

## Katie Paterson

### Inside this Desert

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## Sublime Darkness

Christine Kintisch

Katie Paterson's work investigates unfathomably large or distant events in nature and the universe, posing the biggest questions of all: How could the universe arise out of nothing? Is nothing nothing, or something? How is the explosion of stars connected to our lives? Simultaneously rigorously conceptual and extremely romantic, Paterson's art is based on serious scientific research while at the same time casting a humorous sidelong glance at metaphysical topics and material phenomena. Whether she is letting music disappear into outer space, making audible the melting of Icelandic glaciers, or sacrificing Vivaldi's *Four Seasons* to the Earth's rotation – the non-visible is always at the heart of these beguiling meditations on our universe.

Interestingly, Paterson often combines her work on cosmological experience with elements of the mundane. This entanglement focuses – not without irony – on a poetic concept of unity that is less far-fetched than it might seem. In recent years, a number of brilliant insights and amazing discoveries have shaken the foundations of our knowledge of the universe – for example, the fact that every single atom in our bodies was once part of an exploded star. What is more, the atoms in our left hand are probably from a different star than the atoms in our right hand. We are all literally children of the stars, our bodies made of stardust. In connecting distant and intangible phenomena like the moon or dying stars to the Earth, Paterson makes use of everyday technology such as door bells, record players, pianos, and moonlight lamps. She pursues a rigorous and at the same time ironic concept of the sublime, simultaneously following a tradition of emptiness and the romanticism of the poetic nocturne.

*Inside this desert lies the tiniest grain of sand* (2010) tells the story of a sculpture, the tiniest imaginable grain of sand in the world, contrasting the monumentality of the desert with an ephemeral gesture that recalls W.G. Sebald's grain of sand in Emma Bovary's dress: *In a grain of sand in the hem of Emma Bovary's winter gown, said Janine, Flaubert saw the whole of the Sahara. For him, every speck of dust weighed as heavy as the Atlas mountains.* How tiny

can an object be before it ceases to exist? Nanotechnology experts created an unimaginably small fragment from a grain of sand, 0.00005 millimeters of the original, which Paterson then reburied in the Sahara. Ambivalently merging irony and sincerity, a black and white photograph depicts the artist at the edge of the desert, silhouetted against a vast sky, directly referencing historical Romanticism à la Caspar David Friedrich.

By means of such ephemeral gestures, Paterson pushes her work to the limits of immateriality and invisibility, following in her approach a well-established tradition in conceptual art. Ever since Marcel Duchamp declared an empty perfume bottle to be a sculpture (*50 cc of Paris Air*, 1919) and somewhat later Yves Klein organized the exhibition *The Void*, non-visible art has become a significant part of the conceptual landscape. Consider, for example, Robert Morris's planned steam sculpture, Carl Andre's "monuments" made by trickling sand from an upper floor into a conical pile on the ground below, or Sol LeWitt's elements hidden within other elements. In each of these works, it is up to the viewer to complete the work by contributing his or her own imagination, interpretation, or participation.

The strategy of the ephemeral and not-visible was most rigorously pursued by Robert Barry. A number of photographs and a brief text describe his literally invisible work *Inert Gas Series*. On 3 March 1969, under the palm trees of Beverly Hills, Barry released a liter of krypton into the atmosphere. In the following days he continued by releasing xenon in the mountains, argon at the beach, and helium in the desert. With the *Telepathic Piece*, Barry's work became even more ephemeral. For a group exhibition in Canada, he announced that he would transmit his piece by means of telepathy, since neither language nor images would suffice. In its precise notation, *Inside this desert lies the tiniest grain of sand* recalls On Kawara's *I Got Up* postcards and *I Am Still Alive* telegrams. Like many of Paterson's pieces, *Inside this desert lies the tiniest grain of sand* is based on a performance that is archived or filmed, but which cannot be repeated. The only documentation that remains is the

photograph of the artist on the edge of the dunes. An artistic concept is buried in the impressively pure physical mass of the Sahara or scattered in the air, yet persists as a productive concept.

