It is a truism that times change, that nothing is ever quite the same again. We can also agree, in principle, that most change is vague: things don’t happen all of a sudden, and all together. Even the Fall of Babylon took several days – and some have wondered if it has fallen yet. We might reasonably conclude that the only realistic chronology would be one that counted off the chronons from the Big Bang onwards. There would be no breaks between successive numbers, or ranges of numbers, nor any reason to expect that similar events would be repeated every nth chronon.

But why do we so easily ignore the linear continuum I have described? We prefer to mark off days, years, centuries, millenia and even Great, or Platonic, Years, even though we know that ‘the day’ does not begin (whether at sunrise or at sunset or at midnight) at the same time everywhere, and that even the terrestrial year has no non-arbitrary beginning. Because the earth’s axis rotates, like a gyroscope’s, the sun will seem to rise, over the course of a Great Year, against a different stellar background at equivalent moments of the solar year, and gradually trace a circle round the sky until it rises again, most famously at the equinoxes and solstices, within the same zodiacal signs as once upon a time it did (presumably in Babylon). No-one who is anyone believes that these astronomical accidents have any real significance, though enough of our European ancestors thought it mattered to generate wild stories about the passing of Heaven’s crown from Bull-god to Ram-god to the Christian Fish (and so, in our own day, to Aquarius). The spring equinox takes a little over two thousand years to move through each zodiacal sign: back before the Bull, it was the Twins that ruled, but we have no record of what religious form that took.

Those are changes that make no material difference. If millenial changes were predictable and real, as they are in Brian Aldiss’s
Heliconia trilogy (1982, 1983, 1985), or in Hal Clement's *Cycle of Fire* (1957), then living creatures might, perhaps, have had to adapt to them, as they have in fact adapted to 'the alternation of light and darkness', or to our changing distance from the sun. Conversely, if living creatures had preferred to live thus discontinuously, the millennial changes would have been 'abrupt'. Time is continuous: but life carves it into discontinuous periods. The great polarities of light and dark exist because we have adopted different lives for light and darkness, not because there is an abrupt distinction in levels of radiation as the earth revolves beneath the sun, the moon and stars. Other forms of life might not distinguish night and day at all, nor need to change their habits as the nights grew cold. Others might distinguish more completely: witness Olaf Stapledon's 'plant-men', whose daytime life is vegetable or 'mystical' and whose night-time animal or 'active'. Or rely so heavily on some alteration that we hardly notice (the waning of the moon, or the blossoming of blue flowers) as to carve their phenomenal world, their life-world, into radically different shapes.

On the one hand, these are biological adaptations to cope with drastic changes; on the other, it is the biological choices which mark out the changes as being drastic ones. Without life's presence (so it seems) the universe can only be a flat continuum. Life marks out regions, eras, individuals – and tends to rely on their continuing or recurrent being. But since times change, we cannot reasonably count on Spring or Summer always being what they were. As long as the earth revolves at this particular speed, on this particular orbit, with this particular tilt, our days and seasons may be much the same, because we live the same way as before, or cannot recall how things were different once. The seasons seem the same, just as rivers always seem to run in the same channels even though we all know that they can break their bounds, and run where they do as accidentally as raindrops. Even their flooding, so we tell ourselves, is cyclical: they will be the same again, even when they seem most novel and abrupt.

But of course we do far more than count off days and seasons, floodtime and harvest. We have invented months and weeks, decades and centuries and millenia, and believe in them as readily as we believe the Periodic Table, as though all Saturdays, all Aprils, all Nineties carried the same scent. Some of those variations, maybe, were founded on true observations, of an astronomical or agricultural sort. Once upon a time it was right to say 'when first