

*Journal*  
*of*  
**Near-Death Studies**

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**Announcement**

**Volume 11, Number 4, Summer 1993**



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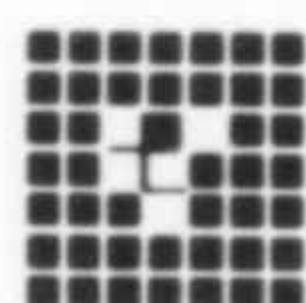
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**JOURNAL OF NEAR-DEATH STUDIES** (formerly ANABIOSIS) is sponsored by the International Association for Near-Death Studies (IANDS). The Journal publishes articles on near-death experiences and on the empirical effects and theoretical implications of such events, and on such related phenomena as out-of-body experiences, deathbed visions, the experiences of dying persons, comparable experiences occurring under other circumstances, and the implications of such phenomena for our understanding of human consciousness and its relation to the life and death processes. The Journal is committed to an unbiased exploration of these issues, and specifically welcomes a variety of theoretical perspectives and interpretations that are grounded in empirical observation or research.

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## Editor's Foreword

Social scientist Roger Cook's Guest Editorial in our Summer 1992 issue viewing the Resurrection of Jesus Christ as a near-death experience (NDE) stirred up some controversy. In this issue, Israeli physician Dov Steinmetz proposes in a Guest Editorial that Moses' experience with the burning bush in the Sinai Desert and his subsequent metamorphosis may also be considered a near-death-like experience.

We include in this issue two cross-cultural studies of NDEs that reach very different conclusions. British psychologist Susan Blackmore's survey of near-death events in India suggests that the core NDE is independent of culture, which she interprets as evidence of a universal biological mechanism for the experience. On the other hand, Chilean neurochemist Juan Gómez-Jeria reports an NDE from the Mapuche people that he argues demonstrates the influence of cultural history and religious belief.

This issue also contains near-death research pioneer Kenneth Ring's return to the field after his premature "swan song" in our Fall 1991 issue. In an empirical article, Ring and nursing researcher Madelaine Lawrence describe three new cases in which NDErs' accurate perceptions of objects they could not have seen normally during the NDE were corroborated independently by caregivers. Such documented cases are as important as they are rare, and Ring and Lawrence highlight the risks to near-death studies of relying on unsubstantiated self-reports as heavily as we have in the past two decades.

The long tradition among The Church of Jesus Christ of Latter-Day Saints, or Mormons, of recording near-death experiences has recently received increased attention. While some question how closely these Mormon accounts correspond to contemporary NDE reports (see for example the commentaries on Allan Kellehear's lead article in the Winter 1991 issue of the *Journal*), they do represent a historical case collection of unparalleled size. Sociologists Craig Lundahl and Harold Widdison summarize various social positions in the otherworldly near-death vision, drawing largely on this pool of Mormon near-death accounts. In a companion article, Widdison and Lundahl summarize

physical descriptions of the afterlife environment in Mormon near-death visions and in contemporary reports by other near-death researchers.

This issue includes two book reviews. Psychologist John Alexander reviews Ring's *The Omega Project*, a provocative comparison of the antecedents and aftereffects of NDEs and UFO experiences. Psychotherapist Michael Schaefer reviews Archbishop Michael Perry's *Gods Within*, a scholarly Christian overview of the New Age movement that compares New Age and Christian interpretations of the NDE.

We conclude this issue with a letters to the editor by health scientist William Serdahely suggesting a role for optical imaging in neuro-anatomical near-death studies, and by V. Krishnan exploring possible mechanisms of putative out-of-body vision and suggesting new research strategies; and with an announcement of the 1993 North American Conference of the International Association for Near-Death Studies, to be held at Washington University in St. Louis, June 25-27.

Bruce Greyson, M.D.

*Guest Editorial*

## **Moses' "Revelation" on Mount Horeb as a Near-Death Experience**

Dov Steinmetz, M.D.

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**ABSTRACT:** Moses, the leader and lawgiver to the people of Israel, went through a metamorphosis during his stay in the Sinai Desert, which can be explained as a near-death or near-death-like experience. Moses saw and heard God in the burning bush and yet survived. Following his revelation, he reached a higher level of consciousness, which enabled personality changes to occur. From being a simple shepherd of his father-in-law's flock, he turned into a prophet and charismatic leader of his people.

Humanity has always been fascinated by the Biblical stories and the many "supernatural" phenomena described therein. Through the ages, attempts have been made to explain Biblical phenomena on scientific grounds. For example, the ten plagues (Exodus 7-12) have been explained in terms of natural scourges that occur seasonally in Egypt. The first plague, water turning to blood, has been explained as pollution with fungi, plants, and insects, which is known to turn the waters of the Nile blood-red from time to time (Mazar, 1959). Darkness, the ninth plague, has been explained as a terrible sand and dust storm brought in by the Khamsin, the hot desert wind of the Egyptian spring (Wright, 1970).

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Albert DeGrazia (1983) tried to find a general explanation for all the mysteries connected with the story of Moses and the Exodus from Egypt. He hypothesized that the Exodus occurred in an extraordinary setting in which major cosmic, atmospheric, and geological events took place, including a rare combination of a comet approaching the surface of the earth, meteorites, celestial dust and chemicals, and earthquakes. For example, DeGrazia explained the verse "And the Lord went before them by day in a pillar of cloud to lead them along the way, and by night in a pillar of fire to give them light, that they might travel by day and by night" (Exodus 13:22) as a comet that was seen as a dust cloud during the day and a fire ball during darkness.

In this paper I suggest that Moses' "revelation" on Mount Horeb has characteristics of a near-death or near-death-like experience, which produced in Moses a profound personality transformation and a sense of a divine mission.

### **Moses' Revelation and Transformation**

While grazing his flocks near Mount Horeb (now known as Mount Sinai), Moses one day chanced upon a burning bush:

And the angel of the Lord appeared to him in a flame of fire out of the midst of a bush: and he looked, and lo, the bush was burning, yet it was not consumed. And Moses said, "I will turn aside and see this great sight, why the bush is not burnt." When the Lord saw that he turned aside to see, God called to him out of the bush, "Moses, Moses!" And he said, "Here am I." Then he said, "Do not come near; put off your shoes from your feet, for the place on which you are standing is holy ground." (Exodus 3:2-5)

God then told Moses that He had seen and heard the suffering and crying of the people of Israel who were in Egypt. In the vision God bade Moses redeem Israel from Egypt and bring them to the "Promised Land."

Moses was a leader, prophet, and lawgiver, commissioned to take the Israelites out of Egypt. It is reasonable to assume that during his long stay in the desert Moses reached a higher level of consciousness that Stanley Dean (1975) called ultraconsciousness: "The ultraconscious summit is a genuine metamorphosis of consciousness which has been experienced by certain sages, prophets, leaders and men of genius through the ages" (p. 12).

## Comparison with Near-Death Experiences

I suggest that Moses' transformation could have been triggered by a near-death or near-death-like experience. Kenneth Ring (1984) pointed out many characteristics common to the near-death experience (NDE) and ultraconsciousness. Those pertinent to Moses' story include an encounter with the light, a life review, personality changes, and a sense of mission.

### *The Light*

Raymond Moody, one of the pioneers who studied and described the NDE, wrote: "What is perhaps the most incredible common element in the accounts I have studied, and is certainly the element which has the most profound effect upon the individual, is the encounter with a very bright light" (1975, p. 55). Dean wrote of the characteristics of ultraconsciousness: "The onset is ushered in by awareness of dazzling light that floods the brain and fills the mind" (1975, p. 10). Moses saw the fire and was startled at first because the bush went on burning "yet it was not consumed."

Henry Abramovitch translated into English an NDE originally written in Hebrew. The experiencer wrote that he saw the light and became the light, but "The light was itself myriads of flames and auras, tints and hues" (1988, p. 178). As a traditional Jew, the experiencer must have been aware of the fact that both words he used, "light" and "flames," symbolically represent God (Fenske, 1990). In view of the Biblical insistence that no one can see God and live, it is reasonable to regard Moses' having seen God in the fire and yet survived it as a near-death experience.

### *Life Review*

NDErs often report that in their experiences they went through a review of their lives. The review or the memories may come all at once or in chronological order. Myer Pearlman described a similar life review of Moses:

In a flash, everything must have fallen in place in Moses' mind. There had clearly been a specific purpose to the apparently chance and random events in his past. . . . He had turned them over in his mind, rather like a rotation of a mental kaleidoscope, and in an instant, the revelation at Mount Horeb had produced a clear design, full of mean-

ing. . . . His entire life up to this moment had been a preparation for his role of destiny. (1974, p. 49)

### *Personality Changes*

In the ultraconscious state, there is an intellectual illumination and a charismatic change in personality. Moody (1975) and even more so Ring (1984) described the personal and value transformations that occur following NDEs. As a result, near-death experiencers report that they reached a much higher level of spirituality.

Following the "revelation" at Mount Horeb, Moses reached a very high spiritual level; he became a charismatic leader and the moral authority to his people. The transformation could easily be recognized, simply by watching Moses's face when he came down from the mountain: "And when Aaron and all the people of Israel saw Moses, behold, the skin of his face shone" (Exodus 34:30).

### *Sense of Mission*

Dean described a sense of mission reported especially after reaching the ultraconscious summit: "The ultraconscious revelation is so moving and profound that the individual can not contain it within himself, but is moved to share it with all fellow men" (1975, p. 11). Ring concluded, in his summary of the value changes induced by NDEs: "Most NDErs also state that they live afterward with a heightened sense of spiritual purpose" (1984, p. 141).

Moses accepted the mission for which God had designated him:

And Moses told Aaron all the words of the Lord with which he had sent him, and all the signs which he had charged him to do. Then Moses and Aaron went and gathered together all the elders of the people of Israel. And Aaron spoke all the words which the Lord had spoken to Moses, and did the signs in the sight of the people. (Exodus 4:28-30)

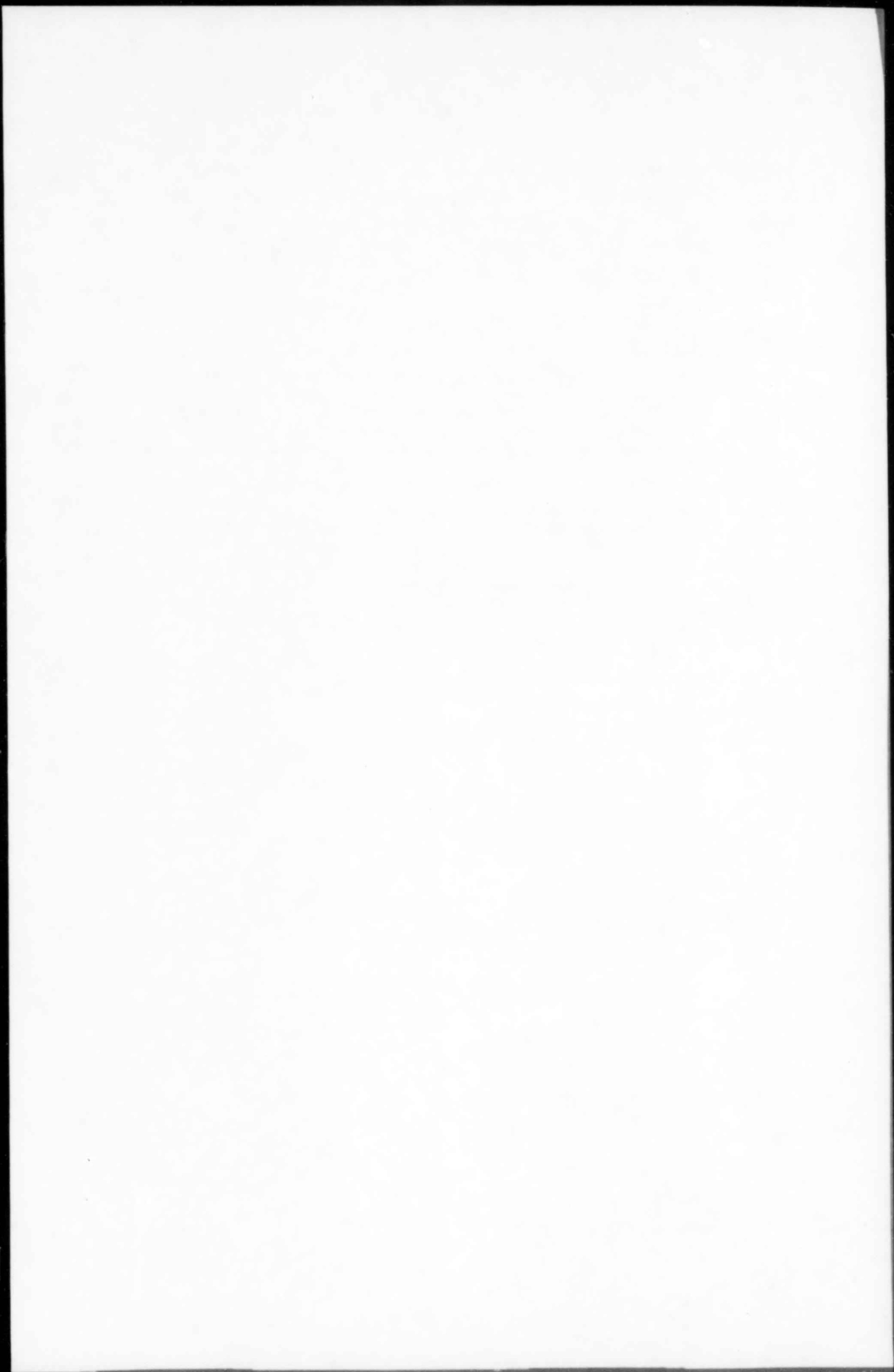
### **Conclusion**

Moses, despite having an unusual life story, had been an ordinary man from birth up to the time he escaped to the desert to become a shepherd of his father-in-law Jethro's flock. He then reached the ultra-

conscious summit on Mount Horeb, and had an NDE or an NDE-like experience in the Sinai Desert. After this "revelation" on Mount Horeb, Moses' personality changed and he transformed into a charismatic leader and the lawgiver to the people of Israel.

