

Perspective

The Journal of the CiE

Autumn 2010









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Aims of Christians in Engineering

- 1. To link Christian engineers and help them to maintain a consistently Christian stance in their work.
- 2. To enable Christian engineers to develop a thought-out Christian approach to professional issues.
- 3. To encourage Christian engineers to exert a constructive Christian influence in the engineering profession.
- 4. To support and encourage Christians who are entering the engineering profession.
- 5. To supply insight to engineering related missionary work.

Please send contributions for the next issue of the Journal to Mike Cowan at the address above.

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Editorial

Mike Cowan

Our last Journal reported many administrative changes that have now been put into place. In this edition we have one new contributor from our membership and I thank Thomas Ashworth for the book review he wrote when stranded at home during last winter's snow.

Our considerations for the future need to include what emphasis, if any, that the next issue should contain. Paul Darley has commented that a number of engineers that he meets are in the uncomfortable position of either being overworked or being out of work. Tony Fletcher passed on a review of the book 'Prosperity without Growth'. The result was that I read the book myself, wrote a review of it, and have now enrolled for an MSc course in 'Sustainable Development'. The writer, Tim Jackson, is a professor of the faculty in which I will be studying.

My suggestion is that the next Journal might look at the economic, environmental and cultural situation in which we live. This with the intention of seeking how to live positively within our predicament and God's solutions to it. In the first instance it might be appropriate simply to identify the issues, their magnitude and any biblical precedents. That means, dear members, that we need your contributions – be they an e-mail comment (non-attributable perhaps?) – or a full article.

This year's conference of Transform Work UK takes place in Portsmouth on 13th November. Members of the Committee would be delighted to see you there. You can book on line at www.transformworkuk.org.

Please feel free to offer comments on our journal and to provide articles for future editions. You may contact me at mike@christianengineers.org.uk.

Economics or Culture?

Mike Cowan

If the West has been living an unsustainable materialism, how can it change?

It has been said that the primary aspirations received by UK Youth today are for Money, Fashion, Fame and Possessions. The 'Fame and Fortune' of so many old story books? If UK culture were post-Christian what else would we expect? If, as a complete person, I have no more significance than the particles from which I am constructed, then there is no rational objective to my life.

Written into the USA Constitution is the individual's right to 'The Pursuit of Happiness'. Where is happiness to be found within a post-Christian culture? One answer is found in the film 'The Pursuit of Happyness'. Based on a true story, the hero seeks, in the first instance, wealth by becoming a stockbroker. He uses his ability, intelligence and focus to relate with clients for his own gain. In reality he may have worked hard for the interests of his clients and his employers, but as presented in the film his clients and managers are no more than a means to an end. The media are daily uncovering the dysfunctional results of such a value system.

Jesus encourages the pursuit of happiness, but tells us to start the search from different presumptions. The whole person – what we might call the soul – is far greater than the sum of its parts. Of prosperity Jesus teaches that our heavenly Father knows what we need, but that we should "seek first his kingdom and his righteousness and all these things will be given to you as well" (Matthew 6:33). Material prosperity will never satisfy for "What good will it be for a man if he gains the whole world, yet forfeit his soul?" (Matthew 16:26).

The next time one of our colleagues blames our troubles on greed and selfishness what should I say? What will you say? Unless we help each other to diagnose the problem correctly there will be no cure.

As Jeremiah put it: "From the least to the greatest, all are greedy for gain... They dress the wound of my people as though it were not serious." Jer 6:13-14.

A Brief Bible Outline

Vic Fletcher

The Bible has 66 books (39 OT, 27 NT), about 40 authors, written over a period of hundreds of years. The longest "chapter" is Psalm 119, all about the joy and satisfaction of keeping God's Laws. The shortest is Psalm 117 which also happens to be the middle one. If you hold the Bible in two hands, put your thumbs together and open the book in the middle, you will be in <u>Psalms</u>, which is a good start! The most famous verse in the Bible is John 3: 16 – "God so loved the World…" which has been translated into almost every known language.

The first 5 books are called the "Pentateuch" ($\underline{Penta} = 5$) and were written, or inspired, by \underline{Moses} .

