

THE ROUGH GUIDE TO

# The Future

Jon Turney

Where we go from here...

## For Danielle, naturally

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endless futures, a few heroic academics now practise what they call “big history” – in which they try to integrate what we know about the past, over a complete range of timescales, into one vast narrative. David Christian’s *Maps of Time: An Introduction to Big History* (2004) does the job in a mere five hundred pages. But how easily can we get away from our old habit of thinking on the scale of a single generation, or a few lifetimes in each direction, even if a lifetime is a bit longer on average than it used to be?

From our current, science-based understanding, thinking about the future – or the past – calls for serious recalibration of our sense of time. It is not just that there is far, far more of it than previously supposed. It’s also that the sheer extent also takes in processes which work on many different timescales, most of them outside our normal intuitive grasp. When the poet Andrew Marvell speculated about matters “vaster than empires and more slow” in the seventeenth century, he did not know how vast or how slow they might really be. Nowadays we have a grasp of the evolution of the universe, the drift of continents, the change of species, over and above the more immediate sense of the movements of human life and culture. (There are also many processes and events invisible to previous science which take vanishingly small amounts of time, but they can be ignored here.) At the higher levels, the biggest picture of how things work includes a range of timescales that look something like this:

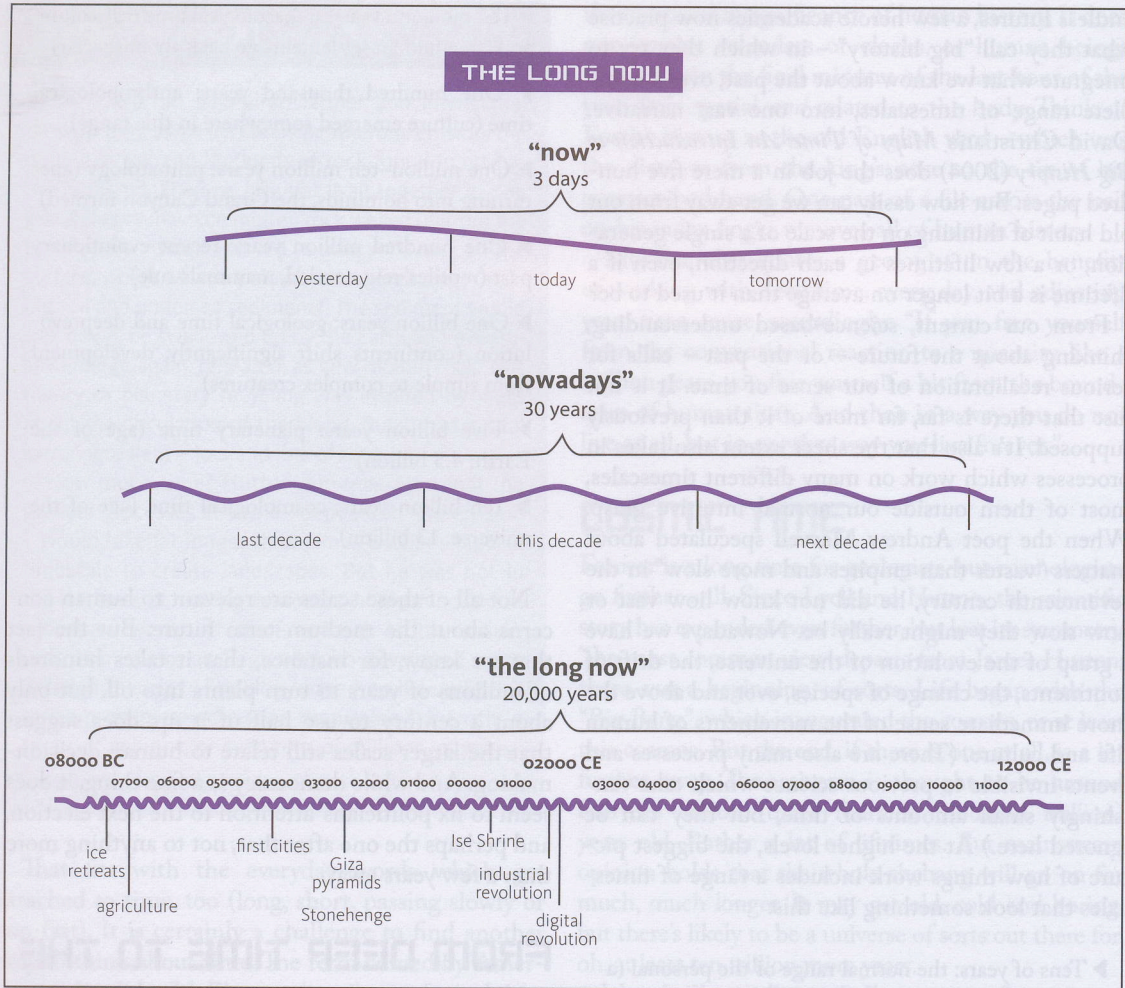
- ▶ Tens of years: the normal range of the personal (a career, a marriage, raising children)
- ▶ One hundred years: a lifetime (with luck)
- ▶ One thousand years: historical time (the rise and fall of a civilization is generally less than this)

