



# Outlines of Astronomy (The stars are dead but their light lives on)

# FIONA ANNIS



## An Ode to Astronomy and Dr. Spock

*A response by*

**Daina Warren**

I am writing this just a few days after the passing of Leonard Nimoy, and I want to acknowledge his character, Dr. Spock, and the incredible influence and inspiration he had on our ideas about space and what we imagine about it. Spock and the Star Trek crew incited many emotions and thoughts concerning space, curiosity, fascination, dread, excitement, fear, puzzling challenges, and extreme mathematical articulations. We can also easily see parts of the real universe either online or by watching any space documentary where the images come from telescopes, observatories, and various space crafts such as Voyager 1 and 2.<sup>1</sup> Both illustrate that our apprehension of the universe is both simple and bizarrely complex.

Space was thought to be infinite just a couple decades ago but now some scientists think of it as being more like a cosmological bubble.<sup>2</sup> There are billions of stellar remnants: planets, moons, black holes, supernovas, wormholes, and gases. The light that all these celestial bodies produce is billions of light years away and some of those bodies may be long gone.<sup>3</sup> It makes the mind ache. Fiona Annis' exhibition, *Outlines of Astronomy (the stars are dead but their light lives on)*, is a poetic gesture towards mathematics, physics, and astronomy and ideas about light, time, mass, gravity, and the ephemerality of both celestial objects and art objects.

The installation created a dark contemplative space in aceartinc's gallery. One is engulfed by the obscurity of the room. As eyes adjust to the dimness, one first becomes aware of the minimal aesthetic of the multitude of bare light bulbs suspended from their own electrical cords at varying levels.<sup>4</sup> Several of the bulbs slowly, rhythmically illuminate and dim, softly incandescent. Annis chose to have the light pulsate to the rhythm of the supernova explosion 1987A, which could be seen with the naked eye when it exploded on February 24, 1987. Scientists believe that the actual supernova happened around the Middle Paleolithic period in our Earth time but it had taken that long for the light event to reach us.<sup>5</sup> The timing of the light bulbs' rhythm and how we perceive their light is significant. It takes 1 billionth of a second for light to travel one foot, so there is a miniscule delay while the light from the bulbs travels to our eyes.<sup>6</sup> This concept is working on a micro level in the installation but it illustrates the temporal relationship between celestial bodies and the earth.

In front of three of the gallery's walls sit three reel-to-reel machines, each playing a single roll of audiotape that is strung from floor to ceiling in square formations; the audiotapes produce constant, low, grinding sounds that are derived from the radio waves of exploding supernovas.<sup>7</sup> During the course of the exhibition the audiotape will slowly but steadily erode, distorting the sounds and making them fainter, the audioscape thereby disintegrating



illustrating the impermanence of matter. This leads us to the thought that large celestial bodies (like massive stars) live and die, a concept that we humans can relate to in terms of aging, mortality, and time, but which simultaneously seem minute and fleeting in comparison to the universe's approximate 13.8 billion years.<sup>8</sup>

In the far back corner of the gallery is an illuminated, unidentifiable machine on a small white plinth with a sign that says "Please turn handle". A small dark square is mounted on the wall behind it. Upon turning the handle of what looks like an old pencil sharpener, light radiates from behind the dark square and a small white circle becomes visible in its centre. *Star Machine (Halley's Passing)* is actually constructed from an old telephone crank's repurposed dynamo: turning the handle creates electricity that powers a bulb hidden



behind the dark square which allows us to distinguish a faint image. The image is from a photographic plate from an observatory that tracked the passing of Halley's Comet in 1910 which the artist sourced from a second hand shop.<sup>9</sup> It's interesting to note that by the time Halley's Comet had swung back into our inner solar system in 1986, it was just one year before the light of the supernova 1987A explosion reached Earth.<sup>10</sup> Two major space events occurring almost at once, and that are rarely observed on their own is a

phenomenon that Fiona has brought together in her installation, perhaps as another comment on perception of time.

