The
SECOND
EDGE

A Role for Numerical Coincidence
in the Pursuit of Truth

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EDGE

"...take...the sword of the Spirit, which is the word of God..." (Eph.6:17, KJV))

"...and out of his (Jesus') mouth went a sharp two-edged sword..." (Rev.1:16, KJV)

"The word of God (the Bible) is like a lion. Who needs to defend a lion? Simply let it loose; it will defend itself!" (C.H.Spurgeon)

CONTENTS

Preface

Here is a book which sets out to harness the propagation of vital truths to the widely acknowledged precision of number. Its foundations were laid in 1993, with the publication of the author's peer-reviewed paper, *The Ultimate Assertion: Evidence of Supernatural Design in the Divine Prologue.*[1] At that time, excitement centred around the discovery of numerical patterns in the opening verse of the Hebrew Bible - these appearing to overturn the widely-held belief that an empirical (i.e. evidenced-based) proof for the existence of God and the truth of His Word, the Judeo-Christian Scriptures, was forever beyond the reach of man. As a graciously-given *postscript* to Holy Writ, these evidences of intelligent design, therefore, held the promise of being welcomed by the Church as the *Ultimate Christian Apologetic.*

Investigations by the author and others having continued since, the portfolio of numerical patterns has been considerably augmented; further, the evidences of divine purpose have been extended to include, notably, (1) the discovery of the primary universal constants π and e (Euler's Number) among the Hebrew and Greek words of the Bible's 'creation' verses (Genesis 1:1 and John 1:1) and, astonishingly, (2) the appearance of the metric dimensions of a standard A4 sheet of paper among the Bible's first eight Hebrew words.

We thereby infer that it is the Creator's express wish that the reality of His Being and Sovereignty are revealed to the world at this point in time; in other words, He wills that *faith* may now give way to *sight* for those lovers of truth who recognise the precision of number, and the profound implications of repeated coincidence, symmetry and symbolism.

Vernon Jenkins

20/05/16

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[1] Creation Ex Nihilo Tech.J., vol.7(2), 1993, pp.184-196

PROLOGUE

Preamble

Reader, you hold in your hand what is essentially a picture book. Its purpose is to present views of the Bible that, until now, have largely escaped attention – apologists from every age having missed, or passed over, vital clues which lead inexorably to a confirmation of its supernatural origin.

Observe that, viewed purely as a literary composition, the Bible is already a unique book, and without parallel

- **in its continuity** – written over a span of some 1600 years by more than 40 authors drawn from every walk of life;
- **in its translation and circulation** – published in more languages, and read by more people, than any other book;
- **in its survival** – through persecution and criticism;
- **in its teachings** – its frank portrayal of human character and its prophecies;
- **in its influence** - on human behaviour, on social reform, and on literature, art and music.

But the uniqueness of the Judeo-Christian Scriptures extends far beyond these considerations, because it is claimed that they are *divinely-inspired*: "All Scripture is God-breathed and is useful for teaching, rebuking, correcting and training in righteousness, so that the man of God may be thoroughly equipped for every good work." (2Timothy 3:16,17) These words clearly imply that this book has been specifically provided for our benefit – giving us reliable information that addresses the deepest issues of life: in particular, the Being, Sovereignty and Character of our Creator, the origin and purpose of life, the true nature of man, and what it is that follows death.

Can there be more? The famous 19th century preacher Charles Haddon Spurgeon clearly thought so when he declared "The Word of God is like a lion. Who needs to defend a lion? Simply let it loose; it will defend itself." [(2)] In his understanding, the Bible contained all that was needed to accomplish the Creator's ultimate purposes.

Spurgeon held the view that the proclamation of the Gospel alone had the power to convince men of biblical truth. However, another Christian of the same era, the mathematician Ivan Panin, held a somewhat broader understanding. He believed that God had so constructed the Scriptures as to accommodate a self-validating principle, based upon the standards of logical argument and debate, and accessible to all possessing an open mind. This would ultimately be made known to his servants and to the world, to counter gross apostasy and unbelief. A number of significant discoveries fueled this view – chief among these involved the historically attested

schemes of alphabetic numeration of both Hebrew and Greek, the languages of the Christian Scriptures

Adding to this conviction (one shared by this book's author), we observe that the Bible speaks of itself as a *double-edged sword* [3]. The suggestion is that while the leading edge of this weapon represents the biblical text, the second edge consists of a complementary principle which, effectively, confirms it! As this account will demonstrate, the realities of this divinely-ordained guarantee of literal truth appear as a series of *standing miracles* – wonders that endure; wonders that are ever available for inspection and analysis. These clearly fulfil the sceptics' demand for evidence-based proof of the Bible's unique status.

A sober consideration of these attributes, makes the Bible compulsory reading for all who earnestly seek Truth, and the suggestion that this Book has no relevance in our day is clearly ill-founded. However, these disclosures have yet to impact upon a society at large where secularism, militant atheism and luciferianism appear to be gaining the upper hand.

The Shrill Voice of Unbelief

Seldom free from controversy since its inception, the Bible is currently under attack as never before. In one of his many acclaimed and widely read books *The God Delusion,* self-appointed spokesman and Darwinian high priest, Richard Dawkins writes,

> "... much of the Bible is ... just plain weird, as you would expect of a chaotically cobbled-together anthology of disjointed documents, composed, revised, translated, distorted and 'improved' by hundreds of anonymous authors, editors and copyists, unknown to us and mostly unknown to each other, spanning nine centuries."

Describing himself as 'a deeply religious believer in no God', Dawkins is inspired by the conviction that matter has within itself the power to generate life; he thus rejects supernatural agency; indeed, he virulently denies it. Elsewhere, this man of faith delivers his essential message as a challenge: "It is absolutely safe to say that, if you meet somebody who claims not to believe in evolution, that person is either ignorant, stupid, or insane." Further, he regards theistic evolutionists as 'useful idiots' who undermine their own faith.

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[2] From a sermon preached on January 22, 1888
[3] "Put on the whole armour of God, that ye may be able to stand against the wiles of the devil. For we wrestle not against flesh and blood… and (take up) the sword of the Spirit which is the word of God… " (Eph.6:11,12,17); "… and out of his (Jesus) mouth went a sharp two-edged sword…" (Rv.1:16)

Observe that evolution has become the 'creation story' of the atheist and challenges the 'real thing' as it is recorded in the Hebrew of the Book of Genesis.

Such outspoken views – backed up, we are assured, by sound science – feed the delusions of many of those who control our institutions of education and the media. Though strongly denied by its adherents, Darwinism has more the characteristics of a religion than a branch of science – and significantly, a religion bitterly opposed to Christianity. However, one would not expect the Inspired Word of a Sovereign God to remain a helpless victim of man's folly.

The Trouble with Science

Science is defined as "The intellectual and practical activity encompassing the systematic study of the structure and behaviour of the physical and natural world through observation and experiment."

At first sight, this appears to be a fair description of what scientists are engaged in. But for the Bible believer, this approach to the study of 'reality' is clearly incomplete. Nowhere does it allow for the possible intrusion of the supernatural into the real world. For the atheist, of course, this is not a problem, for he denies the supernatural anyway; on the other hand, for theistic scientists, the standard defence is that, while the supernatural certainly exists, God does not allow it to interfere with natural events (despite the biblical accounts of such incursions as, for example, in the prologue to the Book of Job!). Clearly, the committed Jewish or Christian believer must conclude that science, as it is presently conducted, is an imperfect discipline and its pronouncements are therefore suspect – particularly its claims in respect of life having an evolutionary origin and of an exceedingly old Earth. It is important that all should realise that science can be a *game* played out in a *virtual world* by clever people, and that the rules of this game are fixed by atheists, like Richard Dawkins. [Observe that the term *methodological naturalism* is used by such people to emphasise the fact that no supernatural activity is to be allowed to interfere with what is observed, or what is conjectured to have occurred.]

