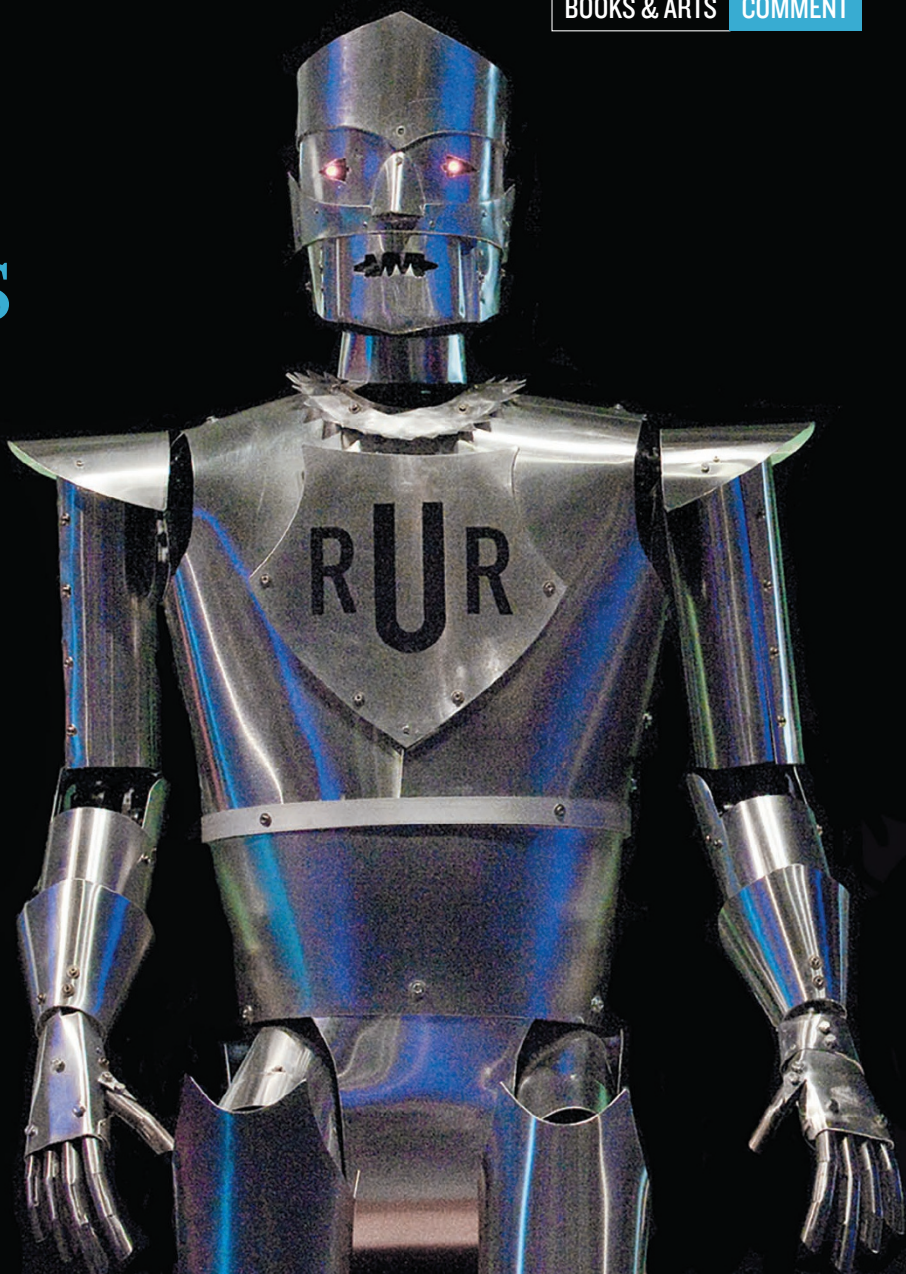


## ARTS

# Hot tickets 2017

Robots, DNA and electricity bask in the limelight, as *Blade Runner* reboots, Kazakhstan gets energetic and a 'space tapestry' rolls out. It's quite a year — and key anniversaries hit, too, for Canada, the anthropology dynamo the Peabody Museum and architect Frank Lloyd Wright. **Nicola Jones reports.**

A replica of Eric, Britain's first robot, will be on show at the Science Museum.



