number of categories are not as effective as those that take a more holistic approach and integrate multiple dimensions of needs. Case in point, After I Go, an app concept developed by Paul Bennett, creative director at IDEO, for entrepreneur Paul Gaffney. The app was originally envisioned as something very simple and pragmatic that would help someone in making end of life decisions such as drafting a will, choosing preferences for a funeral or even leaving account passwords accessible to designated people (Mooallem, 2015), all of which would fall into the physiological and safety layers of the hierarchy structure. The app had a lukewarm reception by potential consumers and a newer version was developed to include emotional elements such as recorded messages, pictures, and memories of significant events. This is when the app started to receive a lot of attention from the public and from the press although it was eventually abandoned by Gaffney, who moved to other projects. After I Go is still a good example of how complex the notion of death is to people. As much as we can make connections between burial practices and their effect on the environment, we also have to pay attention to aspects that create strong feelings and emotions. Most successful products in the market follow the idea of offering multiple benefits at different levels. If a product is attractive but not durable, for example, it will not be embraced by the user, just like a product that might work very well but is too bulky might become too expensive to commercialize. Products that provide benefits at multiple layers tend to be more

effective over time, which increases their potential sustainability (Lobos, 2014). In the case of design for death, the same principle applies, where based on the Hierarchy of Needs, most users need to fulfill needs at multiple levels. Below is a breakdown of Maslow's needs as applied to design for death, which include examples of products that illustrate how these needs can be addressed.

## **Painless death**

The healthcare industry has identified the need for improving the way that treatments and patient wellbeing are being addressed. While medically there are many methods that produce efficient results and increase successful outcome of treatments, the logistics around patient care, particularly in terms of administrative and legal implications has created a colder environment that provides patients with the physical help they need but does not take into account their emotional wellbeing (Stacey et al., 2011). Palliative care is a good example of a healthcare philosophy that pays attention to physical, emotional and even spiritual needs. Used primarily for patients with serious, sometimes terminal issues, as well as for their families, palliative care uses methods that relieve painful symptoms and uncomfortable procedures (Sepúlveda et al., 2002). For terminal patients, receiving palliative care can make the difference between being able to come to terms with their end of life and to enjoy their final days with rewarding activities and loved ones versus being tormented with disruptive treatments that do little to extend their life but end up decreasing its quality. Yi Feng, graduate student in industrial design at RIT, developed a bathing glove concept that makes patient care more caring and less institutional (Figure 2). Feng noticed that when giving baths to patients, nurses tend to use towels folded several times, which disposed of several times during a bath and replaced with clean ones. This practice creates a physical separation between the caregiver and the patient, not to mention large amounts of dirty laundry. Feng's design concept works more like a semi-open glove that provides the caregiver with more control for cleaning and also feels more connected to the patient. Subtle symbols like being able to get a bit closer to someone can make a big difference, particularly in difficult circumstances or when going through an illness.



*Figure 2. Palliative care bathing glove. Photo by Yi Feng*

## **Planning for death**

Death is a delicate topic that most people prefer to ignore until absolutely necessary. It's ironic that one of the few things in life that is absolutely certain is also one of the least discussed. A common design approach for enabling conversations around death is not to address it directly but rather to highlight elements around it that make people more conscious of their mortality and the consequences that come along with it. Tikker is a wristwatch that reminds users of their limited life in a passive way (Figure 3). Tikker is currently out in the market, available from vendors like Amazon as well as through its own website <http://mytikker.com/>.



Figure 3. Tikker watch.

Image by Tom Townsend. Licensed under CC BY 2.0. Retrieved from: <https://www.flickr.com/photos/brizzlebornandbred/15243431197>

The watch measures time in two ways: The first one is the traditional way, telling the user actual time. The second one is a countdown timer set accordingly to the user's birthdate and life expectancy. As the user wears the watch he or she is reminded of how much time is left before a projected death. The goal of the watch is to make users mindful of how finite their time on earth is, encouraging them to engage in more meaningful activities. Akanksha Vishwakarma at RIT developed SoulSpace, a concept board game that makes people aware of their material possessions and how they might be distributed after their death (Figure 4).