The Darwinist, believing that life is an inherent property of matter, readily accommodates the idea that intelligent beings – more technologically advanced than ourselves - must populate the universe in the favourably placed planets of many stars. [In this connection, film makers and others have been quick to suggest the forms these hypothetical beings might take.] So the puzzling phenomena of UFO appearances, of crop circles, and so on, are increasingly assumed to prove that such higher life-forms are already with us - here to take over planet Earth! For the Bible-believer, on the other hand, these mysterious happenings appear as God-given evidences of increasing supernatural activity as the end times draw near. Clearly, it is important that we have a correct understanding of these, and other matters that affect us all. Are we beings, uniquely created by God to inhabit a planet in a solar

system uniquely created by him – with the possibility of a glorious eternal future? Or are we rather the products of a chance concatenation of atoms – destined, ultimately, for oblivion?

Of Messages and Messengers

The transmission of reliable information from one person to another, from one place to another, and from one generation to another has ever been a necessary feature of the human enterprise. In considering this, we need to distinguish between what is to be passed on (the *message*) and how it is to be conveyed to the intended recipient (the *carrier* or *channel of communication*). An essential element in the successful implementation of this process must be the *integrity* of both message and carrier.

Modern systems of communication incorporate error detecting and correcting facilities that ensure a given message is accurately transmitted. But, of course, there is no known method of ensuring the integrity of the message itself, for a pack of lies transmits as readily and as accurately as a statement of truth. And this has been a problem that afflicts, and has ever afflicted, communication in every age.

Clearly, if the author of a written message is known to the recipient, and is trusted - along with the means by which the message was conveyed - there is no problem. However, in the case of ancient writings, in languages different from our own, neither of these conditions obtain and a measure of faith is called for, if we are to believe what the translator has provided for our attention – for how are we to know for sure that its author is truthful, and that our understanding of his words matches precisely what he had in mind? [This situation, of course, has provided an excellent and hitherto unanswerable defence for those who would not wish to believe the words anyway.] Thus, no matter how perfect the written page, its words alone fall short as vehicles for the transmission of reliable information. That is why there are so many alternative belief systems on offer these days, for 'certainty' has become a matter of faith rather than fact!

If the Bible is to be viewed as a self-validating text it is, therefore, clear that something more than the original Hebrew, Aramaic and Greek words, and their translations, will be required. But the Canon is complete and inviolable; nothing can be added to what is already contained in the Bible! So what possible form could a validating principle take? And how would knowledge of it be communicated to us by an author intent on getting his essential message across?

In modern communication systems the words of a language are converted to and from binary numbers – typically using the ASCII code[4]. Clearly, these numbers are to be viewed as necessary intermediaries. But, what if the numbers themselves

demonstrated some kind of sensible pattern? That would surely say something about the capabilities of their author and the importance of the message, and explain the need for its safe delivery into a potentially distant future.

An Initial Biblical Response

This book is intended to begin the process of 'letting Spurgeon's lion loose'. The very idea that the Bible might be a self-validating text will come as a surprise - even a shock - to many. However, the metaphor of the two-edged sword, leads on to two more scriptural quotations which bring us, inevitably, to this conclusion:

(1) We first note that such a disclosure is foretold by the prophet Isaiah (and later, repeated by the Apostle Paul), viz. "(because) this people… have removed their heart far from me… I will proceed to do a marvellous work among this people… for the wisdom of their wise men shall perish…" (Is.29:13,14; 1Co.1:19). Clearly, while the prime fulfilment of this prophecy speaks of the coming gospel of Jesus Christ, some additional event which openly demolishes all the pretensions of current 'wisdom', is strongly suggested.

(2) "Here is wisdom. Let him that hath understanding count the number of the beast: for it is the number of a man; and his number is six hundred threescore and six (i.e. 666)." (Rv.13:18).

It is in this latter verse that we find the clues that enable us to move forward and determine the nature and application of the Bible's 'second edge'. Here is a list of the divinely-given pointers:

- the route to true wisdom is to be a numerical one;

- it will involve the reading of names and words as numbers;

- it will involve counting;

- it will, in particular, involve the number 666;

- the imperative 'let him' places an obligation on all who possess a facility with numbers – modest though it be - to uncover, assimilate and proclaim this wisdom.

But has the conversion of words to numbers any bearing on the matter of biblical self-validation? Are numbers *per se* really capable of confirming the meaning of the words from which they derive? Certainly, that is what is implied by these data! But there is more to be said before we can identify the 'key' to it all.

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[4] ASCII – American Standard Code for Information Interchange

Some Words about Number

Observe that the term *number*, as used in the context of this book, will mean *whole number* (or *positive integer*) unless otherwise stated. It is also important that we distinguish between a number and the symbolism nowadays used to represent it – enabling us to record and perform arithmetic with it. The first is a simple absolute, completely independent of time and place, while the latter is a matter of convention in which powers of a fixed number (termed the 'base' or 'radix') participate with a set of familiar symbols (termed 'numerals' – their number equal to the radix) . When it is important that we see numbers as absolutes it is necessary to resort to the use of uniform counters (circular or square, spherical or cubic, as appropriate) and invoke the operation of counting to achieve our ends.

In order to clarify this important matter, let us consider how we might answer the question "How many 'reds' are involved in the game of snooker?" One might <u>say</u> 'fifteen', or <u>write</u> '15' (meaning one ten plus five), or <u>write</u> 'XV' (the 'Roman' reply), or <u>draw</u> a simple picture like
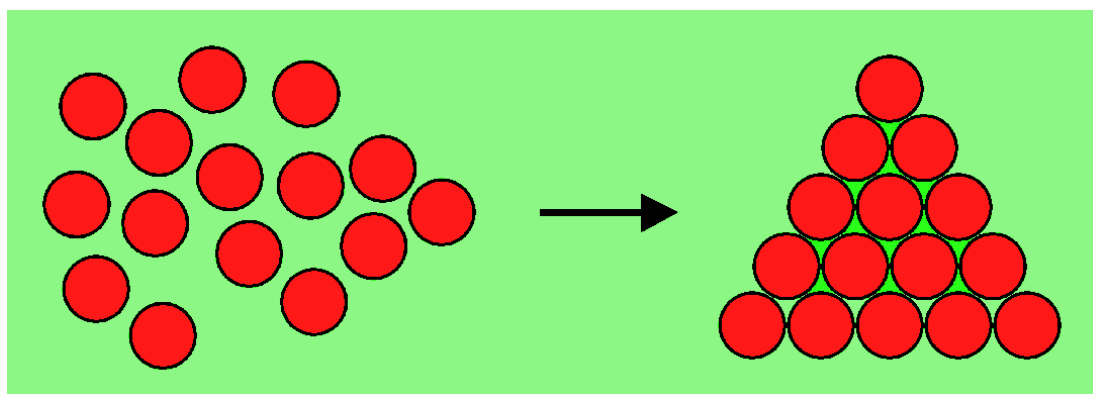
FIGURE 1. AN ABSOLUTE REPRESENTATION OF FIFTEEN

and rely on the questioner's ability to determine the answer for himself by <u>counting</u>.

Observe that these are all valid ways of delivering the correct answer to the question. But, whereas the first three possibilities rely on a commonly known symbolism (involving knowledge of the characters used and the associated 'rules of construction') the pictorial method (involving the use of counters in one-to-one correspondence with the objects represented) is quite different – being both intuitive and <u>absolute</u>.

As may be seen, these fifteen circular counters may be packed together to form a simple symmetrical object – in this case, the equilateral triangle which features in snooker. It is immediately apparent that there is a link between this simple instance of *numerical* geometry and the operation of counting for we find one red in row 1, two in row 2, three in row 3, four in row 4 and, finally, five in row 5. Clearly, this triangle can never fail to comprise 1+2+3+4+5 = 15 reds – and we, therefore, designate 15 as '5th triangular number'. Such regular arrangements (and, for other

numbers there may be simple alternative shapes) are a fundamental property of certain numbers which are said to be *figurate*. Such number/shape relationships are absolutes, and are not common; they are impervious to manipulation and are completely independent of place, time and of the things represented. Thus they provide a reliable means of judging a number's significance. A picture based upon these principles speaks powerfully of having been intelligently and intentionally designed.