Running briefly through the whole book, we start with <u>Genesis</u> – the <u>beginning</u>, the <u>origin</u> of things – the Universe, the Human Race, the Jewish Nation. It takes us to the death of Joseph in Egypt, to which the Israelites had been forced to flee by a severe famine. After much maltreatment, they were rescued by God, through Moses, as recorded in the book of <u>Exodus</u> – the miraculous escape from Egypt. (The most significant and famous event in Jewish history, apart from the birth of Jesus.) During 40 years in the Desert, their clothes "waxed not old", neither did their sandals wear out. However, all those who originally escaped from Egypt, except 2, <u>Joshua</u> and <u>Caleb</u>, died in the Desert, owing to lack of faith and general disobedience to God's rules (Ten Commandments etc).

<u>Leviticus</u> and <u>Numbers</u> introduce a sacrificial system, run by the specially appointed tribe of <u>Levi</u>, a first census, and rules and procedures for the Israelites to abide by. In <u>Deuteronomy</u> (from "Deut" = 2 or 2nd), Moses reiterates God's requirements for a successful relationship with Him. Moses was not allowed to go into the Promised Land himself, so he handed over to <u>Joshua</u> who (as an aide memoir), <u>Judges Ruth</u>. (No offence – she was a lovely, loyal, daughter-in-law!)

Then we have <u>Samuel</u>, <u>Kings</u>, <u>Chronicles</u> etc (mainly historical, including the life of <u>King David</u>, ancestor to Jesus), Esther (only book in the Bible not to mention God), and one of the most famous books of all – Job ("I <u>know</u> that my Redeemer liveth" – Job 19:25), probably originating, if not written, 1500 years before Christ.

Job is followed by <u>Psalms</u> (our relationship with <u>God</u>), ("Be still and <u>know</u> that I AM God," Ps 46: 10) and <u>Proverbs</u> (our relationship with each other), then <u>Ecclesiastes</u> ("A time for everything under the sun" Ecc 3:1) and soon the major prophets, <u>Isaiah</u>, <u>Jeremiah</u> and <u>Ezekiel</u> (with a brief <u>Lamentations</u> in between!). (Note that Isaiah 52 and 53 – the "Suffering Servant" chapters – foretell, in amazing detail, Our Lord's trial and suffering <u>700 years</u> before the event. Many other references in the Bible foresee the Messiah – these are called "Messianic" verses or passages. The story of Jesus, the Messiah, is a "golden thread" running right through the Bible from beginning to end ("I am <u>Alpha</u> and <u>Omega</u>" Rev 1:8. History is <u>HIS</u> STORY.)

Following Ezekiel, we have the relatively Minor Prophets, Daniel, Hosea, Joel, Amos, Jonah, Micah, Habakkuk, Zephaniah, Zechariah and finally Malachi (my messenger) who looks forward, some <u>400 years</u> later, to the New Testament.

The New Testament starts, as ever, with the absolutely priceless four Gospels, written by the Apostles, <u>Matthew</u>, <u>Mark</u>, <u>Luke</u> and <u>John</u>, followed by the <u>Acts</u> of the Apostles, in converting people, setting up House Groups, and then Churches. The first martyrdoms occur (Stephen, and James, brother of John) and that greatest of events, <u>Pentecost</u>, the "Birthday" of the Church.

<u>St. Paul</u> comes on the scene (after his dramatic conversion) and writes major letters to the people of Rome ("<u>Romans</u>") and Corinth ("I and II <u>Corinthians</u>"). These are followed by six very important letters to young Churches defining and correcting early Christianity. (Their sequence is easy to remember – simply A, E, I, 0, U. <u>Galatians</u> (A), <u>Ephesians</u> (E), <u>Philippians</u> (I), <u>Colossians</u> (O) and Thessalonians (U) (slight poetic

licence!). After letters to <u>Churches</u>, we have some to <u>people</u>, <u>Timothy</u> (Paul's "son in Christ"). <u>Titus</u> and <u>Philemon</u> (lovely, tender, letter).

Then comes <u>Hebrews</u> (author unknown) which, as its name suggests, is written to <u>Jewish</u> Christians to emphasize that Jesus is superior to all that has gone before. (That great rhetorical question (Chap 2:3), "How <u>shall</u> we escape if we neglect so great a salvation??"). Four short letters follow by <u>James</u> (not the Apostle, murdered early on, but probably Our Lord's brother), <u>Peter</u> (as ever), <u>John</u> ("God is Love" 1 John 4:16) and <u>Jude</u>. Finally, that great book of <u>Revelation</u>, difficult but awe-inspiring with comforting words (Rev 21:4), "There shall be no more pain").

