Introduction

Bill Morrison is an internationally celebrated film artist, known for editing archive film footage to the music of contemporary composers, from Bill Frisell and Jóhann Jóhannsson to Alex Somers and the American band Lambchop.

In 2016, the Museum of Science and Industry in Manchester, with support from Wellcome Collection and Consultant Curator and Exhibition Originator Paul Bonaventura, commissioned Bill to produce a film for the exhibition Electricity: The spark of life. The work draws on a collection of educational and promotional films from the British Electrical Development Association, which the Museum of Science and Industry holds as part of its Electricity Council archive.
In a commissioned film, American artist and filmmaker Bill Morrison used material from the Electricity Council archive at MSI (the Museum of Science and Industry) in Manchester to create a visual journey that explores the production and distribution of electricity and its profound impact on our daily lives.

In this animated world, Morrison shows how electricity, when abstractly represented as elemental units moving through space, can mirror a broader reading of our natural state as intrinsically electric beings.

Working with an original score created by his frequent collaborator, the guitarist and composer Bill Frisell, Morrison recontextualises familiar graphic themes as a reflection on who we are as energy-dependent beings with interconnected lives across the planet.

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Jan Hicks is the archive manager at the Museum, and is lead curator for the Manchester version of Electricity: The spark of life. Bill and Jan worked together to ensure Bill had access to all the footage in the collection that had been digitised, and to create new high-definition digital copies for use in the final artwork. This is not the typical way that the archive at the Museum is used, and the films Bill selected from the collection are not the films typically requested from the archive. Rather than films promoting the benefits of electricity to the housewife, full of human interaction, Bill chose to work with films that illustrate the technical and scientific aspects of electricity generation and supply. As a result, Electricity is a work of grace and elegance that reveals the hidden nature of electric power. For Jan, working with Bill has provided a different perspective on the original films, encouraging her to view them as something beautiful as well as functional.

Electricity: the spark of life comes to the Museum of Science and Industry (MSI) in October 2018. The exhibition project team has redeveloped the show, taking Bill’s film as the inspiration and focal point of a story that presents the relationship between humans and electricity as one that has always existed but that has changed significantly through time.

Jan and Bill recently caught up to talk about the making of Bill’s film Electricity, and to explore how film brings a different language to understanding the complexity of human relationships with the tangible and intangible.
In conversation

Jan (JH): You were interviewed on camera by Wellcome Collection about the making of Electricity. In the interview, you start by saying that the films from the Museum’s collection aren’t themselves modern, but they deal with modern themes. I’m interested in films as objects, their content as objects, and what their content can tell us about attitudes at the time and how we might hold different attitudes now. When you were looking through the films, were you viewing them purely as a visual source, or did you also consider what they meant? What meanings did they reveal to you?

Bill (BM): Well, to begin with, the educational films we sourced at MSI for this project are still valuable teaching tools. A person with a lay understanding of electricity, such as myself, can still learn things from them that the original makers of the film intended viewers to learn. When I first viewed the films, I was drawn to the use of abstract animation to illustrate how electricity was conveyed. Many of the films depicted electrical current as a stream of charged particles, as represented by white dots on a black background. By using just these animated sequences, the films found a common language when edited together. And the charged particles, representing a subatomic world, seem to represent other currencies in different scales. Suddenly there was a macro aspect to this micro world, where inter-personal, social, and planetary exchanges were operating under the same laws.

JH: You also say that we’re beholden to electricity and that our relationship with it is one of making it work for us. This is a key strand of the story we will be telling when the exhibition comes to Manchester in October 2018. I wondered what you picked up from the films that led you to think about the human relationship with electricity.

BM: The films are concerned with demystifying electricity, and showing how it fits in to our households as an essentially nurturing part of our daily life. Electricity lights our homes, and gives us hot water and food. But it also shows how a charge can command the movement, and how a current is formed between oppositely charged poles. The existence of a current, regardless of which direction it is actually running, is more important than any intrinsic value any one of those particles may have. It is its capacity to be moved, and moved in conjunction with other particles, that is its value to the system as a whole.

JH: That’s really interesting. You’re talking about particles existing as a community, the way humans exist as communities. We’re all valuable as individuals, but it’s in the way we combine and separate that we influence the wider world. Would you agree, and do you think, being intrinsically electrical creatures, humans have a different relationship to electricity than they do with other forms of power? Perhaps, as John Gerrard’s piece for the exhibition, X. laevis, explores, the electrical impulses along our nervous system control us and we are therefore more inclined to be controlled by electricity at home, at work and at
leisure? I’m thinking about the way there are very few aspects of my life that don’t revolve around electricity, and when the power fails I’m often momentarily nonplussed.