This interweaving of varying temporalities can be read as a meditation on loss and transience. Time is a theme that runs throughout Paterson's work, whether in the early piece *Vatnajökull (the sound of)*, which juxtaposed the geological timeframe of an Icelandic glacier with the human timeframe of a phone call, in the more recent pieces on the cosmic and ancient time before the Earth's creation, or in the lifespan of a light bulb. While the ordinary lifespan of a light bulb represents a familiar measure of time, a lifetime supply of light bulbs has a melancholy all its own: within a small box, a lifetime of moonlight. In her charming attempts to communicate with other planets or Icelandic glaciers, Paterson correlates different timescales to one another – the human timescale to that of nature and the universe. This interest in time also manifests itself as an interest in infinity, the problem of time and space. She sends 4 minutes and 33 seconds of silence to the moon in reference to John Cage's silent composition, allows us to listen to the melting of Icelandic glaciers for nearly two hours, produces enough moonlight for an entire lifetime (66 years), broadcasts on television one minute of darkness from the farthest point of outer space, writes the history of darkness, catalogs the deaths of stars and announces them in dated letters, sends one of the world's most popular songs, Beethoven's *Moonlight Sonata*, to the moon and back (24 minutes 12 seconds), or lets a record of Vivaldi's *Four Seasons* rotate at the speed of the Earth. All these attempts to allow the world to communicate with the cosmos create a poetry of knowledge and mystery that leaves one astounded.

In recent years, the artist has increasingly become an expert on dying stars and darkness. In the piece *Ancient Darkness TV* (2009), she transmitted darkness from the edge of the universe. For this project, Paterson worked together with astronomers at the W.M. Keck Observatory in Mauna Kea, Hawaii, in order to broadcast an image of this "ancient darkness" via a New York television station.

The one-minute transmission shows us darkness from the furthest point of the observed universe at nearly 13.2 billion light years ago, shortly after the Big Bang and long before the creation of the Earth, as the stars, galaxies, and the first light began to develop. The footage is presented in the gallery as a continuous loop, book-ended by excerpts of the original regular television program.

*History of Darkness* (2010–ongoing) documents and archives darkness from distant parts of the universe. Collected over several years, the scientific photographs of darkness are transferred to 35 millimeter slides, each of them numbered by hand with the distance from Earth in light years. Contained within a small box are examples of incredibly distant darkness from the oldest points in the universe. Almost inevitably, this raises associations to the portable suitcase museums that Marcel Duchamp created between 1935 and 1940 under the title *La boîte-en-valise (The Box in a Suitcase)*: miniature monographs in small boxes.

The tiny black pictures evoke inconceivable distances and times. The slides are simultaneously fascinating and frustrating: Invited to remove and contemplate them, the viewer finds that, although they show examples of emptiness from vastly different places, they all look more or less the same. The endless expanse of the universe is transformed into an old-fashioned collection of family snapshots. *History of Darkness* can be read as an effective displacement of modernist monochrome paintings – calling to mind the paintings of Kasimir Malevitch or Yves Klein, which also grew out of the artists' mystically or cosmologically oriented sensibilities. *History of Darkness* is also reminiscent of the black paintings of Robert Rauschenberg, Ad Reinhardt, Mark Rothko, Frank Stella, and Barnett Newman, who used color as a means of transgression – transgressing the boundary between the visible and the invisible, the material and the spiritual, the conscious and the unconscious.

Paterson's alluring exploration of darkness also recalls the night skies, oceans, and deserts of Vija Celmins. The star-studded night sky in *All the Dead Stars* (2009) explores the immensity of darkness,

focusing on tiny points in the context of an incalculable vastness. The image appears fragile and ephemeral, based as it is on that singular human glance through the telescope in which time is frozen. A map of all 27,000 exploded stars known to humankind has been etched into a black aluminum plate. The all-over surface of the image, which has no center, reflects Paterson's interest in the sublime; the space becomes the setting for a drama that tells the story of lost stars and captures a sense of irretrievable loss. Just as the universe is potentially limitless, Paterson's all-over structures also appear to extend endlessly beyond the picture plane. *All the Dead Stars* is a melancholy depiction of loss.

