

## **The Suspension of Death. The Cryonic Utopia in the Context of the U.S. Funeral Culture**

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### **Abstract:**

This article outlines the history of cryonics, starting with fictional novels and movies and the actual formation of the cryonic movement in the 1960s. Cryonics has been considered – by its advocates – to overcome religion by offering a technological way of immortality. Since cryonics never gained serious attention outside the United States it is promising to ask for the specific frame of American funeral culture as a condition for the emergence (and the limitations) of cryonics.

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### **Introduction**

Cryonic utopias are popular. The idea of deep freezing the bodies of people who have died with the aim of reviving them in future is widespread in 20th century science fiction novels and film. But although the idea has been around for some decades now, the cryonic movement that practices this deep-freezing technique suffers from being quite unpopular – very few people have actually been frozen. I will argue that this disproportion is due to a lack of ritual and the lack of presentation and representation of the dead body. Both of these result from the cryonic conviction that the corpses are not permanently dead. The dead are in cryonic suspension and death itself is suspended in the long run. However, to answer this crucial question, it is essential to shed light on the cultural context of the idea of cryonics. To do this it is necessary to reflect upon its literary and popular cultural context, the role of cryonics within the frame of U.S. funeral culture, and technological references.

### **Cryonic Fiction**

As early as 1887, the U.S. author, explorer, and adventurer William Clark Russell (1844-1911) first developed the idea of reviving a human being accidentally entombed in ice as a fictional device in his novel *The Frozen Pirate*. As the only survivor of a storm that leaves his ship on a huge iceberg, the mate Paul Rodney discovers an ancient pirate ship locked tight in the lonely ice fields. Aboard the pirate ship he finds some members of the pirate crew, frozen stiff. But placed near a fire, one of the sailors begins to revive. Aided by the mate, the pirate is gradually brought to consciousness. He begins to slip into madness, however, refusing to acknowledge his fifty year sleep, and then begins to age rapidly (Russell 1974). Two years after Russell's literary innovation, the popular French writer Louis Boussenard (1847-1910) published his novel *Dix mille ans dans un bloc de glace* – here a contemporary man visits the far future as a result of a similar accident (Boussenard 1890). Meanwhile, the U.S. novelist and creator of the Tarzan character, Edgar Rice Burroughs (1875-1950), satirically accounts the revival of a prehistoric man and his experiences in our civilized

world in *The Resurrection of Jimber Jaw* (Burroughs 1937). During the 1930s, the first cryonic stories were published in the new pulp fiction magazines that proved popular with the American youth: In his short story “Armageddon 2419”, U.S. fantasy author Philip Francis Nowlan (1888-1940) sends his hero to the 25th century using cryonic suspension (Nowlan 1928), and Neil Ronald Jones (1909-1988) freezes his outstanding Prof. Jameson for a couple of million years in the earth orbit until he is discovered by aliens, in the fictional setting of “The Jameson Satellite” (Jones 1931). Inspired by Jones’ tale, one of the founding fathers of the later cryonic movement, Robert Ettinger, came along with the short story *The Penultimate Trump* in the pulp fiction magazine *Startling Stories* in 1948, including a hero who chooses freezing for time travel (Ettinger 1948).

For the earlier stories, accidental freezing was just another dramatic means for time travel in that period of great social, cultural, and technological change. However, later novelists utilized cryonic suspension as a controlled method for passing time.<sup>1</sup> After the cryonic movement emerged in the 1960s, the film genre also picked up this theme – well known are the French film *Hibernatus* of 1969 with Louis de Funès and Woody Allen’s *Sleeper* from 1973. Both films comically vary the topic of ancient men being awaked in a strange future environment. In 1988 three 20<sup>th</sup> century cryonauts are discovered and revived by the crew of the starship *Enterprise* in the TV-show *Star Trek Next Generation* (season I/25). In the love story *Forever Young*, Mel Gibson plays a test pilot cryonically suspended in 1939 who wakes up again in 1992. Sylvester Stallone plays a deep-frozen super agent in the commercial blockbuster *Demolition Man* in 1993 and this found its parodying counterpart in *Austin Powers – International Man of Mystery* four years later.

### **Short History of Cryonics**

What distinguishes these science fiction ideas from the ideas of the cryonic movement – apart from the normative claims of its activists – is the relationship to the topic of immortality. From the very beginning of the cryonic movement, the idea of freezing people was not intended to interrupt life for a kind of time travel to the distant future but to prolong life for an infinite period of time: adherents are convinced that whenever a society is able to revive frozen corpses then its medicine will have improved to the degree that nobody will ever need to die. All the negative contexts of early and later science fiction, such as cultural disorientation, madness and economic exploitation of frozen people, were ignored – the technical method alone was received by cryonic thinkers and contextualized within an optimistic idea of accelerated progress.