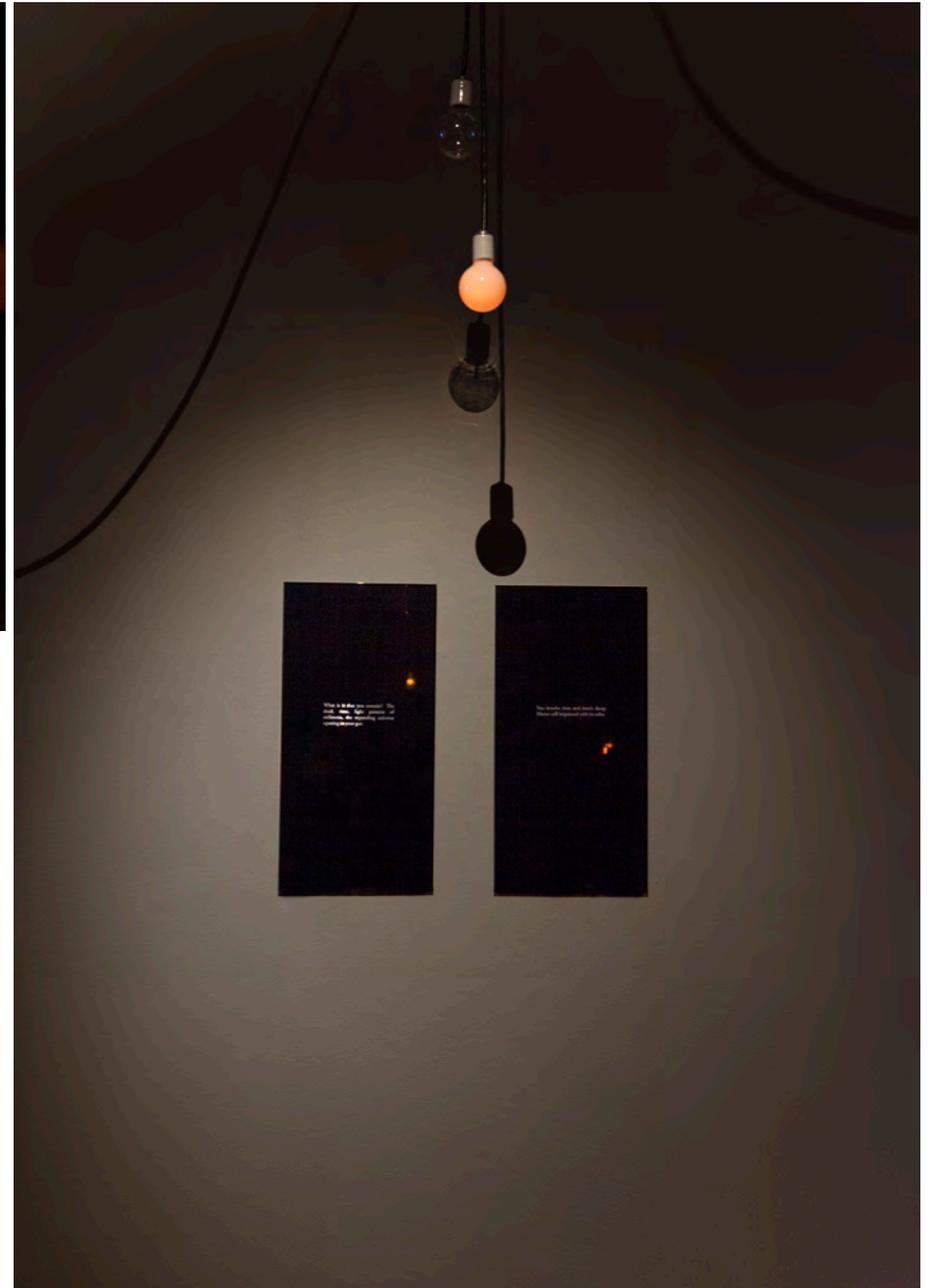
Hung on three of the exhibition walls are six two-dimensional, sleek, mirror-like black rectangles with text engraved on them that refer to various ideas from quantum physicists and theorists, as written about by Jeanette Winterson in her novel, *Gut Symmetries*:

What is it that you contain? The  
dead, time, light patterns of  
millennia, the expanding universe  
opening in your gut.

“If we accept Hawking’s idea that we should treat the entire universe as a wave function, both specifically located and infinite, then that function is the sum of all possible universes, dead, alive, multiple, simultaneous, inter-dependent, and co-existing.”<sup>11</sup>

The viewer’s own image is reflected upon the dark, glossy surface when contemplating these engraved descriptions and concepts about time and space. By looking into the black mirrors in this particular location for this one instant, thinking about vastness, “We, and the sum of the universe cannot be separated.”<sup>12</sup>

Annis chose Supernova 1987A as the chief source of material for the exhibition because this light event resembles an infinity symbol to her, a sign familiar to many people but in particular to the Métis community in Winnipeg, who have



integrated it into their culture.<sup>13</sup> The Métis flag is a white infinity sign on a blue background, the white symbol representing the mixing of two cultures in a specific time and space of a group of people who have recently been granted treaty territories within Manitoba.<sup>14</sup> The infinity sign is also a loaded signifier in math and science because it represents the idea of a quantity without end, something hard to imagine.