*The Dying Star Letters* (2010–ongoing) bring to mind a black comedy in which the aggrieved recipients of the eponymous letters find written: I am sorry to inform you of the death of the star SN 2011kd. A series of dated condolence letters to different people announce the death of exploded stars. Astronomical institutes inform Paterson by technical means of the expiration of these stars, upon which she quickly writes letters to document this sad loss. Written by hand or printed on paper of various kinds and sizes, the letters serve as documentation of cosmic events.

Also sublime is *Light bulb to Simulate Moonlight* (2008), which reproduces the properties of lunar light with absolute accuracy. *Light bulb to Simulate Moonlight* consists of a single halogen light bulb glowing in the darkened gallery, together with lifetime supply of these blue bulbs (based on an average age lifespan of 66 years): 289 bulbs, each of which burns for an average of 2,000 hours. A rather brief lifetime relative to the timescale of nature and the universe. 2,000 hours, 289 incandescent lamps, the moon – the piece places these timescales in relation to one another.

Paterson's almost obsessive interest in science began with her final project at the Slade School of Fine Art in London. On an impulse she decided to travel to Iceland, where she worked as a maid and waitress at a hotel. Impressed by the elemental landscape of glaciers, exploding geysers, and volcanoes, this new experience

encouraged her to further investigate concepts of time and space and cosmology. Her time in Iceland also influenced the first of her pieces to receive wider public attention. *Vatnajökull (the sound of)* was presented at her graduation exhibition at the Slade, for which she created a neon sign that provided the number of her mobile phone. Callers were directly connected to the gurgling and hissing of an Icelandic glacier, in the lagoon of which Paterson had submerged an underwater microphone. The piece focuses on our lost relationship with nature, aiming to help reduce the distance between this ancient geological phenomenon and a human-scale phone call. During the exhibition, over 10,000 people from 47 countries dialed Paterson's phone number to hear the Icelandic glacier. *Vatnajökull (the sound of)* evokes the Japanese esthetic concept of *mono no aware*, a wistful sensitivity to the transient nature of all things – a sensibility that runs through all of Paterson's work.

Sound is the substance of numerous pieces that can be described as sculptures, that occupy space by means of their timescale. One such sculpture is the ghostly piano that plays flawed music in *Earth-Moon-Earth (Moonlight Sonata Reflected from the Surface of the Moon)* (2007), a testament to failed communication with the moon. Here Beethoven's *Moonlight Sonata* was translated into Morse code and beamed to the moon. The moon returned the music to earth incomplete, as illustrated by an image of the notes lost in transmission.

In *As the World Turns* (2011), the music of Vivaldi's *Four Seasons* disappears as the turntable rotates in synchronization with the speed of the Earth's rotation. The turntable completes one revolution every twenty-four hours; it would therefore take four years to play the record from beginning to end. Even the "mute" works reference sound, such as the sound of the explosion in *Black Firework for Dark Skies* (2010), which shows the ashes of a black firework detonated under a night sky at an undisclosed location in the UK.

And even the silence that Paterson has beamed into space may well have collected a whole range of sounds during its journey, yet which we are unable to hear.

The light of long-expired stars sparkles in the bright colors of thousands of confetti pieces that simulate gamma-ray bursts. The performative project *100 Billion Suns* was originally created for the opening of the 2011 Venice Biennale. The work is a reconstruction of the history of gamma ray bursts, the brightest explosions in the universe, with a luminosity that is one hundred billion times greater than that of the sun.

