

CAMBRIDGE



P A P E R S  
*towards a biblical mind*

# A brief theology of time

## Part 2: Resisting the tyranny of time

*by Paul Mills*

*We live in deeds, not years; in thoughts, not breaths;  
In feelings, not in figures on a dial.  
We should count time by heart-throbs. He most lives  
Who thinks most, feels the noblest, acts the best.*

Philip James Bailey

*volume 11*

*number 4*

*december 2002*

ISSN 1361-7710

### Writing group

Denis Alexander PhD  
John Coffey PhD  
Ranald Macaulay MA BD  
Paul Mills PhD  
Michael Ovey MTh MA  
Julian Rivers LLM  
Michael Schluter PhD  
Christopher Townsend MA  
Margaret Wilson BA DipTh

### Donations

The Jubilee Centre  
3 Hooper Street, Cambridge CB1 2 NZ  
Tel: 01223 566319  
Fax: 01223 566359  
E-mail: jubilee.centre@clara.net  
www.jubilee-centre.org  
Registered Charity No. 288783

### Summary

**Time is the modern-day slave-driver. Calendars and clocks not only govern, but also tyrannise our lives. Our first study on time (Vol. 7, No.1) examined the biblical witness that God is both transcendent over time while acting within it. Here we continue the theme of time but from the perspective of how and why God has ordered its divisions. With the help of that revelation, we may be better able to resist the tyranny of time.**

### Introduction

Time has never seemed so precious nor its measurement so all-pervasive.<sup>1</sup> We rush from work to home and from home to leisure with record numbers complaining of 'stress'. Moreover, the standard patterns of life are in flux as yet more services, from telephone-banking to TV news channels, are provided at times that would previously have been given to sleep, rest or religious observance. Shopping hours encroach into Christmas and Easter holidays and into the night. Licensing and gaming hours are being relaxed further as local authorities covet the title of the '24-hour city'.

Should we embrace this fast-moving lifestyle with its apparent increase in personal freedom and economic efficiency? This paper suggests not. It will briefly review the development of calendars and clocks and then consider biblical teaching on years and months, the week and the day, suggesting practical lessons to resist the rule of time.

### Calendars, clocks and the measurement of time

The building blocks of all human calendars have been astronomical, with the time needed for the Earth to rotate on its axis determining the length of a day, and to rotate around the Sun usually prescribing the year.<sup>2</sup> Meanwhile, the moon takes approximately 29 days and 12 hours to complete a revolution of the Earth. The best ancient mathematicians strove to reconcile the difference between the solar year and twelve lunar months (354 days, 8 hours) in order to prevent the migration of months across the seasons. The Babylonians devised a complex 19-year cycle in which seven years had 13 lunar months and 12 years had 12 months, and this was adopted as the Jewish calendar. The Islamic calendar retains the 354- or 355-day lunar year, meaning that specific months (such as Ramadan) migrate across the seasons.

<sup>1</sup> A personal tally reveals a total of sixteen timepieces and digital clocks in a five-room flat.

<sup>2</sup> Roughly 365 days, 5 hours and 48 minutes. The moon always shows a fixed face to the Earth, illustrating that the Earth could have been created without tilt on its axis (no seasons) or spin (day/night). There is therefore nothing 'inherent' in the year or the day; they are the results of deliberate Creative choice.

The Julian calendar, introduced in 45 BC, comprised the familiar pattern of 12 months totalling 365 days, with a leap year once in every four. But it was not until the calendar reform under Pope Gregory XIII in 1582 that mainland Europe fixed on the current Western calendar with New Year's Day on 1 January and three century years out of four ceasing to be a leap year. Britain and the American colonies did not make the change until 1752. Even now, annual adjustments of 'leap seconds' are made to official clocks to maintain alignment of the Gregorian calendar with the solar year.