Of course, the ability to record and manipulate numbers has been an essential feature of life from the earliest times. Today, following the many and varied developments which have stuttered through the centuries we find ourselves the recipients of perfection: a decimal positional system involving the use of just ten

FIGURATE NUMBERS: Within the context of this book the term *figurate* is confined to those numbers which, represented as packed collections of uniform counters, may completely fill a symmetrical polygonal or polyhedral frame. Among the simplest examples are TRIANGLE, SQUARE, CUBE and TETRAHEDRON. The counters may be circular or square, spherical or cube, as appropriate. When a given number is found to possess more than one geometry it is referred to as *bi-figurate*, *tri-figurate*, and so on. Many of **these** numerical absolutes and their coordination are here presented as firm evidence of the purposeful design of the texts from which they derive. (Further details in Appendix 1)

symbols – the so-called Hindu-Arabic numerals – which imposes no limits on the size of a number that may be represented, caters by adaptation for other systems of numeration (e.g. binary, octal, and hexadecimal – which feature particularly in the worlds of computing and communication), and lends itself readily to the processes of arithmetic.

It is clear that we exist in a virtual ocean of numbers and can be easily misled into believing that, size apart, one is much the same as another. But this is not so. Each number possesses a distinctive character: it may be *composite* or *prime* – depending whether or not it is expressible in terms of smaller numbers multiplied together (its *factors*); it is said to be *perfect* if these factors (including 1) sum to the number itself (e.g. 6 = 1x2x3 = 1+2+3); it may be *even* or *odd* – depending whether or not it is divisible by 2; 10 stands out in splendid isolation as being both the *radix* upon which our symbolic representation of number depends (e.g. '57' – the standard way of writing 'fifty-seven' - means 5x10 + 7) and the *collective unit* that features in our *metric* systems of measurement; and so on. But, in addition to these niceties, over the centuries certain qualities have become associated with particular numbers. For example, 7 and 12 are held by many to mean *completeness* or *perfection*, and 13 to foretell *bad luck* or *disaster.* However, such subjective readings of number have no place here.

As a means of determining what is true and what is not, in the realm of number, arithmetic is paramount. If one wishes to set certain facts in stone, in order that they

are impervious to the whims and fancies (or downright lies) of man, their conversion to numbers achieves that end – provided some timeless key is given with which these precious treasures may be unlocked. Arithmetic is unique in this respect, for all other fields of endeavour are subject to opinion and interpretation. In comparison with numbers, words are elusive things.

Closely associated with number is the operation of *counting*. Counting establishes a sum; conducted carefully, it is a link in a reasoned chain of truth. It is capable of establishing truth as nothing else can; it is based upon math's timeless certainties. Two and two make four – always has and always will make four – and everywhere make four. Similarly, a particular figurate number has always revealed symmetry, always will - and everywhere will; it is a simple absolute. We shall find that *numerical symmetry* becomes an important criterion in the confirmatory principle we seek.

This is made abundantly clear when we submit the divinely-given number 666 to close scrutiny:

- It is an example of a *repdigit*, i.e. as a base-10 (or 'denary') number it involves writing the digit '6' (first perfect number) three times;

- More significantly, it is the sum of the first 36 integers, i.e. 1+2+3+…+35+36 and hence, 36th triangular number; but it is also *the epitome of triangularity* because all the features of this particular triangle (Figure 2) are themselves triangles, thus:

The symbolic features:

10 – the hidden 'base' or 'radix' of our current system of numeration which reveals the beast's number as the symbol '**666**' ;

6 and **66** – the visible components of this symbol

The absolute features:

3 – the number of sides;

36 (= 6x6) – the number of counters forming a side;

105 – the number of counters forming the outline

So that, remarkably, the total of the visible numerical attributes of 666-as-triangle

$$= 6 + 66 + 3 + 36 + 105 = 216 = 6x6x6 = 6.6.6 = 6^3$$

As may be seen, therefore, 666 is not merely triangular, but uniquely so. Thus, it is a matter of great wonder that it should appear as a 'surface feature' of the biblical text – and there be found associated with both wisdom and the prophesied 'beast'.

- Let us further observe that 666 is exactly divisible by the prime number 37; indeed, 37 = 666/18 = 666/(6+6+6)! We, therefore, further deduce a highly significant fact, viz. that 666 is the first in the infinite series 666, 703, 2701, 2775, 6105, 6216, 10878,… all of which are triangular multiples of 37.

- Finally, observe the interesting sequence of three triangles that emanates from this number, viz. 6, 66 and 666.
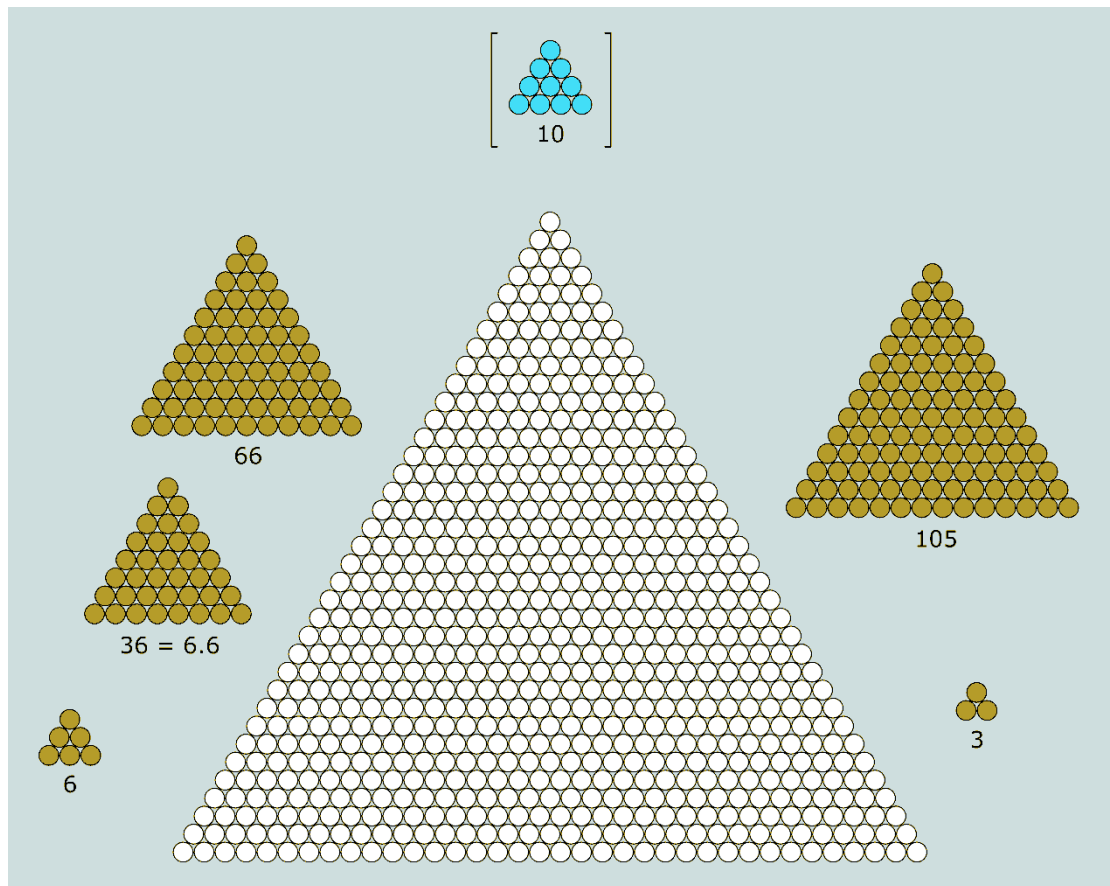

FIGURE 2. THE NUMERICAL ATTRIBUTES OF 666-AS-TRIANGLE

Some Numbers about Words

Reputedly, around 200 B.C. the chosen people of God - the Jews - following an earlier Greek model, began using their letters as numerals. Such systems of *alphabetic numeration* were important staging posts in the development of the supreme method of writing and manipulating numbers that we enjoy today. At a stroke, every written Hebrew word then acquired, *after the fact,* an additional status as a fixed number – its value, the sum of the values of its letters (herein designated the *Characteristic Value* or *CV* of the word). [The New Testament writers would, of course, have already been aware of this ambiguity whilst penning their Greek compositions.] It then followed that the whole of the Bible as originally written might be fairly construed as a large set of numbers! Observe that this development

was never intended to provide a means of converting words to numbers; it was a utilitarian measure, introduced to allow a well-known set of symbols (the letters) to replace the earlier more tedious methods of numeration.