To sum up, a collection of "Chapter 3" key verses to remember':

Exodus Chap 3:14 Tell them I AM sent you. This is my name for ever.

<u>John</u> Chap 3:16 God so loved the World, He gave His only

begotten Son that all who believe in Him might

not perish but <u>have everlasting life</u>.

Romans Chap 3:28 We are justified by <u>faith</u>, <u>NOT</u> by works. (Note,

however, James (2:14ff) stresses faith <u>without</u> works is dead. Faith and works are concomitant.)

Revelation Chap 3:20 I stand at the door and knock. If any man hear my voice and open the door (of your "heart"), I will come in and sup with him, and he with me.

And be assured (<u>Romans</u> 8:1), "THERE IS NO CONDEMNATION TO THEM WHO ARE IN CHRIST" (This assurance distinguishes Christianity from <u>all other religions</u>.)

Finally, "All Scripture is inspired by God and is useful for teaching the truth, rebuking error, correcting faults, and giving instruction for right living, so that the person who serves God may be fully qualified and equipped to do every kind of good deed" (2 Tim 3:16 – another "Chapter 3").

Editor's note: Vic Fletcher is Tony Fletcher's father.

Some Common Faults in Communication Equipment

Revd. Brian Shersby, G0ISL

Some common faults in radio equipment can have parallels in our lives.

BAD CONNECTIONS are often difficult to find. Dry-soldered joints or stress-failed soldered joints will stop everything working. So will corrosion on contacts. Sin has a very corrosive effect in our lives; just a little bit of dirt, and our link with a holy God is damaged or destroyed. In practice, sin tends to grow and spread, just like corrosion. The cure for us is simple. When Jesus died on the cross, he made it possible for all the corrosion to be cleaned away and our bad connections "resoldered". See 1 John 1:8-9.

INTERMITTENT FAULTS are difficult to deal with because most of the time nothing seems wrong; the intermittent Christian is just as hard to understand. A pillar of the local church suddenly disappears for no apparent reason – this can happen because of mental health issues, but commonly because of discouragement. We need each other more than we sometimes realise. Fellowship is vital. See Hebrews 10:23-25.

INSTABILITY can cause RF circuits especially, to break into all kinds of spurious oscillation if you try to achieve too much gain, or you don't have sufficient screening and decoupling. Christians too can sometimes be unstable and behave in strange ways. James speaks of immature Christians who can be 'blown about by every wind of doctrine'. See James 1:5-8. Also 2 Peter 2:14 speaks about false teachers 'seducing the unstable.' It is sadly possible for us to be attracted to all kinds of strange and exciting things, but miss the point, which is to grow closer to Jesus.

TIREDNESS. Low emission valves, resistors gone high-value, leaky capacitors, tired transistors. As Christians, we can get spiritually as well as physically tired. See Galatians 6:9. What is the answer? Jesus

spoke about his refreshing living water in John 4:13-14, that is, his Holy Spirit, poured into our hearts through faith, See Romans 5:5.

LOW AUDIO. A friend once had a 144MHz transceiver with this problem. He produced a good RF signal, but you needed your AF gain at maximum to hear him at all. Sometimes as Christians we are like this. When it comes to sharing the good news of Jesus, we can be like Russian north-flowing rivers – frozen at the mouth. Paul is uncompromising about sharing the good news; See 2 Timothy 4:2, and it got him into hot water. We have freedom to speak about Christ now, but it is likely to become harder, and we will be much more likely to fall foul of laws about equal opportunity, inclusion, diversity and harassment. But don't despair – we have an Advocate on our side the world doesn't know about. See John 16:7-11.

DEAFNESS. Some receivers need an RF pre-amp, or a very good antenna system to work well. Sometimes as Christians we can be deaf to what God is saying to us. We should remember Jesus' story about the vine, John 15. We need to make sure that we have a good low-loss connection with the vine, because unless we are closely-coupled with Jesus, we will be ineffective as his disciples.

Editor's note: This article originally appeared in the Newsletter of the World Association of Christian Radio Amateurs and Listeners (WACRAL), No 228, December 2009 (www.wacral.org) and is reproduced with permission.