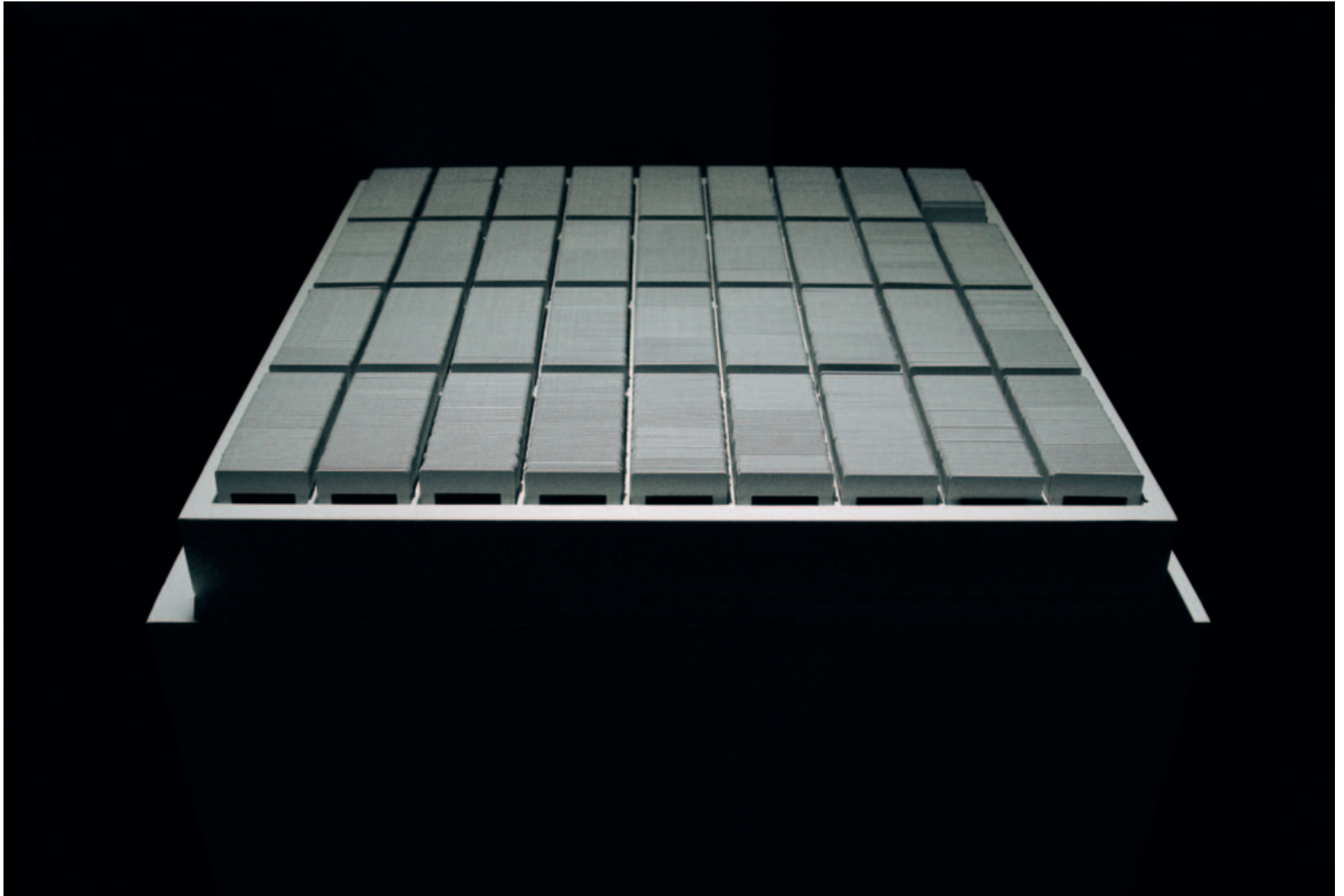
Paterson took 3,216 of these bursts of light from photographs found on the Internet and produced color-matched confetti. The depths of the universe are reduced to a colorful heap, the remnants of a loud party. Within less than a second, each salvo of confetti recreates the enormity of the cosmic bursts in a miniature explosion. At last year's Venice Biennale, the confetti cannon was fired at regular intervals at unspecified locations, from the largest piazzas to the smallest alleyways.