On the downside, the resulting ambiguity would, clearly, raise problems of its own. But observe the effect: each word of the Scriptures has now *inadvertently* acquired a numerical dimension, which remains fixed irrespective of the meaning that might be imposed upon it. Here then, is the first inkling of a dependable validating principle that proceeds from the Bible itself! [Observe that the Canon[5] has not been breached; it is simply that over time, and in the purposes of God, the existing Hebrew, Aramaic, and Greek words have acquired additional meaning.]

Here is the Hebrew/Aramaic scheme of alphabetic numeration (introduced c.200 BC) – each of its 22 letters also symbolising a numeral: [6]

Position:	1	2	3	4	5	6	7	8	9	10	11
Letter:	א	ב	ג	ד	ה	ו	ז	ח	ט	י	כך
Numeral:	1	2	3	4	5	6	7	8	9	10	20
Position:	12	13	14	15	16	17	18	19	20	21	22
Letter:	ל	מם	נן	ס	ע	פף	צץ	ק	ר	ש	ת
Numeral:	30	40	50	60	70	80	90	100	200	300	400

FIGURE 3. THE ALPHA-NUMERIC HEBREW LETTERS

Observe that 5 of the letters have alternative 'end forms' (the red characters); these are used when any one of the five occupies the final position in a word. Clearly, it is important to note that in standard practice these take on the same values as the normal forms[7]. The value represented by a group of letters was simply the sum of their letter-values.

Fashioning the 'Key'

At this point, we are able to summarise the features of the key which will enable us to tap the additional riches built into the word of God. They are,

- the unique tri-figurate prime number 37 and its multiple 666 – unique triangular number;

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[5] *Canon* refers to the selection of books that comprises the Bible.
[6] Taken from Georges Ifrah's exhaustive work, *From One to Zero: A Universal History of Numbers* [ISBN 1 86046 324 X], p. 215. This authoritative book was included in *The American Scientist's* list of '100 or so Books that shaped a Century of Science'.
[7] Ibid, p.217

- the cubic number 216 (= 6.6.6 = 6^3) – sum of the triangular attributes of 666;

- symmetrical 'number pictures' based upon the principles of numerical geometry – and, principally in this regard, the equilateral triangle;

- the concept and validity of reading Hebrew words as numbers.

If our expectations are to be fulfilled, this key must fit an existing lock.

Locating the 'Lock'

The Bible is large Book – its opening five sections alone, Genesis, Exodus, Leviticus, Numbers and Deuteronomy (together known as the *Torah* or *Pentateuch*) contributing some 79,847 Hebrew words. So, the important question now arises, *Where is one to begin testing for words or sentences that match the key?* Fortunately, a reasonable answer is not hard to find: *Evidence of the fact must logically appear at or near the beginning of the Book and, ideally, be found associated with some fundamental statement or doctrine.*

The biblical text begins with a powerful assertion expressed in just seven words of Hebrew, viz.

FIGURE 4. GENESIS 1:1 — THE BIBLE'S OPENING VERSE

Observe:

- the reading is from right to left

- the central, untranslatable, word comprises the first and last letters of the Hebrew alphabet and is equivalent to the Greek 'Alpha and Omega' – a term used of himself by the Lord Jesus (Rv.1:8; 22:13)

- the red characters represent the alternative 'end forms' of the letters referred to earlier; observe again, these take on the <u>same</u> values as the standard forms

- each group of letters – normally understood to be a meaningful word – may also be fairly read as the number obtained by summing the values of its letters (Figure 3); but before setting off along this track there is a significant matter we should not miss, viz.

- the first word has 6 letters; the first verse has 28 letters; 6 and 28 are, respectively, first and second perfect numbers, and third and seventh triangular numbers

13

A Triangle of Letters

The observation that the lexical structure of the Bible's opening verse is both triangular and perfect is clearly most encouraging. Here are the letters of Genesis 1:1 arranged as the 7th triangle:

FIGURE 5. GENESIS 1:1: A TRIANGLE OF LETTERS

Observe the following:

- the triangular cap of 3 rows represents the first word

- the bottom row of 7 counters represent words 6 and 7

- the triangle formed by the 6 upper rows represents words 1 to 5 inclusive (involving the *supernatural* component of the things created)

- the whole forms a *centred* triangle; in other words, disposed around a single 'centroid' counter, it is capable of uniting with an inverted copy of itself to generate the hexagon/star pair 19/37. This principle is illustrated in the following figure (the white counter marking the centroid)
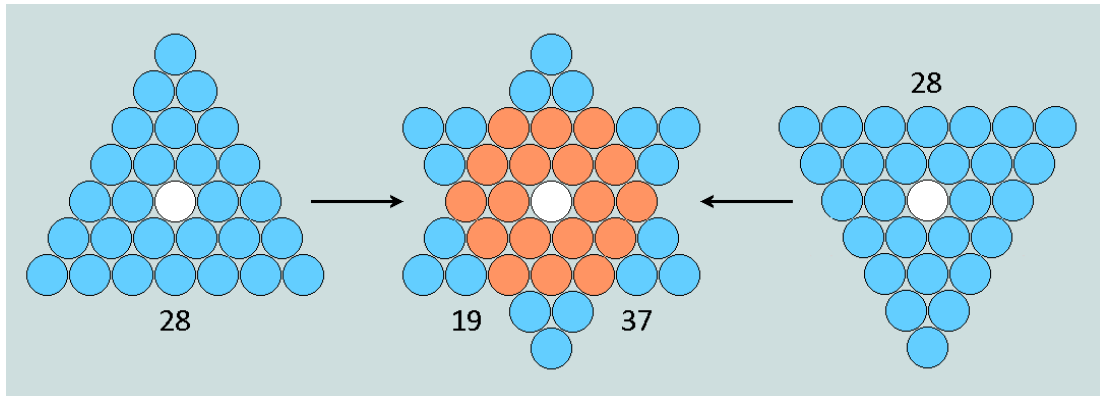
FIGURE 6. THE SELF-UNION OF 28-AS-TRIANGLE

The Numerical Reading of Genesis 1:1

These same words may be fairly read as numbers (Figure 7). Observe that the letter-values (obtained from Figure 3) appear above the text and their sums – the word-values – below. The term *characteristic value (CV)* is applied to numbers derived in this way. These CVs of the Bible's opening verse represent the *input data* for many of the analyses that follow.

FIGURE 7. THE ALTERNATIVE READING OF THESE WORDS AS NUMBERS

For convenience, in the following pages we shall refer to this set of seven numbers as [G], i.e.

[G] = [913, 203, 86, 401, 395, 407, 296]

This foundational statement is, therefore, to be associated with their sum,

∑G = 913 + 203 + 86 + 401 + 395 + 407 + 296 = 2701

(note that the Greek character Sigma (∑) here symbolises 'summation')

Used as a prefix, the symbol 'G-' will identify any G-related phenomenon that appears in the following pages.