Transitioning the Supply of Renewable Community Power

Jae Mather, Director of Sustainability, Carbon Free Group

There has been a great deal of talk coming from government regarding creating "Sustainable Communities" and delivering "Sustainable Development" through increased levels of renewable energy systems. In reality, renewable energy is still very much in the minority of electricity and heat production in the UK with EU statistics showing that only 1.5% of UK energy comes from renewable sources. This puts the UK in the 25th out of 27 countries in the EU

Large-scale wind power is now beginning to become more common, especially offshore, but much of the time even these renewable systems are owned by large corporations and only rarely do local communities get to share the benefits.

Due to these issues the Carbon Free Group set up a new company called Transition Power which has been established to deliver community renewable energy schemes. Transition Power focuses on specific renewable energy systems that will vary from project to project and from location to location to take advantage of the natural resources of the area, the local political and social dimensions and the local financial incentives. Projects will be run as a business to ensure they are financially sustainable, while at the same time they must offer environmental benefits, local energy security, local jobs, and income for the local population.

Currently there are two projects that are being explored with another six potential projects already on the near horizon. The first involves building a 4.5MW biomass power plant (electricity only) that would produce more than four times the electricity that the local community currently consumes. This is in an effort to compensate for the carbon dioxide emissions from the community's heating, transport, food etc. The calculations show that 80-90% of the entire community's emissions

would be offset by this plant, thus enabling the government's 2050 80% carbon reduction to be met within two years (18 months for planning and 6 months to build).

It is important to note that the biomass fuel is expected to be supplied from within 40 miles of the power plant and it will be made up of chipped purpose grown wood, Miscanthus and pallets/waste wood from the construction industry that is currently going to landfill. Biomass is not carbon neutral as there are always emissions associated with the harvesting, processing and transport. However, electricity consumed from the grid has a general carbon weighting of 0.48kg CO₂ per kWh, while the carbon emissions associated with wood chip average 0.007kg CO₂ per kWh, thus effecting a 98.5% reduction.

Each project has a community element that will vary based upon the specifics of the situation, but the 4.5MW biomass power plant is currently aiming to gift a percentage of the shareholding to each dwelling in the local community. The reason for gifting to the dwellings is so that the shareholding stays in the community permanently. In addition, a community interest company will be set up that is housed in the power plant and financed with a share of the profits as well. The company will have the sole focus on helping the local community transition towards sustainability and the low carbon future. As it will be financed by the power plant it will not need to worry about, or focus huge amounts of energy into searching for the next grant. Instead it can focus on the job at hand and get on with delivering solutions.

The company will be run by the local community as the residents (and not the owners of the dwellings) will have the voting rights that decide where effort is focused. This may include energy efficiency, local food, local transport, Transition Towns, micro generation, and retrofitting etc.

The return on investment of the 4.5MW plant is expected to be around 20%, with a payback period of under five years. This is a good example of practical sustainability that offers triple bottom line benefits at the

community level while at the same time helping the government to meet its commitments and at the same time offering huge financial gains.

Postscript by Paul Darley

This article describes an example of environmental, social and financial sustainability on a community scale. This is very much included in the Biblical concept of 'making peace'. The Hebrew word for peace, *shalom*, means much more than just the absence of war or strife. It means much more than being right with God. Strong's Concordance defines it as 'completeness, wholeness, health, welfare, safety, soundness, tranquillity, prosperity, fullness, harmony, the absence of agitation or discord, peace.'

Jeff Benner of the Ancient Hebrew Research Centre writes, 'The verb form of the word shalom is *shalam* and is usually used in the context of making restitution. When a person has caused another to become deficient in some way, such as a loss of livestock, it is the responsibility of the person who created the deficiency to restore what has been taken, lost or stolen. The verb *shalam* literally means to make whole or complete. The noun shalom has the meaning of being in a state of wholeness or with no deficiency. The common phrase *shalu shalom yerushalayim* (pray for the peace of Jerusalem) is not speaking about an absence of war (though that is part of it) but that Jerusalem is complete and whole and goes far beyond the idea of peace.'

Do we have this broad view when we pray for the peace of our local communities? Do we pray for the peace of our local communities at all?! Jesus said, 'blessed are the peacemakers, for they will be called sons of God.' What can we do to be peacemakers in our communities – making restitution for the environmental and social deficiencies of modern lifestyles?

A typical day?