With uncompromising beauty and simplicity, Katie Paterson again and again transforms the mundane into profound meditations on the sublime and its loss.

Inside this desert lies the tiniest grain of sand  
2010



History of Darkness  
2010–ongoing







Ancient Darkness TV  
2009



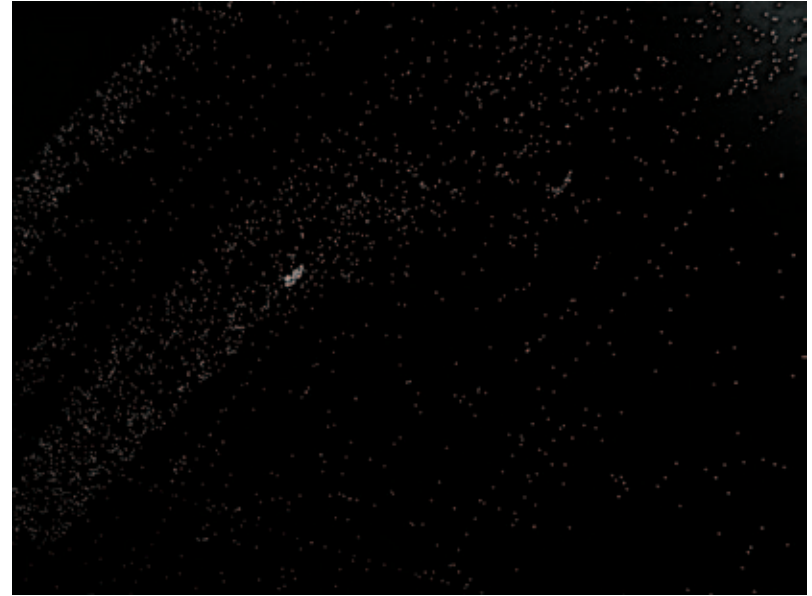
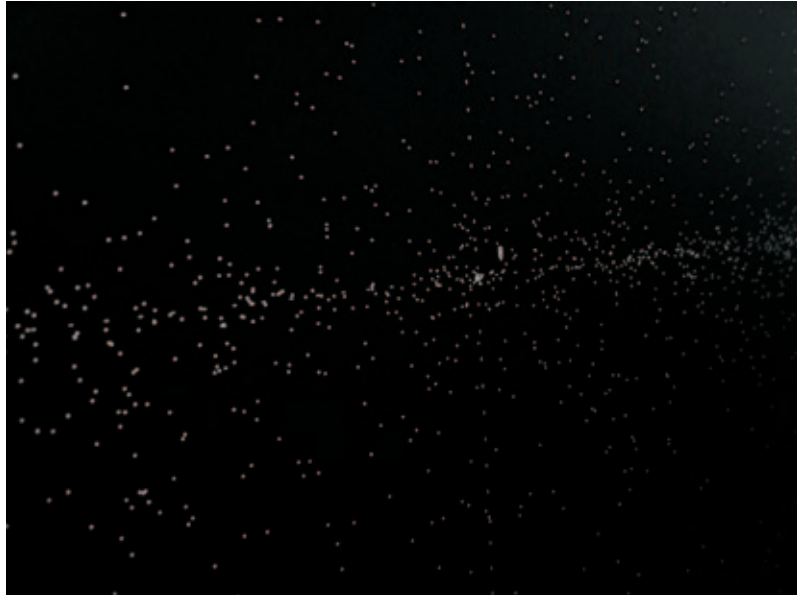
100 Billion Suns  
2011