How did it all start? The answer is as complex as the question is simple – we can observe some strategies of legitimization in the accounts on the very beginning of cryonics that also have an important economic dimension. According to the web profile of the Cryonics Institute in Michigan and its founder and long-term director, Robert Ettinger:

“The cryonics movement began in 1962 with the private publication of the first version of my first book, ‘The Prospect of Immortality.’ It gained more attention when Doubleday published the first of several successful commercial editions, including several in foreign languages; and with the publication of my next book, ‘Man Into Superman’.” (Ettinger 2002)

The biographical account of Ettinger’s life on the same website is characterized by certain hagiographic elements which are typical for American modern heroes:<sup>ii</sup> born in 1918, he is a grandnephew of a conductor of the imperial Moscow Symphony, and a nephew (by marriage) of the great jazz musician Pee Wee Russell; as a child he discovered the significant pulp fiction story of Neil R. Jones that would shape his thinking in the coming decades; after severe injuries during World War II he spent some years recovering in hospitals: “Ettinger used the time not only to recuperate, but also to read and think.” (Cryonics Institute 2003) In that time he discovered Jean Rostand’s work on successful freezing and thawing of frog sperm. After recovering, Ettinger became a professor of physics and mathematics at a community college in Michigan and wrote his book *Prospects of Immortality*, which he first sent to friends and scientists (and selected people from *Who’s Who*) in 1962. It was published by Doubleday in 1964 and translated into eight other languages. Ettinger became a media celebrity discussed in many international magazines and on U.S. television. Inspired by Ettinger’s book, several cryonic organizations were founded: “Cryonics had begun as Robert Ettinger’s idea. It had become a reality.” (Cryonics Institute 2003)

In his account of the history of cryonics Ettinger does not disclose the fact that there was another immortality pioneer. “But there was another man and another book and he made a contribution every bit as great as Ettinger’s and perhaps in his quiet, unassuming way he may have made a more significant one.” (Alcor 1983:7)<sup>iii</sup> Evan Cooper (1926-1983) privately published his manuscript *Immortality: Physically, Scientifically, Now* in 1962 and distributed copies among friends. Here, he combined the idea of freezing and reviving people with the cybernetic approach to human identity. Referring to the cybernetic thinker Norbert Wiener, Cooper considered a human being as nothing more than a kind of computer program that could be restored at any point of time, as long as enough information on the original state was available. In December 1963, Cooper and other immortality enthusiasts founded the Life Extension Society (LES) in Washington D.C. with Cooper as president – but five years later Cooper left the cryonics movement and the LES quickly died off. But his attempt to bring people together who were scientifically interested in cryonics with annual conferences and to edit a periodical (*Freeze – Wait – Reanimate*) encouraged more activists throughout the U.S. Saul Kent, Karl Werner, Harry Costello, and Curtis Henderson formed the Cryonics Society of New York (CSNY) in August 1965. It is important to mention here that it was Karl Werner, a young student at Pratt Institute in New York, who coined the neologism cryonics (from the Greek word for ice *kryo*) just before the CSNY was founded.<sup>iv</sup>

During a promotional trip for cryonics by Saul Kent and Curtis Henderson through the country, the Cryonics Society of Michigan, with Ettinger as President, and the Cryonics Society of California, with Robert Nelson as president, were founded in 1966.<sup>v</sup> Ettinger's group later changed its name several times – Immortalist Society and Cryonics Association – and finally emerged as the Cryonics Institute in Clinton, Michigan. In 1972 the Alcor Life Extension Foundation was started by Fred and Linda Chamberlain, now settled in Scottsdale (Arizona).<sup>vi</sup> After the theme of frozen suspension was considered to have sufficient public interest to justify an elaborate Immortality Pavilion at the Expo in Montreal in 1967 the movement clearly hit its peak around 1970 (Bryant & Snizek 1973:57).

The cryonics movement has been and continues to be very heterogeneous and based on the active role of many strong individuals. In their sociological interviews in the early 1970s, Clifton Bryant and William Snizek discovered that cryonics members go to great lengths to have total control on their lives. An unusually high proportion have bomb shelters and fly their own planes, a fact that Bryant and Snizek considered to be another indication of an unwillingness to place their lives in someone else's hands (Bryant & Snizek 1973:59). The only quantitative survey conducted, which was undertaken by Ellen B. Rievmann in the 1970s, concluded that the members of cryonics societies tend to be white males in their 30s, nonreligious, and politically unconventional; they have a higher educational level, fear of death, and income than the U.S. average (Rievmann 1976:68-8).