15

Concerning 2701 – the fair alternative reading of Genesis 1:1 – Appendix 3 reveals this to be a number that is singularly unique, *per se* – and for the following reasons:

- it is the product of the two reflective primes 37 and 73

- these primes are related geometrically in two ways, thus:
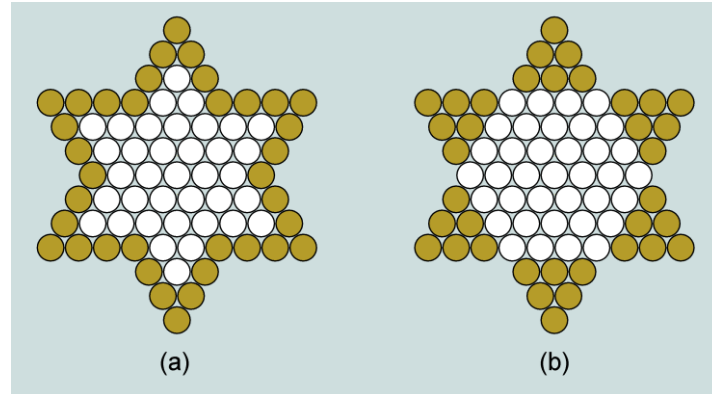
FIGURE 8. THE GEOMETRICALLY RELATED PRIME NUMBERS 37 AND 73

[Represented typically by symmetrical collections of pennies (the *counters*) laid out on a flat surface, we observe: (a) 73-as-star with 37-as-star inset and, (b) 73-as-star with 37-as-hexagon inset].

- 2701 is the sum of the numbers named when counting to 73; it is, therefore, 73rd triangular number

- the outline of this triangle comprises 216, or 6.6.6 (6^3), counters

- the same triangle precisely accommodates the 37th (= 703) and is thereby divided into a trio of 666-as-triangle (i.e. 2701 – 703 = 1998 = 3 x 666)

Such strong correlation between these features and the attributes of our key confirms beyond reasonable doubt that, here, in this strategically placed statement, the Bible's Author begins a numerical vindication of his word. As we shall find, this correlation becomes more firmly established as we proceed to uncover further gems. It appears, therefore, that the message of Genesis 1:1 (which so many reject today) is the ultimate **Big Bang**! God's word to man is appropriately introduced – its words accompanied by a paradigm-shattering **Numerical Fanfare**!

The Evidences Of Supernatural Design

1. The Primary Genesis Geometries

Contents

1.1 - The G - Constellations

As we have seen (Figure 8a), the prime factors of 2701, 37 and 73, may be represented symmetrically as a pair of consecutive terms in the 'star' or hexagram series, thus:
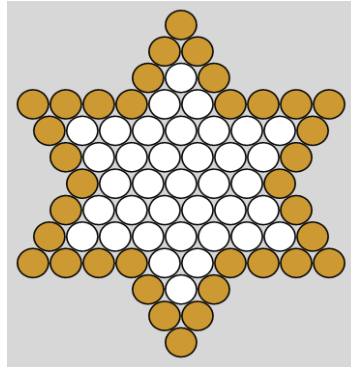
Here, the outer star of 73 is seen to encompass an inner star of 37; it follows that we may represent their product, 2701, either as a Constellation of 73 unit stars of 37 or as 37 unit stars of 73 – referred to here as K(73,37) and K(37,73), respectively.

Here is the first of these alternatives:
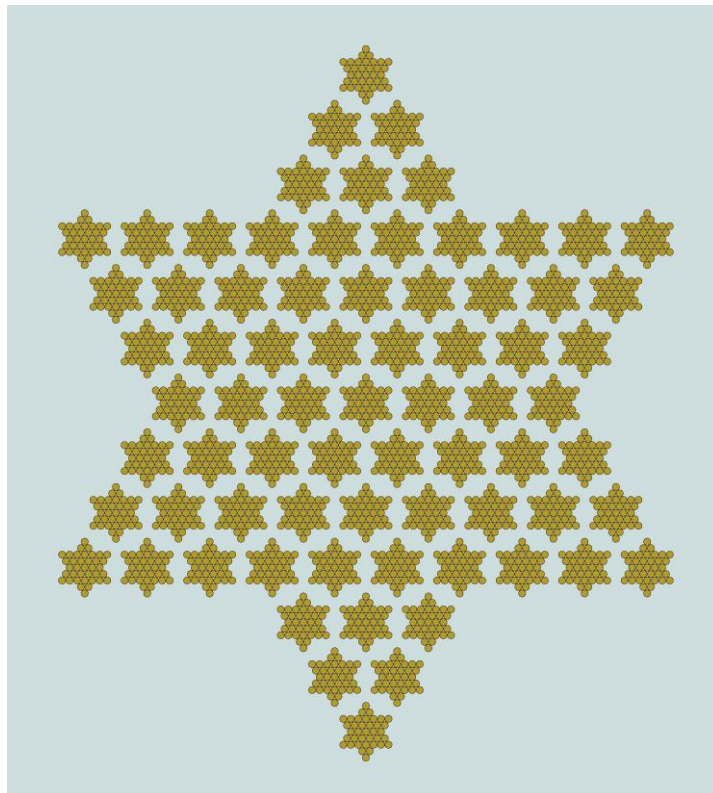
FIGURE 9. A COMPOSITE VIEW OF 2701

Here is the second, viz. 37 of 73:
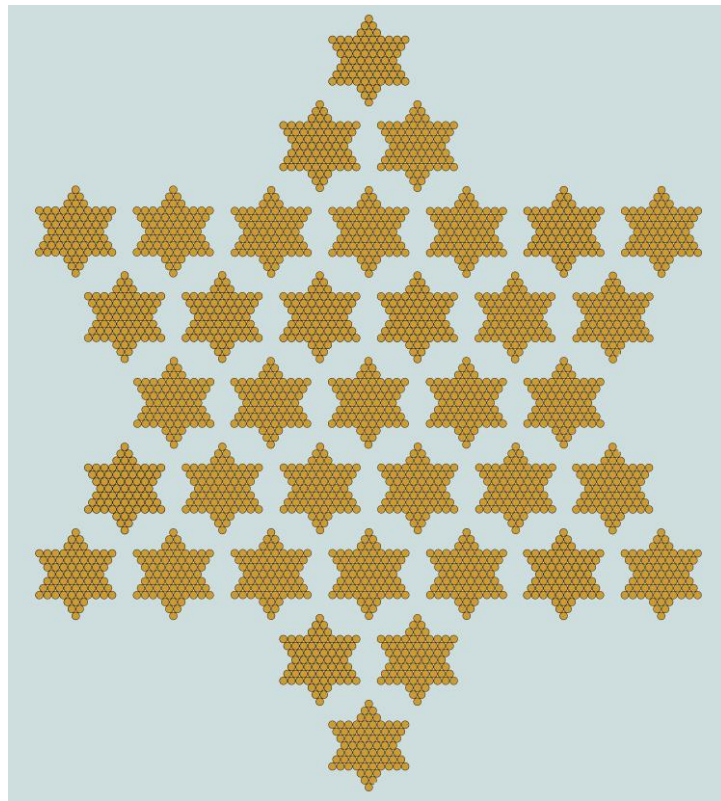
FIGURE 10. A SECOND COMPOSITE VIEW OF 2701

It is important that we remember that each of these figures is a fair graphical realisation of the 7 Hebrew words of the Bible's first verse, viz.