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# Near-Death Experiences in India: They Have Tunnels Too

Susan J. Blackmore, Ph.D.

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**ABSTRACT:** An advertisement in an Indian newspaper solicited accounts from people who had come close to death. Of 19 received, 7 reported no experiences, 4 reported dreamlike experiences, and 8 reported near-death experiences (NDEs). These NDEs were comparable to those reported by Raymond Moody, and included tunnels, dark spaces, and bright lights, contrary to previous reports of Indian cases. Many respondents reported positive life changes regardless of whether or not they had an NDE.

It is important to know whether near-death experiences (NDEs) are consistent across cultures, although the evidence at present is very limited. The largest cross-cultural study was carried out by Karlis Osis and Erlendur Haraldsson (1977), who sent out questionnaires to 5,000 doctors and nurses in the United States and interviewed 704 medical personnel in India. They inquired not only about NDEs but about the medical workers' recollections of the experiences told to them by people who were dying. These accounts were secondhand and often told many years after the events. Nonetheless the findings showed that the most common visions were of dead people or religious figures, to a large extent dependent upon the person's religious background. Often the figures seemed to have come to take the person away, and while the Americans were usually willing to go, the Indians more often refused.

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Although these were accounts from people who did die, they were similar to the few accounts of NDEs in India. Satwant Pasricha and Ian Stevenson (1986) reported 16 cases of NDEs in India, and a common theme was the story of mistaken identity. Religious figures came to take the person away, but then discovered that it was the wrong person. Their cases seemed dramatically different from the type of NDE first described by Raymond Moody (1975). There were no tunnels, no bright lights, and no out-of-body experiences (OBEs), in which the experiencers see their own bodies from a distance. This discrepancy might be used to argue against the universality of NDEs, and is particularly important for physiological theories.

Some researchers argue that all the features of the NDE can be accounted for in terms of the processes going on in the dying brain, or in the brains of those subjected to severe stress or fear of death. For example, Juan Saavedra-Aguilar and Juan Gómez-Jeria (1989) have presented a neurobiological model of the NDE in which they account for all the features of the NDE in terms of the effects of hypoxia, temporal lobe and limbic system dysfunction, and an imbalance in neurotransmitters. The temporal lobe and limbic system are closely related and have often been implicated in the NDE. For example, direct electrical stimulation of the temporal lobe can give rise to memory flashbacks (Penfield, 1955), and people with many signs of limbic lobe lability are also more prone to religious, psychic, and mystical experiences (Persinger, 1983).

Various neurotransmitters and neuromodulators have been implicated in NDEs. For example, Daniel Carr (1982) was the first to suggest that endogenous opiates, or endorphins, would be released during the stress of a near-death event and could account for the peaceful and joyful feelings. Moreover, endorphins lower the threshold for seizure activity in the limbic system and temporal lobe, and so can trigger the kind of limbic lobe syndrome often compared to NDEs. On the other hand, Melvin Morse, David Venecia, and Jerrold Milstein (1989) have argued that serotonin mechanisms are more likely to provide an explanation than endorphins.

None of these theories directly addresses the origin of the tunnel. In his early study of 102 people who had come close to death, Kenneth Ring (1980) found that 23 percent had "entered the darkness" and 16 percent saw the light. These experiences are often equated with the more obvious tunnels in which people describe flying through dark spaces, or even through pipes or tubes. Tom Troscianko and I have argued that the tunnel can be produced by any mechanism that causes disinhibition and consequent random firing in the cortex (Blackmore and Troscianko, 1989).

The way cells in the visual cortex are organized, with many more cells devoted to the central area of the visual field, means that random firing would produce a much brighter impression in the center of the field of view, fading out towards the periphery: in other words, a tunnel pattern. This could be overlaid on, or mixed with, ongoing imagery to produce the complex tunnel experiences found in NDEs. Anoxia could be one of the triggers to produce such inhibition. There might be variation in the imagery overlaid on the tunnel, but the basic tunnel form should be equally common in all cultures regardless of beliefs or religious background.

The universality of the tunnel experience has been challenged by what little cross-cultural evidence there is. Pasricha and Stevenson (1986) found no tunnels among their 16 Indian cases, nor among further cases still being investigated (I. Stevenson, personal communication, 1992). If this lack of tunnels in a different culture were confirmed, it would provide evidence against the physiological theories.

I should point out that some alternative nonphysiological theories also predict that tunnels should be widespread. For example, Ring's (1980) holographic theory might predict that everyone should see the light of the hologram. Theories that equate the NDE with reliving birth might predict that everyone should re-experience traveling down the birth canal. However, if features such as tunnels and lights were *not* found in different cultures, those theories might still survive, since their predictions are not very clear. By contrast, the physiological theories make a much clearer prediction, and evidence of a cultural bias in tunnels would be evidence against them.

For these reasons I wanted to collect accounts of near-death encounters from India. The aim was to solicit accounts from people who had come close to death, without suggesting what experiences I was interested in, and to see whether any people spontaneously described tunnels or bright lights.

This study was not designed to explore other aspects of the NDE, but in fact many respondents described in great detail the effects their experiences had on them. The aftereffects of NDEs have been well documented (Grey, 1985; Lorimer, 1990; Ring, 1984). Generally NDErs report that their fear of death is reduced or abolished altogether, an effect that was reported even before Moody's work popularized the NDE (Dobson, Tattersfield, Adler, and McNicol, 1971; Druss and Kornfeld, 1967). More recently Charles Flynn (1982) surveyed 21 NDErs and found that an increase in concern for others was the most consistent effect.

However, it is becoming increasingly clear that you do not need to have an NDE to experience these changes. Having similar experi-

ences, such as OBEs (Gabbard and Twemlow, 1984) or encounters with unidentified flying objects (Davis, 1988; Ring, 1992), can have comparable effects, as can coming close to death but without an NDE (Ring, 1980). Therefore it made sense to compare the aftereffects in this sample with those from previous reports.

### Method

On November 2, 1991, I placed an advertisement in the *Times of India* headed: "Have you ever had a close brush with death?" I asked those who had, to write and tell me about the circumstances of their close brush with death, their experiences at the time, and any effects it had on them afterwards. I did not mention near-death experiences or tunnels, nor did I give any further idea of what was required.

A follow-up questionnaire was sent to all those who replied, asking for further details. The questionnaire included questions about the circumstances, any medication or resuscitation received, and emotional feelings at the time. I did not wish to use one of the standard NDE questionnaires (e.g., Greyson, 1983), because these might too readily suggest to respondents what they ought to be describing. I therefore included other questions addressed both to common features of NDEs and to other possible features, so as not to imply that there was anything special about the tunnel. Questions included:

Did you see any lights? What color were they?

Did you go into the light?

Did you see a doorway or gate?

Did you see a tunnel?

Did you see any regular patterns?

Did you have any hallucinations of any kind?

Other questions asked about OBEs, distant travel and vision, the decision to return, and changes in belief.

### Results

I received 19 replies. Some were many pages long and included detailed descriptions and even photographs of the people concerned. Nine subsequently returned the questionnaire. From the accounts in the letters and the responses to the questionnaire, I was able to assign

a score using Ring's (1980) Weighted Core Experience Index (WCEI). There are limitations to the accuracy I could achieve with the information available and it is possible that some respondents would achieve higher scores if I were able to interview them. Scores are therefore more likely to be underestimates than overestimates. I divided the respondents into three groups: (a) those who scored 0 on the WCEI and described no experience at all; (b) those who scored 0 on the WCEI but described dreamlike experiences of various kinds; and (c) those who achieved some score on the WCEI and therefore had at least part of the core experience.

### *Nonexperiencers*

Seven respondents (37 percent) reported no experiences at the time of their close brush with death. These were involved in a car accident, a plane crash, a near-miss with a train, fear of having cancer, post-operative complications, a near-drowning, and an unexplained collapse. They described, sometimes in great detail, the circumstances of the events, but gave no hint of any experiences occurring at the time. Many described the effects that their close brush with death had on their life and beliefs, as described below.

### *Hallucinatory Experiencers*

Four respondents (21 percent) reported experiences that were quite unlike the type of NDE described initially by Moody (1975). They scored 0 on Ring's WCEI because they included none of the classic components. These were strange dreamlike or hallucinatory experiences: a vision during a three-day coma of being with a mother hen and her chicks; a sensation, during complications after bypass surgery, of the thumb repeatedly bending into the palm of the hand; a vision during a near-drowning of watching a lake from the top of a tree; and a gruesome fight, during another drowning, with a 7-foot monster.

In this last case, an 80-year-old man described an experience that happened 70 years previously. When he was a young boy, he nearly drowned while his mother was washing clothes in the river. He wrote:

I felt that I was seated in a chariot speeding very rapidly towards a huge fellow seven foot high. He tried to run towards me and grab me by the neck but I was prepared to attack him.

He went on to describe the fight between himself and death, as his mother tried to pull him out of the water. This experience still affects him after 70 years, and he also wrote about his recent dreams of death and flying to a golden city. This was not a typical NDE but did have the sensation of fast travel; however, travel without seeing or entering darkness obtains no points on the WCEI. I report this experience because I do not wish to select only those that were clearly Moody-type NDEs.

### *Near-Death Experiencers*

Eight respondents (42 percent) reported at least some elements of the classic NDE and obtained some points on Ring's WCEI. These had nearly died through cardiac arrest (two respondents), electrocution, unexplained unconsciousness, heart surgery, coma and fever, a bus accident, and childbirth.

In their initial letters, only six reported NDE-like experiences. Although very varied, these were clearly Moody-type NDEs, and most included elements at least comparable to the classic idea of a tunnel.

Two further cases with NDE elements emerged from the questionnaires, although these had minimal experiences. One who had been involved in a bus accident and described extreme apprehension and fear reported on the questionnaire "visual hallucinations of darkness alternating with bright flashes," receiving 2 points on Ring's WCEI. Another who had nearly died in childbirth reported feeling that she might die at any moment and seeing "smugged" (smudged?) lights, receiving 3 points on the WCEI.

The six clearly Moody-type NDEs were as follows:

*NDE #1.* A 50-year-old woman described an experience that happened to her 18 years ago when, because of "tension on her mind," she fell down unconscious for a few minutes. She heard her maidservant and husband come running and calling her as if from a far distance:

At the same time I felt I was going through complete blackness and there was a tingling sound of tiny bells in my ears. The feeling was of complete relief and lightness. It was not at all a feeling of deep slumber, when we don't feel anything. As I said I was feeling ecstasy – if that is the right word.

After this experience, which rated a score of 4 on the WCEI, she felt that her life was changed. She became more bold and learned to take

life as it comes. She also stated: "I am no more afraid of death." She added that she had never read any books or heard that this kind of thing could happen, and only later learned that she was not the only one who had experienced it. She wondered whether it was the thought of her 4-year-old son that brought her back to life.

Her final comments could have come straight from Moody's (1975) original account of the NDE: "This is the first time I am writing to you openly, thinking you might believe. I tried to talk before but people think it is my imagination so I stopped talking." On the questionnaire she said she experienced a tunnel and described it as "very dark." To the question about regular patterns she wrote: "circles in spite of darkness." These circles were in the tunnel.

*NDE #2.* A 72-year-old man wrote about his experience during angiography associated with a bypass operation:

I was in ICU and was just coming to. I suddenly got a feeling that someone was calling me away—almost saying "now you have to go"—that your time "here" is over. I cannot quite describe it—it was such a confused experience, but definitely I thought 4 or 5 figures were beckoning me to "go away" from this world.

He wrote that he kept thinking about this experience, which rated a WCEI score of 4, for some time, but it did not change his life in any way.

*NDE #3.* A 39-year-old man suffering from severe palpitations twice came close to death. He recalled no experiences from the time of his first brush with death. Six years later he passed out while playing badminton and had to be admitted to the intensive care unit (ICU) of a large general hospital. He wrote:

Before I was taken to hospital, something happened. I became unconscious and during this stage, I seemed to be floating in a dark space. I distinctly remember having an unusual peace of mind state for some brief moments. I felt totally at peace. I became conscious after a few minutes.

In the hospital following this experience, which rated a WCEI score of 6, he had to be cardioverted with a direct current electrical shock of 100 watt-seconds. Seven years later he was tempted to play badminton again and again had the same experience and was resuscitated. He

added that somehow he regretted leaving this mind state when he became conscious.

*NDE #4.* A 62-year-old man related events occurring when he was 13 years old. He had a high fever and cough and was in a coma for six to seven hours. He wrote it is so clearly imprinted on his subconscious mind that, even to this day, he can remember it as though it happened recently:

I experienced as though I was being flown away and up by two winged creatures (angels or fairies?) toward the higher skies. Each of them was holding one of my hands and proceeding smoothly up and up! It was an extremely exhilarating journey for my body and soul and I was fully enjoying the same. To my grievous despair, such sublime and joyous moments were being disturbed and broken by interference of some earthly forces that were trying to pull me down by grappling at my feet. In utter disgust I was trying to kick and jerk them down to get rid of their nuisance and continue my upward journey.

He added that he was revived to consciousness by some injections given by the physician who had finally arrived.