BM: Yes, I agree. In 2012 ‘Superstorm’ Sandy pushed 4m of seawater into my New York City basement, shorting the entire infrastructure of my building as well as that of the surrounding neighbourhood. I suddenly realised that one of my responsibilities every day had always been to keep my computer and phone charged – and that I was now suddenly failing at that. Instantly we needed to adapt to our new reality without electricity. A generator was passed around to neighbours to pump our basements out. I carried gasoline in a milk jug on my bicycle to power that generator. We cooked over wood. This went on for six days before power was restored and a huge audible ‘whoop’ could be heard when the street lights went back on. There was this sense that we had become individual particles again for a moment, unmoored. And now we were once again part of a current, and oblivious to our role in it.

JH: I really like that image. I hope that it’s something we can get across in the exhibition. The idea that humans are all individual particles forming a current that gets things done and keeps things moving. Thinking about the way the abstract animations in the original films became a sort of language for you in creating Electricity, and how they spoke to you about forming communities, not just about visualising electricity, were there other unexpected ways in which the films spoke to you?

BM: Because of the reductive nature of the animations and what they seek to depict, it becomes something of a Creation story, with the particles first descending upon the planet, and then the electricity that forms us eventually enabling us to discover and harness nuclear energy. I found the imagery oddly spiritual in nature.

JH: And that chimes with the way electricity was originally viewed by people, doesn’t it? Thunderbolts being thrown around by Jupiter in Roman mythology, and the Renaissance fascination with lightning flashes as evidence of divine displeasure. There is something about lightning storms that connects with the essence of our being, that reminds us of how primitive a force electricity is and how primitive we are as creatures, despite our veneer of enlightenment. The films are mostly from the second half of the twentieth century, when science truly began to replace the divine in explaining the world and its workings. Do you think they invite us to position ourselves as the new gods as far as electricity is concerned? Is that another hidden language?

BM: Yes, that is a subtext in keeping with the optimism of twentieth-century modernism, particularly post Second World War – that we in fact are the gods. But with that comes an enormous amount of responsibility, so I don’t personally subscribe to that viewpoint. But I do think it is natural that we should power, transport, and communicate
electronically. I find the digital revolution to be a wholly organic one, and that this is our language.

**JH:** In your film, there are clips that illustrate how electricity is generated at an atomic level, with free electrons passing from atom to atom, creating a flow of electric charge. Thinking about how we’ve worked together on this project, I see you as a free electron and the Museum collection as the conductive material. Having you as the charge has sparked a creative flow through our collection, culminating in your film. I’d like to know how working with the Museum of Science and Industry’s film collection has differed from your usual practice? And how has that affected the final artwork? Did the knowledge that this film would be a focal point of an exhibition about electricity limit your creativity in any way?

**BM:** I was lucky that there was a very qualified archivist already installed at MSI, who could direct me to the collection in question. Knowing ahead of time that the exhibit was about electricity certainly did not limit my creativity. I felt like my job was to show how we are intrinsically electrical beings, and therefore everything we do or make is electric, and that electricity is simply the schema of that current.

**JH:** When I saw you at the Wellcome Collection preview of the exhibition, with my colleague Alice Cliff who has been working with me on the development of the exhibition content for Manchester, you were delighted that we were each wearing an outfit that incorporated dots. As we’ve already touched on, a lot of the animations that you take from the original films use dots as their visual language. What was their particular appeal to you? Did they come to have a different meaning to their original intent? Were they part of the new language you used in your film?

**BM:** Well it is always gratifying when your colleagues’ sartorial choices complement the work. I think that was a first for me! But seriously, as I have mentioned, I saw these white dots that appeared in so many of the films in the collection, across several decades, as a type of filmic language, that could be cut together to form a new film. I came to see them not just as an abstraction of subatomic particles, but as individuals, households, populations, currencies, transportation systems and planets. They all represented a charge, their predisposition toward being attracted or repelled by a pole.

**JH:** There are hundreds of films in the Electricity Council archive at the Museum. We have had 130 of them digitised, and you had access to all the digital copies. You narrowed these down to 25, which made it into your final piece. What was your process for identifying the films that had the most potential for you to work with?
BM: Again, it was the ones that had these animated sequences. I thought they had the most potential of transcending the time and context for which the films were first created and would lend themselves to a more universal, and contemporary, language.

JH: You have made in the region of thirty films so far in your career, many of them collaborations with composers. How do you decide what to make? What inspires you? Who or what are your influences?