BOARD OF TRUSTEES OF THE SCIENCE MUSEUM

## What's New in the Middle Ages

*Cité des Sciences et de l'Industrie, Paris*  
Until 6 August

Archaeological discoveries have helped to paint the Middle Ages in a new light. This exhibition focuses on mass migrations from the fifth to the fifteenth centuries, showing how they contributed to ethnic mixing and the movement of cultural practices, knowledge and innovations. In collaboration with Inrap (the French National Institute for Preventive Archaeological Research), the show highlights new tools of the time. These include wheelbarrows, blast furnaces and social inventions such as suburbia: it was from the twelfth to the sixteenth centuries that networks of small and medium-sized towns first began to appear in Europe.

An animation depicts the Middle Ages at a Paris exhibition.



## Canada 150 Power of Ideas Tour

*Starting in British Columbia*  
From January

National anniversaries are a moment for pondering identity. As Canada turns 150, a partnership between Canadian science museums and institutes is hosting a year-long celebration, Innovation150, marking the nation's massive contribution to science and invention, from James Till's co-discovery of stem cells to Donald Hings's engineering of the first practical walkie-talkie. The Power of Ideas tour truck will visit more than 60 communities across Canada, thanks to Waterloo's Perimeter Institute for Theoretical Physics and the youth science-education charity Actua. The physics-focused exhibition includes a mobile 'maker' workshop complete with 3D printers, a laser cutter and

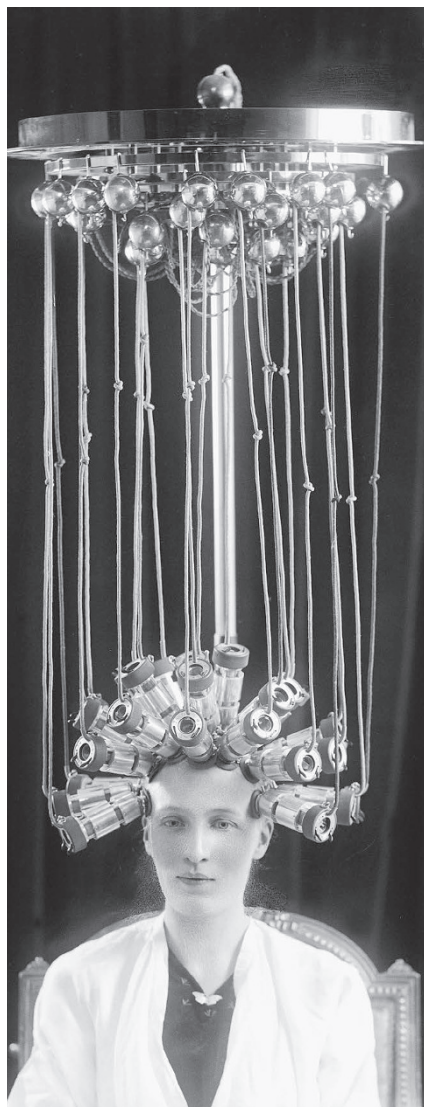
programmable circuit boards, enabling participants to challenge their powers of invention.

## Robots

*Science Museum, London*  
8 February – 3 September

Britain's first robot, Eric, stunned crowds in 1928 by standing up from sitting, waving his arm and shaking his head. Eric (created by war veteran William Richards and engineer Alan Reffell) was later lost, but a Kickstarter campaign has brought the steel man back to life. The Science Museum's blockbuster Robots exhibition will boast more than 100 bots alongside Eric. There will be a sixteenth-century mechanical monk, one of the first walking bipedal robots and Cygan, a 2.4-metre-tall 1950s automaton from Italy that could 'walk' on wheeled feet, crush a can in its fist and respond to voice commands. International touring dates to come. ▶

LES CHEVREUX SUPRÉMATISTES



Electricity in the beauty regime, 1923.