The Cryonics Institute and the Alcor Life Foundation are currently the only providers of cryonic suspension.<sup>vii</sup> The ambitious Cryonics Society of New York and other commercial providers have since run out of money.<sup>viii</sup> The Cryonics Society of California, which actually carried out the first suspensions in the late 1960s, was ruined after nine cryonic clients thawed and some relatives sued the society's president, Robert Nelson, and an assistant. They were ordered to pay nearly U.S.\$1 million in damages.<sup>ix</sup>

### **The Cryonic Idea of Death and Afterlife**

Robert Ettinger's most influential book – *Prospects of Immortality* – published in 1964, starts with an enthusiastic and pragmatic preamble:

“Most of us now living have a chance for personal, physical immortality. This remarkable proposition – which may soon become a pivot of personal and national life – is easily understood by joining one established fact to one reasonable assumption.

**The fact:** At very low temperatures it is possible, right now, to preserve dead people with essentially no deterioration, indefinitely ...

**The assumption:** If civilization endures, medical science should eventually be able to repair almost any damage to the human body, including freezing damage and senile debility or other cause of death ... Hence we need only arrange to have our bodies, after we die, stored

in suitable freezers against the time when science may be able to help us. No matter what kills us, whether old age or disease, and even if freezing techniques are still crude when we die, sooner or later our friends of the future should be equal to the task of reviving and curing us. This is the essence of the main argument.” (Ettinger 1964:11)

Ettinger regards his freezing method as a means to avoid permanent death, since human beings die in imperceptible graduations. Thus, according to Ettinger, the question of the reversibility of death at any stage depends on the state of medical art – clinical death is often reversible and principally repairable like “all these ordinary emergency reanimations”. Artificial prostheses and organs, and transplantation will support these processes of repair and improvement (Ettinger 1964:13, 50-58).

“Suspended death, then, will refer to the condition of a biologically dead body which has been frozen and stored at a very low temperature, so that degeneration is arrested and not progressive. The body can be thought of as dead, but not very dead; it cannot be revived by present methods, but the condition of most of the cells may not differ too greatly from that in life.” (Ettinger 1964:13)

However, permanent death would mean that the original brain – the seat of personal identity – would be severely damaged so it could never be restored. But Ettinger has an optimistic prospect even for this worst case scenario: “Pushing this kind of reasoning to the extreme, one might say that one need only preserve a single cell of his body, for its genetic content; from this he could be regrown, and the original personality and memories, at least in coarse outline, implanted from the records.” (Ettinger 1964:68)

Ettinger proposes that personal memories could be stored externally in photographs, diaries etc., or that they could be directly extracted from the brain and implanted later:

“It might also be desirable to take tiny samples from many regions of the brain, of course recording the location of the source as accurately as possible. As mentioned earlier, a memory trace is thought to be multiply duplicated in various regions of the brain, so that each of many memories can be both left in the brain and stored in a separate sample vault.” (Ettinger 1964:67)

What awaits people after their awakening is a new period of mankind, and a new perfect, rejuvenated body at an individual level:

“The freezer program represents for us now living a bridge to an anticipated Golden Age, when we shall be reanimated to become supermen with indefinite life spans ... You and I, the frozen, the resuscitated, will be not merely revived and cured, but enlarged and improved, made fit to work, play, and perhaps fight, on a grand scale and in a grand style.” (Ettinger 1964:84, 16)

The combination of the prospect of resurrection and a paradisiacal “afterlife” is characteristic of the cryonic utopia. The dead bodies have a future virtual promise incorporated in their frozen corporeality:

“Neither alive nor dead, cryonic flesh organizes a massive discourse of maintenance and repair; even in its death, the body is becoming ... The production of a cryonic subject – alive, dead, or in the uncanny space of suspension – is possible only on the basis of a Möbius body, a body both within and without the capsule of nitrogen, inside and outside of time.” (Doyle 2003:62, 68)

In his first book, *Prospects of Immortality*, and even more so in his second book, *Man into Superman*, published in 1972, Ettinger outlines a vision of becoming a kind of immortal superhuman that unites the genius abilities of Gilgamesh and Sherlock Holmes with endless wealth.<sup>x</sup> More recent cryonic utopias, such as R. Michael Perry’s *Forever for All* (2000), focus mainly on the technical and philosophical questions for legitimizing cryonics – which have come under heavy fire in recent years. But he also takes on the old prospects of growing capabilities of knowledge and physical power; he envisions an aging reversal and the possibility of uploading our immortal personal identity into the memory of a computer.<sup>xi</sup>

