Pillars of the earth

He shakes the earth out of its place, and its pillars tremble.

Job 9:6
With Him, have you spread out the skies, strong as a cast metal mirror?
—Job 37:18

PILLARS FOR THE EARTH AND SKIES as strong as cast metal mirrors indeed! Oh that such ignorance should be! How does one explain cosmological heresies such as these? Those pre-committed to rejection of Scripture explain them easily: those ancients were donkeys, their words were vapid nonsense.

"Cosmology" deals with the general structure of the universe and earth. In the twentieth century, earth and space scientists have worked out a detailed, accurate account of these. The Bible's descriptions of heaven and earth, such as in the two verses from Job above, are often accused of being seriously out of kilter with the scientists' findings.

Any who will seek to establish respect for Scripture must confront these difficulties squarely and honestly, rejecting the temptation to use belittling tactics, quashing the urge to run for cover, and avoiding specious, deceptive arguments. Most of all, they should acknowledge that an explanation is needed — refusing to do so can only give grist to the sceptic's mill.

Strangely, conflict exists over whether or not the Bible even *has* a cosmology, let alone what its content might be. At one extreme are those who claim that, "The Jews took their theory of nature from the Greeks. There is no proper cosmology in the Old Testament" (Johnson, circa 1975, p. 14). At the other end lie those who lay brick to brick, constructing a detailed view of what the earth and universe must have looked like in the mind of an ancient Israelite.

To set the scene, let's burst the bubble of

the modern myth that the ancients were steeped in nonsensical cosmological notions until disabused of these by the Greeks. Consider the following eye-opening statements:

Studies still appear on the theme, and sometimes with the title, "from myth to reason", many of them arguing, or at least assuming... that the one simply supplanted the other... To begin with (so this view has it) there were those charming, but childish, Egyptians and Sumerians with their weird and fantastic notions about the cow-goddess in the sky, the sweet waters under the earth, and so on, and then along came the Greeks who were adult rational people like ourselves. The notion that there is or was a mythological or pre-rational or pre-logical mentality, different in kind from a scientific, rational or logical mentality is at best grossly oversimplified and at worst a piece of dangerously misleading propaganda. When we study what actually happened in the sixth and fifth centuries BC in Greece... the picture that emerges is very different (Blacker & Loewe 1975, p. 199-201).

They go on to explain that in the works of the Greek philosophers:

There is no such thing as *the* cosmological model, *the* cosmological theory of the Greeks. One is hard put to it to describe the *predominant* notion or notions in Greek cosmology... one of the most remarkable features of Greek cosmological thought is that for almost every idea that was put forward, the antithetical view was also proposed. For every cosmology, there is, one

might say, a counter-cosmology, suggested by the Greeks themselves (p. 205).

Thank you, Blacker and Lowe, for spotlighting yet another straw man! Discard all notions of a pre-rational world saved from intellectual constipation by Greek philosophical laxatives.

Alleged biblical cosmology

More confusion surrounds the question of what the Bible teaches about the nature of heaven and earth than any other aspect of biblical science. Modern man is very uncharitable towards ancient man's scientific understanding in general, and that of the Hebrews in particular, and seems bent on getting the facts mixed up whenever possible.

In this chapter we will examine what the Bible does *not* say about the earth and universe, and attempt to dismantle popular misconceptions that have arisen. In the next chapter we will look at what the Bible *does* say; be prepared, there are surprises.

Many allege that Scripture teaches a three-tiered universe, with Hades at the bottom, a flat earth in the middle, and a semi-spherical heavenly vault made up of solid, onion-like layers of matter suspended overhead like an upside down mixing bowl or an umbrella. One layer has the moon attached to it, another the sun, and others the stars, with people arguing over the relative proximity of each one. These registers, with their objects firmly attached, revolve around the earth sitting motionless in the centre of the complex.

A huge sea rests upon the outermost layer. By some strange means, water sometimes gets through windows in the solid heavenly vault into the clouds, and thence to the earth in the form of rain. Though when mankind is naughty, God closes the windows so that the water can't get through. (Or pours so much through that everybody is drowned.)

