BOOKS & ARTS

An Italian vision of a scientific Utopia

A century ago, artists and writers from Italy imagined a world governed by science and technology. But their vision of modernity also glorified violence and misogyny, finds **Ziauddin Sardar**.

Inventing Futurism: The Art and Politics of Artificial Optimism

by Christine Poggi

Princeton University Press: 2009. 392 pp.
£32.50, \$45

A hundred years ago, a group of Italian visionary artists declared war on civilization. Rejecting the artwork, poetry, music and architecture of the period, these 'Futurists' wanted to create the world anew. Science and technology formed the building blocks of their brave new world, which they expressed not just in art but in violence and naked nationalism. In *Inventing Futurism*, art historian Christine Poggi describes how the Futurist movement's raw passion for technology was moulded by the atmosphere of political foreboding of the times.

Like futurists working now in the fields of futures studies and foresight, these artists wanted to shape the future. But the goals of the two groups could not be more different. Futurists today forecast how science and technology will change our lives, and predict alternative paths. By applying the best lessons of history to build on what exists now, they aim to find policies to ensure futures that are more equitable and just. By contrast, the Italian Futurists rejected everything that was old. They were determined to destroy the existing order and desired a future in which speed and technology represented the absolute triumph of man over nature. They glorified electricity, the car, the aeroplane and the industrial city. They despised women, the human body and the idea of a peaceful coexistence.

The godfather of Futurism was writer and poet Filippo Tommaso Marinetti (1876–1944), who published his 'The Founding and Manifesto of Futurism' on the front page of the French newspaper *Le Figaro* on 20 February 1909. "We want to free this land," Marinetti wrote, "from its smelly gangrene of professors, archaeologists, tourist guides and antiquarians... the numberless museums that cover her like so many graveyards." He urged his readers to set fire to library shelves and to flood museums. "Take up your pickaxes... and wreck, wreck the venerable cities, pitilessly! Art, in fact, can be nothing but violence, cruelty, and injustice." Marinetti saw science as a modern, virile enterprise to be pursued at all costs, and technology as the instrument that would usher the

Futurist Umberto Boccioni conveys the dynamic forces behind city construction in *The City Rises* (1910).

world into sunlight with velocity and violence. A mythical struggle had to be waged between the masculine forces of science and technology, represented by the sea, and the seductive feminine power of the stars that prevented civilization from advancing forwards.

Within a year of Marinetti's sermon, the Italian Futurist movement was born. Artists such as Umberto Boccioni, Antonio Sant'Elia and Luigi Fillia emphasized speed, energy, flight, industrial landscapes and destructive violence in their paintings. The original manifesto was followed by a host of others on almost everything from clothing, food and smells to wars and lust. "We hurl our defiance to the stars," they declared; "We will glorify war."

The Futurists imagined a world governed by electricity. Their electrical fantasies, writes Poggi, take a Utopian turn in their vision and evolve into an orgy of violence. They saw Italy as being "fertilized" by electricity, banishing hunger, poverty, disease and work. Air temperature and ventilation would be controlled automatically, telephones would be wireless, and crops and forests would spring up at speed. But in this world of ease and plenty, fierce competition would arise over superabundant

industrial production. War would break out, fought by "small mechanics" whose flesh resembled steel. Deploying "steel elephants" and battery-powered trains from afar, they would wage a thrilling interplanetary war.

The union of man and machine is central to Futurist thought, and is best defined in Marinetti's 1909 novel *Mafarka the Futurist*. Mafarka is an Arabian king with imperialist ambitions who creates a mechanical son, Gazurmah, to be his immortal substitute. Carved out of oak and modelled on an aeroplane, Mafarka finds his coarse skin, squared jaw, ribs of iron and formidable metallic member alluring, and breathes life into his son with a lingering homoerotic kiss. But his creation devours him — a fate Mafarka has foreseen and desired so that he might be reborn in the immortal son. Gazurmah proceeds to rape and obliterate Earth.

Gazurmah is not far removed from the Terminator cyborg in the 1984 film of the same name. But whereas *The Terminator* is a dystopia, Marinetti's vision, with its aspirations of autogenesis, immortality and demonization of women's bodies, is presented as a distinctive Utopia.

Shades of the liquid-metal terminator from *Terminator 2: Judgment Day* (1991) are evident

in Fillia's 1929 painting *Spirituality of Aviator*. Fillia, who published a manifesto on 'The mechanical idol', presents his aviator as a fluid biomorphic shape embedded in a semi-transparent, tilted plane. Man and machine become a single permeable body with fluid boundaries. The aviator's mystical body seems to give birth to an industrial city, indicated by smoke gushing through circular openings, carrying within their stream three small buildings. Poggi explains how Fillia painted a number of other notable pictures in which landscapes and bodies merged with technology to depict a "religion of velocity".