### ***Body Talk***

What happens to dead bodies in the cryonic movement? As is clear from the explanations on the cryonic understanding of death, the greatest threat is severe brain damage: here, the brain is supposed to be the holder of human identity and is indispensable for the future restoration of a person. Thus – besides the inevitable danger of accidents – the natural decay of brain cells should be avoided by cooling down the corpse as fast as possible. In an ideal (and more expensive) case, a cryonic stand-by team attends the last hours or days of a dying person and starts its procedures immediately after an independent nurse or physician has declared legal death. The patient is placed in an ice water bath, and blood circulation and breathing are artificially restored by a heart-lung resuscitator in order to provide steady blood support of the brain. Later, blood is extracted and replaced with an organ preservation solution, or rather a cryoprotective solution, since the most dangerous damage is expected from the freezing procedures.<sup>xii</sup> The corpse then is cooled down in fluid nitrogen to a temperature of – 196°C during a two-week process. In non-ideal cases, when a standby team is not available at the moment of death, the body is cooled down with ice water as fast as possible, and then transported to the Alcor facilities in Arizona or to the Cryonics Institute in Michigan. Although representatives of cryonics are confident that future medicine will be able to remove every physical damage from freezing or from the natural decay of cells, they recommend that members reduce their risk profile for heart attack, strokes, and other diseases – and die close to cryonic facilities. Sudden death is as dreaded here as it was in centuries gone by.

In general, you can choose a whole body preservation or head-only freezing – the so-called neuropreservation that is provided only by Alcor. Freezing the head means a clear reduction of costs: the minimum suspension costs at Alcor are U.S.\$150,000 for whole body suspension, and U.S.\$80,000 for neurosuspension, and an annual membership of U.S.\$400 (plus a variety of extra costs for standby teams, transfer, and so on). Alcor's competitor, Robert Ettinger's Cryonics Institute, offers the whole body suspensions for a minimum of U.S.\$28,000. The price differences are due to additional costs that are not inclusive at the Cryonics Institute and a different pricing policy.<sup>xiii</sup> What happens in case of the neuropreservation with the body depends on the preferences of the family, often it is simply cremated and buried.

Finally, the dead bodies, or their heads, are stored in special cryonic suspension capsules – for example, the Bigfoot Dewars at Alcor, which can hold four whole body suspensions or 10 heads, or the “world's largest human storage cryostat” at the Cryonics Institute which can carry up to 16 corpses. These containers are stored in a kind of workshop facility belonging to Alcor or the Cryonics Institute, and they are regularly maintained since small portions of nitrogen have to be continuously added.

The first corpse was frozen in April 1966. However, the body was embalmed and all the inner organs had been removed and it deteriorated severely from weeks of above-freezing storage. After a few months of cryonic suspension the relatives decided that the body had to be thawed and buried.<sup>xiv</sup> The first real cryonic suspension – according to the standards of the movement – was carried out on January 12, 1967 in Glendale (Ca). Retired college professor of psychology, James H. Bedford, was frozen after he died of lung cancer. Realizing that his cancer was terminal, Bedford had contacted the newly established Cryonics Society of California and was attended by cryonics member Dr. B. Reanault Able when he died. After being cooled down with ice water the corpse was transported to Phoenix (Az.) to a storage facility that initially remained secret. Although this first cryonic event was mainly met by critical commentary in the media, the cryonics representatives were really euphoric. They were confident that Bedford could be preserved in suspended animation for 20,000 years. The organization began receiving queries for suspension from all over the world and the self-attributed historical importance of the first cryonic pioneers is reflected in Robert Nelson's book *We Froze the First Man*, published in 1968 (Larsen 1967; Nelson 1967; Snyder 1967). James Bedford became a kind of mythic figure as the first cryonaut:

“The oldest patient currently still being held in cryonic suspension is a Dr. James Bedford, who was suspended in 1967. He's survived the Cold War, the Vietnam War, the Gulf War, Watergate, the collapse of the Soviet Union and the 9/11 attacks – which is more than a lot of his contemporaries can say. If he can make it for so many years, you can too.”<sup>xv</sup>

This heroic report hides the fact that the cryonaut has had to undertake a great odyssey in the last four decades. First Bedford's cryocapsule was stored at the CryoCare Equipment Corporation in Phoenix. In 1969, the dewar was shipped to the warehouse of Galiso Inc. in Anaheim (Ca.). In 1976, Bedford's son shipped the cryocapsule to Trans-Time, a commercial cryonics facility in Emeryville (Ca.). Then, frustrated with the high costs, the son decided in 1977 to keep his father privately at an undisclosed location in Southern California. In 1982 Bedford was moved again to a commercial provider, the Alcor-Cryovita Laboratories in Fullerton (Ca). In 1991 the "20,000-year capsule" began to fail and Bedford is transferred to a new dewar together with three other suspended persons. Finally, earthquake worries and regulatory problems with the state of California, prompted the transfer of the whole Alcor company to Scottsdale (Az.) in 1994, where Bedford has been supposedly residing until now (Times 1997). When the corpse – which according to Ettinger had been "frozen by relatively crude methods" (Ettinger 1967:1251) – was examined in 1991, the cryonics activists were irritated to discover frozen blood and a lot freezing fractures on the corpse (Darwin 1991).