No such thing for Feba engineer Graham Kimber

A report copied from the Feba ministry newsletter, April 2010

Feba's Development Engineer for Africa, Graham Kimber, handles a lot of the technical detail involved with broadcasting in Africa. Willing to travel long distances to get stations up and running, and with a reputation for meticulous work, Graham is a valued member of staff playing a vital role in Feba's ministry.

His colleague, Bob Bartz, says:

I know when Graham has been through a station, has had the opportunity to do everything that he needs to do, that the station is going to have a really good, reliable foundation on which to broadcast.

So when Graham visited the UK earlier this year, we seized the opportunity to ask him what a typical day in the life of a Feba engineer in Africa would look like:

At home in Malawi

When I'm at home in Malawi a typical day could be planning for a radio station, writing emails or reports, getting finances up-to-date and that sort of thing.

Otherwise I might spend the whole day shopping. You can't get studio parts where I live but you can get some hardware. There are a couple of electrical goods shops where I can get electrical wiring materials, circuit breakers, sockets and switches...

On the road

If I were making a typical trip to Mozambique, I would leave home around 4:30 am and get to the border around 6 am. I would drive until about 5 pm by which point I would have reached my overnight stop.

The next day I would get up and drive again, about 6 hours.

What's involved once I get to my destination depends on what phase the project is in. At the beginning of a project I would be talking to an architect and project manager. The architect produces drawings of the new studio – floor plans – the typical architecture drawings that then need to be submitted to the local authorities for planning permission.

I would expect to make another visit early on in the building process, when they've done the foundations and getting to the floor, and maybe the walls are starting to come up. That would be to see how accurate the building is going according to the drawings, making sure there are no major mistakes.

Security – all part of the job

Security issues are part of engineering work in Africa. We would typically build a fence around a building site or have some sort of controlled access to building materials.

On the 15 December 2009 we got a call that burglars had got in to one of our studios in Malawi. Apparently there was a gang of 20 of them with iron bars and they pried the door open and hammered until they broke the locks. They took out the PC and monitor, some speakers and the fire extinguisher but a neighbour discovered them and called the police. In the end they got away with one headset, 3 or 4 headphones, a microphone and a portable digital recorder. But they injured the neighbour's two security guards. We don't have any security guards looking after the studio but even if we had, what could they have done against a gang of 20?

Editor's note: This article has been copied with permission from Feba who's ministry is to broadcast the Good News of Jesus Christ and bring transformation to people's lives and communities. This involves both the production of radio programmes and their transmission via local transmitters or short wave radio. See also www.feba.org.uk.

RESPONSES

From David Pott with reference to Article 'Delusion or Design?' by Mike Cowan, Spring 2009

In the Spring Journal (2009) I was interested to see an article on Genesis i.e. 'A question of Biblical Interpretation' and in particular "...I don't think there is any demand to read the first chapters of Genesis literally." I shall assume that the "first chapters" are 1 to 11 inclusive. The Bible clearly states that God created everything in six days of 24 hours each. The Hebrew word for day is *yom* which means a day as in English i.e. 24 hours or the light portion of a 24 hour day. *Yom* is mentioned more than 2300 times in the OT. By not accepting the first chapters then one cannot accept:

- i) the Flood and Noah,
- ii) that the Euphrates River existing today is the same one mentioned in Genesis.
- iii) that Sodom and Gomorrah in 10:19 are the ones mentioned in 19.

Also, one must accept that sin originated differently. *Editor's note: David included many further sections of scripture to demonstrate that contributors to the Bible, including Jesus himself, have quoted and therefore accepted the validity of previous scriptures. He continues:*

2 Timothy 3:16 "All scripture is given by inspiration of God." As the NT was not completed when this statement was written; it may or may not refer to the NT. However it must refer to the OT. If one does not accept the first chapters of Genesis then this verse is not acceptable and so puts the rest of the OT in doubt and if the OT is doubtful then NT must also be dubious.

Finally,

Do you believe in the virgin birth of Jesus? If so why? Do you believe that He walked on water? If so why? Do you believe He was and is the Son of God? If so why? Do you believe He died and rose from the dead? If so why? Do you believe...?

Writer's response

The point is well made – and needs to be made – that to argue that one passage of the Bible is wrong weakens the whole message. The issue I have is that language has severe limitations when communicating something that does not belong to common and 'everyday' life. In such circumstances we all use words in a non-literal manner, or we use explanatory models. Do we deny scripture that flexibility?