The development of an accurate measure of time within a day was as tortuous. The Egyptians were the first to divide daylight into 12 portions, with the Babylonians the first also to divide the night into 12 hours as well (c.1000 BC). However, in both cases, the 12 hours were an equal division of the day or night, and so varied with the season. Timekeeping could only be approximate, with sundials influenced by the latitude and season, and water clocks by temperature and workmanship.

Mechanical clocks of any accuracy were first developed in thirteenth-century Europe to enable monks to observe their daily prayer times. Such clocks were soon widely adopted in Northern European towns where the provision of a collective measure of time became a public utility. The definition of an hour as one twenty-fourth part of a day became widespread in the fourteenth century, whereas minutes were measured with relative accuracy from the seventeenth century with the addition of a pendulum to the escapement clock. It took a further century, and the development of the balance spring mechanism, for clocks to be sufficiently accurate to aid navigation at sea and be made portable as pocket watches.

#### **Preliminary observations from the measurement of time**

The first point to note is that time – or the measurement of it – is most definitely mutable. Given its precise measurement by contemporary atomic clocks,<sup>3</sup> it is tempting to believe that measured time is an absolute concept and an objective reality. Yet we measure and date periods the way we do through a combination of astronomical necessity, astrological superstition and historical error,<sup>4</sup> which makes the celebration of a 'Millennium' a farcical concept. Developments of the calendar we now take for granted happened relatively recently and in a haphazard manner. For instance, until the 1870s, the US rail system had 80 separate railroad time zones for its various timetables, while France had 14 different time zones until the Prime Meridian Conference in 1884 fixed the convention for international time zones.

Second, cultural attitudes to the use of time arise as a consequence of how easily we measure it. When time cannot be measured accurately or cheaply, appointments tend to be approximate. Punctuality is a 'virtue' only in societies where reliable clocks are common. As a result, Northern Europeans find difficulty with the more approximate Mediterranean or African approach to timekeeping. Mindful of this, Western Christians should resist identifying punctuality with morality, rather than good manners, if culturally appropriate.

Third, our attitude to work is now governed by the precise measurement of time. In Medieval Europe, communal clocks became a widespread feature of urban living, so enabling work to be measured by time spent, rather than by the completion of tasks. Consequently, time was made a commodity that could be

traded through the process of 'clocking on'. Indeed, in the seventeenth century, Puritan preachers were insistent that time was extremely valuable: 'use every minute of it as a most precious thing, and spend it wholly in the way of duty...Remember how gainful the Redeeming of Time is.'<sup>5</sup>

Of course, in the light of numerous biblical injunctions,<sup>6</sup> such teachers were right to emphasise the need to make the most of the time God has granted to us. But this leaves us prone to measuring work through time spent rather than tasks accomplished. As a result, busyness *per se* takes priority over relationships and the mere passage of time is given an autonomous monetary value. Yet the belief that 'time is money', as embodied most obviously in the concept of an interest rate, causes numerous economic crises due to our reliance on debt finance.<sup>7</sup> In the workplace, it means that return is lost on capital and machinery if it is not being used around the clock. Consequently, the remorseless pressure to introduce 24-hour, 7-day a week shift patterns that subjugate workers' health and families to the needs of capital. In the professions, the widespread practice is now to charge for time, down to the nearest chargeable six minutes,<sup>8</sup> rather than the completion of tasks.

In contrast, the biblical treatment of time means that it should not be our master. For God has asserted His sovereignty over all time by initiating Creation and establishing patterns of years, weeks and days within the calendar. These ensure that, as made in God's image, we should rule time, rather than be subject to it.

#### **The year, seasons and months**

The Creation account is replete with assertions of God's sovereignty over both time and those bodies that the ancient world believed governed the seasons and years. Not only does God initiate time through the first act of creation (Genesis 1:1), but three days pass before the creation of the sun and the moon, to underline the subordination of those celestial bodies and their dispensability to the temporal process. Indeed, the fourth day witnesses the creation of the sun, moon and stars 'to separate the day from the night' and to 'serve as signs to mark seasons and days and years' (1:14f). The Creation account maintains that the very existence of these celestial bodies is motivated by their role in marking the passage of time for mankind. A more thoroughgoing denigration of astrology and sun worship could not be imagined.