- ▶ Ten thousand years: archaeological time (agriculture and large human settlements go back about this far)
- ▶ One hundred thousand years: anthropological time (culture emerged somewhere in this range)
- ▶ One million–ten million years: primatology (apes turning into hominids, the Grand Canyon formed)
- ▶ One hundred million years: recent evolutionary past (reptiles’ reign ended, mammals rule)
- ▶ One billion years: geological time and deep evolution (continents shift significantly, development from simple to complex creatures)
- ▶ Five billion years: planetary time (age of the Earth: 4.5 billion)
- ▶ Ten billion years: cosmological time (age of the universe: 13 billion)

Not all of these scales are relevant to human concerns about the medium-term future. But the fact that we know, for instance, that it takes hundreds of millions of years to turn plants into oil, but only about a century to use half of it up, does suggest that the larger scales still relate to human decision-making. And while democracy is a fine thing, it does seem to fix politicians’ attention to the next election, and perhaps the one after that, not to anything more than a few years away.

## FROM DEEP TIME TO THE LONG NOW

Getting around our fixation with the short-term to instil a real awareness of the possibilities of a vast future calls for some creative thinking, and some



new cultural projects. And that’s the idea behind The Long Now Foundation ([www.longnow.org](http://www.longnow.org)), set up at the instigation of computer scientist Danny Hillis and cultural entrepreneurs Stewart Brand and Brian

Eno. Their mission statement says that “Civilization is revving itself into a pathologically short attention span. ... Some sort of balancing corrective to the short-sightedness is needed – some mechanism

or myth which encourages the long view and the taking of long-term responsibility, where 'long-term' is measured at least in centuries."

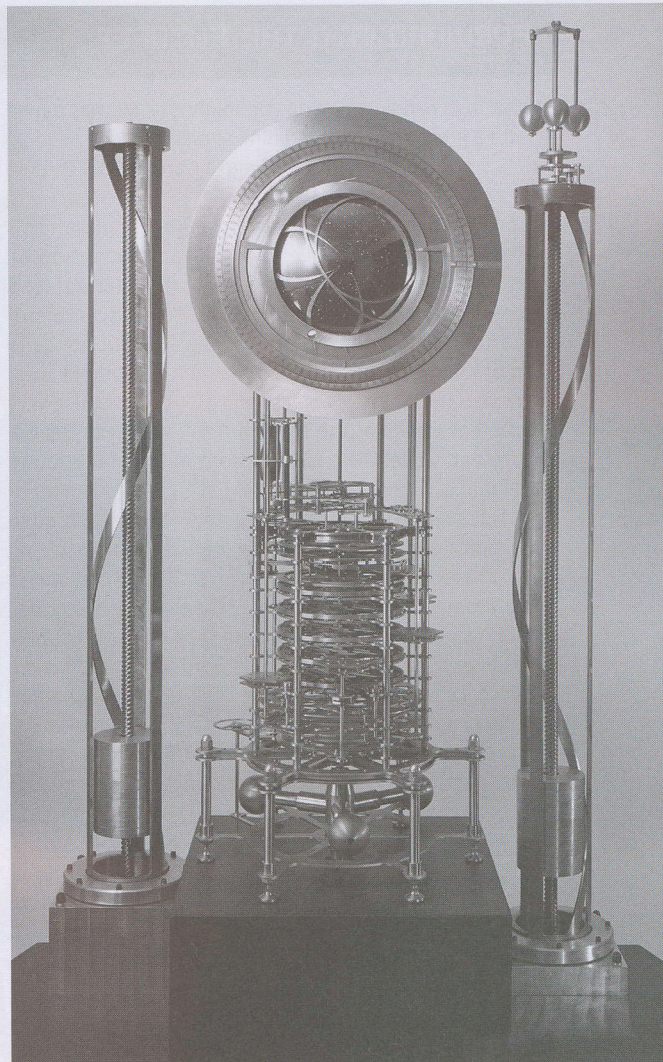
The foundation's best-known scheme is the planned Clock of the Long Now, an ultra-reliable timepiece which will last ten thousand years, roughly the same amount of time that human civilization has been developing since the end of the last Ice Age. It will operate really, really slowly. It will "tick" once a year, and sound out once a century. The first prototype has already been built, and the foundation has bought a site in Nevada for the final version. Building the actual device will be a long-term project, but it has already been realized in fictional form in Neal Stephenson's monumental science-fiction novel *Anathem* (2008).

The transformation in perception that the group hopes to bring about makes sense in the context of the extremely extended timescales we now consider when we look at the evolution of life, or the universe. As the foundation's diagram (opposite) tries to indicate, from this point of view the "long now" might be tens of thousands of years. The diagram also highlights another set of questions. How can we imagine what milestones might occur in the blank stretch to the right of the present, to match the key events noted in the past? And how can we think about what is to come? The next chapter begins to look at that in more detail by reviewing some of what people have thought about the future in the past.

## FURTHER EXPLORATION

### Stewart Brand The Clock of the Long Now:

**Time and Responsibility (2000)** Brand explains the forward-thinking manifesto of The Long Now Foundation, alongside details about designing the clock itself.



Encouraging a long-term view: the prototype for the Clock of the Long Now, due to chime once every hundred years.