This case, which rated a WCEI score of 7, is especially interesting when compared to one reported by I. R. Judson and E. Wiltshaw (1983). In that case, a 72-year-old man had an initially blissful NDE that was transformed into horror on injection of naloxone, a narcotic antagonist, to bring him out of his coma; it could be that the naloxone disrupted the pleasant experience induced by the man's own endorphins (Blackmore, 1993). It would be most interesting to know what the injections were in this case, but so far I have been unable to find out, as he did not complete the questionnaire.

*NDE #5.* A pop star, playing on an outdoor stage on Christmas Day, 1970, was accidentally electrocuted and explained:

I felt "myself" light as a feather, shooting upwards at an indescribable speed—which can never be measured by the words "speed" or "time" and there, below me, above me, surrounding me on all sides were lights of all colours—shining spots which were *not* moving with me.

After that experience, which rated a WCEI score of 8, he took up serious study of yoga.

*NDE #6.* A 63-year-old man described an experience that happened in 1972 when he had a cardiac arrest while being operated on for a

liver abscess. He was very ill, with no blood pressure and his breath failing when he felt

some kind of energy trying to leave my body. . . . I could feel my head revolving at an unimaginable speed and I felt that I travelled a few million miles away in an unknown space from the [operating] theatre within a split of a second. I travelled to a space of brilliant light where I was being loved, the love I had never experienced before . . . nor am experiencing after that event.

He added

I had a feeling that for hours together I was away from this world enjoying being with the light. Now looking back, at this age of 63, after having read books, I feel I was beyond time and space. When I opened my eyes around 4:00 p.m., my first words were "Doctor, why did you bring me back? I was very happy where I was."

It was some time before he was able to see again normally. Later he felt that he had developed extrasensory perception and started having mystical experiences. He and his wife now sing devotional songs, bhajans, which he feels helps in his search for spiritual elevation. In the questionnaire, he described a "very bright light, super white with glow"; his experience rated a WCEI score of 17.

To summarize these experiences, out of eight NDErs, one heard sweet music, three reported a tunnel or dark space, three had the sensation of traveling, four saw or experienced light, four had positive emotions of joy or peace, two encountered other beings, and three reported subsequent changes in their lives or beliefs.

### *Aftereffects*

I have described some of the effects that NDEs had on the people who experienced them. However, it was clear that the people who had no NDE also experienced changes in their lives and beliefs.

A 40 year-old man was knocked down by a car and was unconscious in the hospital for 14 days. He had no NDE and recalled no emotional feelings from that time. His only recollection is that when he felt he was facing death he thought about all the wrong he had done in his life and all the debts he had to clear, and he pleaded with God to let him undo all the wrong. He made a surprising recovery, although he still has to use a wheelchair. He wrote:

Now, dear Doctor, I must admit to having slipped from the right track now and then but I've almost stopped sinning. I often, when tempted, say, "Oh God, deal with me as though [sic] wilt and please assist me onto the right track."

Two respondents who recalled no experience at all had their faith in God strengthened. One man who was nearly hit by a train claimed that his faith in God became stronger. Another survived a plane crash, escaping before it exploded and leaving his friend behind in the plane. He was left with the thought that he had been saved for a purpose.

Finally, a 60-year-old woman went through a period of great despondency when she thought she might have cancer, and it had a profound and lasting effect on her. She thought very hard about death and life and concluded that it did not matter whether the world or the creatures in it were real or imaginary, as long as one could die and disappear from the world. Likewise, the presence or absence of God became irrelevant. She concluded that the reason people believe in God is to pamper themselves and avoid the fear of death, and at last she realized that everyone is really alone; nothing matters.

Though this realization was deeply depressing at the time, it clearly had longlasting and positive effects. Whatever frightening things she did not want to think about before the incident, afterwards she found she had to, for it might be her last chance. She explained that it "prodded me to 'stand up' and confirm myself." Now, she wrote: "the God I believe in is to try to be 'considerate' to the feelings of others. To me 'right' and 'wrong' have only this as the point of reference."

She also explained that when you accept that at some point you will go into oblivion or nothingness, things like heaven, hell, and God cease to have any meaning. "Then you accept the values of here and now with more honesty, attachment, and as really meaningful. You begin to enjoy living as a 'passing phase' with death being part of it." She added that she was grateful to me for my request, because she felt happy to tell someone about it and had never before told anyone except her brother.

I would like to add here that there is an enduring conflict for people who do not believe in life after death, whether near-death researchers, experiencers, or anyone else. That is, that the idea of a future life seems to give comfort and strength to people who believe in it, and it therefore seems wrong to try to dissuade them from that belief, even if you think it false. This respondent directly addressed this issue when she wrote:

Another very important thing that happens is this: you enjoy the thought of some being ignorant of such things so that they are *really*

able to enjoy life in some sort of *genuine* hopes, that are no more in your case. So you consider it a sin to destroy it by making them know what you *think you know*.

These reported changes make it possible to address the question of whether it is coming close to death or having an NDE that is responsible for them. Of the seven respondents in this study who had no experiences, 4 (57 percent) reported life changes; of the four who had dreamlike experiences, one (25 percent) reported an increase in faith; and of the eight NDErs in this sample, three (38 percent) reported life changes.

### Discussion

This study has obvious limitations. The sample was self-selected and is likely to have consisted only of well-educated Indians who speak English well. It is therefore not at all representative of Indians in general.

There were also problems in applying Ring's WCEI to these cases. The accounts with the highest WCEI scores did not seem to be necessarily the deepest or most impressive ones. Ring himself suggested a cutoff score of 6, below which a person would not count as a "core experiencer." Applying this criterion, the respondent who reported the clearest tunnel, sweet music, and euphoria would not be considered a near-death experiencer. This is particularly interesting because Greyson (1983), in correlating each item of his NDE questionnaire with the whole score, found that tunnel experiences did not help differentiate the depth of the NDE and deleted that item from his final scale. This suggests that the tunnel experience is a separate component from the rest of the NDE.

However, these problems are incidental to the purpose of answering the main question I wished to address here: whether people in India also experience tunnels and lights when coming close to death. The answer was clearly that they do. Three cases (38 percent) included accounts either of tunnels specifically or of dark places. This study is too small and has too many sampling problems to permit reliable comparisons with previous work, but we can make some tentative comments.

For example, Justine Owens, Emily Cook, and Ian Stevenson (1990) found that 21 of 46 NDErs (46 percent) reported being in a tunnel, and Greyson (1983) found 32 percent of NDErs described a "tunnel-like dark region." My figure of 38 percent lies right between these two.

Also, in his original study of people who had come close to death, Ring (1980) found that 23 percent "entered the darkness," compared to 3 out of 19 (16 percent) in the present study. As for lights, 4 out of 8 among my respondents (50 percent) saw them, compared to 43 percent in Greyson's (1983) study; other studies do not give comparable data.

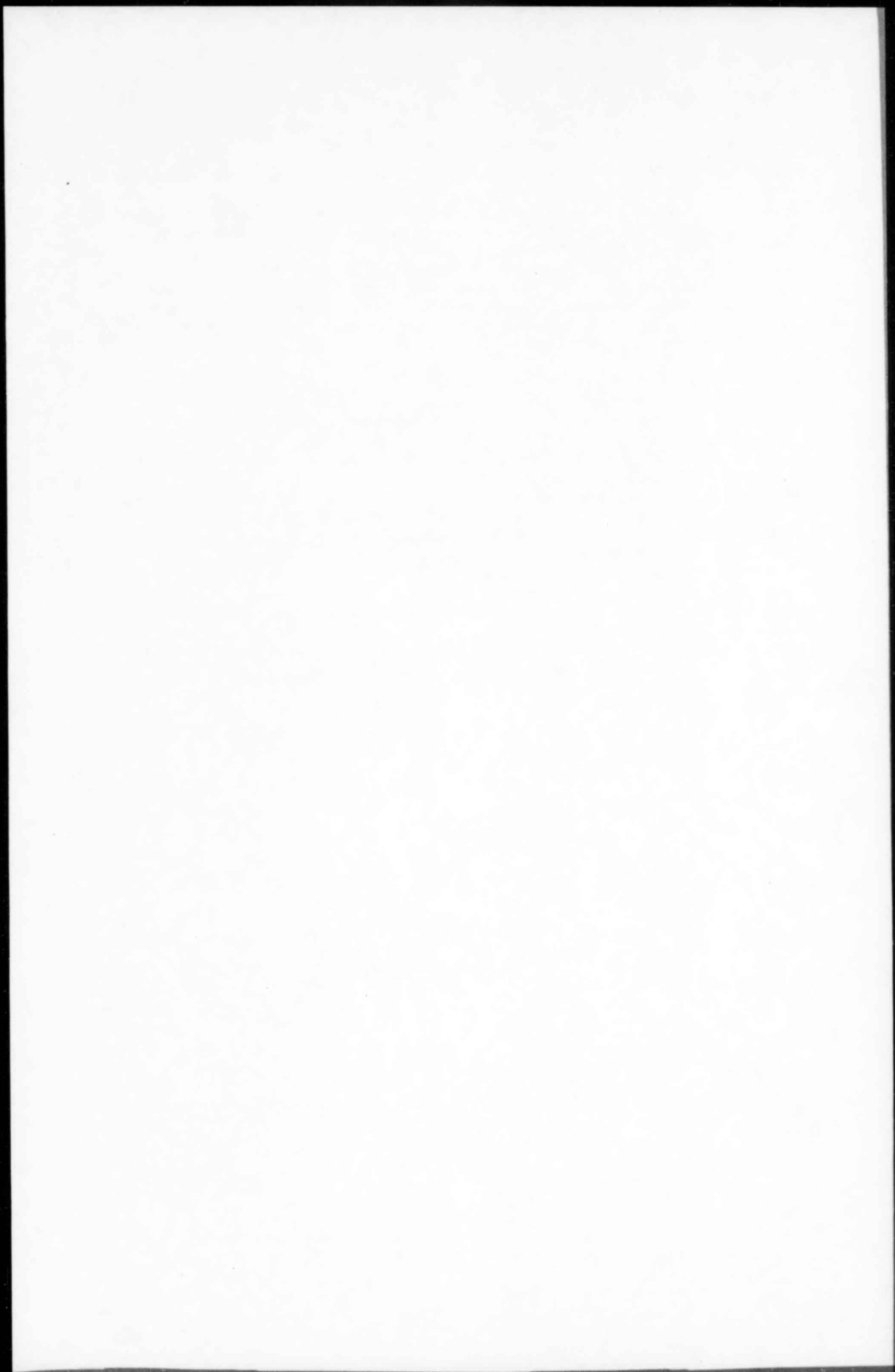
The aftereffects of coming close to death in this sample are also very similar to those described in previous reports. They include reduced fear of death, increased belief in God, greater concern for others, and living more in the moment. These effects seemed to occur whether or not the person had an NDE. The process of coming close to death and being forced to contemplate its meaning was enough to change these respondents' lives.

The findings of this study clearly differ from Pasricha and Stevenson's (1986), which seemed to show that Indian NDEs were different from the classic type in important respects, including the absence of tunnel experiences. The Indian NDEs reported here include most of the key features of the classic Moody-type NDE and, although this sample is very small, the proportions experiencing tunnels, dark places, and lights are remarkably similar to those in previous studies. In other words, these features seem independent of the person's culture. This conclusion fits with what would be expected if these features are a product of brain physiology and are not dependent on culture.

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# A Near-Death Experience Among the Mapuche People

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**ABSTRACT:** This paper describes a possible near-death experience (NDE) among the Mapuche people of Chile. The individual reporting the experience was in a cataleptic-like state for two days, the experience itself occurring at the end of this period. Some common features of NDEs, such as encounters with deceased people and being sent back, are present, together with clear evidence that past and present cultural environment shape in part the content of mental experiences.

Most near-death experiences (NDEs) are influenced by culture (Counts, 1983; Pasricha and Stevenson, 1986), despite some cases in which personal or cultural beliefs clash with mental events (Abramovitch, 1988). In this paper I report a possible NDE showing that religious beliefs and historical events contribute to the individual's report of his experience. As this NDE occurred among the Mapuche people, a brief account of their history and religious beliefs is pertinent.

The Mapuche ("land people," from "mapu"=land and "che"=people) inhabited the central and southern regions of Chile and Argentina when the Spanish conquerors arrived. Their heroic resistance against the Spanish, which lasted for 350 years, ended with the annexation of the last remaining Mapuche territory to the Chilean state in 1882

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(Encina, 1989). Each individual Mapuche community identifies itself as Mapuche, calling other Mapuche communities Huilliches ("people from the south"), Puelches ("people from the east"), Ranculches ("people of the reed-grass"), etc.

The Mapuche believe that life continues beyond death, in a body that is an exact double of the body during life, subject to the same needs and feelings as the body during life and preserving all the characteristics of the individual at the time of death. When death arrives, this double separates from the physical body and enters the Am phase, in which it remains attached to the people and places the dead person knew. About a year later, the Am goes to the spirit region and becomes a Pulli. The Pulli continues to take care of the deceased person's living relatives and friends. The Mapuche incorporated the Pulli into the Pillan, an entity that does not correspond to a god or a demon but rather to an ancestor. Each clan and each tribe has its own Pillan, which may be male or female.