All the Dead Stars  
2009





Campo del Cielo, Field of the Sky  
2012



As the World Turns  
2011



The Dying Star Letters  
2010–ongoing





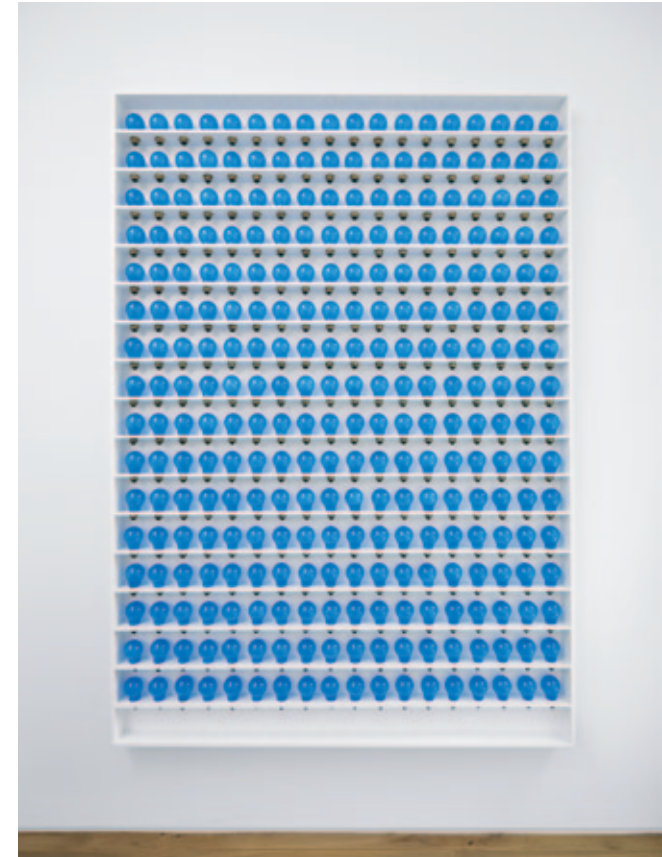


Dying Star Doorbell  
2008



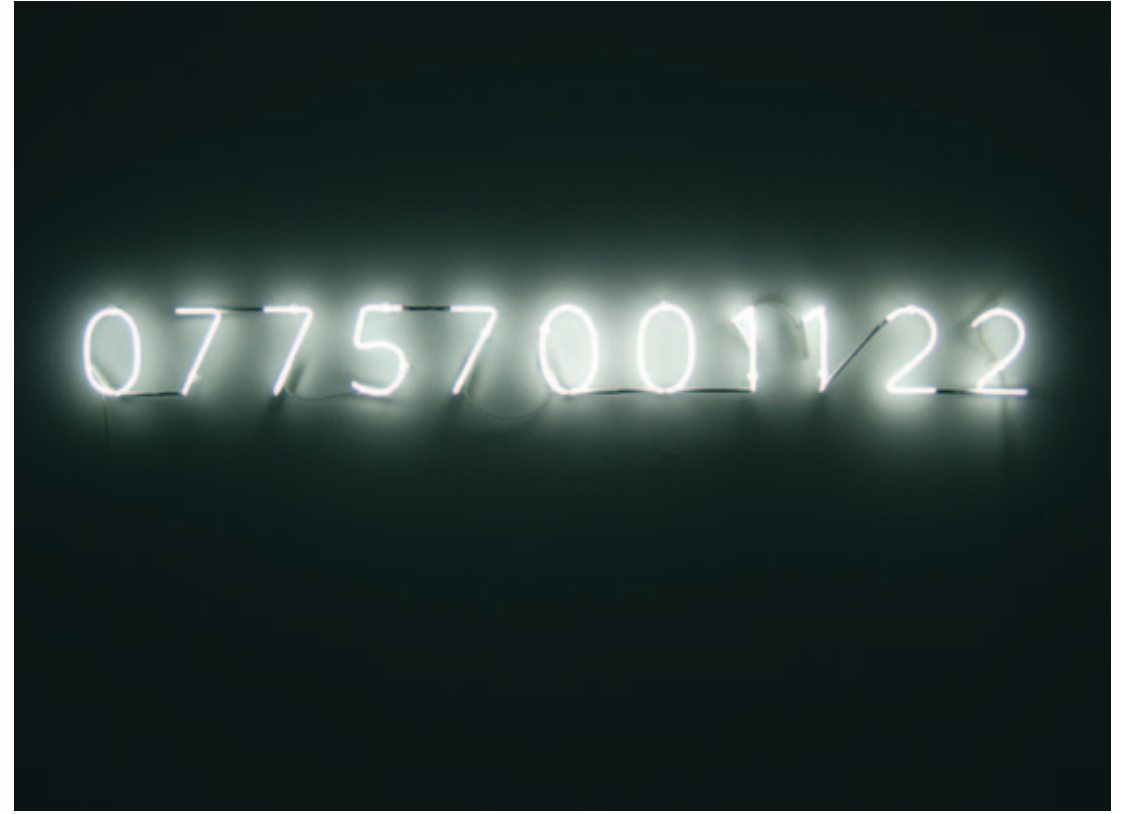
Light bulb to Simulate Moonlight  
2008





Vatnajökull (the sound of)  
2007/8





Earth-Moon-Earth (Moonlight Sonata Reflected  
from the Surface of the Moon)  
2007

















## Works

## Credits



10–11

### **Inside this desert lies the tiniest grain of sand** 2010

A grain of sand collected from the Sahara Desert was chiseled to 0.00005 mm, using special techniques in nanotechnology. This new minute grain of sand was then taken back to the Sahara and buried deep within its vast desert sands.

Black and white photograph  
Photo MJC



12–15

### **History of Darkness**

2010–ongoing  
*History of Darkness* is a slide archive; a life-long project, it will eventually contain hundreds upon thousands of images of darkness from different times/places in the history of the universe, spanning billions of years. Each image handwritten with its distance from earth in light years, and arranged from one to infinity.

Slide archive and black and white photographs, debossed mounts  
pp 12–14: installation views BALTIC Centre for Contemporary Art, 2010  
Photos Katie Paterson  
p 15: installation view Ingleby Gallery, Edinburgh, 2011  
Photo Ingleby Gallery



16–17

### **Ancient Darkness TV** 2009

Working with astronomers from the W.M. Keck Observatory, an image of “ancient darkness” was transmitted on New York television station MNN. Broadcast for one minute, it revealed darkness from the furthest point of the observed universe, 13.2 billion years ago, shortly after the Big Bang and before Earth existed, when stars, galaxies, and the first light began to form.