Meanwhile, 85 heads and whole corpses – so called cryopatiens – are frozen at the Alcor facilities and 850 members have completed their financial and legal arrangements for cryopreservation. Ettinger's Cryonics Institute recently froze its 95<sup>th</sup> corpse (in July 2009).

In the following section I would like to focus on the cultural context of cryonics in order to explain why cryonics appeared in the 20<sup>th</sup> century in the United States. I will then consider why cryonics – apart from within its special U.S. cultural context – has never reached the expectations of its pioneers. Almost 150 frozen people in about 40 years of cryonics is far below what the founders of the cryonics movement estimated when they predicted the advent of a new golden age in the 1960s.

### **Explaining Cryonics Culturally**

It is quite common in cryonic literature to give a technical illustration of the history of cryonics that shows the first cryonic experiments with animals going back to the 17<sup>th</sup> century (Perry 2000:36-48). But cryonics is – from the perspective of cultural studies – in equal measure a cultural invention in the specific context of modern American funeral culture. And although there were some cryonics groups outside the U.S., they never became strong enough to provide cryonic suspension facilities.

### ***Preservation and Capitalism***

In a very general approach, cryonics can be regarded as an extensive form of the denial of death, which has been identified as a specific characteristic of the U.S. death taboo (Berger & Liebhan 1963). According to the cryonic definition of death, the frozen corpses are neither assumed to be dead nor conceptually denoted as dead – they are described as "suspended members" or "cryopatiens" who are "deanimated".



The fact that in 1967 the representatives of the cryonic movement were asked by the press if there were cryonic plans to provide a “cryatorium” for the storage of bodies cosmetically frozen as a new kind of embalming technique shows the continuation of traditional patterns in U.S. funeral culture (Larsen 1967). The preservation of the dead bodies by embalming and more recently by super durable caskets (coffins) can be regarded as the standard for today’s funerals in the United States.

Beginning with the American Civil War (1861-1865) the embalming and viewing of the dead became the archetype for the middle and upper class funeral. It then became standard for the whole of society in the 20th century. Many families of army officers who lost their sons and husbands on the battlefields which were far away wished to return their corpses and to bury them normally and close by their homes. Thus, about 40,000 officers of the 600,000 casualties of the civil war were embalmed by swiftly trained morticians or physicians with an embalming method that was originally designed for medical dissection (Quigley 1998:5-12). The horrendous conditions on the battlefields and near the army hospitals caused by the aggressive competition of embalmers resulted in the first professional standards for morticians set up by the U.S. army. While the public presentation of war heroes and the 2,000-mile funeral passage of the embalmed president Abraham Lincoln (1809-1865) to his final grave gave much popularity to the new embalming procedure, the concern for the corporal integrity after death was another reason to favor embalming instead of traditional burials (Coffin 1976:69-98, 110-114; Iserson 1994:170-233; Laderman 1996:27-117).

Nineteenth century cemeteries suffered a lot from the practice of body snatching – the robbing of graves for the education of physicians. Even in the last decades of the 19<sup>th</sup> century, many U.S. states only permitted dissections on executed murderers or people who were killed in criminal actions – so there was a great demand for cadavers from the medical schools and independent anatomy schools that flowered in the early 1800s. A real body snatching business emerged and professional “resurrectors” supplied the schools with recently buried corpses. People, offended at this widespread practice, invented many ingenious methods to prevent the disinterment of their loved ones, such as grave watchers, burial vaults, cemetery walls or even booby-traps. But body snatching did not cease until the 1890s, when embalming became the norm for funerals – embalmed corpses do not have inner organs – and laws permitted anatomy on a larger scale.<sup>xvi</sup> However, according to Gary Laderman, the popularity of embalming is based on several factors: “A refusal to allow the dead to disappear from the living community, a fixation on the body of the deceased, and a demand that the integrity of the corpse be perpetuated in the grave as well as in collective memory.” (Laderman 1996:73) Many cryonics activists regard being decomposed or rotten after death as repulsive, while freezing the dead body retains its lifelike look (Bryant & Snizek 1973:60).