Figure 4. SoulSpace. Photo by Akanksha Vishwakarma

Disputes over distribution of material possessions are common after someone dies and many families quarrel over this issue. The goal of SoulSpace is to use a neutral environment, in this case astronomy, in which characters in the game explore the different types of value that their possessions might have and identify ways of distributing them. While playing the game, users realize that the value of material possessions is not merely economical. Although some possessions have high monetary value other ones have sentimental or practical value. Tikker and SoulSpace are examples of products that bring up delicate topics, making their users more conscious of how they live their lives and of decisions that they should make before they are gone for good.

Michael Kelly, also a graduate design student at RIT, took an entirely different approach on designing for death. United States is suffering of an increased number of school shootings, which are causing countless deaths of innocent people and leave thousands others traumatized by the horrific acts. There has been significant discussion on why these acts of violence are so prevalent in U.S. society but there are many challenges in preventing them from continue happening. Kelly decided to connect school shootings with the project from the angle of someone facing their potential death and having to defend their life and perhaps even the life of others. In early stages of the project Kelly explored ways of fighting back a mass shooter but ended up avoiding the use of violence to prevent violence, focusing instead on providing safety. The solution is a desk workstation with a removable top made out of ultra-high molecular polyethylene, a lightweight, inexpensive, impact-resistant material. In case of an emergency, the top can be removed quickly and be used as a shield (Figure 5).



*Figure 5. Bullet-resistant desk. Photo by Michael Kelly*

Other potential uses for the desk include providing shelter from natural catastrophes such as earthquakes and the ability to use the top as display frame for activities during class. While these additional uses are appreciated, the fact that a product of this kind needs to exist in today's U.S. educational system remains a fact very hard to assimilate. Kelly's desk concept provides another dimension to the power of design, which not only provides practical solutions to delicate problems but also serves as platform for generating dialog and awareness around sensitive issues.

## **Traditions and funerals**

Death is filled with rich traditions and ceremonies that vary between cultures. Depending on different beliefs, some people see it as the last point of an endless cycle of life, while others see it as a transition to a different dimension, and some people see it as the absolute end of existence (Gire, 2014). The impact that death has in societies is extremely important and the way that funerals are performed is full of rich symbols and traditions. RIT student Hui-Yu Yang analyzed how people in China are expected to visit the graves of their ancestors but newer generations don't feel as inclined to follow this tradition due to long distances that have to be travelled or simple lack of connection to the deceased relative. Yang envisioned a small plant pot that comes in geometric or organic shapes, and is given to a person that recently lost a relative (Figure 6). The person takes care of the plant for a couple of months in preparation for bringing it to the graveyard as an offering. This action of taking care of a plant makes an emotional connection between the person's daily activities and the memory of the deceased relative that will be visited. This experience provides more purpose to the visit to the graveyard so that the person feels more inclined to make the trip and successfully deliver the plant.





Figure 6. Stone Pots. Photo by Hui-yu Yang

Sustainability awareness is becoming more prevalent in burial practices. While burials provide friends and relatives of a deceased person the feeling that he or she is going to a good place, actual details on how people are buried have gone from essential to highly symbolic and even lavish. Coffins are more than containers that in help in transporting a body, providing also the perception of preservation and reflect the interests of the deceased person (Hanington, 2004), and in many cases, their economical and social status. The use of coffins as status symbols is not new. Burials for Egyptian and Mayan kings were extremely elaborate, for example, involving the construction of grandiose pyramids and temples, some of this are considered architectural masterpieces of the human race. Besides their symbolic importance, coffins and caskets also generate important environmental issues, one of them being materials used in their fabrication that do not degrade easily when buried and even generate toxic materials that ruin the soil. Known as the “green burial movement”, this trend involves simple burial ceremonies and caskets made out of natural materials. The goal of this movement is to minimize the economical and environmental impact of burials while allowing people to focus on honoring the memory of the person who has departed. Some designs are going even a step further and making a literal connection between mortal remains and nature. Pierre Rivière and Enzo Pascual designed Emergence, a biodegradable coffin concept that includes tree seeds inside (Figure 7). Once the coffin is buried the materials in the coffin along with the body and the seeds will germinate into a living tree. Emergence earned first place at the Design for Death competition organized by Design Boom in 2013.