### ► DNA: The Great Book of Life from Mendel to Genomics

Palazzo delle Esposizioni, Rome  
10 February – 18 June

An Augustinian friar in a small village in Moravia, Gregor Mendel (1822–1884) only gained fame posthumously as the founder of modern genetics. He never met Charles Darwin, and Darwin never read his paper on pea-plant hybridization. Mendel was “a misunderstood genius born too soon and in the wrong place”, say the notes for this show in one of Rome’s vast neoclassical palaces. Mendel’s story frames an investigation of all things genetic — from heredity to genomics, personalized medicine, forensics and artificial life.

### Electricity: The Spark of Life

Wellcome Collection, London  
23 February – 25 June

The collection of London’s Wellcome Trust, the charity founded by medical entrepreneur

Henry Wellcome, marks its tenth anniversary in 2017 with a spate of new exhibitions. This exploration of electricity kicks it all off. On show are an early edition of Mary Shelley’s 1818 *Frankenstein* — influenced in part by research into electricity (R. Holmes *Nature* **535**, 490–492; 2016) — as well as the chisel used in 1889 to daringly test the cables of London’s first high-voltage power station. A set of 1930s tea towels from the Electrical Association for Women offers safety tips for using electricity at home, and newly commissioned artworks by John Gerrard, Camille Henrot and Bill Morrison will be on show. (Come back in September for a look at how the graphic design of everything from health-campaign posters to pill packets can subliminally affect our perception of health risks and cures.)

### Quantum Shorts

Starting at the *Institute for Quantum Computing*, University of Waterloo, Canada  
First screening 23 February

If an evening of amateur short films and bad puns about Heisenberg’s uncertainty principle appeals, then the Centre for Quantum Technologies at the National University of Singapore has just the thing. The Quantum Shorts competition, sponsored in part by *Nature*, has been alternating between film and literary fiction since 2012. This year marks its first festival, with winners to be screened at the University of Waterloo, Canada (23 February), Singapore’s ArtScience Museum (25–28 February 2017), the Glasgow Science Centre, UK (17 March), the Queensland Art Gallery and Gallery of Modern Art in Brisbane, Australia (24 March), and Science World in Vancouver, Canada. (If pinning down the exact time and place of any given show is tricky, blame Heisenberg.)

### Synthetic Desert

Guggenheim Museum, New York City  
24 March – August

Doug Wheeler’s art can be a long time in the making. One of the founders of the ‘light and space’ movement that flourished in California in the 1960s and 1970s, Wheeler makes sometimes-complex and tricky installations that play with subtleties of light and sound to create unique perceptual environments. *Synthetic Desert* was drawn up in 1971 and purchased by the Solomon R. Guggenheim Museum in 1992; it is now finally being built. The installation, constructed with help from design firm Arup, will be

Frank Lloyd Wright’s model for the Guggenheim.

a “semi-anechoic chamber” that suppresses ambient sound. The result is slated to be a kind of sensory-deprivation experiment that alters the audience’s perception of space, mimicking Wheeler’s experiences in the Arizona desert.

### All the World Is Here

Peabody Museum of Archaeology and Ethnology, Cambridge, Massachusetts  
Opening 22 April

One of the world’s oldest, largest anthropology museums celebrates its 150th anniversary in 2017 with this landmark exhibition. Visitors will be transported back to the 1893 World’s Columbian Exposition (also known as the Chicago World Fair), where the Peabody’s then-curator, Frederic Ward Putnam, was head of anthropology. The exhibits include the dog sledge of Arctic explorer Robert Peary, stone carvings and other objects traded and collected by eighteenth-century ship’s captains, and art by the ancient Hopewell people, excavated from Ohio’s Turner Earthworks.