This need for the preservation of the body met capitalism at the end of the 19<sup>th</sup> century and none of the historians of U.S. funeral culture doubts that the introduction and spreading of embalming and the new ritual of public viewing of the corpse – which is part of the civil imitation of elite funerals – was largely governed by professionalizing the funeral business. As Kenneth Iserson concludes: “Corpses are embalmed for two main reasons: public health and public viewing. Public health

reasons are, at best, questionable; public viewing is an American cultural phenomenon.” (Iserson 1994:187) By the improvement of advertisement and sales strategies, the cultural need for the preservation of the corpse could not only be realized by the spread of embalming but also by the further development of coffins – known as caskets in American English due to the positive impact of this commercialized language (Laderman 1996:164-175). Today, most coffins sold in the U.S. are metal coffins rather than wooden coffins; they are often even solid copper or bronze coffins with asphalt backfilling that are hermetically closed. It is also common that the coffins or even urns have to be placed in extra vaults or boxes/grave liners – vaults are required by some cemeteries and preferred by most. Vaults are designed specifically to help protect the casket from surrounding elements – they are manufactured from various metals (steel, stainless steel, copper, and bronze), sometimes using an “air-seal principle.” This means that high air pressure inside the vault will prevent water and other elements from penetrating the casket.

It was within this funeral culture that preserves its corpses with embalming and uses hermetically closed solid metal caskets and extra sarcophagi for protection from natural decay that cryonics was born. In this context, cryonics appears to be an exaggeration of widespread tendencies in U.S. funeral culture that are driven on the one hand by an overriding need for the preservation of dead bodies and on the other hand by a strong sense for business.<sup>xvii</sup>

From this economic perspective it may even be plausible to see cryonics as the continuation of industrial medicine. As Peter Metcalf and Richard Huntington point out in their *Anthropology of Mortuary Rituals*:

“Americans have vast faith in medicine, a faith that is certainly in tune with the Enlightenment of progress and humanism. The development of powerful new drugs, and of reliable and safe surgical techniques, together with improvements in diet, have enabled the ‘inevitability’ of death to be redefined.” (Metcalf and Huntington 1991:209-210)

To declare that a dead body is not permanently dead but, as a cryopatient, in need of continuing medical or technical support until its resurrection could be regarded as a perfect business plan.

### **The technological context**

While refrigerators were invented in 1876 by Carl von Linde (1842-1934) and every second U.S. household owned a refrigerator in the late 1930s, it was not until 1939 that General Electric also introduced freezing compartments commercially. It took more than a decade before freezers were widespread in U.S. households and industry began to provide non-perishable, frozen food which, at the end of the 1950s and the beginning 1960s, became one of the most noticeable conveniences of

daily life. Thus, freezing emerges as an euphoric symbol of modern life in the light of new discoveries and new capabilities. As Robert Ettinger points out in 1964: “... the freezer is more attractive than the grave ...” (Ettinger 1964:16) Ettinger even dreamt of a freezer-centered society (Ettinger 1964:77-91, 158).

### *Cryonics and Christianity*

Along with the ritual, economic, and technological contexts of cryonics, this prospect of freezing dead bodies and resurrecting them in distant future is part of the western history of religion. Cryonics thereby evidently receives and modifies the common Christian patterns of death and afterlife. While there might be a great variety of interpretations among the Christian denominations in questions of detail, the human body is supposed to be dead for a while and resurrected at the end of time in a new, almost-perfect form. The significant difference between cryonics and Christian belief is the lack of morality in cryonics. Resurrection is neither dependent on the duration of purgatory to pay for all sins in life nor is it contingent on God’s act of grace. Cryonics only receives the positive aspects of the Christian resurrection pattern – without a single word on the necessity of individual commitment, other than financial funding.

However, at the beginning of cryonics, Ettinger looked for institutional support, appealing to the churches to be part of the active evolution of mankind: “... the chief element lacking is institutional support to stiffen the backbones of those now considering this choice for the future.” (Ettinger 1967:1253) Ettinger frames his innovative approach with a common postmillennialistic interpretation of Christian eschatology – the widespread notion of postmillennialism means that humankind will support the expansion of the kingdom of God on earth before the second coming of Christ, when the (symbolic) millennium will have passed by. In this context Ettinger argues that man, in a Christian sense, must still develop in the image of God, and that God gave us our intelligence and the capacities of nature to create the heaven on earth:

“We must, in time, become immortal supermen – not to gloat over our accomplishments and strut among the stars but simply to do our work, the only work there is... The Christians among us are not rebelling against God nor aspiring to equality with him ... they seek rather to become his more effective tools, his worthier stewards.” (Ettinger 1967:1252)

But no major Christian theologians answered Ettinger’s call.