Figure 7. Emergence coffin concept.

Image by PR and EP. Licensed under CC BY 4.0. Retrieved from: [http://www.designboom.com/wp-content/compsub/372330/2013-04-17/img\\_2\\_1366171612\\_9b3970af296f99894509776ddd9cd4ef.jpg](http://www.designboom.com/wp-content/compsub/372330/2013-04-17/img_2_1366171612_9b3970af296f99894509776ddd9cd4ef.jpg)

RIT student Elizabeth Stegner wanted to explore simple casket design that paid strong attention to materials selection. Her design concept named Cocoon uses ebonizing molded cardboard, which provides enough structural integrity during a funeral and burial but once is in contact with the soil it degrades easily (Figure 8). Another element that Stegner explored as a formal language that was accepted by a wider segment of users. While sustainable burials are gaining popularity, people still perceive them as geared towards environmentalists. Cocoon tries to find a balance between finding a casket that is simple but still acceptable for mainstream funerals. Cocoon's form shows a clean and elegant approach to the traditionally more ornate casket but maintains an elegance that is appreciated when burying a loved one.



Figure 8. Sustainable coffin. Photo by Elizabeth Stegner

## Lasting memories

People who lose someone important in their lives have a hard time accepting his/her departure. A mourning process, which can last from a few days to several years, is a time where people acknowledge that their life can continue without the presence of someone close to them who ceased to exist (Gire, 2014). As part of the mourning process people look for ways of keeping alive the memory of their loved ones and seek out symbols that suggest that life does not end when someone dies but that it rather takes another form. There is an increasing number of designs that use plants as a way of symbolizing the generation of new life that comes from previously living organisms turning into nutrients that generate new life. RIT student Wilson 'Spar' Patton was interested in developing a keepsake for funeral services that provided the opportunity to extend the memory of the person who recently died. Patton was interested in the simple, yet common tradition of giving away seeds or little trees at funeral services so that people plant them when returning home. After a few iterations that went from shovel-like planters to jewelry boxes, Patton's final design concept is a small round vessel named Heart Tender. Made out of peat-based plaster, the design is easy to transport, display and store and it can also be planted as it contains seeds that will germinate and turn into new plants (Figure 9).



Figure 9. Heart Tender at multiple stages of use. Photo by William Patton

For Patton it was important to address key moments that people go through during and after a funeral so that this vessel wouldn't feel out of place. Several stages of product interaction were carefully considered so that people had enough flexibility to do with the box whatever they felt would make more sense for keeping the memory of a loved one alive. From a small, round shape that can be put in a shirt's pocket to an attractive, neutral appearance that could look good on top of a mantel to materials that would degrade easily if people decided to plant it, all of these features go back to how people can keep someone's memory alive. Heart Tender's shape is also result of experimenting with the peat plaster in order to find shapes that were molded easily and that wouldn't crumble away while handling them. The result is a simple but effective symbol that leads to the creation of new life. This is an innate ability that designers have, one where topics laced with fear such as death can be transformed into joyful moments that endure (Pallister, 2015).