### The Testimony

The testimony reported here was taped on May 13, 1968, by Mrs. M. Calvo de Guzmán near Lake Calafquén, which is surrounded by the Villarica, Quetropillán, Choshuenco, and Lanín volcanoes. This story is interesting because it features some characteristics of NDEs and is culturally shaped by past historical events and Mapuche beliefs. This account was published in Spanish under the title, "The Man Who Died and Went to the Volcano" (Calvo de Guzmán, 1992, pp. 47-48). The English translation presented here is mine:

Well, here it is said that no living being goes to the Pillan, but all the souls of dead people do. Here there is an old man called Fermin. He was dead for two days, and it is said that he went into the volcano and came back. He said that all his dead acquaintances, his own parents, his children, his wife, and other children that he did not know were all in there. There was also a German gentleman reading and writing in big books. When the German saw him, he asked what he wanted.

"I am following my son," said the old man.

"What is his name?" asked the German gentleman.

"Francisco Leufuhue."

He called the guard and ordered him to inform Francisco. The guard climbed by a ladder and cried: "Francisco is being called!"

And a distant voice answered from that place, but it was impossible to understand what it said.

Then he passed through a wooden gate, and the gate was noisy. He passed the next gate, which also made a noise. He passed through

another, and after the fourth, Francisco arrived at the German gentleman's table, who said to him: "Your Dad is looking for you."

Old Fermin approached his son and greeted him, saying: "You will receive me because I do not wish to live any more where I am living now. I am following you; I do not want to stay any longer on Earth."

"No, Dad," said Francisco, "it is not time for you to arrive here by your own will. When the time comes, I myself shall go to the side of the house to look for you. Then you will come. Now, go away."

At this moment, Don Fermin woke up and opened his eyes. He found his wife crying and asked her why.

"Because you had died," she said. "For two days you were dead."

"I am alive," answered Fermin, "and I went to the volcano. I saw all the dead people who are kept in there. I was with my son and with my grandparents. They are all together and they are very happy. They are waiting for me there, but it is not time yet."

### Discussion

According to this testimony, the individual was dead for two days. It is obvious that he was not; but it can reasonably be assumed that he was in such a state that his relatives and friends believed him to be dead. His NDE, or NDE-like experience, must have occurred during the latter part of those two days, given that at the end of the experience the individual opened his eyes. This period in which he was in a cataleptic-like state without food or water for almost two days before the NDE was sufficient to provoke abnormal cerebral function, which fits nicely with the neurobiological model for NDEs proposed by Juan Saavedra-Aguilar and myself (1989).

Like most NDErs, Fermin found deceased people that he knew, together with other people. Note that there was no change in age or appearance of the people he met. It is also of interest that Fermin was "sent back" to life not because of a mistake or by messengers, but because his time had not yet come. This is in perfect agreement with Mapuche beliefs (Encina, 1989).

The "German gentleman" seems to be a very interesting feature. Why not a French, British, or, more likely, Spanish gentleman? The answer is that the part of Chile in which Fermin lived was subjected to strong German colonization beginning around 1850. Also note that the German gentleman was writing, in spite of the fact that the Mapuche culture has no writing. This shows that past and present cultural environments contribute in part to shaping the content of mental experiences.

This report supports the increasing data suggesting that NDEs seem to be composed of several independent processes that do not always

appear together. For this reason it would be helpful for someone with access to a large data base of NDE reports to publish information about the different combinations of features that appear in NDEs, such as noises, out-of-body experiences, tunnels, and encounters with other beings. This information would clearly help us to construct scientific models to explain NDEs.

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# Further Evidence for Veridical Perception During Near-Death Experiences

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**ABSTRACT:** We briefly survey research designed to validate alleged out-of-body perceptions during near-death experiences. Most accounts of this kind that have surfaced since Michael Sabom's work are unsubstantiated self-reports or, as in claims of visual perception of blind persons, completely undocumented or fictional, but there have been some reports that were corroborated by witnesses. We briefly present and discuss three new cases of this kind.

What if you slept, and what if in your sleep you dreamed, and what if in your dream you went to heaven and there plucked a strange and beautiful flower, and what if when you awoke you had the flower in your hand?

Ah, what then?

Samuel Taylor Coleridge

Despite repeated expressions for the need to verify out-of-body perceptions during near-death experiences (NDEs) (for example, Blackmore, 1984, 1985; Cook, 1984; Holden, 1988, 1989; Holden and Joesten,

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1990; Kincaid, 1985; and Krishnan, 1985), the last decade has produced virtually nothing of substance on this vital issue. Michael Sabom's pioneering work (Sabom, 1981, 1982) is now recognized as essentially the only evidence from systematic research in the field of near-death studies that suggests NDErs can sometimes report visual perceptions that are physically impossible and not otherwise explicable by conventional means. To be sure, Sabom's data remain controversial, but the point is that they are still the only extensive body of evidence that bears on the question of veridical perception during near-death states.

Subsequent investigators, such as Janice Miner Holden and Leroy Joesten (1990), have attempted to follow Sabom's lead, but their work has been inconclusive, a casualty of various bureaucratic and methodological complications. What has emerged instead in the aftermath of Sabom's research is largely a miscellany of unsubstantiated self-reports as tantalizing as they are unverifiable. These reports dot the landscape of near-death studies like so many promising trails (for example, Grey, 1985, pp. 37-38; Moody and Perry, 1988, pp. 134-135; and Ring, 1984, pp. 42-44), but efforts to pursue their tracks to definite conclusions almost always prove disappointing. This is particularly true for precisely those cases that hold out the greatest hope for confounding the challenge of skeptics, namely those where blind persons are alleged to have seen accurately during their NDEs.

For example, more than a decade ago, one of us (K.R.) learned of three such elusive cases from Fred Schoonmaker, one of the first physicians to conduct an extensive investigation of NDEs. In a telephone conversation Schoonmaker mentioned that he had come across three blind persons who had furnished him with evidence of veridical visual perceptions while out-of-body, including one woman he said had been congenitally blind. On hearing the details of this last story, I (K.R.) became very excited and urged him to publish an article on these extraordinary NDEs. Regrettably, he never did.

Another example of a blind person purportedly having detailed visual perception during an NDE was described by Raymond Moody and Paul Perry (1988, pp. 134-135). Intrigued to learn more about this case, not long ago I (K.R.) asked Moody to share with me some further particulars about its evidentiality. Unfortunately, he could only tell me that he had learned of this story as a result of another physician's playing a tape about it following one of Moody's lectures. He didn't remember the physician's name and therefore could do no more than relate the brief account his book attested to (R. A. Moody, Jr., personal communication, February, 1991).

Perhaps the most disappointing outcome of this kind of search was in response to the astonishing case of a woman named Sarah, with which still another physician, Larry Dossey, began a recent book (Dossey, 1989). According to Dossey, Sarah had had a cardiac arrest during gall bladder surgery, but had been successfully resuscitated. Upon recovery she had "amazed the . . . surgery team" by reporting

a clear, detailed memory of . . . the OR layout; the scribbles on the surgery schedule board in the hall outside; the color of the sheets covering the operating table; the hairstyle of the head scrub nurse . . . and even the trivial fact that her anesthesiologist that day was wearing unmatched socks. All this she knew even though she had been fully anesthetized and unconscious during the surgery and the cardiac arrest. But what made Sarah's vision even more momentous was the fact that, since birth, she had been blind. (Dossey, 1989, p. 18)

This sounds like the ideal case of its kind; and that, in a sense, is exactly what it is, in a different sense. Kindly responding to an inquiry for more information about this case, Dossey confessed to me (K.R.) that he had "constructed" it on the basis of a composite description of the out-of-body testimony of NDErs such as that found in Sabom's and Moody's books. With this example we seem to have come full circle, to where the mere lore of NDE veridicality subtly shades into a dangerous self-confirming proposition—and to another dead end.

That skeptical conclusion is the impression left by this cursory review of the cases that have come to light since Sabom's trailblazing efforts. However, there have been some subsequent reports that seem to represent evidence that Dossey's fiction may in the end prove indeed to be substantiated NDE fact: the testimony of NDErs that has been supported by independent corroboration of witnesses.

Perhaps the most famous case of this kind is that of Maria, originally reported by her critical care social worker, Kimberly Clark (1984). Maria was a migrant worker who, while visiting friends in Seattle, had a severe heart attack. She was rushed to Harborview Hospital and placed in the coronary care unit. A few days later she had a cardiac arrest and an unusual out-of-body experience. At one point in this experience, she found herself outside the hospital and spotted a single tennis shoe sitting on the ledge of the north side of the third floor of the building. Maria not only was able to indicate the whereabouts of this oddly situated object, but was able to provide precise details concerning its appearance, such as that its little toe was worn and one of its laces was stuck underneath its heel.

Upon hearing Maria's story, Clark, with some considerable degree of skepticism and metaphysical misgiving, went to the location described

to see whether any such shoe could be found. Indeed it was, just where and precisely as Maria had described it, except that from the window through which Clark was able to see it, the details of its appearance that Maria had specified could not be discerned. Clark concluded:

The only way she could have had such a perspective was if she had been floating right outside and at very close range to the tennis shoe. I retrieved the shoe and brought it back to Maria; it was very concrete evidence for me. (Clark, 1984, p. 243)

Not everyone, of course, would concur with Clark's interpretation, but assuming the authenticity of the account, which we have no reason to doubt, the facts of the case seem incontestable. Maria's inexplicable detection of that inexplicable shoe is a strange and strangely beguiling sighting of the sort that has the power to arrest a skeptic's argument in mid-sentence, if only by virtue of its indisputable improbability. And yet it is only one case and, however discomfiting to some it might temporarily be, it can perhaps be conveniently filed away as merely a puzzling anomaly, in the hope that some prosaic explanation might someday be found.

Such a response is understandable and seems rational. However, there are more cases like Maria's, and we have found some. Since our search for conclusive cases of blind NDEs had thus far proven unavailing, we directed our efforts to tracking down instances of the "Maria's shoe" variety, where improbable objects in unlikely locations were described by NDEs and where at least one witness could either confirm or disprove the allegation. So far we have found the following three such cases, two of which, oddly enough, involve shoes!

### Case One

In 1985, Kathy Milne was working as a nurse at Hartford Hospital. Milne had already been interested in NDEs, and one day found herself talking to a woman who had been resuscitated and who had had an NDE. Following a telephone interview with me (K.R.) on August 24, 1992, she described the following account in a letter:

She told me how she floated up over her body, viewed the resuscitation effort for a short time and then felt herself being pulled up through several floors of the hospital. She then found herself above the roof and realized she was looking at the skyline of Hartford. She marvelled at how interesting this view was and out of the corner of her eye she saw a red object. It turned out to be a shoe. . . . [S]he

thought about the shoe . . . and suddenly, she felt "sucked up" a blackened hole. The rest of her NDE was fairly typical, as I remember.

I was relating this to a [skeptical] resident who in a mocking manner left. Apparently, he got a janitor to get him onto the roof. When I saw him later that day, he had a red shoe and became a believer, too. (K. Milne, personal communication, October 19, 1992)

One further comment about this second white crow, again in the form of a single, improbably situated shoe sighted in an external location of a hospital: After my (K.R.) initial interview with Milne, I made a point of inquiring whether she had ever heard of the case of Maria's shoe. Not only was she unfamiliar with it, but she was utterly amazed to hear of another story so similar to the one she had just recounted for me. It remains an unanswered question how these isolated shoes arrive at their unlikely perches for later viewing by astonished NDErs and their baffled investigators.

### Case Two

In the summer of 1982, Joyce Harmon, a surgical intensive care unit (ICU) nurse at Hartford Hospital, returned to work after a vacation. On that vacation she had purchased a new pair of plaid shoelaces, which she happened to be wearing on her first day back at the hospital. That day, she was involved in resuscitating a patient, a woman she didn't know, giving her medicine. The resuscitation was successful, and the next day, Harmon chanced to see the patient, whereupon they had a conversation, the gist of which (not necessarily a verbatim account) is as follows (J. Harmon, personal communication, August 28, 1992):

The patient, upon seeing Harmon, volunteered, "Oh, you're the one with the plaid shoelaces!"

"What?" Harmon replied, astonished. She says she distinctly remembers feeling the hair on her neck rise.

"I saw them," the woman continued. "I was watching what was happening yesterday when I died. I was up above."

### Case Three

In the late 1970s, Sue Saunders was working at Hartford Hospital as a respiratory therapist. One day, she was helping to resuscitate a 60-ish man in the emergency room, whose electrocardiogram had gone flat. Medics were shocking him repeatedly with no results. Saunders

was trying to give him oxygen. In the middle of the resuscitation, someone else took over for her and she left.

A couple of days later, she encountered this patient in the ICU. He spontaneously commented, "You looked so much better in your yellow top."

She, like Harmon, was so shocked at this remark that she got goosebumps, for she *had* been wearing a yellow smock the previous day.

"Yeah," the man continued, "I saw you. You had something over your face and you were pushing air into me. And I saw your yellow smock."

Saunders confirmed that she had had something over her face—a mask—and that she had worn the yellow smock while trying to give him oxygen, while he was unconscious and without a heartbeat (S. Saunders, personal communication, August 28, 1992).

### Discussion

The three cases we have presented briefly attest to three important observations: (1) patients who claim to have out-of-body experiences while near death sometimes describe unusual objects that they could not have known about by normal means; (2) these objects can later be shown to have existed in the form and location indicated by the patients' testimony; and (3) hearing this testimony has a strong emotional and cognitive effect on the caregivers involved, either strengthening their pre-existing belief in the authenticity of NDEs or occasioning a kind of on-the-spot conversion.