Presently some theoretical physicists, like Laura Mersini-Houghton, think that our galaxy has a limit, and other scientists have even started to guess at the approximate shape of our universe, or that there is even celestial line that can be drawn where our universe ends.<sup>15</sup> It seems that even something as big as the universe may have an end to it. What's next or left after that? Everything that exists has a beginning, so does everything that exists have an ending? Or perhaps its form simply changes if we believe that matter and even energy changes form rather than disappear... Fiona Annis has found expressive, multifaceted ways of reusing latent technologies to describe these complex ideas about space and what we perceive of our universe, from light bulbs that gently simulate the rhythms of the catastrophes of faraway stars and supernovas, to the use of reflections to show our place in large, dark, mysterious space.

## Notes

- 1 *Voyager Goes Interstellar*, <http://www.jpl.nasa.gov/news/news.php?release=2013-277>, March 3, 2015.
- 2 *Through the Worm hole – Season 2, Episode 2 Is there an Edge to the Universe*, posted by “The Science Channel”, March 10, 2015.
- 3 Plait, Phil, *Art the Stars You see in the Sky Already Dead?*, [http://www.slate.com/blogs/bad\\_astronomy/2013/08/13/are\\_the\\_stars\\_you\\_see\\_in\\_the\\_sky\\_already\\_dead.html](http://www.slate.com/blogs/bad_astronomy/2013/08/13/are_the_stars_you_see_in_the_sky_already_dead.html), March, 10, 2015.
- 4 Annis, Fiona. *Untitled Symphony (SN 1987A)*; installation; 2014
- 5 Cooper, Keith, *Astronomy Now*, <http://www.astronomynow.com/news/n1202/23sn/>, March 10, 2015.
- 6 Plait, Phil, *Are the Stars You see in the Sky Already Dead?*, [http://www.slate.com/blogs/bad\\_astronomy/2013/08/13/are\\_the\\_stars\\_you\\_see\\_in\\_the\\_sky\\_already\\_dead.html](http://www.slate.com/blogs/bad_astronomy/2013/08/13/are_the_stars_you_see_in_the_sky_already_dead.html), March, 10, 2015.
- 7 Annis, Fiona. *There is music in the spacing of the spheres*; audio installation; 2013
- 8 Taylor Redd, Nola, *How Old is the Universe?*, <http://www.space.com/24054-how-old-is-the-universe.html>. March 10, 2015.
- 9 Annis, Fion. *Fiona Annis*, <https://vimeo.com/69016241>, March 10, 2015.
- 10 Howell, Elizabeth. *Halley's Comet, Facts About the Most Famous Comet*, <http://www.space.com/19878-halleys-comet.html>, March 10, 2015.
- 11 Annis, Fiona. *Matter imprinted with its echo* (Plates 1-6); engraved plates; 2013.
- 12 Winterson, Jeanette. *Gut Symmetries*, Great Britain London, Granta Books, New York, USA, Alftred A. Knopf, Inc., 1997, page 162.
- 13 Annis, Fiona, *Fiona Annis*, <https://vimeo.com/69016241>, March 10, 2015
- 14 *The Metis Flag*, <http://www.ictinc.ca/blog/the-metis-flag>, March 10, 2015.
- 15 *Through the Worm hole – Season 2, Episode 2 Is there an Edge to the Universe*, posted by “The Science Channel”, March 10, 2015.



*Star Machine (Halley's Passing)*, Antique magneto-powered lightbox with photographic plate from observatory archive (1910), 2014

Critical Distance is a writing program of **aceartinc.** that encourages critical writing and dialogue about contemporary art. The program is an avenue for exploration by emerging and established artists and writers. Written for each exhibition mounted at **aceartinc.** these texts form the basis of our annual journal Paper Wait.

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**Daina Warren** is from the Akamihk Cree Nation, and was first awarded Canada Council's Assistance to Aboriginal Curators for Residencies in the Visual Arts (2000) working with grunt gallery until 2009. She completed a second Canada Council Aboriginal Curatorial Residency at the NGC and curated the group exhibition *Don't Stop Me Now*. She received her BFA from the Emily Carr University of Art and Design (2003) and later graduated from UBC with a Masters in Art History (CCST program, 2012). She was recently awarded the 2015 Emily Award and is Director of Urban Shaman Contemporary Aboriginal Art in Winnipeg, MB.

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