BM: The subject of a film can come from any variety of sources. There are film ideas that I have carried around with me for decades, just waiting for the right circumstances to make the film. Sometimes it will be something I read about that I think would make a good film, usually because the content of the film, its meaning, could also be found reflected in its form, that which made the film viewable. I think this is what mostly inspires me – seeing a film where the form and content merge, and what the film is about is immediately recognisable in the frame. I peruse archives, looking for compelling shots or sequences of this nature. I am not looking for a needle in a haystack as much as I am looking for a needle upon which I can later pile a haystack. I am inspired by the work of my collaborators, but usually not for the idea of what the piece is about as much as how it moves or behaves. I love cutting to music, but usually that music reflects an idea that came from the film.

JH: Two of your feature length films, Decasia (2002)[2] and Dawson City: Frozen Time (2016)[3], use nitrate film that has deteriorated. What does this deterioration say to you, and what are you trying to communicate to the viewer through its inclusion?

BM: Decasia and Dawson City: Frozen Time are two very different films, and they actually show two different types of decay. In Decasia, I mostly selected singular scenes showing acute nitrate decomposition to form the basis of the film, and its narrative. With nitrate decay, the image bends and buckles as the nitrate base slowly transforms over time beneath the emulsion. The decay seems to haunt the image like a ghost – almost like a new character in the film. For me, it is a physical manifestation of the time that has elapsed since the film was first shot. It seems to highlight the physical characteristics of the celluloid itself, and therefore is open to comparisons with the human body, and how it ages, and how that affects the images we carry with us.
The Dawson City collection, on the other hand, was fairly well-preserved in its frozen tomb, and ironically does not show that much nitrate decay to the base. What you do see with the Dawson collection is considerable water damage, which it largely suffered once it was exhumed from its burial place. This is seen as the white streaks on the margin of the frame, the distinctive ‘Dawson Flutter’, as it is known in archival circles, which seems to sit on top of the image like a flickering patina, but does not appear to alter the shape and form of the image as with the nitrate decay. In Dawson City..., I collected my favourite scenes where the characters in a scene seem to be reacting to this water damage, and I edited them together to form the conclusion of the film – a kind of ode to Decasia. But I did not otherwise fetishize this type of decay elsewhere in the film as I did throughout Decasia, as it appears pretty consistently throughout the collection, and is not really a source of wonder for me in the same way that the nitrate decay is. The historical narrative, and vast trove of footage supporting it, is the true source of wonder for me in Dawson City: Frozen Time. In both cases the physical imperfections are what makes the film contemporary for me. It took them this long to look this way.
JH: This use of film in its present state interests me as an archivist. So often when displaying archive material, there
is an expectation that it will be in pristine condition, or made to become pristine again. For an archivist, this is denying an aspect of
the item’s reality and falsifying the evidence that is embodied in its physical being. Is this the same for you as a film maker? Would
you say that you are a film maker/archivist?

BM: Yes, as I said, the physical imperfections are what makes old film contemporary for me. I consider myself
more of a film maker than an archivist. If I am an archivist, I am a pretty opportunistic one. Most of what I save is for the
express purpose of one day re-purposing it in a film of my own, whether it makes it there or not. Whereas I feel the work of a
true archivist is somewhat more altruistic, and scientific in its methodologies.

JH: As we’ve touched on in relation to Electricity, humanity and community seem to be themes that run through
your films. One of my favourites is The Miners Hymns (2011), which combines professional film footage of miners at work with
amateur films of miners at play to document the decline of an industry and its community.[4] What is it about community that
captures your attention as an artist?
The Miners' Hymns – A film by Bill Morrison. The Miners' Hymns is a documentary depicting the ill-fated mining community in North East England. The film, which tells its story entirely without words, features an original score by the Icelandic composer Jóhann Jóhannsson and rare archival footage selected and edited by the American filmmaker Bill Morrison.

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BM: Well, somewhat ironically I suppose, I work largely alone, except for with a few archivists, musicians and post-production houses. But I see archival film as the greatest physical manifestation of memory, of lives lived. So I feel privileged to be able to address specific eras or events through the films that were shot then and there, and that that specificity of time and place reveals something about the human condition taken as a whole.

JH: As the archivist who looks after the Museum’s electricity film collection, I gained a different perspective on the films through your interpretation of them. I tend to think of them as functional and educational, whereas you have brought out their hidden beauty. Having seen others of your films, I was surprised by the films you chose to use in Electricity. Was it a conscious decision to steer away from the films in the collection that feature human interaction in domestic settings and focus instead on the technical films?
BM: Yes, in this case I didn’t want it to be about a household in the 1930s or 40s or 50s, and their unfamiliarity with the devices we now take for granted. I thought I would run the risk of appearing to condescend to an earlier society’s novel experience by doing that. Instead I wanted to find what connected all of us, not just people who lived earlier in the twentieth century, but all humans from the beginning of time, and all animate beings made of star dust.