## Conclusion

Cryonics is a perfect utopia – in the truest sense of the word. It is *ou-topos*, the negation of a place for dead bodies. The first suspended dead person, James Bedford, is not only a cryonaut – he is a paradigmatic Ulysses figure for cryonics, changing his last resting place seven times in 30 years. Other cryonauts have meantime thawed, mainly because of economic reasons.<sup>xviii</sup>

According to cryonic beliefs, death disappears by definition. The corpse is usually cooled down in an ice tub, blood is replaced by protection fluids, and it is removed to the storage facilities in Arizona or Michigan. Finally, it is stored together with up to fifteen other dead bodies in a cryonic dewar. I have tried to explain how cryonics could emerge in the context of a Christian commercialized funeral culture with a strong need for the preservation of dead bodies in the American industrial society. Bryant and Snizek even considered cryonics as a substitute religion: “Unwilling to accept the promises of organized religions regarding a spiritual afterlife, cryonics members opt for a type of materialistic, active mastery over their own destinies ... the large majority of cryonics advocates are atheists ... Many are devotees of science fiction.” (Bryan & Snizek 1973:59)

But we have also to understand why cryonics never attracted the masses of people expected by the cryonic pioneers in the 1960s. As early as the 1970s, cryonic activists were frustrated that they could not convince brilliant scientists, musicians, and corporate giants to join their movement. They questioned why people did not want to live again and resisted the goals of their societies (Rievman 1976:4-5) Bryant and Snizek traced back the “melting” of the cryonics movement to the loss of interest caused by a lack of dramatic scientific developments and the high costs (Bryan & Snizek 1973:61).

In my view, in explaining the comedown of cryonics we should also take into account the lack of ritual, or rather the incompatibility with the common ritual tradition of funerals in the United States, and the violation of its own ideological preconditions. The latter point refers mainly to the neuropreservation, carried out by Alcor. Beheading a dead person severely violates the cultural need for the preservation of the whole corpse. And stories about freezing fractures and other damages that have been discussed in the media also discourage a sense of conservation.<sup>xix</sup> The Cryonics Institute, which does not provide neuropreservation, alludes to this disturbance of ritual and the cultural needs of mourners:

“As human beings we understand that it just borders on the impossible for a person to go to the parents or children or friends of someone who has just passed away, and have to explain that the head of that person, whose loss has broken their heart, is going to be cut off and frozen in a tank with a dozen others somewhere. Nerves are frayed, families are grief-stricken, some of them may never even have heard of cryonics much less the scientific plausibility of it, and outbursts, arguments, and threats of lawsuits are inevitable.”<sup>xx</sup>

However, even if the corpse is not beheaded, it is not possible to combine traditional rituals of mourning with the ideal cryonic suspension. The central ritual element of the American funeral – the viewing – demands friends and relatives offer the family their condolences by visiting the funeral home where the usually embalmed corpse is laid out. The dead body cannot be present (or viewed) at the funeral service; there is no burial or other ritual that shows: “This is the end”. These rituals contradict the proper idea of cryonics. After all, there is no place of memory – the storage facilities in Michigan or in Arizona might be a great distance from the mourning family, and the collective dewars in an industrial workshop are not places where people usually go to visit their loved ones. In the beginning of cryonics most of its adherents would have wanted to store the cold coffins in a kind of chapel or a decorated vault – thus, an architect designed a model for a giant storage facility (a “cryo-sanctorum”) and coffin-like “resting pockets” for the Expo in Montreal (Bryan & Snizek 1973:57). But due to economic aspects, more elaborated plans were never realized and the workshop solution with group dewars was enforced (Sheskin 1979:23-39). Although cryonic suspension requires some property, the absence of the traditional ritual order and of the nearby place of memorial might also implicate problems for defining the “status after death”, which is usually defined by the casket, flowers, grave, ceremonial clothing of the mourners, and the social gathering of the funeral (Kephart 1950:637-643).

Research in the field of rituals of death and mourning has largely indicated that there is a widespread ritual or religious need for the presentation or representation of the dead. But the cryonics movement, which might be interpreted as an exaggeration of American funeral culture, celebrates the suspension of death and practices the suspension of dead bodies. It cannot meet the ritual needs of a large majority of the American society.