### Expo 2017: Future Energy

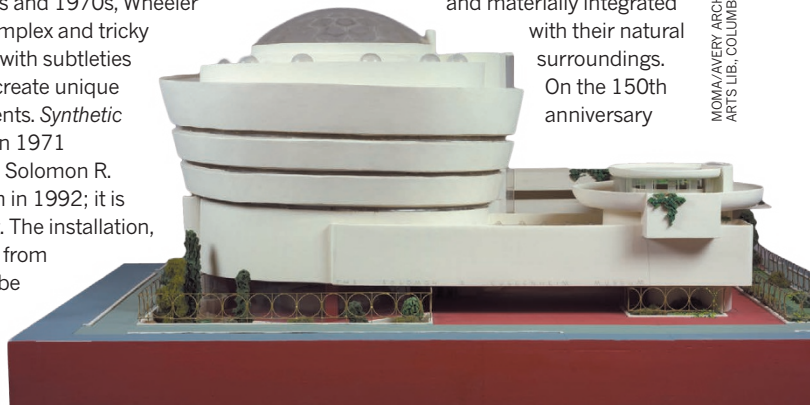
Astana, Kazakhstan  
10 June – 10 September

Millions of people are expected to converge on Kazakhstan’s capital for this Expo, which centres on sustainable, low-emissions energy. The country may be a fossil-fuel giant whose oil products account for 60% of exports, but its government has a bold plan to hit 50% renewable energy by 2050. Powered in part by wind, solar and geothermal energy, this vast event will showcase 17 specific energy-generation projects, selected by a committee including two Nobel prizewinners.

### Frank Lloyd Wright at 150

Museum of Modern Art, New York City  
12 June – 1 October

Among pioneering architect Frank Lloyd Wright’s many innovations was his use of industrial technologies and materials such as concrete to create buildings structurally and materially integrated with their natural surroundings. On the 150th anniversary



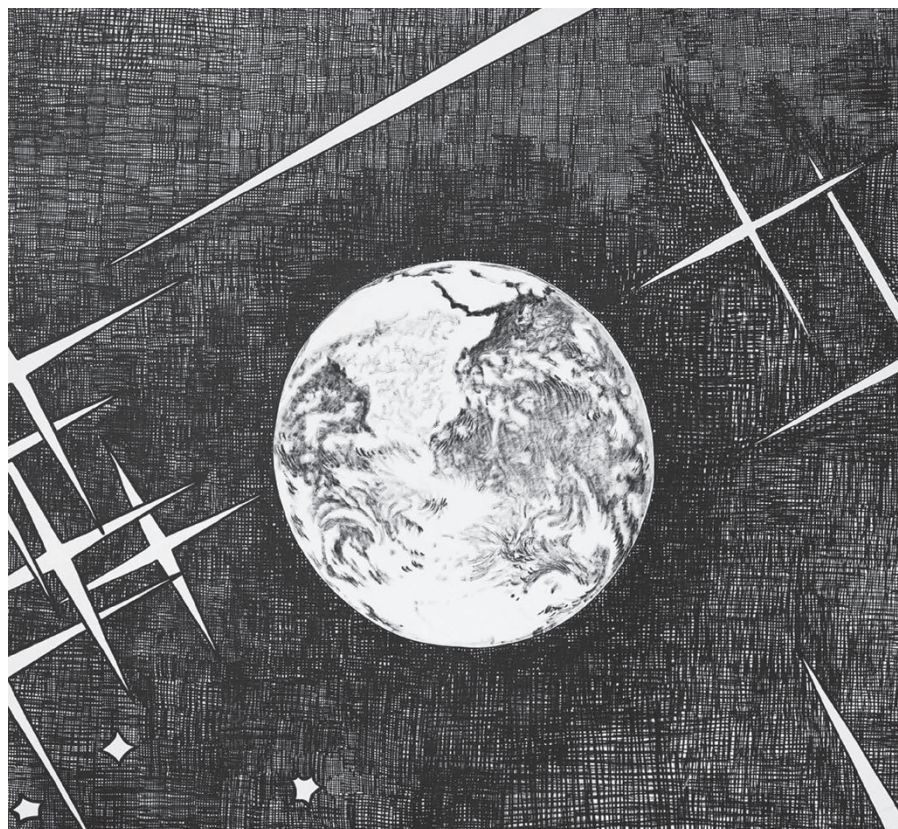
MOMA/EVERETT ARCHITECTURAL & FINE ARTS LIB., COLUMBIA UNIV.