Nevertheless, the remainder of the Old Testament refers to a twelve-month lunar calendar and shows no compunction about using Canaanite (e.g. Deuteronomy 16:1) or Babylonian (e.g. Nehemiah 1:1) names for the lunar months. Indeed, references to new months are synonymous with the new moon and, strikingly, there are no references whatsoever to a solar year. Within the year of 12 or 13 lunar months, the Law sets out the required observation of a number of feasts – Passover, Firstfruits (Weeks), Pentecost, Trumpets, Atonement and Tabernacles<sup>9</sup> – in order that the people re-enact and so commemorate their deliverance from Egypt, God's providence in their desert wanderings and his provision of food in the Promised Land. The festivals entailed public holidays for individual days or a whole week (Tabernacles).

For the Christian not bound to observe such a calendar, what is there to learn from the Old Testament's treatment of the yearly pattern? Perhaps the most important lesson is not to despise the cycle of the seasons that God has ordained. Of course, the biblical witness is that time is predominantly linear in contradistinction to other beliefs (such as Hinduism) that emphasise repe-

3 For instance, one second is defined as the time taken for 9,192,631,770 oscillations of a caesium atom.

4 The BC/AD dating distinction was proposed by Dionysius Exiguus in AD 525 but only became widely adopted in the seventeenth century. Unfortunately, Exiguus was mistaken when dating the birth of Christ. Matthew's gospel places Jesus' birth before the death of Herod the Great, but we know from other sources that this occurred in 4 BC. The 2000th year since the birth of Christ was at least four years earlier than celebrated at the 'Millennium'.

5 Richard Baxter, *A Christian Directory*, 1673, i, pp.274–5, 277.

6 E.g. Prov. 13:4; 1 Cor. 7:29; Eph. 5:16.

7 See Mills, P.S., 'The Ban on Interest', *Cambridge Papers*, Vol. 2, No. 1, 1993, March.

8 Merrill, C., 'Life, at Six-minute Intervals', *Commercial Lawyer*, 2002, May, pp.38–39.

9 Exod. 23:14–17; 34:18, 22; Lev. 23; Num. 28–29; Deut. 16:1.

tition, recreation and rebirth.<sup>10</sup> The danger, however, is to forget that God created the seasons for a purpose (Psalm 74:17). He has ordered natural life and the Judaeo-Christian calendar in a way that combines change and novelty with repetition and rhythm. This reconciles our simultaneous desires for stimulation and stability:

He (God) has contrived to gratify both tastes together in the very world He has made, by that union of change and permanence which we call Rhythm. He gives them the seasons, each season different yet every year the same, so that Spring is always felt as a novelty yet always as the recurrence of an immemorial theme.<sup>11</sup>

Hence, society acts wisely when it establishes an annual cycle of public holidays and common celebrations to provide shared patterns of experience and opportunities for families and friends to co-ordinate time off together. Christian festivals belong in this category. As with the Israelite calendar, they provide a regular reminder of the provision that God has made for us, both spiritually and physically.

## The week

Whilst systems for subdividing seasons and months into more convenient shorter periods have been part of most calendars, there is no astronomical or mathematical reason why that subdivision needs to be seven days. Indeed, at various points in history, ‘weeks’ of anywhere between five and ten days have been observed. But it was the adoption across the Roman Empire of the Judaeo-Christian seven-day week in the third century AD that ensured its widespread use. The days of the week were named by the Babylonians according to which of the seven visible planets was thought to be dominant on the first hour of that day – hence the series Sun, Moon, Mars, Mercury, Jupiter, Venus and Saturn in the names of the days, especially in Romance languages (eg. *Lundi, Mardi, Mercredi* etc.).