## Impact and legacy

Humans have a hard time accepting that their life is finite and limited and that they might soon be forgotten. Fear of death makes people think of ways of extending their lives for as long as possible, whether by maintaining a healthier lifestyle or by finding ways of leaving their mark on earth. Leaving an important legacy for future generations is a consequence of resisting death but it becomes less important once someone acknowledges their imminent departure. Research in the impact of death awareness in everyday life shows that when people become more aware of their mortality their value of the present increases while their value of the future diminishes (Kelley and Schmeichel, 2015). People who confront their own mortality tend to enjoy life more because they want to maximize their time on earth. It is not necessarily about doing something that will transform the world such as finding a cure for a devastating disease, proving a radical scientific theory of leaving large amounts of money; in most cases is about having a fulfilling life, day after day. This appreciation of life can also be connected with common behaviors around scarcity, where people who realize that something is not permanent or abundant will value it more (King et al, 2009). It is in cases like this where products like Tikker become powerful tools for raising the relevance that mindful daily activities have in achieving fulfilling life. Something as simple as imagining the present year as the last year that someone might live will encourage them to reach out to friends that they haven't connected in a while or to do engage in more social activities (Brooks, 2016).

Just as designers' awareness of the natural cycle of their products helps them in developing solutions that are more sustainable, being conscious of their own mortality and the one of those that they design for can be significantly helpful when designing for death. From looking at the way that people across different cultures

responds to death it is clear that they want to make sure that their life has meaning and that their time on earth has had impact on society and the environment. RIT student Reema Al-Dosari developed a digital frame concept named “Remembrance” that integrates memory and tradition (Figure 10). By focusing on traditional geometric patterns the frame creates a collage where family pictures are displayed in different layouts. The frame can be hanged from the wall, rest on a surface or be held like a traditional photo album. The result is a collection of images that connect with family, tradition and even a home’s décor. By having objects that keep important memories alive, people can have more meaningful lives and be more conscious of the activities that they are involved in. Designed goods have the potential to go beyond just being stuff that gets lost in a sea of material possessions, improving quality of life at physical, mental and spiritual levels.



Figure 10. Remembrance digital photo frame. Photo by Reema Al-Dosari

## Conclusions

Integrating design and death provides important benefits to the education and practice of the profession, ranging from developing new skills on what seems to be a challenging topic to helping people through hard moments and decisions, to discovering deeper roles for designers as shapers of culture. Based on the benefits of product lifetime awareness, designers can be just as reflective on their own mortality as well as the mortality of those who they design for. Death is a natural and inevitable step of every living thing, yet many cultures have a hard time dealing with it. As much as people try to ignore it, sooner or later they will be faced with complications in life that could have been minimized had they been addressed in time. Efforts in the healthcare industry such as palliative care provide patients with better treatments that benefit physical, mental and emotional wellbeing.

Design has the ability of validating someone’s life as well as perpetuating it in a meaningful way. In the case of the academic project of designing someone’s own death, lead by the author, it was evident that as students developed their projects they became conscious of the type of emotions that they wanted to generate in their users. They carefully explored different types of elements, materials, symbols, experiences, forms, and other components, in order to fully capture the essence of how people wanted to live, die and be remembered. Students quickly identified how important death is to every culture in the world and how diverse the way of dealing with it is. Given that the group of students and faculty was highly diverse and represented people from China, Taiwan, Saudi Arabia, India, United States and Latin America, it was possible to discover new traditions and to make interesting connections on how death is perceived across different cultures and geographies.

An important finding of this body of work is the effect that open discussions about death have in someone’s life. People tend to be uncomfortable talking about this topic and have a hard time accepting that life is finite. However, being aware of that mortality seems to remove a burden from a lot of people and encourages them to pursue a more active and fulfilling life. It also seems to reduce the pressure of achieving extraordinary things in

life, focusing instead on appreciating simple things in everyday life. The ability that designers have to approach complex problems with an open mind and empathy is a key component for improving issues around death. Just like traditional design problems deal with functional, aesthetic and experiential issues, death is a multi-layered system that needs to be addressed from multiple angles simultaneously. Using models that cover physical, mental and emotional human needs.

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