With Genesis chapters 1 and 2 I do believe that the text will be closer to the truth than I can fully imagine now, but I do not want to burden believers, or would-be believers, with having to align their science to a particular interpretation. I would prefer to see science and our understanding of the biblical account of creation converge. Nils Bohr has been quoted as saying "When it comes to the atom, language can only be poetry".

Mike Cowan

From Mike Cowan, with reference to article 'What's in a Name?' by David Kay, Winter 2009

As Editor I asked David Kay if he would like to say more about the term JEHOVAH, but he has left it to me. I have referred mainly to my copy of the 'New Bible Dictionary'. The relevant entry points out that, in the Bible, there is a principle that the superior individual names the junior. Furthermore, a name is considered to have more power than a mere 'label'.

When Moses asks how to refer to the LORD to his fellow Israelites, M. Buber's translation of the answer (Exodus 2:14) is, "I will be what I will be". I could read it as the sort of rebuke I would have got from my teacher in the 1950s if I had had the cheek to ask him to tell me his Christian name. Philosophically it is both deep and revealing. The LORD is claiming total autonomy. In verse 15 the term LORD is replacing the Hebrew 'YHWH' – understood to mean "I Am". Here is a

claim to independent existence that has no cause and no superior to provide a name. Given that this Holy Name was considered too holy to be spoken by men, the Jews replaced the 'YHWH' written in the scriptures by their word for 'LORD' when reading aloud. Thus, Christian translations now identify the term 'YHWH' by printing 'LORD'. For a believer it is breathtaking to consider that, following adoption through Jesus, we are now invited to call him 'Abba' – father.

Book Reviews

The Genesis Enigma – Dr. Andrew Parker, 2009

The biblical account of creation is difficult to accept in line with the current weight of evidence for evolution and the Big Bang Theory. It is puzzling that the Sun is seemingly created twice, that full-grown photosynthesising trees exist suddenly and apparently before the definite creation of the Sun, and that birds are mentioned before land animals. It is otherwise widely known that post-flood the Bible has been proved to be historically accurate. Whilst gazing up at the Michelangelo paintings in the Sistine Chapel, Andrew Parker, a research fellow at Oxford University and Professor at Shanghai's Jiao Tong University, realised that new scientific theories could show that the Genesis account of creation is accurate. I will briefly summarise the main points of his book here:

In the beginning following the Big Bang, the Sun was gradually formed as elements came together under the force of gravity. The Earth was still formless as described in Genesis 1:2. Eventually the Sun began to produce its own light and the Earth became a solid body. "And there was light."

Water is mentioned next as this period describes the creation of the atmosphere. Earth had precisely the correct gravitational pull to keep its atmosphere, unlike Mars, and was the right distance from the Sun to allow water to condense, unlike Venus. As water vapour condensed out of the atmosphere "water from water" (Genesis 1:6) was separated.

Parker then proposes that the early biblical scholars would not have had the term cyanobacteria, the first photosynthesising molecules, in their vocabulary. Instead they use the terms plants and trees (Genesis 1:11).

Then he proposes that the creation of lights actually represents the development of vision. Only then could creation see the heavenly bodies (Genesis 1:14). The lights were not actually turned on, but the ability to see them was.

Following the development of vision scientific theory suggests that this led to an evolutionary leap described as the Cambrian explosion. Once the eye was developed, predation began which gave evolution a kick. And follows that geologically relatively quickly this let "the water teem with living creatures" (Gen 1:20), birds flew and animals roamed the land.

Parker raises the challenging point throughout his book: if the Genesis account of creation was written between 950-500 BC and is correct, how did the writers know?

Thomas Ashworth

Prosperity without Growth - Tim Jackson, 2009

Tim Jackson is Economics Commissioner on the Sustainable Development Commission, the UK government's independent adviser on sustainable development. He is also Professor of Sustainable Development at the University of Surrey.

What does it mean to be prosperous? What does prosperity look like in a finite world with a human population of 6.5 billion? This is the question lying behind the whole of this book. The writer is an economist who challenges the current principle that prosperity can only be delivered by continual growth in a nation's Gross Domestic Product (GDP).

Jackson argues that it is not possible to 'decouple' GDP growth from

increasing consumption of finite resources and that a new understanding of prosperity is required.