This genesis has prompted the contemporary observation that the seven-day week is ‘a convenient human invention’.<sup>12</sup> However, the biblical revelation of a continuous seven-day week with a regular day of rest is without parallel in the ancient world. The template is outlined in the Creation account of six days in which God makes and populates the universe followed by a seventh of ‘rest’.<sup>13</sup> It is then translated into the Israelites’ working experience in the collection of manna (Exodus 16:23f) prior even to the giving of the Law. The two accounts of the Ten Commandments then give complementary reasons for the observance of the weekly day of rest (‘Sabbath’):

- Exodus 20:8–11 looks back to God’s resting on the seventh day of creation and its resultant blessing and sanctification. Israel’s observance of the Sabbath re-enacted the revealed sequence of the creation and by tracing the origins of the Sabbath to creation and declaring it blessed, God indicated the day’s wider significance to humanity.
- Deuteronomy 5:12–15 enjoins the cessation of work on the seventh day because Israel is to remember her release from Egypt and her covenant with God. Israel’s liberation meant

that *all* in society were to enjoy that rest, to ensure that neither workers nor animals were exploited through constant work.<sup>14</sup>

The key Gospel teachings on the Sabbath are familiar. Jesus taught that, since ‘The Sabbath was made for mankind, not mankind for the Sabbath’ (Mark 2:27), the day of rest is a privilege to those to whom it is revealed (not just to God’s people) rather than an end in itself. By asserting that ‘The Son of Man is Lord of the Sabbath’ (Matthew 12:8), he claimed co-authority with the Creator of the Sabbath and heralded himself as the ultimate end to which the Sabbath pointed – participation in God’s ‘rest’.<sup>15</sup> Jesus fulfils the covenantal role that the Sabbath played in the Law. The remainder of the New Testament reiterates this last teaching. The Sabbath is the shadow of which Christ is the substance (Colossians 2:16,17) and so the New Testament contains no requirement that Christians observe a particular day as a ‘Sabbath’. The early church marked the superseding of the Sabbath by meeting regularly on the day of the resurrection and Pentecost rather than the Jewish Saturday (e.g. Acts 20:7; Revelation 1:10).

What should be our attitude to observance of the six-plus-one weekly cycle? Theologically, the unbroken connection between Creation and the weekly day of rest establishes God’s ultimate sovereignty over our use of time, just as payment of a title acknowledges God’s ultimate ownership of our possessions. The day of rest is a regular pointer back to the Creation, forward to the pre-ordained end of time and to Christ who personifies our eternal ‘rest’. It is ironic, therefore, that Sundays are the busiest day of the week for some Christians and the furthest they get from ‘a taste of heaven’ on earth. That Sunday is not a ‘Christian Sabbath’ permits the choice of another day for those in ministry to rest. It is incumbent on others to respect that day.

From a practical perspective, the one-day-in-seven pattern of rest encapsulates numerous applications. First, the need for a regular day of rest ensures that work and consumption cannot be the all-encompassing object and idol of our lives. The requirement to rest from work is a necessary antidote to the prevalent materialism of Western society that believes getting and spending to be the goal of existence.

Second, the seven-day pattern is a creation ordinance given to all mankind. Nothing in the astronomical calendar requires a seven-day week, yet no society that has adopted it has successfully changed to an alternative. Revolutionary France implemented a decimal 10-day week intermittently between 1793 and 1805, and the USSR experimented with 5- and 6-day weeks in 1929–32 in order to break with the Judaeo-Christian week. No such attempt to replace the seven-day pattern has succeeded.<sup>16</sup> There is something intrinsic to the human psyche that responds best to a six days on, one day off pattern.

Finally, wider benefits to society flow from a shared day off. It enables families and communities to develop a rhythm and routine to their lives and plan shared leisure activities with other family members. Without a common day off, families in particular have difficulty co-ordinating their time off, leading to stress and a higher divorce rate.<sup>17</sup> It is barely credible that politicians and employers pay lip service to ‘family-friendly’ employment practices but do not promote Sunday as a shared, common day of rest.