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### Notes:

- i. Most prominent examples for these fin-de-siècle time travellers are H.G.Wells' *The Time Machine, an Invention* (1898), his *When the Sleeper Awakes* (1899, in the revised edition of 1910 the title was altered into *The Sleeper Awakes*) and Edward Bellamy's socialist utopia *Looking backward: from 2000 to 1887* (1888).
- ii. Ettinger is from an important family, he served in the army, was wounded, continued to battle for his life, did not give up but became stronger with his new innovative idea. Compare e.g. the construction of L. Ron Hubbard's hagiography (the founder of Scientology).
- iii. It does not seem accidental that Ettinger's commercial competitor, the *Alcor Life Extension Foundation*, publishes Cooper's obituary.
- iv. Werner, who was vice-president of New York's *Cryonics Society*, left the movement only three years after its foundation to spend some four years in the Church of Scientology, but he never returned to cryonics. See Kent 1983:4-5; Perry 2000:38-39; Platt 1996.
- v. There were even more short-lived immortalism groups in the mid-1960s: *The Immortality Records and Compilation Association* in Panorama City (CA), which was headed by Tom Tierny who was later arrested for counterfeiting and gun fraud, and the *Society for Anabiosis* in New York, initiated by Dr. Benjamin Schloss, who later shifted his interest to aging research. See Kent 1983:4. Rievman and Sheskin report on more cryonic groups in the 1970s, such as the *Cryonics Society of Illinois* and the *Cryonics Society of South Florida*. See Rievman 1976:VIII, 4; Sheskin 1979, appendix D.
- vi. By 1973 the cryonics movement was expected to die after the *Cryonics Society of New York* went from about 130 members in the late 1960s to about a dozen in the mid-Seventies. After a long period of disinterest, the popular media reported on cryonics frequently when the baseball all-star Ted Williams (1918-2002) died and was cryonically suspended after weeks of legal disputes between his children. See Bryant & Snizek 1973, 61-62; Mann 1981:10; Sandomir 2002.

- vii. The *American Cryonics Society*, founded in 1969, never provided cryonic suspension by its own facilities but acted more as an agent, closely connected to Ettinger's Cryonic Institute. See <http://home.jps.net/~cryonics/whatis.html>, retrieved on 11/25/2005. In 1986 the Church/Society of Venturism was founded to support the cryonics movement on a larger scale.
- viii. The *CryoCare Foundation*, for example, was established in 1993 and as early as 1999 had to notify its members that they could not continue to provide cryonics coverage, due to the fact that their plans had been "overoptimistic" in their economic evaluation of a common market for cryonic suspension. See their memorandum on <http://www.cryocare.org/index.cgi?subdir=&url=index.html>, retrieved on 11/25/2005.
- ix. In 1976 the *Cryonics Society of California* allowed nine patients under its care to thaw without notifying the relatives, who were paying maintenance bills. When the suspended corpses were discovered they were badly decayed. See Lindsey 1980; Perry 2000:39-40; Oliver 1981a, 1981b; Quaife 1981: 29. Other cryonic groups were also established outside the U.S. but they were economically and personally never strong enough to provide cryonic suspension.
- x. See Ettinger 1989. In *Prospects of Immortality*, chapters 3, 7, 9, 10, 11 are dedicated to the superhuman afterlife that, according to Ettinger, is awaiting suspended deads. See Ettinger 1964.
- xi. See Perry 2000:559-563; Krüger 2004:103-148; Regis 1990:76-108, 128-130; Sheskin 1979:9-39. A detailed analysis of why and how people believe in cryonics was undertaken in the late 1970s by Arlene Sheskin; see Sheskin 1979:72-99.
- xii. The two greatest dangers of freezing are expected from the destruction of cells by crystallizing water and of fracturing during cryopreservation.
- xiii. See <http://www.alcor.org/BecomeMember/scheduleA.html> and <http://www.cryonics.org/prod.html>, retrieved on 12/1/2005.
- xiv. Perry reports of the first failed attempts of freezing a dead body. Perry 1991; Perry 2000:39.
- xv. FAQs on the Website of the Cryonics Institute. Retrieved from: <http://www.cryonics.org/prod.html>, retrieved on 12/02/2005.
- xvi. Suzanne Shultz and Christine Quigley give a brief overview on the history of body snatching in Nineteenth Century America. See Shultz 1992 and Quigley 1996:292-298. The organs of embalmed bodies are extracted by suction after being chaffed inside the body by a special instrument.
- xvii. The same tendencies can be discovered in *Summum's Modern Mummification* business that offers expensive embalming in old Egyptian style and burials with individually designed Egyptian sarcophagi in the U.S. See Quigley 1998, 133-139; <http://www.summum.org>, retrieved on 01/09/2006.
- xviii. As mentioned above, suspended members of the *Cryonics Society of California* thawed in 1980, as did most of the *Cryonics Society of New York*. See Darwin 1981:18.
- xix. In general, the media have always had a most critical approach towards the cryonics movement. See Mann 1981:11-12.
- xx. F.A.Q.s at *Cryonics Institute*. Retrieved from: <http://www.cryonics.org/prod.html>, retrieved on 12/7/2005.

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