One can easily imagine pre-scientific man believing in some aspects of the alleged model, such as the notion that we lie in the centre of everything with all those heavenly goodies floating around us, because that's the way it looks. But other features of the model clearly would have resisted acceptance even by the uneducated.

Problems with the model

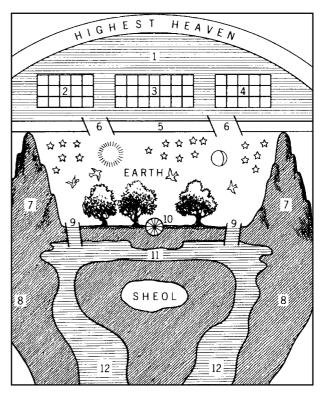
Some questions are too complex to be re-

solved by casual observation. For instance, answering the question of which revolves around which — earth around the sun or sun around the earth — the heliocentric versus the geocentric view — requires the accumulation of a number of different facts that could only be arrived at through careful observation over a long time. Conclusions can then only be drawn after rigorous analysis of the data.

Likewise, determining the correct explanation for the observation of the precession of the equinoxes challenges all but the most robust intellects. Similarly, the observation that Jupiter, Mars, and Saturn sometimes loop backwards with respect to the fixed stars, which was made by the Babylonian Mar-Istar and puzzled over by Plato, remained unsolved for many centuries (Carey, p. 17). In fact, without knowing which body lies at the centre of the solar system it simply cannot be resolved.

Give Moses a break

But some features of the above model can be easily rejected by the application of a modicum of logic. To suggest that the Israelites of old were not only slaves to the Egyptians but also to such easily disproved ideas insults



Alleged OT conception of the world: (1) waters above the firmament; (2) storehouses of snows; (3) storehouses for hail; (4) chambers of winds; (5) firmament; (6) sluice; (7) pillars of the sky; (8) pillars of the earth; (9) fountains of the deep; (10) navel of the earth; (11) waters under the earth; (12) rivers of the nether world.

their intelligence. Yes, ignorance can run amazingly deep and dark. We have all met individuals who couldn't tip water out of a boot if the instructions were printed on the sole. But the nations of old, including Israel, had their Faradays, Newtons, and Einsteins who would have had no difficulty ferreting out the facts.

Moses may have been slow in speech, but intellectually he was no snail. Josephus tells us the fascinating story of how Moses was put in charge of the Egyptian army at a time when the Egyptians had given up all hope of ever gaining victory over their enemies, the Ethiopians. Marching on them via the shortest route, through land the Ethiopians considered impassable because of the enormous number of venomous snakes, Moses caught the Ethiopian army unawares. He used a brilliant strategy, taking with him a huge number of snake-eating ibises caged in baskets (Josephus, *Antiquities of the Jews*, Book II, Chap X). You can guess the rest.

Why bring up Moses? Because a number of the alleged childish notions are ascribed to his writings, yet such nonsense would be totally out of character for one as brilliant and educated as he was.

It's a moon's life

Let's get brainy and probe the workability of the model supposedly taught in Scripture. For starters, think about the obvious discrepancy between the easily observed motion of the moon and how it should move according to the alleged model. The moon is supposedly fixed, as if nailed, to a solid hemispherical bowl. The upside-down, moontoting bowl's rim rests on the flat tops of a ring of pillars whose bases rest on the rim of the flat earth. In such a model, could the bowl move? Only in a very limited way—like a spinning top it would turn on an imaginary axis, with its rim wearing a deep rut down into the pillars.

Now nail the moon to the bowl (in your imagination, of course) about half-way, for argument's sake, between the north pole of the bowl and its rim. Can you picture it? The moon would slowly move around in a circle above the flat earth. Problem. It would never disappear! It would not rise over one horizon, wheel across the sky and then dip below the opposite horizon, which is what actually happens. It would just keep wheeling around overhead, getting smaller and smaller as it gets further away, and then

growing progressively larger as it moves back towards you. You don't have to be an astronomy professor to see that the observed facts of lunar motion do not match the silly model.