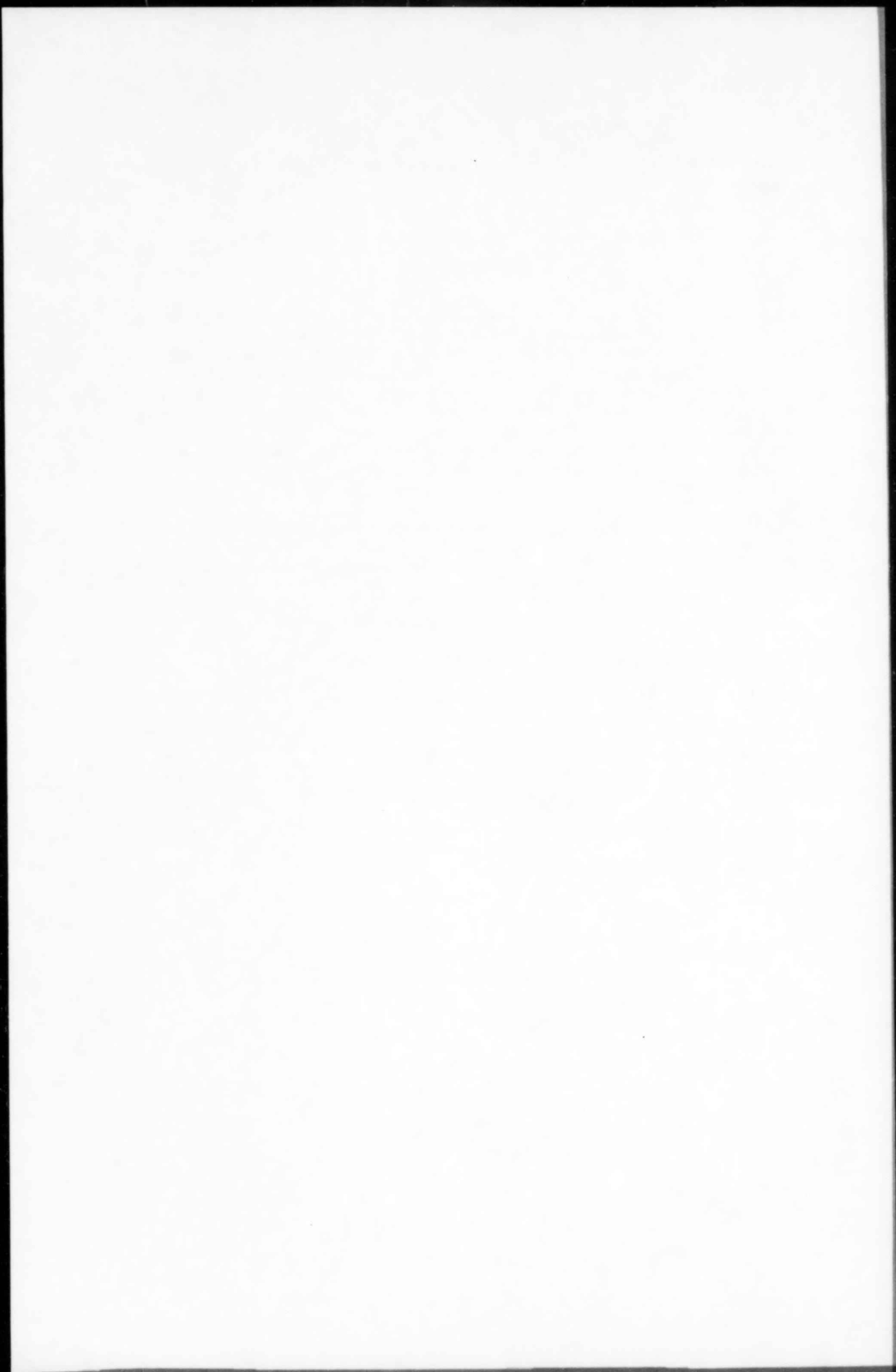
We are not suggesting, of course, that the cases we have described here constitute proof of the authenticity of NDEs or even that they necessarily demonstrate that patients have been literally out of their bodies when they report what they do. We only submit that such cases add to the mounting evidence that veridical and conventionally inexplicable visual perceptions do occur during NDEs, and the fact of their existence needs to be reckoned with by near-death researchers and skeptics alike.

We hope that our small collection of cases will motivate other investigators to search for and document their own, so that this body of data will increase to the point where it becomes generally accepted, whatever its explanation may ultimately be. Until such time as more studies like those undertaken by Sabom and Holden are actually conducted by near-death researchers, or a genuine case of corroborated visual perception by a blind NDEr is reported, perhaps instances of the kind we have offered here will constitute the strongest argument that

cases like Dossey's Sarah are by no means as fictional as skeptics might think.

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# Social Positions in the City of Light

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**ABSTRACT:** This article describes the social positions of inhabitants in the otherworldly City of Light as reported by a limited number of Mormon near-death experiencers (NDErs). These social positions included men and women and various relatives and friends, in addition to authorities or administrators, genealogists, guardians, guides, homemakers, missionaries, teachers, and students. These reports of social positions in the City of Light are similar to those described by other researchers, and are comparable to those found in our own world.

Individuals who have been declared clinically dead because their vital functions had ceased, but who have revived and reported being aware of what happened to them during the interim, have had what is called a near-death experience (NDE). Those who have had NDEs are usually convinced that they were truly dead and that what they experienced was very real.

Although accounts of these experiences have received considerable attention from contemporary researchers, they were also the focus of writers more than 800 years ago in *The Tibetan Book of the Dead*

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(Evans-Wentz, 1957) and 4,000 years ago in *The Egyptian Book of the Dead* (Budge, 1967). Raymond Moody was probably the most influential contemporary author on the NDE; he described and labelled the NDE and identified 15 elements of the experience (1975), and noted that not all of the stages were experienced by all NDErs, a fact corroborated by Kenneth Ring (1980, 1984) and other near-death researchers. Many NDErs feel a sense of peace, a life review, and a sense that they had left their physical bodies; however, about 11 percent report encountering another realm, usually termed heavenly, while experiencing a near-death state (Gallup and Proctor, 1982). Moody (1977) called this other realm "cities of light."

Craig Lundahl (1981-82) described the social system in the other realm as perceived by Mormon NDErs; he specifically outlined the social structure, social interaction, social stratification, social control, and socialization activities in "cities of light." Since then, new material on NDEs has been collected and published, from old diaries and journals and from contemporary sources. What is even more interesting is that the old and new accounts do not contradict each other; rather they complement one another and provide us with additional information on the social aspects of the "cities of light."

The purpose of this article is to look at past and newly published Mormon NDE accounts to learn more about the social positions in the cities of light. Both Elisabeth Kubler-Ross (personal communication, 1980) and Moody (personal communication, 1985) have noted that this particular religious group, officially known as The Church of Jesus Christ of Latter-Day Saints but commonly known as Mormons, seems to report not only very detailed and rich NDE accounts but, for the size of the group, a surprisingly large number of such experiences predating the current flood of NDE reports. We will identify social positions observed by Mormons who reported visiting a "City of Light" during an NDE, and will compare these data with the published findings of other near-death researchers.

We will limit the present analysis of NDE reports to those published and unpublished accounts reported by Mormons. There are three reasons for choosing this particular group for detailed analysis. The first is their rich tradition of recorded NDEs, as noted above; Mormons are encouraged to keep journals and to record significant events affecting themselves and their families, and therefore any NDEs that occurred would have a very high probability of being written down. Second, Mormons are encouraged to share their significant experiences with fellow Mormons, and their NDEs are therefore likely to come to the attention of others. And third, Mormon NDEs tend to parallel their

religious beliefs in both content and interpretation (Lundahl and Widdison, 1983).

### **Social Statuses in the City of Light Reported by Mormon NDErs**

Social statuses are socially defined positions that people occupy in a group or society. Karlis Osis and Erlendur Haraldsson (1977) noted that the people their informants met in deathbed visions had two primary social positions: the first was to serve as a guide to and in the afterlife, and the second was that of a notifier who was to forewarn the NDEr that he or she was about to die. However, an analysis of Mormon NDEs indicates a much larger number of social positions in the other world. Social positions identified in the City of Light include but are not limited to men, women, husbands, wives, fathers, mothers, children, grandparents, other relatives and friends, authorities or administrators, genealogists, guardians, guides, homemakers, missionaries, teachers, and students.

#### *Gender and Friendships*

Mormon NDErs have observed both men and women in the City of Light (Lundahl, 1981-82). The status of friend is also found in the City of Light (Lundahl, 1982; Nelson, 1989). Close friendships that existed on earth continue in the City of Light, friends are greeted with excitement, news and information are shared, and new arrivals are introduced to others.

#### *Relatives*

Many Mormon NDErs have seen and/or visited with deceased husbands, wives, children, grandparents, and other relatives (Lundahl, 1981-82). People seen in the City of Light were described by Mormon NDErs as being organized in family capacities (Lundahl, 1981-82) or in family relationships (Nelson, 1988). These two observations suggest that the positions or statuses of husband, wife, father, mother, son, daughter, brother, sister, grandfather, grandmother, aunt, uncle, cousin, nephew, niece, father-in-law, mother-in-law, brother-in-law, and sister-in-law are found in the City of Light, and furthermore that

role expectations, rights, and obligations between the NDErs and the observed relatives continue along familial lines in the other world.

### *Authorities*

Sometimes NDErs are sent back to mortal life. Often it is reported that some authorities in the afterlife meet with recent arrivals and inform some of them that their purpose on earth has not yet been completed and therefore they must return. Some NDErs were told that their deceased relatives had petitioned that they be sent back to do work for them that they could not do for themselves in the afterlife (Nelson, 1988, 1989). Eliza Ursenbach was told that because of the faith of her family, she would be given the opportunity to return to life and rear her two small children (Heinerman, 1978). In another case, a man observed the deceased members of his family meeting around a large table, discussing what should be done to help a family member still on earth—in this case, his daughter. Their decision was that he must return to help her over a major crisis she was experiencing (R. Widdison, personal correspondence, 1985).

It appears that regardless of the individual's personal desires, permission to return to life must be granted by appropriate authorities; if the desire to live is for positive and productive reasons, it might be granted (Nelson, 1988). It appears that individuals are not forced to return to their bodies, however; that seems to be a voluntary decision. Some who expressed great reluctance to return were shown what would happen to their families if they did not (Lundahl, 1982). The consequences were enough to convince them to return. It is important to note that Mormon NDEs suggest an order and grades of status in the other world that are not seen on earth (Carver, 1881; Lundahl, 1981–82), so we might expect to find a hierarchy of authority there.

### *Genealogists and Couriers*

As Harriet Beal traveled in the other world, she saw a large room filled with individuals rapidly recording genealogical data (Heinerman, 1978). Some NDErs were used as "couriers" to carry genealogical information to those still on earth, which could not be identified in any other way. A number of NDErs reported being sent back to their bodies so they could do genealogical work at the request of their relatives in the afterlife.

### *Guardians, Escorts, and Guides*

In many accounts individuals were told that they would have to return to life to complete some unfinished work, even though their recovery would be lengthy and very painful due to the trauma their bodies had experienced when they died. They were promised that they would receive the constant support and guidance of a guardian angel (Nelson, 1989). One Mormon NDEr specifically mentioned the appearance of a guardian angel in his NDE (Crowther, 1967).

One apparent function of a guardian is to meet those who die, "escort" them as they enter the afterlife, and report their presence to the appropriate authority. One young man was told by his escort that his sister wanted to see him and to wait, as she had to finish what she was doing before she could come. The major reason for this meeting was a pact they had made with each other while on earth that whoever died first would watch over the other while he or she was still living (Crowther, 1967).

All Mormons reporting an indepth NDE seemed to have had some type of guide assigned to them. For most respondents, it was a deceased close relative, such as a spouse, parent, sibling, child, or grandparent. For others, the guide was a distant relative or friends; while for still others, the guide was some kind of ecclesiastical figure. For example, Larry Tooley, who was killed when he fell from scaffolding, met an old friend who informed him he was to be his guide until he became oriented; and Carlos Hjorth met several people in white flowing robes, one of whom was to be his escort (Nelson, 1988).

### *Missionaries and Teachers*

One Mormon NDEr saw one of his brothers-in-law in the other world serving as a mission president (Crowther, 1967), and another Mormon NDEr saw missionary services being conducted (Heinerman, 1978).

Ella Jensen, a Mormon NDEr, observed a group convened in a school setting presided over by a relative (Crowther, 1967). She saw a large group of children being taught. Among these children was one who she knew was still alive; upon recovery, she reported her experience and was informed that the child had died earlier that morning (Crowther, 1967). Another Mormon NDEr saw a deceased woman, whom he had formerly known, in charge of a number of small children in a school class (Carver, 1881).

### *Homemakers and Other Statuses*

Harriet Beal learned in the City of Light that persons there have commonplace tasks to perform: she asked her deceased mother if she worked in the kitchen, and her mother said that she takes her turn (Crowther, 1967). One Mormon NDEr reported that he joined others in the City of Light in eating and drinking (Carver, 1881). This information suggests that many domestic tasks are performed in the City of Light.

Mormon NDErs also reported seeing people writing family records, painting, cooking, building large houses, participating in meetings, playing music, singing in choirs, considering petitions, preaching, and presiding over various subgroupings.

In examining Mormon NDEs, the social activities observed can be classified into seven categories: (1) gaining knowledge and understanding, (2) assisting those on earth who need help, (3) preparing for future events, (4) teaching, (5) developing musical skills, (6) researching family records, and (7) accomplishing routine and major tasks.

### **Findings of Other Near-Death Researchers**

NDEs reported by other near-death researchers include references to social positions as men, women, husbands, mothers, fathers, grandparents, and other relatives (Gallup and Proctor, 1982; Green and Friedman, 1983; Morse and Perry, 1990; Ring, 1980; Sabom, 1982). The Gallup Poll's survey of NDEs found descriptions of a hierarchy of authority, angels, guides, instructors, and individuals making choir robes (Gallup and Proctor, 1982).