FIGURE 11. THE BIBLE'S FIRST 7 HEBREW WORDS

1.2 - The G -Triangle
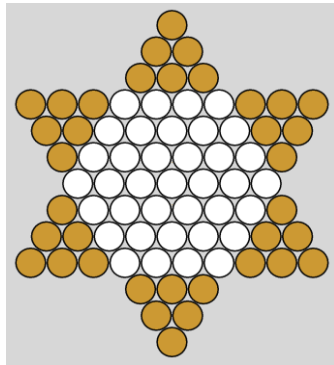
So much for the alternative star-of-stars portrayals of the Bible's opening verse of 7 Hebrew words. Let us now turn to the second of the factor representations of 2701 (Figure 8b). Here we find it to be the product of 4th hexagon/star pair (H.S = 37.73). As is made clear in Appendix 2, the outcome of such a product is invariably the figurate pair, triangle/trapezium (T/Z).
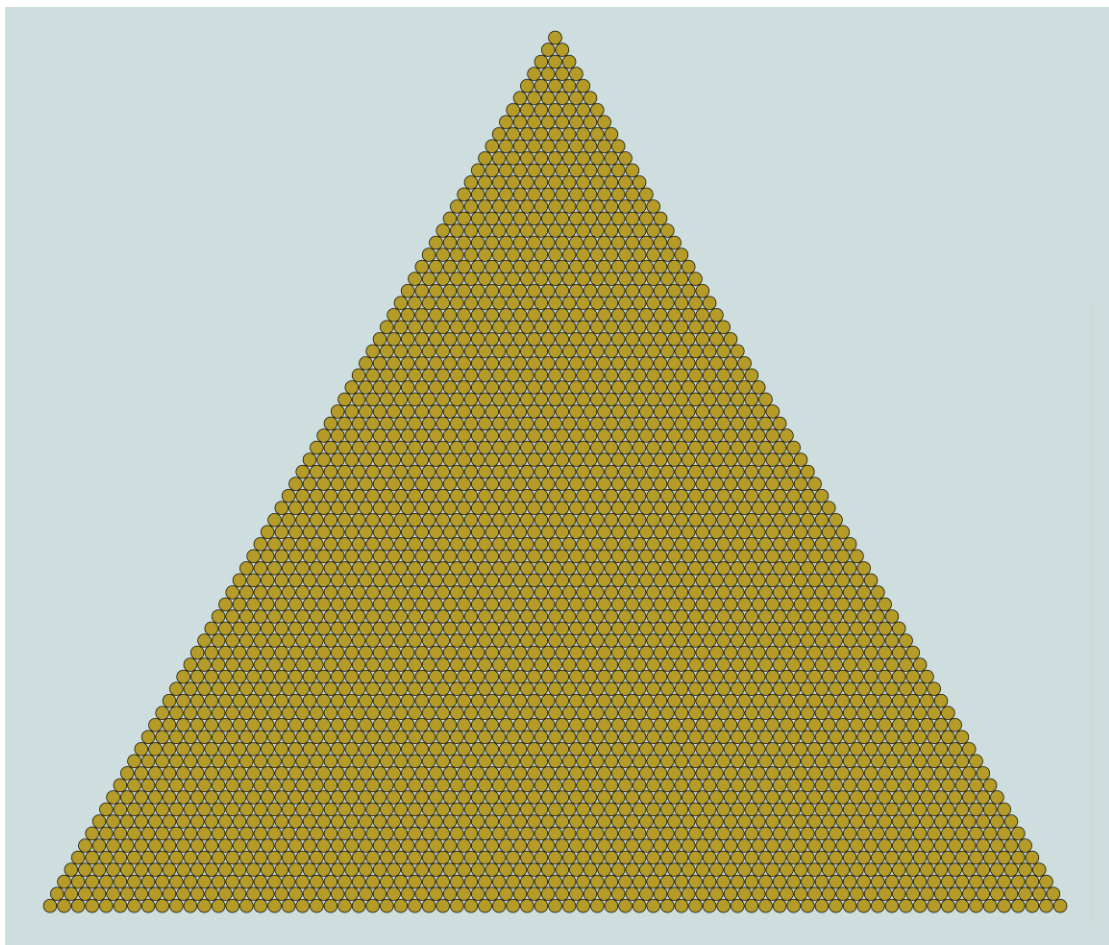
FIGURE 12. THE G-TRIANGLE OF 2701 COUNTERS

The triangle depicted here reveals that 2701 uniform circular counters may be arranged in tight formation on a flat surface, to produce a symmetrical figure having three equal sides. It is designated 73rd numerical triangle (each side formed from 73 counters), and is one of an infinite series – each term associated with a particular number. Observe that the total of counters in each of its rows proceeds from 1 to 73; we thus learn that 2701 is the sum of the numbers named when counting to 73 (i.e. 'one plus two plus three plus…plus seventy-two plus seventy-three.'). This sum may thus be readily checked by hand, or calculator.

The number of counters forming the perimeter or outline of the G-triangle is 216 or 6^3. This is a unique cube because, built from 216 unit cubes it has a face area of 36 unit squares, and a total superficial area of 6x36, or 216 - and is thus numerically equal to its volume.
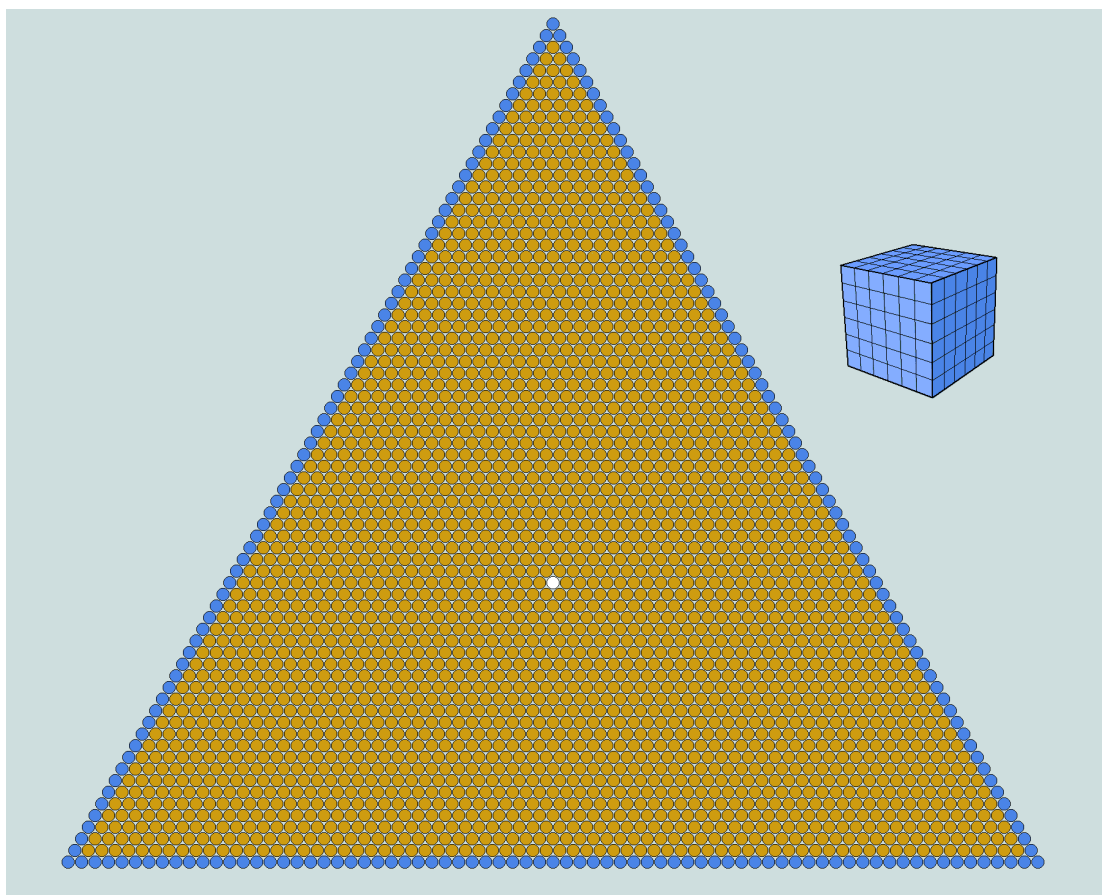
FIGURE 13. SIGNIFICANT FEATURES OF THE G-TRIANGLE

Observe that 1 in 3 numerical triangles possess a central or *centroid* counter (here rendered white). In respect of the G-triangle, the centroid counter occupies the 25th position in the 49th row, as counted <u>down</u> from the top (or 25th row, as counted <u>up</u> from the base); these are of course the square numbers 5^2 and 7^2.