The same principle can be applied, of course, to the motion of the sun — there would be no such thing as sunrise and sunset, or even night time. On a flat earth, with the sun nailed to a layer in a solid onion-skin like bowl, the sun would never set. It would merely wheel around the sky in a circular motion meaning, to an observer on earth, that it would sometimes be closer and sometimes further away, but never disappearing. Hey, if I can figure that out sitting at my desk, you can be sure Moses and other intelligent Israelites would have sorted it out "in the beginning."

A geocentric universe?

Blacker and Loewe assert that the scriptural view of the universe's structure "clearly" has the earth stewing quietly in the centre of it all. No biblical proof is given. Stop and think about this. Where oh where is there even the slightest hint in the Bible that all the heavenly bodies are actually centred on the earth? The evidence normally proffered to substantiate this view has the following elements:

- the sun is described as rising and setting in numerous passages
- Joshua commanded the sun to stand still
- Psalm 19:5, describes the sun as "rejoicing as a strong man to run a race"

Even a child can recognise these portrayals as describing *apparent* motion of the sun from where we stand on earth. We use identical language today, never even dimly conceiving that we could be misunderstood to be preaching geocentric heresies.

Heaven is allegedly described in the Bible as a solid vault above the earth. If so, the inference can supposedly be made that it somehow is centred on the earth. The authors refer to Genesis 1:6-8 to substantiate the solidness of the heavenly vault:

And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters. And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament: and it was so. And God called the firmament Heaven.

Judge for yourself. Is there anything here that even begins to suggest that the firmament is solid? Some writers assert that the real meaning of the word $raq\hat{\imath}a$, the Hebrew for "firmament" represents a strip of metal, and thus we have proof that the firmament is a layer "stretched across it [the upper cosmic ocean] to prevent its waters from overflowing" (ed. Buttrick, vol. 1, p. 704).

Others have examined the word and concluded differently, indicating that the basic idea of the word is thinness or tenuity (Ramm, p. 67), which matches the nature of our atmosphere perfectly. The idea that the firmament was believed to consist of a solid strip centred on the earth has little to commend it etymologically. Only one predisposed to the mythical model will feel it has.

There is no evidence that Scripture teaches a geocentric view. On the other hand, there is no passage that says otherwise. Scripture is ambiguous on this point at the explicit level. In the next chapter, we will

consider what it implies on this question.

What did the author of the scriptural runin at the head of this chapter mean by likening the sky to a cast metal mirror which, in those days, were made of polished metal? Is he making a propositional statement about the solid structure of the firmament, suggesting that it has to be as strong as a metal mirror in order to hold up the enormous weight of water allegedly sitting on top? Reichert (p. 194) thinks so:

The firmament was pictured as a firm, solid expanse, supporting "waters" above it.

The word translated "strong", *hazaq*, also carries the meaning of "severe, sharp, hot", as in war, sickness or famine (Brown, Driver & Briggs, p. 305). Though dogmatism in speaking for the speaker would be presumptuous, he was more likely describing the appearance of the sky on hot summer days being like a severely reflecting mirror. Looking up into the bright midday sky can be almost too blinding to do. Reichert adds:

The cloudless sky, in the shimmering heat

The Bible's cosmology?

Excerpted from Ancient Cosmologies, by Blacker and Loewe

The Biblical picture is clearly geocentric. The earth has the shape of a flat disc so that if one were able to travel far enough one would eventually arrive at the 'ends of the earth' (Deut 13:8; 28:64, Isa 5:26, Ps 135:7). This term can simply refer to far-distant places, but its use is evidence of the cosmological picture. The 'corners' or 'wings' of the earth (Isa 11:12, Ezek 7:2, Job 37:3) may be a synonym for the 'ends of the earth'. If, on the other hand, the earth is not conceived of as a disc but as a square strip, the 'corners' may be understood literally. It is also possible that the 'corners' refers to the four directions, north, south, east and west. The earth rests on pillars (Job 9:6). Stretched above the earth is the sky, 'heaven' or 'firmament', a solid substance (Gen 1:6-8) resting on pillars (Job 26:11). Just as the earth has an 'end' so does the sky (Deut 4:32). The sun, moon and stars are positioned in, or just beneath, the firmament (Gen 1:14-17) and they move