These findings corroborate the descriptions from Mormon NDErs of social positions in the City of Light with the exception of two positions: genealogists and missionaries. There are a number of possible explanations for these exceptions. First, Mormon and nonMormon NDErs may label the same activities differently: activities identified by Mormon NDErs as missionary service and genealogy work may be labelled by nonMormon NDErs as teaching, research, and record keeping. Another possible explanation could be the location of these missionary and genealogical activities in the City of Light: it may be that visitors to this location are limited to a few groups like Mormon NDErs. Furthermore, it is possible that cultural factors have influenced the kinds of observations made by NDErs, and that Mormon NDErs were more attuned to genealogical and missionary activities and therefore

more likely to identify them in subsequent reports. Finally, there may simply have been too few descriptions of the City of Light published by other near-death researchers to include all the social positions found there, so that we can expect further reports of the City of Light by nonMormon NDErs to document genealogists and missionaries as well.

### Conclusion

According to Mormon NDE accounts, the other world or the City of Light is a place where people are involved in numerous activities and in many social positions. These positions are highly organized in familial and institutional hierarchies. Order exists and is controlled by some apparent ecclesiastical system. Individuals occupy many different statuses or positions that include occupational categories as we know them, ranging from white collar workers to service workers.

This list of statuses is undoubtedly but a small representation of the positions occupied by people in the City of Light. Lundahl noted previously that the other world as perceived by Mormons during NDEs was not so unlike our own world (1981-92). We can aptly conclude this study by noting that the social positions found in the other world are not so unlike those found in our own world. Yet it may also be that some statuses we have, such as health workers and protective service workers or prison guards, are not required in the City of Light, even though they are still essential careers in this world (Nelson, 1989).

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# The Physical Environment in the City of Light

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**ABSTRACT:** The article describes the physical environment found in the other world or the City of Light, based on published accounts of near-death experiences (NDEs). The City of Light appears to be a world of preternatural beauty that cannot be described adequately. NDE accounts provide descriptions of the landscape, animal life, plant life, and architecture found in the other world.

Since the inception almost twenty years ago of the modern field of near-death studies, only Craig Lundahl (1981-82) has utilized information from near-death experiences (NDEs) to describe in some detail the physical dimension of the perceived other world, or "cities of light," as it has been labelled by Raymond Moody (1977). Lundahl (1981-82) briefly described buildings, landscape, and vegetation in the other world of the NDE. Other researchers, such as Ray Canning (Lundahl,

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1981-82), Karlis Osis and Erlendur Haraldsson (1977), Kenneth Ring (1980), and Michael Sabom and Sarah Kreutziger (Sabom, 1982) have documented NDE accounts that shed some light on the physical environment in the City of Light.

Since Lundahl's work over a decade ago, a considerable amount of new material on NDEs has been collected and published from old diaries and journals and from contemporary sources, which has provided us with additional information on the physical environment of the City of Light. The purpose of this article is to look at past as well as newly published NDE accounts to enlarge our understanding of the physical environment in the other world, including the landscape, animal life, plant life, and architecture of the City of Light.

### **The Physical Environment in the City of Light**

The City of Light is another realm that has been described by NDErs as a world of preternatural and ethereal beauty, with colors said to be unforgettable, heavenly landscapes in incredible detail, and exquisite music unlike anything ever experienced on earth. NDErs also have described the most beautiful buildings of the finest workmanship, vegetation and flowers that are beautiful beyond description with every color in the rainbow, and animals. The City of Light is described as always springtime, with a shining sun, clouds, fog, skies, and stars (Crowther, 1967; Nelson, 1988, 1989; Sabom, 1982).

One NDEr described the City of Light in terms characteristic of the way many NDErs describe the other world: "I was transported to the most beautiful place I have ever seen, so beautiful I cannot adequately describe it" (Nelson, 1989, p. 83). A child NDEr said simply "I have been to such a beautiful place," and later asked his father to let him go back, repeating "I have been to such a beautiful place" (Heinerman, 1978, p. 118).

After presenting near-death accounts of the other world, Kenneth Ring concluded:

A casual perusal of all the accounts presented in this section—even the very brief ones—will be sufficient to reveal that each of them, *without exception*, uses the adjective *beautiful* to describe the sensed features of the "surroundings" where these respondents found themselves. If, for the time being, I may take the liberty of speaking about this realm as a "world" of its own, then, plainly and without equivocation, it is experienced as a surpassingly beautiful one. Reading these

accounts, it is understandable why a person entering such a world would be reluctant, even unwilling, to return to the world of ordinary experience. (1980, p. 66)

### *The Landscape of the City of Light*

The landscape of the City of Light is much like that of the earth, but much more beautiful (Nelson, 1990). It contains mountains (Eadie and Taylor, 1992; Gibson, 1992; Ring and Franklin, 1981-82), small and large hills and rocks (Nelson, 1990; Sabom, 1982), and beautiful, crystal-like valleys (Eadie and Taylor, 1992; Ring, 1980, 1982). There are large empty fields with high golden grass that is very soft, outstandingly beautiful, and very bright (Ring, 1980), and beautiful meadows with beautiful grass (Morse and Perry, 1992), and the most beautiful and greenest pastures (Sabom, 1982). In many of these areas are paths (Ring, 1982), meadow lanes (Ring, 1980), and trails through the great forest of trees (Crowther, 1967).

In the landscape nearby the City of Light are found wonderful and large lakes with beautiful, clear water, and light blue lakes (Crowther, 1967; Gallup and Proctor, 1982; Ring, 1980), rivers (Eadie and Taylor, 1992; Gibson, 1992), clear streams (Gallup and Proctor, 1982; Sabom, 1982), and trickling brooks (Nelson, 1989). The most beautiful parks ever seen are located both in the City of Light (Nelson, 1989) and outside the city (Carver, 1881).

### *Animal Life in the City of Light*

Although NDErs rarely mention animal life in the City of Light, a few near-death accounts refer to birds, cattle, sheep, and horses. One NDEr saw all kinds of animals outside the beautiful cities in the other world (Carver, 1881). Another experiencer said "there were animals: birds, butterflies, and small furry creatures, one resembling a fawn" (Gibson, 1992, p. 145). One NDEr stated that he observed green grass scattered with delicate purple flowers, and exquisite little birds singing (Sorensen and Willmore, 1988). There were singing birds also in one of Ring's near-death accounts (Ring, 1980). Finally, Sabom (1982) reported one NDE account in which the NDEr saw cattle and sheep, and a separate one in which the NDEr saw horses; and an NDEr described by Melvin Morse and Paul Perry (1992) also saw horses.

The importance of these observations of animal life in the other world is the implication they have for the existence of animal spirits as well as human spirits in the afterlife.

### *Plant Life in the City of Light*

There is no lack of reports by NDErs on the plant life found in the City of Light. It appears from these reports that all forms of plant life are found there, including grass, lawns, vines, flowers, gardens, shrubs, and trees. One NDEr went to a large empty field that had high, golden grass that was very soft and very bright; this swaying grass was so outstandingly beautiful that the NDEr said she would never forget it (Ring, 1980). Beautiful crisp, cool, and brilliant green grass scattered with delicate purple flowers are found there also (Eadie and Taylor, 1992; Sabom, 1982; Sorensen and Willmore, 1988).

One NDEr found a trail through the woods that was almost obscured by grass (Crowther, 1967). Another NDEr found her surroundings in the City of Light were beautiful, like a garden, with flowers, a lawn, and trees, and reminded her of a park by a river that she visited as a child for family reunions (Nelson, 1989).

Among the rich foliage in the City of Light are many green plants (Eadie and Taylor, 1992; Morse and Perry, 1992; Nelson, 1990) and vines. One NDEr visited a place that was "divided into compartments by walls, from which appeared to grow out vines and flowers, displaying an endless variety of colors" (Crowther, 1967, p. 75).

The flowers in the City of Light are so beautiful they almost defy description. One NDEr said he saw flowers of numerous kinds, including some plants with from 50 to 100 different colored flowers growing upon one stalk (Crowther, 1967). Another NDEr said he saw "the most beautiful flowers. Nobody on this earth ever saw the beautiful flowers that I saw there. . . . I don't believe there is a color on this earth that wasn't included in that color situation that I saw" (Ring, 1982, p. 143). NDErs have reported sparkling flowers of every color in the rainbow, and fields and landscapes filled with flowers (Eadie and Taylor, 1992; Gallup and Proctor, 1982; Gibson, 1992; Morse and Perry, 1992). They have described purple flowers, daisies, and beautiful flowers of all kinds (Ring and Franklin, 1981-82; Sorensen and Willmore, 1988), tall flowers (Green and Friedman, 1983) and large flowers that look like big, tall dahlias (Moody and Perry, 1988). Some NDErs have reported smelling these flowers as well (Nelson, 1989).

Further examination of near-death accounts of the plant life in the City of Light finds gardens mentioned frequently. The best gardens on the earth do not even compare to the gardens in the City of Light (Crowther, 1967). One NDEr said she did not have the words to describe the beauty of the garden she entered there: "It was more beautiful than anything I had ever seen on earth, including the Koukenhoff Garden in Holland at tulip time" (Nelson, 1988, p. 123). This same feeling was expressed by another experiencer (Morse and Perry, 1992). Another NDEr woke up in a garden filled with large flowers: "It was warm and light in this garden and it was beautiful" (Moody and Perry, 1988, p. 59). Betty Eadie entered into a garden filled with trees, flowers, and plants with intense colors (Eadie and Taylor, 1992). Other experiencers have described a garden similar to a wooded area with tropical plants and gardens with beautiful sidewalks, benches, and patios (Gibson, 1992).

Many trees and shrubs are found in the City of Light. NDErs often mention trees and shrubs in the other world, describing them as beautiful trees, groups of trees, and great forests of beautiful trees (Crowther, 1967; Eadie and Taylor, 1992; Gallup and Proctor, 1982; Gibson, 1992; Morse and Perry, 1992; Nelson, 1988, 1989). Some of these forests are pine forests (Nelson, 1990), and some are filled with trees in full bloom (Nelson, 1989). One NDEr observed that the trees she saw "were all in the shadows of gold. There was no green, no blue" (Sabom, 1982, p. 46).

At least one NDEr observed that there are no weeds in the City of Light (Gibson, 1992). These descriptions of the plant life in the City of Light portray a beauty in plant life that is difficult even to imagine.

### *Architecture in the City of Light*

Architectural features in the City of Light described by NDErs include an entry gate, the city with golden pathways and bridges, a variety of buildings, homes of various sizes, and beautiful rooms.

There appears to be a gate at the entrance to the City of Light, described by one NDEr as the "golden gates of heaven" (Sabom, 1982, p. 46), by another as "a gold ornamental gate, wrought-iron in appearance, with a highly polished color" (Sabom, 1982, p. 46), and by a third as a "beautiful white gate" (Green and Freidman, 1983, p. 90).

Beyond the gate is a city, the City of Light (Heinerman, 1978; Sorensen and Willmore, 1988). We use the term City of Light here to

represent cities in general in the other world, since that realm actually contains a number of fine and beautiful cities (Carver, 1881). The city has been described as a gorgeous and beautiful kingdom that is wholly white (Green and Friedman, 1983), and as a place with beautiful buildings and golden pathways (Nelson, 1990). It has beautiful streets throughout that are paved with beautiful silk carpet (Carver, 1881) and includes bridges (Sabom, 1982).

The buildings in the City of Light are said to be very beautiful, have the finest workmanship, and are better constructed than those on earth. One NDEr spoke "of the buildings he saw there, remarking that the Lord gave Solomon wisdom and poured gold and silver into his hands that he might display his skill and ability, and said that the temple erected by Solomon was much inferior to the most ordinary buildings he saw in the spirit world" (Crowther, 1967, p. 77). Another experiencer entering a large building said, "I was impressed with its details and exquisite beauty. Buildings are perfect there; every line and angle and detail is created to perfectly compliment [sic] the entire structure" (Eadie and Taylor, 1992, p. 108). The buildings include huge amphitheaters (Nelson, 1990), a beautiful palace that an NDEr described as the House of David (Gallup and Proctor, 1982), marble mausoleum-like structures filled with light (Ring, 1980), large halls (Crowther, 1967), and libraries or educational buildings (Gibson, 1992).

George Ritchie described enormous buildings in a beautiful sunny park where there was a relationship between the various structures, a pattern to the way things were arranged, like a well-planned university. He described entering one of the buildings and moving down a high-ceilinged corridor lined with tall doorways. The atmosphere of the place was that of a tremendous study center with wide halls and curving stairways. Through open doorways he glimpsed enormous rooms filled with complex equipment, intricate charts and diagrams, controls, and elaborate consoles. He described visiting other buildings, including a studio where very complex music was being composed and performed; a vast library filled with documents on parchment, clay, leather, metal, and other materials; and a space observatory. At the apex of Ritchie's NDE, he reported seeing a city made of light (Ritchie and Sherrill, 1978).

Among the buildings in the City of Light are homes. One NDEr reported her deceased brother told her that their grandparents had a beautiful home and that they were preparing a beautiful home for his mother and her family (Crowther, 1967). Another visitor to the City of Light said she saw many beautiful homes, some spacious and others small; some of the homes were barely larger than a small kitchen or

large bathroom. When she asked her deceased brother, who was accompanying her through the City of Light, why anyone would want to live in a house so small, he said, "That was all the good works they sent up" (Nelson, 1990, p. 99), implying that the size of house a person gets in the City of Light is determined by the quantity and quality of the good deeds they performed on earth.