JH: What a lovely image to end on. I’d say you’ve done just that, Bill, and it has been an absolute pleasure to work with you on this project.

The full list of films used by Bill Morrison in Electricity:

**Alternating Current and Power Factor (1952)**
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, John Durst, director

**Alternating Current and Direct Current (1952)**
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, John Durst, director

Video 5

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*Alternating Current & Direct Current (1952).* British Electrical Development Association presents a Merton Park Production, produced by Frank A Hoare, directed by John Durst

DOI: [http://dx.doi.org/10.15180/180908/006](http://dx.doi.org/10.15180/180908/006)
Capacitors (1952)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, John Durst, director

Chemistry for the Nuclear Age (1962)
UK Atomic Energy Authority present a Greenpark Production, G Buckland Smith, producer, Frederick Gamage, director

Domestic Hot Water (1951)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, Langston Gould-Marks, director

The Dounreay Fast Reactor (1960)
UK Atomic Energy Authority present an Ace Film Production, Frank Green, producer

Electric Water Heating (1957)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, Seafield Head, director

Electricity Distribution (1951)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, John Durst, director

VIDEO 6

Electricity Distribution (1951). British Electrical Development Association presents a Merton Park Production, produced by Frank A Hoare, directed by John Durst

DOI: http://dx.doi.org/10.15180/180908/007

Electricity & Heat (1951)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, John Durst, director

Electricity & Light (1951)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, John Durst, director

Electricity & Movement (1945)
Great Day (1957)
UK Atomic Energy Authority present an Ace Film Production, Frank Green, producer

Magnetism (1951)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, John Durst, director

Making Electricity: Sources and Applications of Power (1958)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, David Cons, director

Metals for the Nuclear Age (1958)
UK Atomic Energy Authority, Frederick Gamage, director

Mirror in the Sky (1956)
Mullard Ltd and EFVA present a Realist Film Unit Ltd Production, Basil Wright, producer

Power from the Atom (1982)
UK Atomic Energy Authority present a United Motion Pictures Production, Alan Ross, director

Video 7

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Power Lines (1940). Western Electric presents a Merton Park Production, directed by James E Rogers

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Putting Air to Work (1965)
British Electrical Development Association presents a Technical & Scientific Films Ltd production, Terrick Fitzhugh, producer, George Sewell, director

Putting the Atom to Work (1966)
UK Atomic Energy Authority present a Technical & Scientific Films Ltd production
Radiation... Naturally (1981) Atomic Industrial Forum presents The Film Group Inc production

Simple Electrical Repairs at Home (1947)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, Graham Murray, director

The Electric Cleaner (1950)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, Langston Gould-Marks, director

Transmission of Electricity (1947)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, Neil Brown, director

What Is Electricity? (1950)
British Electrical Development Association presents a Merton Park Production, Frank A Hoare, producer, Langston Gould-Marks, director

Video 8

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Tags
- Exhibitions
- Museum collections
- Curating
- Science and film
• Science and art
• Energy
Footnotes


2. *Decasia* is a 2002 found-footage film by Bill Morrison. The film is a meditation on old, decaying silent films, featuring segments of earlier movies re-edited and integrated into a new narrative. The film begins and ends with scenes of a dervish and includes footage showing how film is processed. Some of the silent films were sourced from the University of South Carolina's Moving Image Research Collections. Two of the films incorporated into Decasia are: J Farrell MacDonald's *The Last Egyptian* (1914) and William S Hart's *Truthful Tulliver* (1916).

3. *Dawson City: Frozen Time* is a 2016 documentary film by Bill Morrison. It follows the history of Dawson City, Canada, from its creation during the Klondike Gold Rush to its decline during the late 1970s using footage from 533 silent film reels rediscovered in 1978. The films, thought to be lost, had been buried in 1929 in a sub-arctic swimming pool. Along with the lost films, there was also rare footage of other historic events, including the 1919 Baseball World Series.

4. *The Miners' Hymns* is a 2011 archive collage film by Bill Morrison. It bears testimony to the lost industrial culture of the Durham coalfields, combining present day aerial footage of the former sites of Ryhope, Silksworth and other collieries with footage of miners carving the coal from the earth and scenes from a 1960s gala for mine workers and their families. Miners are shown at rest in their homes, with children playing and wives hanging out washing, and in conflict with the police during the strikes of the 1980s to form a tribute to a lost way of life.

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Jan Hicks is the archive manager at the Museum of Science and Industry. With a passion for the story of electrification in the UK, she is lead curator for the exhibition *Electricity: The spark of life*, which opens in Manchester on 19 October 2018