TV broadcast, VHS transfer to DVD,  
6 minutes 9 seconds  
Photo Katie Paterson



18–21

### **100 Billion Suns** 2011

Gamma-ray bursts are the brightest explosions in the universe, which burn with a luminosity 100 billion times that of our sun. The confetti cannons created for *100 Billion Suns* contain 3,216 pieces of paper whose colors correspond to each of these cosmic events. Every burst of confetti creates a miniature explosion of all of these vast explosions, in just under a second.

Confetti cannon, 3,216 pieces of paper  
pp 18–19: Photo Katie Paterson  
p 20: installation view Cornerhouse, Manchester  
Photo We Are Tape  
p 21: installation view James Cohan Gallery, New York, 2011  
Photo James Cohan Gallery



22–25

### **All the Dead Stars** 2009

A map documenting the locations of just under 27,000 dead stars – all that have been recorded and observed by humankind.

Laser-etched anodized aluminum  
pp 22–23: installation view Tate Britain, 2009  
Photo MJC  
pp 24, 25: Photos Katie Paterson



26–27

### **Campo del Cielo, Field of the Sky** 2012

A large Campo del Cielo meteorite, which has been travelling through space and time for over four and a half billion years, has been cast, melted, and then re-cast back into a new version of itself, retaining its original form. A newly formed yet still ancient meteorite, still imbued with its cosmic history.

Iron meteorite  
Photos Giorgia Polizzi  
This project was commissioned by The Royal Borough of Kensington and Chelsea for the Exhibition Road Show 2012

## Works



28–29 **As the World Turns**  
2011  
A turntable that rotates in time with the earth, one revolution every 24 hours, playing Vivaldi's *Four Seasons*. If performed from beginning to end, the record would play for four years. The movement is so slow it is not visible to the naked eye, yet the player is turning, imperceptibly.