MUSEUM OF LONDON



ALEKSANDRA MIR

TWENTIETH CENTURY FOX



A segment of *Space Tapestry* set to go on show at the Tate Liverpool.

of his birth, the Museum of Modern Art celebrates with a display of 450 objects representing his work from the 1890s to the 1950s, including drawings, models, furniture and photographs. One attraction will be Wright's model of New York's Guggenheim Museum.

### Space Tapestry

Modern Art Oxford, UK  
24 June – 5 November  
Tate Liverpool, UK  
23 June – 15 October

Artist Aleksandra Mir's project marries art with outer space: a 200-metre canvas presents the story of human exploration of the Solar System. Her inspiration is the Bayeux Tapestry, the embroidered eleventh-century record of events leading up to the Norman conquest of Britain in 1066 — including the appearance of Halley's comet. Mir references the comet's next predicted pass, in 2061. However, her 'tapestry' will be made not with fabric and thread, but with marker pen on synthetic canvas. Its gargantuan dimensions mean that different sections will be exhibited at various galleries worldwide.

### Collapse

Science Gallery Dublin  
21 Sept 2017 – 21 Jan 2018

Why the fascination with apocalypse,

from zombies and climate change to fire and brimstone? This Science Gallery Dublin exhibition will explore how "the catastrophic can be devilishly entertaining", examine the likelihood of predicted ends of the world and question what we might be able to do about them. The venue will also host shows this year based on robots, music and blood. Its umbrella organization, the non-profit Science Gallery International, is also working on new permanent sites: London, set to open in 2018; Bangalore, India, in 2019; and Melbourne, Australia, in 2020. In the meantime, pop-up exhibitions will hit guest venues in those cities.

### Weather Report

Bundeskunsthalle, Bonn, Germany  
7 October 2017 – 4 March 2018

As scientists gather to hash out the implementation of the Paris treaty on climate change in Bonn this November, a nearby exhibition will take a broad look at weather through the lenses of science, culture, art and history. It will allow viewers to mull over phenomena from forecasting and renewable energy to ball lightning, and check out clothing designed to protect against the elements. A relatively digestible side dish to accompany the 23rd Conference of the Parties to the United Nations Framework Convention on Climate Change. ■

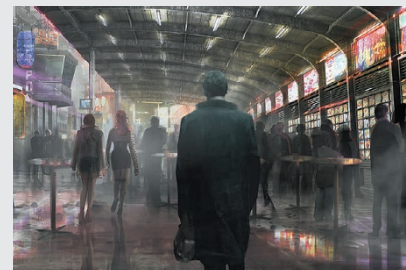
## IN A CINEMA NEAR YOU...

A big year beckons for science-fiction fans, with the US release of *Star Wars Episode VIII* on 15 December, along with summer sequels to *Planet of the Apes* (pictured), *World War Z* and more. Although most might see the future as dystopian, we can take some small comfort that things have not (yet) turned out as badly as presaged 30 years ago in *The Running Man* (1987), which showed prisoners running for their lives as televised entertainment in a dreary 2017. On a sunnier note, the science talk show *Bill Nye Saves the World* will hit Netflix early in the year. And here are a few more to watch out for.



**God Particle** Produced by sci-fi hero J. J. Abrams, the story hinges on a mishap with a space-station accelerator that alters reality. The film is rumoured to be the third instalment of the Cloverfield monster franchise, which makes any link to the Higgs boson even more mysterious. Release date and final title to be confirmed.

**The Circle** Based on Dave Eggers's 2013 novel, this explores the dark side of pervasive social media, big business and the loss of privacy. Starring Emma Watson and Tom Hanks. US release: 28 April.



**Blade Runner 2049** Fans have waited 35 years for this sequel to Ridley Scott's classic, which wowed with its edgy, stylish tale of renegade replicants (pictured). Harrison Ford reprises his role and Denis Villeneuve directs. US release: 6 October.