10 In Hindu chronology, 360 years make a divine year, and a complete cycle comprises 12,000 divine years, before repetition starts.

11 C.S. Lewis, *The Screwtape Letters*, 1942, 25.

12 Eastaway, R., and Wyndham, J., *How Long is a Piece of String?*, Robson Books, 2002.

13 Gen. 1–2:3. It is significant that the seventh day is not completed, suggesting that we are still living in the seventh day of divine ‘rest’ from creative activity (Heb. 4:3), without precluding the continuing ‘work’ of God in sustaining the Universe (John 5:17; Col. 1:17).

14 God’s design for the division of work in Israel was one of time rather than class – rest was to be enjoyed by all rather than a privileged few (Wright, C.J.H., *Deuteronomy*, Hendrickson Publishers, 1996, p.76.)

15 This Messianic claim immediately precedes Jesus’ offer of rest to the burdened and weary (Matt. 11:28–30; cf. Heb. 4:1–11).

16 In wartime Britain, experiments to boost productivity with weeks without rest-days, or with extra days, not only led to higher incidence of illness but lower total output.

17 Hill, R., *The Health and Safety Effects of the Absence of a Regular and Shared Day Off*, Keep Sunday Special Campaign, 1999.

## The day and the night

The Bible's teaching on the day and the night begins with the creation of light initiating the daily cycle, although the sun is not created until the fourth day (Genesis 1:3,14). God, rather than the sun and the moon, owns the day and the night (Psalm 74:16). God promises to Noah that while the earth endures, 'day and night will never cease' (Genesis 8:22). This promise is then elevated to a 'covenant with the day and the night' (Jeremiah 33:20) with its connotation of immutability on God's part until the creation of the new heavens and earth, when the day/night cycle will cease (Revelation 21:23–25).

The day in OT Israel was divided according to natural phenomena (dawn, midday, sunset etc.) with three watches of the night mentioned. But there are no other clearer references to shorter periods of time within Israel,<sup>18</sup> reflecting the lack of reliable clocks. As a result, the day is referred to most often as the smallest unit of time in our relationships with God and others. His compassions are 'new every morning' (Lamentations 3:23); we are to give thanks for His provision of food on a daily basis (Proverbs 30:8; Matthew 6:11); each day has enough trouble of its own (Matthew 6:34); and we should not let the sun go down on our anger (Ephesians 4:26).

The nearest the text comes to practical advice about how to live on a daily basis is the equation of the night with deeds that are also dark (e.g. Proverbs 4:19; John 3:19). The normal time to work is during the daylight (Nehemiah 4:22; John 9:4–5). Although the wife of noble character works from before dawn to after dark (Proverbs 31:15,18), toiling late into the night is of no use if the Lord is not in the enterprise (Psalm 127:2). Legitimate activity is assumed to be concentrated during daylight.

Is this just the result of the biblical authors living when artificial light was weak and expensive? What can be wrong with night shifts and 24-hour shopping for maximum convenience? The barrier is that the human body is hardwired into a daily 'circadian' cycle that is triggered by natural sunlight. Body temperature and alertness begin to rise from dawn to an early morning peak, dip in the early afternoon, before rising again in late afternoon and falling from early evening.<sup>19</sup> Disruption to sleep through long or irregular shift patterns reduces attentiveness and co-ordination, leads to poor decision-making and significantly increases the probability of heart disease (by 100–200 per cent), gastrointestinal disease (over 100 per cent) and mood disorders. The divorce rate amongst US shiftworkers is 60 per cent higher than average. Fatigue causes 50 per cent of fatal traffic accidents, and several major catastrophes have resulted from fatigue associated with long hours and night working (e.g. Exxon Valdez, Bhopal, Chernobyl, Challenger shuttle).<sup>20</sup>

Again, there are lessons for us. By blurring the distinction between the day and the night, employers and shoppers impose costs elsewhere on workers and society. Whilst some night-time

working is, of course, necessary we should not rush towards a 24-hour society as a 'good thing' or an automatic requirement of being part of a global economy. The wider relationship and health costs of night working should be passed on to consumers and publicised to those workers likely to suffer as a consequence. As families and individuals, we should be more aware of the benefits of regular shared recreation times during the day and adequate uninterrupted sleep patterns at night. Our bodies operate optimally when synchronised with the day/night cycle.