1.3 - The G-Triangle Partitioned

We now turn to consider Hebrew words 6 (= 407) and 7 (= 296) which read 'and the earth'; these have a combined value of 703 = 19 x 37. As with 2701 (representing the complete verse), an accompanying symmetrical picture of pennies emerges, thus:
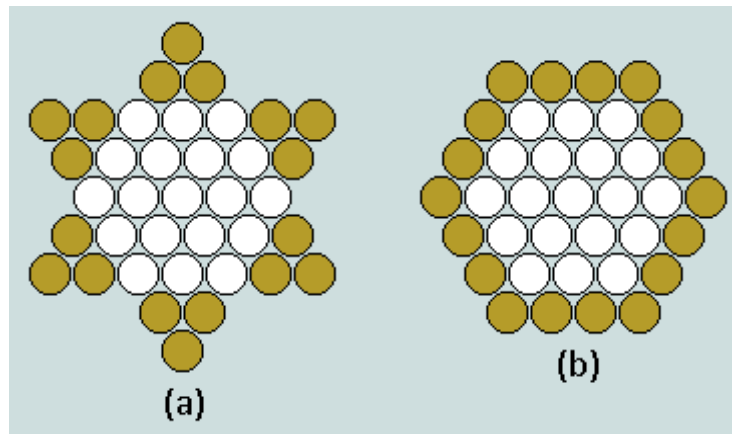
FIGURE 14. ABSOLUTE VIEWS OF THE FACTORS 19 AND 37

[This relates directly to the self-union of the 'letters' triangle (Figure 6) where a hexagon of 19 is found centred in a star of 37. There appears to be powerful symbolism at work here].

Observe that at (a) we encounter another example of a Star/Hexagon pair (S/H = 37/19), and deduce that the product, S.H = T(37) = 37th triangle = the trapezium Z(27,46) =703 = T(46) – T(27). [The reader is reminded that the details of these matters may be found in Appendix 2].

Again, (b) suggests that 703 may be represented figurately by a composite hexagon of hexagons (either 37 of 19 units, or 19 of 37 units).

703 is thus observed to be geometrically coordinated with 2701 when centred within either of its forms. In particular, it is an additional wonder that the 37th triangle fits precisely into the 73rd - thereby dividing the remainder into a trio of identical triangles of 666 (Figure 15), thus:

$$2701 = 703 + 1998 = 703 + 3 \times 666$$

Here is the picture:

FIGURE 15. 703 CENTRED WITHIN THE G-TRIANGLE

Something more needs to be said about 666. It is clear from a reading of the Bible's last Book, Revelation, that this number has been divinely chosen and associated with the words "Here is wisdom." (Rv.13:18). As may be seen (Figure 2, p.14) 666 is not merely triangular but uniquely so; it is the epitome of triangularity!

In Figure 15 we witness the first three triangular multiples of 37 combined, viz. 666, 703 and 2701 – thus tying together the last Book of the Bible with the first!

1.4 - The G-Trapezium

The same product (H.S) generates the trapezium Z(54,91), comprising 37 rows of counters – 91 and 55 forming the bottom and top rows, respectively.
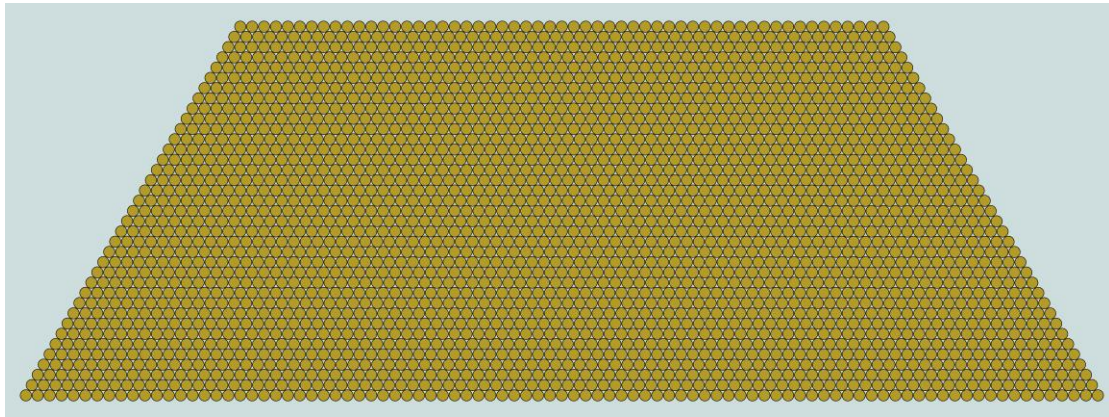
FIGURE 16. THE G-TRAPEZIUM OF 2701 COUNTERS

Observe that, like the triangle, the peripheral counters number 216 or 6^3.

1.5 - The G-Trapezium Partitioned
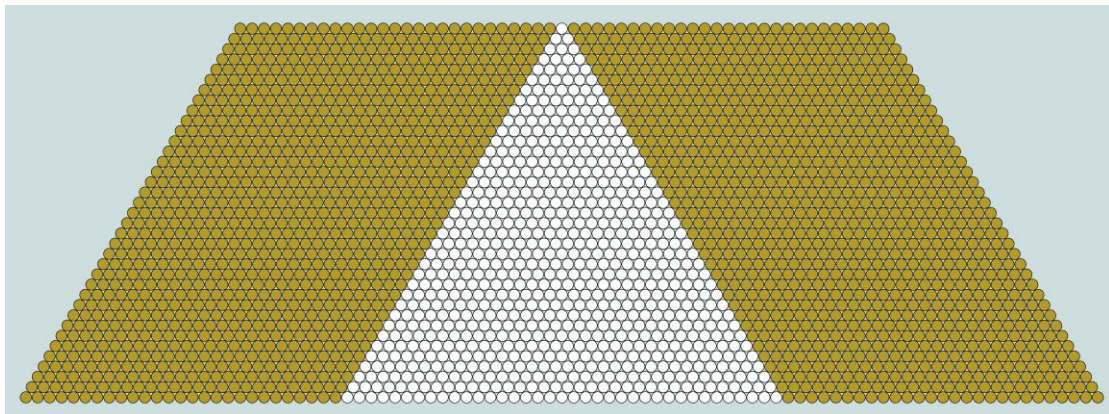
FIGURE 17. Z(54,91) BISECTED BY 703-AS-TRIANGLE

Here we find the 37th triangle (=703) dividing the trapezium of 2701 precisely. The flanking parallelograms each contain 999 counters. This division is mirrored in the structure of [G] where we find 913 + 86 = 203 + 401 + 395 = 999 – a nice balance involving the CVs of words 1 through 5.

Observe that in this diagram the brown counters total 1998 and represent the sum of the Bible's first five Hebrew words; and the white counters, 703 – the sum of the CVs of words 6 and 7.