Where many of us have held a conviction that 'things cannot go on like this' and materialistic greed must be curbed, Tim Jackson produces an informed argument to demonstrate the failure of western materialistic culture and a study of what it means to be prosperous. He is Director of the ESRC Research Group on Lifestyles, Values and Environment (RESOLVE) and is able to provide evidence that above a basic income further material wealth does not necessarily increase humanity's general satisfaction with life and can reduce it. Excess consumption in a finite economy leads only to increased inequality.

Where have we heard that before? I feel challenged to write an article that aligns Jesus' teaching in Matthew chapter 7 "So do not worry saying 'What shall we eat?' or 'What shall we drink?' or 'What shall we wear?' for the pagans run after all these things, and your heavenly Father knows that you need them. But seek first his kingdom and his righteousness, and all these things will be given to you as well"... with some of the conclusions in this book.

Particularly helpful is his demonstration that it is difficult to live an alternative lifestyle without disengagement from our current culture. Change needs to be applied universally. Tim Jackson concludes with an example of a revised economic model that includes specific allowance for investment that will reduce our demands on the world's resources.

For further reading see:

- Website <u>www.earthscan.org.co.uk/pwg</u>.
- The Centre for Alternative Technology has, this year, published a large document titled 'Zero Carbon Britain. A new energy strategy'. Website www.cat.org.uk.

Mike Cowan

The Pilgrim's Progress – John Bunyan (1678-1684)

Until this year I had only read an abridged version of this classic – one of the four most published books in the English language. I suspect that coming to it as an older man and an older Christian I was able to find a deeper understanding and relevance in Bunyan's writing.

Most readers will know of Christian's allegorical experiences when on his travels. The hill difficulty, the descent to the Valley of Humiliation and the Valley of the Shadow of Death. The full book includes a second part in which the travels of Christiana and her family are used to describe, among other things, the variety of Christian experience linked to the variety of personalities. Thus Mr. Feeble Mind is assured by Mr. Great-heart that "I have it in commission to comfort the feeble-minded, and to support the weak.

You must needs go along with us; we will wait for you; we will lend you our help; we will deny ourselves of some things, both opinionative and practical, for your sake; we will not enter into doubtful disputations before you; – we will be made all things to you, rather than you shall be left behind" (Romans 14; 1 Corinthians 7).

The observation that the Valley of Humiliation is pleasant for some reminded me of my experience of unskilled work on the shop floor of a plastics moulding company. On return from living abroad I had taken the job on a continental shift system. I could leave my responsibilities behind as soon as I clocked out, and the hours allowed me to play every day with my infant son at times when he was awake. I did often question whether it was the right place for a 30+ engineering graduate to be, but in the longer term it proved to have equipped me well for auditing factories around the world.

Mike Cowan

Membership Matters

Committee Meeting Reports

The Committee met this year on 6th March 2010 and 9th October. We would welcome any member to join us as observer or prospective member of the committee.

Meetings are generally held at the home of John Baden Fuller in Gilmorton, a village a few miles south of Leicester. We remain particularly grateful to Dorothy Baden Fuller for the delicious lunch that she invariably supplies.

On 9th October we met at the home of Paul Darley in Stamford as John was ill and unable to host the meeting.

Membership

Tony Fletcher has taken over the duties of Treasurer for the present. David Burgess is our Mission Contact

Change of Administration

Administration has now been transferred to Transform Work UK (TWUK). The database providing details of members is now held by TWUK who also process subscriptions and donations. A separate bank account has been opened in the name of Christians in Engineering.

The website is now managed by the same organisation that manages the TWUK website.

Mike Cowan

Application for CiE Membership

Any Christian who studies, works or has worked in the engineering professions can become a member.

If you would like to join, please complete the form below and return it to The Membership Secretary, Christians in Engineering, % Transform Work UK, Brook House, Ouse Walk, Huntingdon PE29 3QQ.

name		
Address		
E-mail		
Tel (home)		
Tel (work)		
Occupation		
Place of work		
Interests		
E-mail		
graduates, those re-	tion of £20 (£10 for students, first-year tired and/or unwaged) is attached: please es payable to Christians in Engineering)	£
Signed		
Date		

Would you like a receipt? YES / NO Please circle as appropriate.

A Standing Order form can be downloaded from the CiE website or www.transformworkuk.org/Publisher/File.aspx?ID=50485.

christianengineers.org.uk