across it (Ps 19:1-7). Beneath the earth is Sheol, the abode of the dead (Num 16:28-34. I Sam 28:13-15, Is 14:9-11, Eccles 9:10). There are waters above the firmament (Gen 1:6-7) as well as beneath it. Some of the waters beneath the firmament were gathered together at the beginning of creation to form the seas (Gen 1:9-10) but, in addition, these waters flow beneath the earth (Exod 20:4, Deut 4:18, Ps 24:2) where they are connected to the waters of *Tehom*, the great deep (Gen 1:2)... The Deluge was caused by a tremendous outpouring of the fountains of *Tehom* as well as by the opening of the windows of heaven (Gen 7:11). Rain is produced by the clouds (Gen 9:11-17, Job 26:8, Eccl 11:3). The water in the clouds comes from the waters above the firmament so that when the heaven is 'shut up' there is no rain (Deut 11:17) while when the 'good treasure' of heaven is opened the rain falls in abundance (Deut 28:12).

of day, is compared to burnished copper (Deut. xxviii. 23). Man obviously cannot match God in His marvels of the sky, is the point of the question.

If Elihu, the speaker, really wanted to suggest load-bearing strength he would have chosen something more like a ploughshare than a mirror.

Primordial ocean above, subterranean ocean below

Perhaps the most bizarre element of this popular model features bucketsful of water sloshing around on our heavenly roof, occasionally finding an exit through windows opened by a beneficent Divinity. And while this cosmic ocean heaves back and forth overhead, somewhere way beneath our feet another ocean seethes restlessly, allegedly connecting with the waters of "the deep" (Hebrew *tehôm*). The position and shapes of these two bodies, and how they are separated, remain mysteries to all.

As you can see in the sidebar, Blacker and Loewe refer to the verses in Genesis quoted earlier in regard to the firmament to demonstrate the idea of two oceans separated by a firmament ("let it divide the waters from the waters"). A child reading those verses would never construe an overhead sea and a subterranean sea being envisaged here. The words clearly speak of waters in the world's oceans being separated from water in the clouds.

In addition, they use the following verses to bolster their cosmological version of seas:

1. Ex 20:4: Thou shalt not make unto thee any graven image, or any likeness of any thing that is in heaven above, or that is in the earth beneath, or that is in the water under the earth.

Water under the earth? Let Ramm respond:

As for the word "under" in the phrase "under the earth" the Hebrew word *tachath* means not only "under" but also "lower". In our own day we speak of lowlands. Water in the form of seas is always in lower places.

The Septuagint, the Greek translation of the Old Testament Scriptures, uses the word u pokatw which is translated also as "at the foot of" or "down before" in the BibleWorks (©) lexicon. It is used in John 1:48 to describe Nathanael being "under", i.e., "at the base of" a fig tree. In Rev 6:9 John describes

the souls of martyred saints as being "under", i.e., "down before" the altar. So the water "under the earth" lies at the base of, or down before the land. Very, very simple.

2. Psalm 24:1-2: The earth is the Lord's, and the fulness thereof; the world, and they that dwell therein. For he hath founded **it upon the seas**, and established it upon the floods.

Ramm (p. 68) continues, in quoting the studies of the Semitic scholar Gaenssle:

Consequently, when the earth is said to be founded on the seas and spread out upon the waters, there is no reason to assume that the Psalmist is singing of an invisible ocean on which the earth rests or is spread out, but only of earthly waters on which the earth touches and over which it is elevated.

Very, very simple.

The way of water

Before we leave our primordial oceans, let's consider this. Even a child, let alone Moses, would realise that if the vault of heaven is shaped like an upturned bowl or an open umbrella, the ocean supposedly perched on it would run down the sides and gather in huge puddles on top of the pillars, then overflow and cascade down the sides of the pillars to flood the earth.