The rooms of these various structures are beautiful, as evidenced by the comments of NDErs who have visited there. For example, one NDEr described a large, white room he was in as beautiful, with an amber gold floor that reflected every image like a mirror. The walls were trimmed with gold, and at one end of the room stood two large doors, also trimmed in gold (Nelson, 1989). Another NDEr said that human words were not adequate to describe the beauty of the room she entered while in the other world: "There was a lot of light, a brightness that went beyond just white—kind of a many-colored iridescence. We don't have the words in our language to describe the beauty, not only of the room, but the people too" (Nelson, 1988, p. 68). Ricky Davis, a 12-year-old boy, told his parents he had "already visited two rooms of the temple on the other side, and if we had seen what he had seen, we would all want to go with him" (Davis, 1982, p. 70).

Many near-death accounts suggest that the rooms in various buildings and homes are furnished. Betty Eadie described the rooms as beautiful, exquisitely built and appointed (Eadie and Taylor, 1992). Another NDEr came to a very large, beautiful building that was yet unfinished, with a porch around it; inside was a most beautiful and large bedroom, with beautiful workmanship. The floors of the bedroom were as of gold and lovely beds were in the room (Crowther, 1967).

### Conclusion

This study of the physical environment in the other world has drawn upon published NDE reports by near-death researchers over nearly twenty years. The information has provided a fairly detailed description of the landscape, animal life, plant life, and architecture of the City of Light. Gorgeous landscapes are reported, along with animal life and exquisite and eye-filling vegetation. The buildings and rooms display superior workmanship and construction and they are endowed with beauty and elegance. The one word NDErs repeatedly use to describe the physical environment in the other world is "beautiful," and quite often they comment that human words are inadequate to describe the beauty of the City of Light.

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## BOOK REVIEW

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**The Omega Project: Near-Death Experiences, UFO Encounters, and Mind at Large, by Kenneth Ring.** New York, NY: William Morrow, 1992, 320pp, \$20.00

In *The Omega Project* Kenneth Ring has taken another major step into previously untested waters. One may or may not agree with all of his conclusions, but one must admit they are thought-provoking.

Ring begins with an apologia for having entered the Unidentified Flying Object (UFO) domain after years of eschewing "weird" phenomena and studying the relatively "straight" field of near-death studies. His pioneering work in near-death experiences (NDEs) should be well known to all readers of this Journal. In *Heading Toward Omega* (1984) he began to expand the NDE horizons and examined reports of extraordinary experiences that were similar to those reported by NDErs but were instead reported by individuals who were not close to death at the time. Further, and more importantly, he went on to address the meaning behind these experiences.

In many ways *The Omega Project* is a continuation of that work. The reader should be aware that Ring makes assertions that will be regarded as truly profound or extremely outrageous, depending on one's point of view. As a scientist he has issued appropriate caveats about his findings and statements; some may find this more like waffling. He does admit his theoretical constructs do not answer all the questions raised by the study of these diverse phenomena. Given the complexity

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of those phenomena, I find it unlikely that any single approach will adequately explain all their aspects.

The book opens with a description of the various phenomena, supported by anecdotal data designed to provide a basic understanding of each area. Ring assumes that people reading the book, while knowledgeable in one area, may not have the same degree of familiarity with others. This material is presented in an interesting and readable manner.

The second section conveys the results of an extensive study of 264 participants that was conducted to examine the similarities between people who report NDEs and those who report having had encounters with UFOs, popularly known as "abductees." Many now agree that this term is a misleading and unfortunate choice; to quote Steven Greer: "If you were lifted off the bow of the Titanic, were you abducted or rescued?"

In addition to the NDErs and UFO experiencers, two limited control groups were established, comprised of people interested in one of these phenomena. This selection does not constitute an unbiased sample, as the participants were self-selected and ostensibly were positively predisposed towards the subject. There are a number of other caveats, as Ring points out, that must be taken into account prior to extrapolation of his findings beyond their explicit meaning.

Ring notes that he relied on respondents' own reports of their background experiences and that no investigation was conducted to determine the validity of their assertions. The purely subjective aspect of this study will be pointed to as a major flaw in scientific protocol. Participants were given an extensive battery of tests, some with prior validation and others designed for this project.

The project had three main purposes: "to assess through careful and systematic study the relevance of a number of psychological factors, such as fantasy proneness, to the question of genesis and form of extraordinary encounters" (p. 114); "to determine the degree to which NDErs and UFOers . . . were, as children, already more open to the realm of paranormal experiences" (p. 115); and "to see to what extent persons who relate extraordinary encounters . . . were, again as children, sensitive to what we shall simply call for now *alternate realities*" (p. 115).

Ring divides the aftereffects into two categories: psychophysiological changes and shifts in belief and personal values. In addition he attempts to rectify some of the well known weaknesses in previous near-death studies by providing a more solid statistical basis for assessing the value changes that have been reported.

His findings are important and are worth the investment of time to read in detail. They clearly indicate that people who have extraordinary experiences frequently have a predisposition or are sensitized to alternate realities. Ring addresses the ability for psychological absorption, and as he has reported previously, he finds that childhood abuse and trauma are a significant factor in creating the capacity for psychological absorption, though he is quick to point out that other factors may also stimulate this ability. He also notes that none of the groups were comprised of psychologically dysfunctional people. He is careful not to pathologize the experiences simply because the experiencers may have had an unhappy childhood; to paraphrase Ring, these do not appear to be "strange people having strange experiences."

The psychophysiological changes reported by both NDErs and UFOErS are extremely interesting. Six areas are identified as subject to significant change by both experiential groups. One of these areas is a sensitivity to electricity; many of these individuals reported malfunction of sensitive electronic equipment after their experiences. This is frequently coupled with increased psychic ability, such as healing or psychokinesis. Other shifts reported included changed temperature and blood pressure, expanded mental functioning, emotional fluctuations, and psychoenergetic changes such as a decreased need for sleep and unusual energetic sensations.

At this point in the book Ring makes the astounding assertion of the Omega Prototype; that is, the meaning behind the events leading to these psychophysiological changes is nothing less than the evolution of the human species. The concept of speciation in humans is not a new thought; Ring himself addressed the point in *Heading Toward Omega* (1984). Readers must determine for themselves whether they are prepared to accept this thesis on the meager data provided. Nonetheless, it is thought-provoking.

The reported shifts in beliefs are also extremely significant, indicating changes that in many cases are tantamount to an entirely new world view. Ring details the results of each of his psychological instruments; the bottom line is a more positive view of life and a focus on love as the ultimate value.

In Chapter 9, "Heading Toward Oz," Ring himself makes an abrupt shift. He suddenly seems to take a reductionist view and addresses an electromagnetic model of a possible cause of anomalous experiences. The shift is, in my estimation, far too precipitous. Many readers will, I suspect, have great difficulty following Ring's train of thought; in fact, I had to call him and inquire what he really meant. In this chapter Ring takes the reader on a complex journey through electromagnetic

stimulation, excitation of the hippocampus, and into imaginal realities, a journey far too complex to cover here. Frankly, I thought this chapter distracted from what is otherwise an excellent, readable text.

In the final chapter Ring explores the meaning behind the Earth changes scenarios many experiencers report. His interpretation will be viewed as controversial, but is, in my mind, a very important and timely view. Whether or not the Gaia hypothesis is valid, the critical nature of global environmental issues cannot be denied. This is an important adjunct to works such as Al Gore's *Earth in the Balance* (1992).

Throughout the book Ring brings up the concept of extraordinary experiences as part of a prototypical initiation process. He points out strong similarities between the events described by extraordinary experiencers and those in shamanic or other initiatory procedures. Of course this raises a question about who or what is conducting the initiation, and for what purpose.

In *The Omega Project* Ring has again proved that he is a step ahead of most of us researchers. This provocative work is well worth careful consideration by scientists and lay readers. It provides an excellent jumping off point for theoretical dialogue and for many studies yet to come.

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## BOOK REVIEW

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**Gods Within: A Critical Guide to the New Age, by Michael Perry.**  
London, England: SPCK, 1992, 178 pp + viii, £ 11.99

Archdeacon Michael Perry's latest book is a balanced approach that attempts to orient Christians to the New Age movement and subtly evangelize New Age believers to take a second look at what "true" Christianity has to offer. He does better at delineating various facets of the New Age belief system or paradigm for Christians serious about fruitful dialogue with New Agers than at trying to persuade New Agers over to Christianity.

This book is well researched and has an extensive bibliography. Drawing from philosophical, theological, psychological, scientific, and spiritual sources, Perry addresses near-death experiences, crystals, wicca, care of mother earth, reincarnation, channeling, and various mantric methods, including astrology, tarot, I-Ching, scrying, ouija, human aura, and dowsing.

In the chapter on near-death experiences (NDEs), Perry lists and briefly examines some of the major theoretical viewpoints that have arisen to explain this phenomenon. He reminds the reader that the NDE is not intrinsic to New Age beliefs, since accounts of NDEs date back to antiquity (Kelsey, 1982; Zaleski, 1987).

One explanation that caught my attention was Kenneth Ring and Christopher Rosing's preliminary study of the correlation between

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NDEs and child abuse, dissociation, and psychic sensitivity. Many of the NDErs they interviewed for their study had a history of child abuse or similar trauma. Part of my caseload as a psychotherapist consists of clients suffering from multiple personality disorder (MPD), some of whom report having had out-of-body experiences as the severe abuse was occurring. Studies published on MPD have reported that an inherited predisposition to dissociation is a critical factor in its etiology (Braun, 1986). Does the same apply to persons who had an NDE rather than severe childhood abuse or trauma?

After citing studies done by medical personnel, psychologists, neurologists, and physiologists, Perry explains why the NDE is used by New Agers to support their beliefs: the out-of-body experience during the NDE, supporting the existence of the astral or spiritual body and the phenomenon of astral projection; the positive experience of NDErs regarding the inherent natural goodness of humanity and the favor the universe manifests toward us; the experience of a "higher self" supporting the New Age belief in the godhead in each person; the NDErs' experience of cosmic oneness or togetherness; the experience of being sent back for various reasons hinting at reincarnation after death; and the NDErs' frequent espousal of a nonsectarian, nondogmatic, non-institutionalized religion in which the religious feeling is not tied to any particular faith, but is diffused in a syncretistic way.

In the final segment of this chapter, Perry addresses how Christians should interpret NDEs. He affirms that the NDE is a valid phenomenon that must be taken seriously, because "faith is a faith based upon the world as it is experienced, not about the world as one might fantasize or wish it to be" (p. 93). He concludes that the NDE is in accord with the Christian doctrine of God's love and of the value to Him of the human soul.

Throughout this chapter, Perry attempts to explore every angle of the NDE he can perceive through the lens of Christian theology and spirituality, and for that he should be commended. But there is more I would have liked to have seen included in this chapter. Perry does not compare the Christian perspective on NDEs to other faith traditions, but only to New Age beliefs. He does not compare NDErs' changes in attitudes, beliefs, values, and behaviors with the changes (metanoia) that occur in Christians who are maturing in their relationship to and experience of God. There were no detailed accounts of NDErs' personal testimonies, which would have enriched the reader. And finally, there is more to the NDE in accord with Christian doctrine than just God's infinite love and mercy and the value of the human soul. Jesuit theologian Donald Gelpi (1978) wrote:

The presence of benevolent psychopomps and the review of the being of light would seem to be thoroughly convergent with three age-old Christian beliefs: belief in the communion of the saints, belief in guardian angels, and belief in a personal judgment at the moment of death. The psychopomps who greet the moribund are from among those who have gone before. Their assisting presence at the moment of death suggests that devotion to the saints and belief that the church on earth stands in communion with the blessed of God is a sound one. The psychopomps have an angelic aspect; they come bearing messages and they seem to have a special care for the person who is dying, in the manner of guardian angels.

Moreover, the description of the review of life in the presence of the being of light well accords with the theology of divine judgment articulated in the fourth gospel. In Johannine theology, God judges the world by the simple expedient of revealing the full scope of His love and demanding from humankind an appropriate response. Those who encounter the being of light are encompassed by a sense of acceptance and are lovingly challenged concerning their stewardship. (p. 380)

Throughout this book, I found Perry's writing style easily accessible. My understanding and knowledge of wicca, channeling, and the New Age position on caring for creation was broadened. Of particular interest is the final chapter, "The Stigma of Dogma." Perry examines how Christians from various denominations have responded to New Agers in ways that turn them away from Christianity, and he draws the line between what is open for further discussion and exploration between New Agers and Christians and what is not. *Gods Within* is an excellent primer for anyone who wants to learn more about the New Age movement and the Christian response.

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# Letters to the Editor

## Optical Imaging and Near-Death Experiences

To the Editor:

Optical imaging has been described as "a new technique for investigation of the organization of the sensory and motor cortices, language, and other cognitive processes" of the human cortex (Haglund, Ojemann, and Hochman, 1992, p. 668). Michael Haglund, George Ojemann, and Daryl Hochman measured optical changes in five persons undergoing surgery for intractable epilepsy, mapped the sensory cortex and Broca's area on two awake patients under local anesthesia, and mapped Wernicke's area in three other patients. These investigators concluded that while their initial studies had some technical problems, "[n]evertheless, high resolution optical imaging of human epileptic and functional regions has the potential to allow studies of the fine structure of epileptic foci and cognitively evoked optical changes during motor, language, and memory tasks" (p. 671).