## Conclusion

Truly we are living in a nascent 'chronocracy' in which the Rule of Time goes unchallenged.<sup>21</sup> Spiritual significance is latent within such a development, for the measurement and use of time is symbolic of mankind's willingness to place God at the centre of history and acknowledge the natural constraints of the seasons and the unlit night. Hence, the non-Christian attempts to replace BC with 'Before Common Era' or to abolish the seven-day week. More subtly, breaking down traditional temporal patterns (especially the day and the week) is hailed as liberation.<sup>22</sup>

But rather than achieving freedom, by ordering our lives by measured, autonomous time, we have enslaved ourselves to a tyrant of our own making. Time rules our lives through apportioning our working day. By the very act of time measurement, chronocracy makes us feel guilty if we 'waste' an hour; it claims inherent value by teaching that 'time is money'; time's passage is celebrated through anniversary and millennial festivals; and those cultures that have not embraced its rule are deemed to be less 'advanced'. Perhaps most insidiously, the absolute rule of time is eroding the natural and rhythmical distinctions of the year, the seasons, the week and the day.

The Christian understanding of time is quite different. It opposes the chronocracy of our culture by acknowledging God as the Lord of Time. Whilst celebrating the technical achievements of calendars and timepieces, it refuses to allow the measurement of time to undermine respect for the divinely ordained patterns and cycles in nature. Only by refusing to place a value on work and money just by the mere passage of time will we learn to 'number our days aright' (Psalm 90:12).

21 'In Internet time, everything happens everywhere at once...Time has, in essence, triumphed over space.' (Stix, G., 'Real Time', *Scientific American*, September, 2002, p.21).

22 'But [the] greatest promise [of flexible time use] is political and philosophical: the achievement of genuine personal autonomy, escape from the weight of tradition, and the chance for people consciously to shape their own biography.' (Mulgan, G., and Wilkinson, H., 'Well-being and the Time Squeeze', p.5, in *The Time Squeeze*, Demos, 1995, pp.2–11).

*Dr Paul Mills graduated in economics from Cambridge University and worked as a researcher at the Jubilee Centre before returning to the University. Having completed his PhD, he now works as an economist specialising in finance. The views expressed here are entirely personal and do not reflect those of any organisation.*

18 De Vaux, R., *Ancient Israel: Its Life and Institutions*, Darton, Longman and Todd, 1961, p.182.

19 Wright, K., 'Times of Our Lives', *Scientific American*, September, 2002, pp.40–47.

20 Moore-Ede, M., *The 24-Hour Society*, Piakus, 1993.

### Receiving Cambridge Papers

There is no subscription charge but if you are able to do so, you are invited to make a donation from time to time, by standing order, cheque or credit card, to help meet the cost of publishing and distributing *Cambridge Papers*. If you are a UK taxpayer, signing a Gift Aid declaration will increase the value of your donations.

If you would like to receive *Cambridge Papers*, and you are not already on our mailing list, please send your name, address, and e-mail address if appropriate, together with any donation you may wish to make (sterling cheque payable to Jubilee Centre) to:

**The Jubilee Centre, 3 Hooper Street, Cambridge CB1 2NZ**

**Tel: 01223 566319, Fax: 01223 566359**

E-mail: jubilee.centre@clara.net www.jubilee-centre.org

A list of back issues is available from the Jubilee Centre.

*Cambridge Papers* is a non-profit making quarterly publication which aims to contribute to debate on contemporary issues from a Christian perspective. The writing group is an informal association of Christians sharing common convictions and concerns. The contribution of each is as an individual only and not representative of any church or organisation.

### Next issue: Music and worship