To exemplify their message, the Futurists equated science with modernity and technology — speeding trains, giant electric power plants, bridges and abstractions from photographs. Boccioni's paintings, for example, compare and contrast the industrial radiance of science with the obscurity of the past and the oppression of natural forces, often depicted as trees, the Moon and stars. In his *Study for Homage to the Mother* (1907–08), he depicts two children. One is working and questioning science, with a window on to modern life. The other works by lamplight, the window showing a cloudy evening sky and a glimmering Moon. A central panel shows a tired mother with a figure on either side to symbolize the feelings of the children: one sweet and feminine, the other angry and defiant.

The final destination of this quest is illustrated in Sant'Elia's 1914 work *The New City*. Poggi suggests that Sant'Elia created this series of lyrical drawings of visionary hydroelectric plants to exemplify the human annexation of the energy inherent in matter. These are bold, spectacular images of geometric masses, symbolic of the dawning of a new age. The perspective in *The New City* is always from below, dwarfing and making the imaginary viewer insignificant.

The visions and concerns of the Futurists, Poggi tells us in this difficult, sometimes frightening but always illuminating study, emerged out of the uncertainty and confusion produced by modernity. Their artificial optimism sought to produce a philosophy for a new life, not just new art or architecture. It is not surprising that the Futurists saw an echo of excessive nationalism in their notion of modernist violence and war. Misplaced faith in science, as rational dogma, as the enemy of pessimism, as a theory of salvation, often serves as the glue that binds modernity and fascism together. ■

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Futurism, an exhibition at the Tate Modern in London, opens on 12 June. For details see <http://tinyurl.com/tatefuturism>.

A limited view of the future

What's Next? Dispatches On the Future of Science

Edited by Max Brockman
Vintage Press: 2009. 256 pp. \$15

Now is the time for a broad and critical look at the future of science. Just as US President Barack Obama has vowed to "restore science to its rightful place", Max Brockman has published this collection of future-oriented essays.

Brockman, a literary agent whose firm represents popular-science authors such as Jared Diamond, Richard Dawkins and Steven Pinker, has access to some of the most established thinkers. But in compiling *What's Next?*, Brockman chose instead to work with "the coming generation of scientists". Readers might wonder whether these young people have enough experience to provide the long view, but their biographies and publication records are impressive. For instance, climatologist Laurence C. Smith, 15 years out of a PhD, has more than 50 papers to his credit and briefs Congress on global climate change.

What's Next? is slim and readable, but lacks detailed references. Technical language is kept to a minimum, so it is accessible to a general audience. But it did not strike me as an arresting view of the future — its scope is unimaginative, covering more about what we already know than what we don't.

A pervasive theme in the book, which is heavily slanted toward psychology, is the scientific basis for ethical behaviour. Neuroscientist Christian Keysers explains that mirror neurons are activated when we perform certain activities, and when we watch others do those same activities: "The emotions of others are contagious because our brain activates our own

emotions at the sight of them." This facilitates both learning and empathy. "Our brain," he concludes, "is ethical by design."

Psychologist Joshua D. Greene sees morality as a tension between the opposing forces of intuitive emotion and cognition. "If I'm right," he says, "this tension between competing neural systems underlies not only centuries-old disagreements ... but also contemporary tussles over ... stem-cell research and the torturing of suspected terrorists." When issues are personal, the parts of the brain associated with emotional response tend to dominate, whereas in less personal situations, those regions associated with cognition are stimulated.

Philosopher Nick Bostrom tackles human enhancement. He is concerned because humans "are a marvel of evolved complexity", something with which we tamper at our own risk. So he proposes a "rule of thumb, for identifying promising human enhancements". Bostrom sees some of our limitations as resulting from selection pressures that no longer exist for most humans. Today, for instance, we can feed the higher metabolic demands of a larger brain, whereas in our recent past, we could not. We might also overcome evolutionary restrictions. Bostrom suggests that genetic 'medication' could be administered to confer an advantage, such as the protection a mutant haemoglobin gene offers against malaria in people with the sickle-cell trait. Alternatively, embryo screening could promote favourable genetic profiles. Thus, Bostrom sees the morality of human enhancement as an issue of what is achievable rather than what is acceptable. His heuristic is useful from the scientific point of view, offering us a test for whether we should even consider a particular kind of enhancement, but it probably won't

be accepted by the ethics community.

In a global society, we must all live alongside people who hold different beliefs to our own. Psychologist Matthew D. Lieberman believes that some ideas are more 'sticky' than others, and that the ideas that persist differ from one cultural group to another. He argues that "Big Ideas sometimes match the structure and function of the human brain such that the brain causes us

People who inherit the sickle-cell trait are protected from malaria — could other traits hold promise as genetic treatments?

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