30–33 **The Dying Star Letters**  
2010–ongoing  
Upon hearing the news that a star has died, the artist writes and posts a letter, announcing its death.



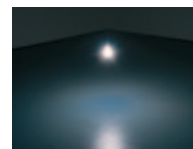
34–35 **Dying Star Doorbell**  
2008  
The sound of a dying star (a tiny hum close to a middle C) plays every time the door is opened.

## Credits

Prepared record player  
Installation view Haunch of Venison, London, 2012  
Photo Peter Mallet

Ink on paper  
p 28–29, 31:  
installation views Haunch of Venison, London, 2012  
Photos Peter Mallet  
p 30: installation view James Cohan Gallery, New York, 2011  
Photo MJC

Sensor, speaker, sound file  
1 second  
Photo MJC



36–39 **Light bulb to Simulate Moonlight**  
2008  
Produced with the lighting company OSRAM in series of “lifetimes,” each set contains a sufficient quantity of light bulbs to provide a person with a lifetime supply of moonlight, based on the current average life-span for a human being alive in 2008. (Each bulb burns for 2000 hours, a lifetime contains 289 bulbs).



40–43 **Vatnajökull (the sound of)**  
2007/8  
An underwater microphone lead into Jökulsárlón lagoon – an outlet glacial lagoon of Vatnajökull, filled with icebergs – connected to an amplifier, and a mobile-phone, which created a live phone line to the glacier. The number +44(0)7757001122 could be called from any telephone in the world, the listener put through to Vatnajökull. A white neon sign of the phone number hung in the gallery space. An archive of this artwork is presented in the exhibition.  
Neon, photographs, sound recording, book  
pp 38, 39: installation views, Iceland, 2007  
p 40: installation view, Iceland, 2008  
p 41: installation view Modern Art Oxford, 2008  
Photos Katie Paterson

## Works

## Credits



44 – 47

### **Earth-Moon-Earth (Moonlight Sonata Reflected from the Surface of the Moon)** 2007

Earth-Moon-Earth (E.M.E.) is a form of radio transmission whereby messages are sent in Morse code from earth, reflected from the surface of the moon, and then received back on earth. The moon reflects only part of the information back – some is absorbed in its shadows, “lost” in its craters. Beethoven’s *Moonlight Sonata* was sent to the moon via E.M.E. Returning to earth fragmented by the moon’s surface, it has been re-translated into a new score, the gaps and absences becoming intervals and rests. In the exhibition space the new “moon-altere” score plays on a self-playing grand piano.

Disklavier grand piano  
p 44: photo Katie Paterson  
p 45: installation view, Cornerhouse,  
Manchester, 2011  
Photo We are Tape  
pp 46, 47: ink on paper  
Photos Katie Paterson

## Biography

Katie Paterson was born in Scotland in 1981 and studied at the Slade School of Fine Art, graduating in 2007. Paterson has exhibited internationally, recent exhibitions include the Modern Art Museum in Fort Worth, the Art Institute of Chicago, Modern Art Oxford, Power Plant, Toronto, PERFORMA, New York, *Altermodern* (Tate Triennial 2009) at the Tate Britain, BALTIC, Kunsthalle Wien, and Haunch of Venison, London. She was recently Leverhulme Artist-in-Residence at the Physics and Astronomy Department of the University College London and held a John Florent Stone fellowship at the Edinburgh College of Art. Her work features in the collections of the Scottish National Gallery of Modern Art, Edinburgh, the Guggenheim, New York, the Zabudowicz Collection, London, ARTIUM, Spain, and the Art Gallery of New South Wales, Sydney.

### **Katie Paterson**

*Inside this Desert*  
September 12 – November 11, 2012  
BAWAG Contemporary  
Franz-Josefs-Kai 3  
1010 Vienna

#### **Exhibition**

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