While Haglund, Ojemann, and Hochman did not mention near-death experiences (NDEs), I wonder whether optical imaging also has the potential to allow studies of the fine structure of the neuroanatomical site of the NDE. The near-death literature contains suggestions of a possible connection between the temporal lobes and NDEs. Melvin Morse, Paul Castillo, David Venecia, Jerrold Milstein, and Donald Tyler (1986) and Morse and Paul Perry (1990) based their temporal lobe/Sylvian fissure causal pathway model of the NDE on the work of Wilder Penfield and Theodore Rasmussen (Penfield, 1955; Penfield and Rasmussen, 1950), who reported that a few patients with epilepsy described something akin to an out-of-body experience when selective points along the Sylvian fissure were electrically stimulated.

Cherie Sutherland (1992) noted that Russell Noyes and Roy Kletti, Ernst Rodin, and Daniel Carr had each suggested a connection between the temporal lobes and NDEs prior to the Morse group's proposed model. Noyes and Kletti (1977) pointed out the possible association of NDEs with temporal lobe excitation; Rodin (1980) believed NDEs might be related to temporal lobe seizures; and Carr (1982)

suggested that NDEs may be similar to temporal lobe epilepsy or electrical brain stimulation.

Thus if Haglund, Ojemann, and Hochman continue to use the new technique of optical imaging on persons with intractable epilepsy, it is conceivable that one of these patients may have a near-death-like experience from the cortical stimulation or may actually undergo an NDE perhaps related to the surgery itself. Should an NDE occur during an optical imaging study, presumably we would then be able to determine the "fine structure" of the cortical area or areas related to the NDE. Such an optical imaging study, as fortuitous as it may be, would then provide us with a more definitive description of the neuroanatomy involved in NDEs. We might then begin to understand something of the nature of how the energy/soul/spirit/consciousness of a near-death or out-of-body experience interfaces with the brain.

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### **The Physical Basis of Out-of-Body Vision**

To the Editor:

Some time ago I suggested in this Journal some ways to advance our understanding of out-of-body vision (Krishnan, 1988). I would like to suggest three more strategies.

First, a number of people who have had an out-of-body experience (OBE) spontaneously have claimed that when the experience occurred in conditions of darkness, they could see the environment clearly and in color, just as they could in daylight in the normal state (Green, 1968). That is not how we normally see in the dark. In total darkness we cannot see anything at all. But if there is just enough light to stimulate the photosensitive elements in the retina, they adapt gradually to the low intensity of light. It takes about an hour for the eyes to become fully dark-adapted, and even then we do not see objects in any detail or in normal colors. They may be seen as different shades of gray or they may take on a greenish or bluish shade (Vernon, 1971).

Since out-of-body experiencers (OBErs) have not reported these characteristics of normal dark vision, the question arises whether they were hallucinating or using some unknown physical perceptual processes. The cases of OBEs in the dark that have been cited in the literature are not very helpful in deciding this question, because they generally do not seem to have been verified. Therefore, in future research it would be important to verify claims of clear out-of-body sight in darkness.

If it is confirmed that OBErs do see objectively in the dark and are not hallucinating, then we can examine whether or not this form of perception resembles normal dark-adapted vision. That may help us address questions such as whether it is visible light or some other form of electromagnetic radiation that serves as the carrier of information in out-of-body vision, what may be the receptors sensitive to the information carrier, and what could be the related afferent neural pathways. I give below, by way of illustration, some examples of the kind of inferences that can be made about the information-carrying radiation involved in out-of-body sight.

If the OBEr's vision is like that of someone whose eyes are dark-adapted, that would suggest that visible light could be the information carrier and that the receptors could be like the rods and cones of the retina. On the other hand, if OBErs are able to see correctly in complete darkness, that would imply that the receptors involved are not of the retinal kind and that the carrier of information is not visible light,

though it might be some other form of electromagnetic radiation. Finally, if subjects cannot see at all in total darkness but are able to perceive in dim light in color and as clearly as we do normally in daylight, that would indicate that visible light is necessary for out-of-body sight but that the light receptors differ in photosensitivity from those in the retina.

My second suggestion derives from the finding that several experiencers have reported "seeing" events in their immediate vicinity but outside their visual field (Sabom, 1982). Such cases may mean only that the eyes may not play a part in out-of-body sight; they do not rule out the involvement of other parts of the visual system. Indeed, one of the features of out-of-body vision supports this view. It usually takes some practice to learn a new way of doing a familiar task. For example, a righthanded person will not be able to write with the left hand clearly and quickly at first try, but only after some days or weeks of practice. But it appears from verified OBEs that the subjects do not have to learn to see without the use of the eyes; they readily begin to see just as one would when one opens one's closed eyes (Sabom, 1982). That, I should think, would not be possible without some of the deeper elements of the visual system vitally concerned with sight coming into play.

If out-of-body sight does not occur independently of the visual system, what neural structures might underlie it? One hint comes from a speculation made by Stanislav Grof and Joan Halifax-Grof (1976) about near-death experiences. They pointed out that the cellular elements of the old subcortical parts of the brain are less sensitive to lack of oxygen than those in the newer cortex, and therefore they may survive longer than those in the cortex after the cessation of the heartbeat. That means that even when the electroencephalograph is flat, brain activity could still be going on in the old brain.

Grof and Halifax-Grof suggested that if consciousness is associated with the subcortical regions, then NDEs could be the conscious concomitants of the old brain processes. It is noteworthy in this connection that the pioneering neurosurgeon Wilder Penfield (1975) held the view that the neural substratum most essential for consciousness lay in the older brainstem. I think the suggestion offered by Grof and Halifax-Grof makes a good case for investigating the role of the old subcortical brain in out-of-body sight.

Another hint of the neural structures underlying out-of-body vision comes from experiments with persons whose primary visual cortex has been damaged. These patients may insist that they cannot see a thing,

and yet when they are asked to touch or look at a light placed in front of them they are able to do so accurately. In other words, they know, or as they put it, they "feel," the direction in which they should look. Experiments on baby hamsters, some of them with their primary visual cortex removed and others with their midbrain visual center destroyed, suggest that in mammals, including human beings, the midbrain visual region functions to locate *where* an object is and the primary visual cortex to see *what* it is (Nathan, 1983). The implication of this finding for out-of-body vision is that, since OBErs have no difficulty recalling after the experience the location of objects and individuals in their immediate environment, it is possible that the midbrain visual region participates in out-of-body sight.

Finally, as pointed out above, experiencers do not appear to have to learn to see extraocularly. Why then can't they evoke this form of vision at will? One possibility worth examining is that the receptors involved in out-of-body vision may not ordinarily be sensitive to register information, but only become sensitive under special circumstances. That is, out-of-body sight manifests only when the sensitivity of its receptors rises to a certain level, and it disappears when their sensitivity falls below that level.

This proposal is not a farfetched one. It is known that individuals sometimes develop unusual abilities under certain circumstances, even though the underlying mechanism is far from clear. For example, many psychics have dated the development of their "powers" to the time when they were gravely ill or were involved in a serious accident. Deficiency of adrenal cortical hormones increases sensory acuity to an extraordinary extent (Luce, 1973). Yet another example comes from Alfred Binet's experiments on hysterical subjects with anesthetic skin areas. He found that when he lightly pressed a steel disk with a design in relief against an anesthetic area on the back of the neck of one of these subjects she experienced a visual image of the design vivid enough for her to draw (McGurdy, 1961).

In the case of out-of-body vision, what may make the involved receptors sensitive? I suggest that all situations in which the experience is known to occur are marked by sensory deprivation, in the general sense of reduced input of patterned information to the brain. Out-of-body sight may be one of the ways in which the subject's need for information or stimulation is satisfied (Krishnan, 1985). It seems useful therefore to investigate whether sensory deprivation, or the stress that it causes, has biochemical or other concomitants that can alter receptor sensitivity.

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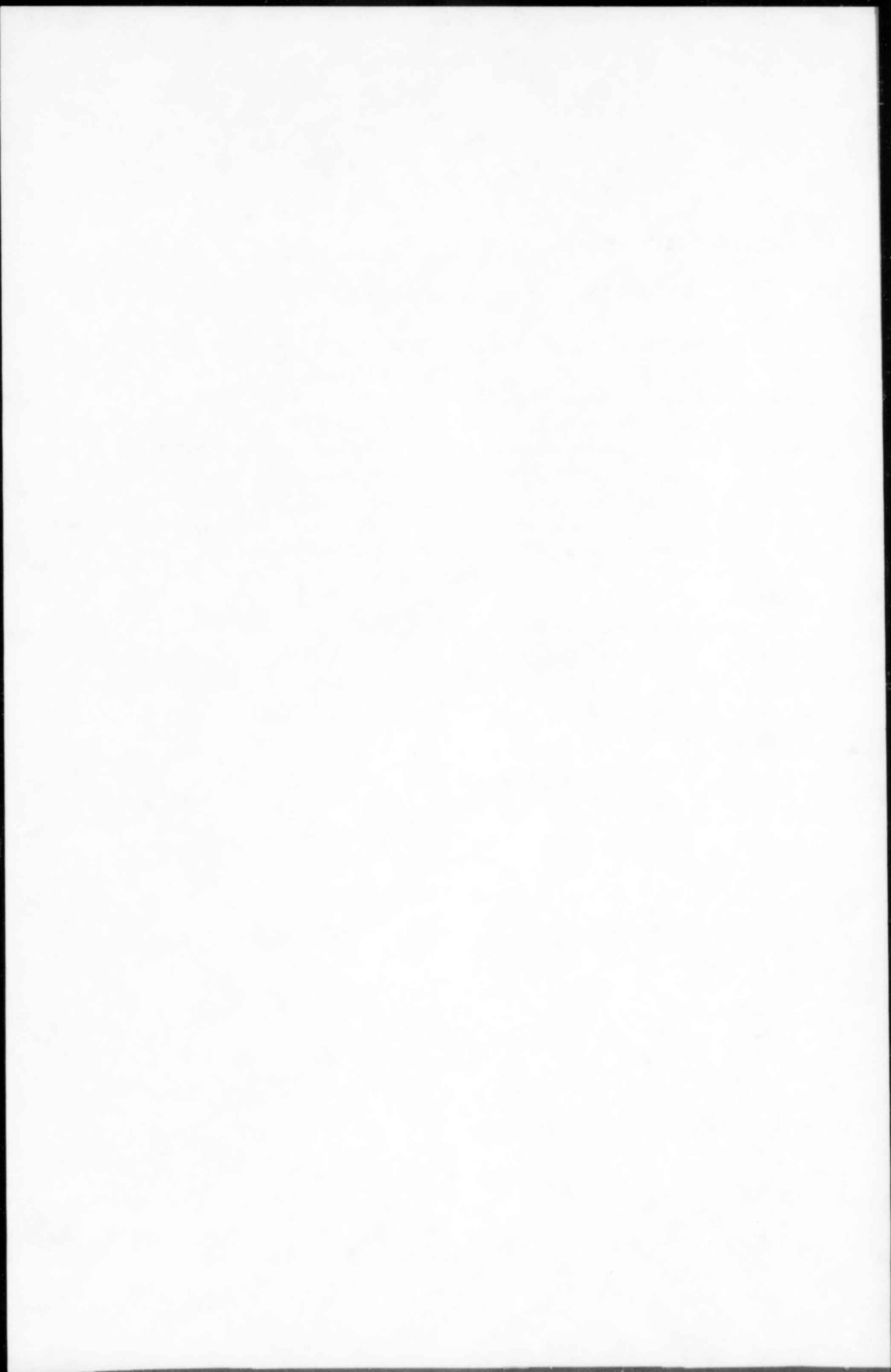
# Announcement

## IANDS 1993 North American Conference

The International Association for Near-Death Studies (IANDS) will hold its 1993 North American Conference at Washington University in St. Louis, Missouri, June 25-27 (Friday evening through Sunday mid-day). The conference will include near-death experienter workshops, workshops for "Friends of IANDS" leaders and participants, a symposium for academic researchers, special interest groups, and keynote speakers Maggie Callanan, coauthor of *Final Gifts*; Rev. Dr. George Rodonaia, a near-death experienter from Russia; Bruce Greyson, M.D., psychiatrist and Research Director of IANDS; and Betty Eadie, author of *Embraced by the Light*. Continuing Education Units will be available.

Further conference information, including program outline and costs for rooms, meals, and registration, is available from IANDS at its central office:

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## INSTRUCTIONS TO AUTHORS

**THE JOURNAL OF NEAR-DEATH STUDIES** encourages submission of articles in the following categories: research reports; theoretical or conceptual statements; papers expressing a particular scientific, philosophic, religious, or historical perspective on the study of near-death experiences; cross cultural studies; individual case histories with instructive unusual features; and personal accounts of near-death experiences or related phenomena.

**GENERAL REQUIREMENTS:** Logical organization is essential. While headings help to structure the content, titles and headings within the manuscript should be as short as possible. Do not use the generic masculine pronoun or other sexist terminology.

**MANUSCRIPTS** should be submitted in triplicate, typed on one side of the page only, and double spaced throughout. A margin of at least one inch should be left on all four edges. Except under unusual circumstances, manuscripts should not exceed 20, 8 ½ x 11" white pages. Send manuscripts to: Bruce Greyson, M.D., Department of Psychiatry, University of Connecticut Health Center, Farmington, CT 06032.

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**REFERENCES** should be listed on a separate page and referred to in the text by author(s) and year of publication in accordance with the style described in the Publication Manual of the American Psychological Association, 3rd Edition, 1983. Only items cited in manuscripts should be listed as references. Page numbers must be provided for direct quotations.

**ILLUSTRATIONS** should be self-explanatory and used sparingly. Tables and figures must be in camera-ready condition and include captions.

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