Add to that the clear understanding Bible writers had as to the real source of rain. Numerous passages (see the account in 1 Kings 18 for instance) make the connection between rain and clouds. The dimmest ignoramus would know that stars are far more distant than the clouds. Being attached to the same onion layer the windows of heaven, from which rain was allegedly believed by the ancients to come according to the offending model, would likewise be much further away. Our ancestors would give psychologists a wonderful time trying to figure out what kind of split personality could believe in two such totally different origins of rain.

Bah, humbug, to the idea that Moses believed in a distant, overhead, invisible ocean.

What about the pillars, then?

What do we do with the pillars? Two verses offend here, one describing the earth as being on pillars, and the other the heavens.

I know it is so of a truth: but how should man be just with God?... Which

shaketh the earth out of her place, and the **pillars** thereof tremble (Job 9:2 & 6).

The **pillars** of heaven tremble and are astonished at his reproof (Job 26:11).

Have we been painted into a corner here? How can one answer the serious charge that Job must have believed the earth is supported on pillars, and that, in turn, the heavens are supported by pillars thrusting heavenward from the earth.

One need go no further than the simple statement that here we have typical biblical figurative language. The heavens are no more on pillars than God has wings (Ruth 2:12 and elsewhere). The speaker knew that. In fact, only four verses earlier the same speaker said, "... He hangs the earth on nothing". We don't believe today that wisdom is literally supported by seven pillars. Incidentally, these are the only two definite references where pillars are used in a cosmological context. You certainly won't find them in Genesis.

The tenor of biblical cosmology

So one can tear the alleged model apart on the grounds of simple observation and logic. Furthermore, even a superficial study of the whole thrust of biblical cosmological ideas will demonstrate that Scripture speaks in terms that perfectly match our expanded view of the universe today. In outright contradiction to any models that suggest a pocket book universe consisting of a flat earth supporting a solid vault, Scripture consistently reflects an accurate view of the dimensions and grandeur of the universe as we know it.

Take, for instance, the following words from the book of Nehemiah:

And Ezra said: "Thou art the LORD, thou alone; thou hast made heaven, the heaven of heavens, with all their host, the earth and all that is on it, the seas and all that is in them; and thou preservest all of them; and the host of heaven worships thee" (Neh. 9:6).

Who can read these words and suggest that Ezra pictured a pygmy universe?

Or take these words from the lips of the mighty king Job:

... who made the Bear and Orion, the Pleiades and the chambers of the south; who does great things beyond understanding, and marvelous things without number (Job 9:9).

In this passage, star groups and constellations are declared to be "marvellous things" and "beyond understanding". Who could possibly try to reconcile such ideas with the silly put forward by some? These sample excerpts don't suggest that the writers had a knowledge of the universe as we understand it. They don't suggest a knowledge of galaxies or solar wind or sunspots. But they certainly do suggest accurate knowledge, in general terms, of the vast dimensions and grand scheme of things cosmological.

Summary

Why do we in the twentieth century belittle the ancients so? Why do we look down on them with a supercilious, patronising smile, as if to say, "There, there, little ones, later generations will do better than you?" Our ability to gain a clear picture of the past is partly constrained by the ever-present shibboleth of evolutionary upwards-and-onwards. The universe evolved from a singularity. Life evolved from scum. Birds evolved from dinosaurs. You and I evolved from a hypothetical primate's primate. And modern superior minds evolved from the ancient imbecilic mind.

Do the facts support the charge that the Bible preaches cosmological inanity? No way. The model must be denounced for imposing on the Bible a stilted, artificial cosmology that is nowhere clearly and systematically taught in Scripture. Anybody who could grasp the basics of a complex calendar, like that used in the writings of Moses, would never accept the notion of an overhead ocean sloshing around on top of a sagging (well, it would have to, wouldn't it) thin strip of metal. (Let's hope it doesn't rust)

But what are the implications of demolishing this erroneous view of biblical cosmology? They are tremendous! We are left with the conclusion that biblical cosmology is not mythical, nor is it in any way, shape, or form unscientific. And if the Israelites of old, as well as other civilisations, did not view the universe as merely a heavenly dome sitting on pillars supported on a flat earth, what *did* they believe? Does the Bible give us any real help in answering this critical question?