1.6 - The Constellations Partitioned

Like 2701 (= 37.73), 703 (= 19.37) is a multiple of 37; it may, therefore, be represented graphically by 19 of the smaller stars. Here is the background to this development:
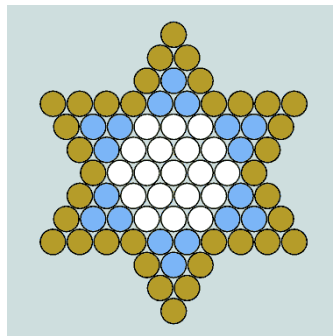
The innermost object is a hexagon of 19; this is set within a star of 37, which exists within a star of 73. Clearly, these are a closely-related set of figures – all relevant to the structure of the following partitioned star:
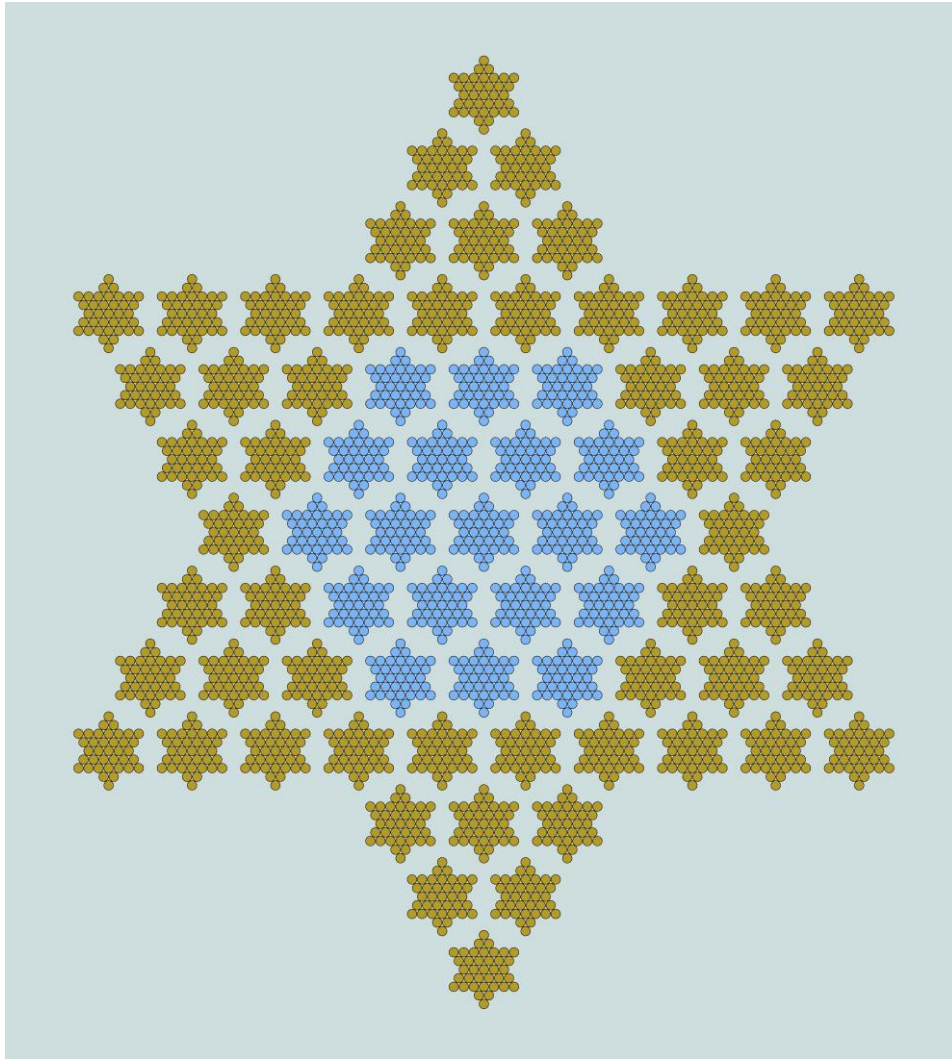
Figure 18 — 703 Centred Within K(73,37)

But, arising from the fact that words 3 and 5 (translated 'God' and 'heaven') total 481 (= 13x37), and 13 is 2nd star, a further symmetrical partitioning is possible, thus:

FIGURE 19. 481 CENTRED WITHIN K(73,37)

Here, the inner star is seen to comprise 13 smaller stars – each of value 37; the total represented is thus 13x37 = 481 = 86 + 395 = the sum of words 3 and 5.

Observe also that central to words 3 and 5, and to the whole verse, is word 4. This comprises the first and last letters of the Hebrew alphabet. Hence, they are equivalent to the Greek 'Alpha and Omega' – a term used of himself by our Creator, the Lord Jesus Christ (Revelation 1:8, 11; 22:13). The juxtaposition of these three central words is clearly symbolic and highly appropriate!

The alternative form of the Star-of-stars representation of Genesis 1:1 has 37 units of 73; these may partitioned in a similar manner to the preceding – i.e. with central hexagon inset. However, in this case 19.73 = 1387, which is the sum of words 2, 3, 5, 6 and 7 (represented in green below).

Figure 20. 1387 Centred Within K(37,73)

1.7 - The Augmented Set

At this point in the proceedings it is appropriate that we extend [G] – our set of input data - to include the CV of the 8th word, thus:

FIGURE 21. THE BIBLE'S FIRST EIGHT WORDS

Because it a simple extension of [G], we shall refer to it as [G⁺].

We now divide these 8 words in the following way, to gain access to further wonders: observe the high concentration of figurate numbers; remarkably, as we shall find, these are graphically coordinated.

FIGURE 22. THE FIRST EIGHT WORDS PARTITIONED

30

1.8 - The G⁺ - Triangle

Remarkably, 2701 augmented by 302 - the eighth word of Holy Writ – yields 3003 – another large triangular number, sum of the numbers named when counting to 77. This triangle is depicted below. It represents a composite number having the following prime factors: 3x7x11x13 = 3003. This line up indicates that 7x13, or 91, is a factor – an important matter in what follows.

Figure 23. The G⁺-Triangle

As before, the total of the words (3003) and the number of dots (3003) may be checked by hand or calculator.

1.9 - The G+ - Triangle Partitioned

We may now superimpose the G-TRIANGLE on this structure and so generate one of two further wonders introduced by the eighth word, viz. a <u>plinth/underscore</u> or <u>cover</u> for the first verse.

It is important that we remember that the following geometrical figures derive from the numbers representing the first 8 words of Holy Writ:

The Bible's first eight Hebrew words

Here is the first:
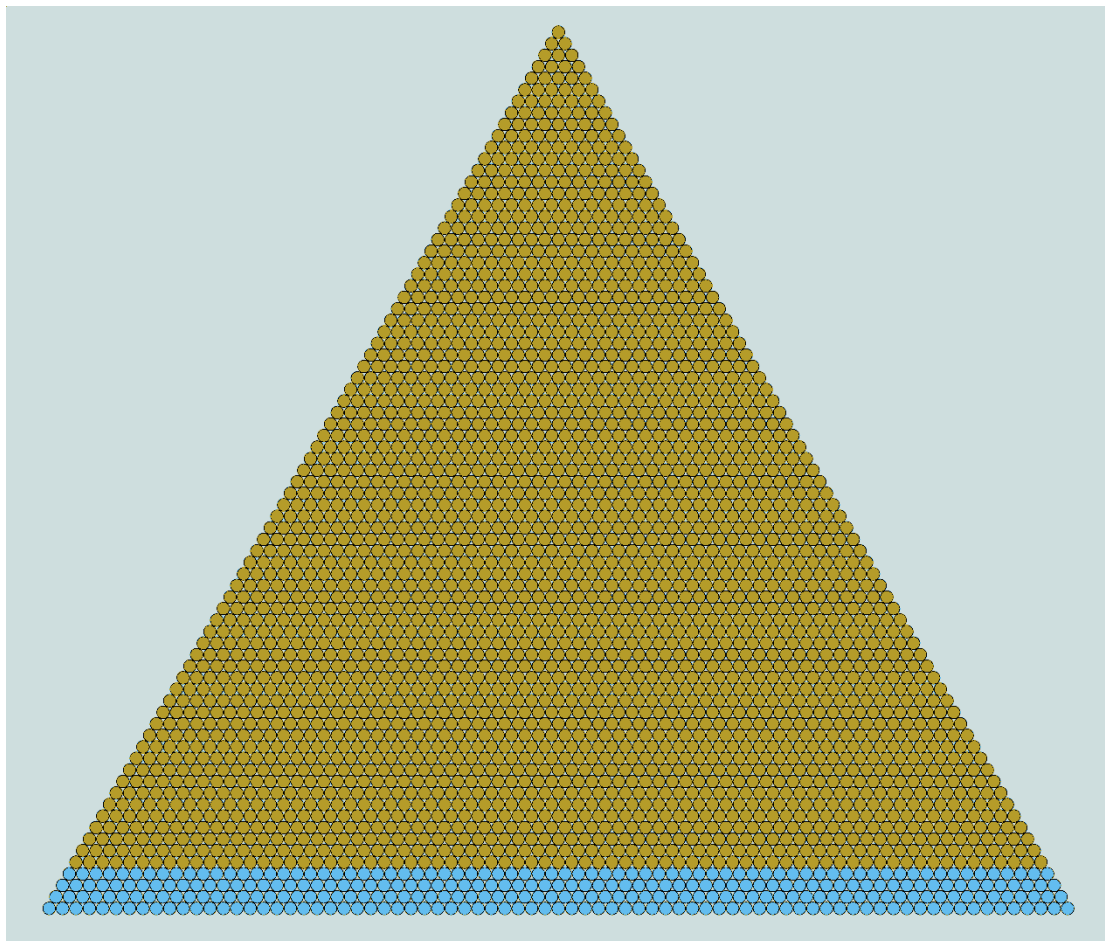
FIGURE 24. A PLINTH OR UNDERSCORE FOR THE G-TRIANGLE

Alternatively, the following suggests a 'cover' that is provided by word 8:
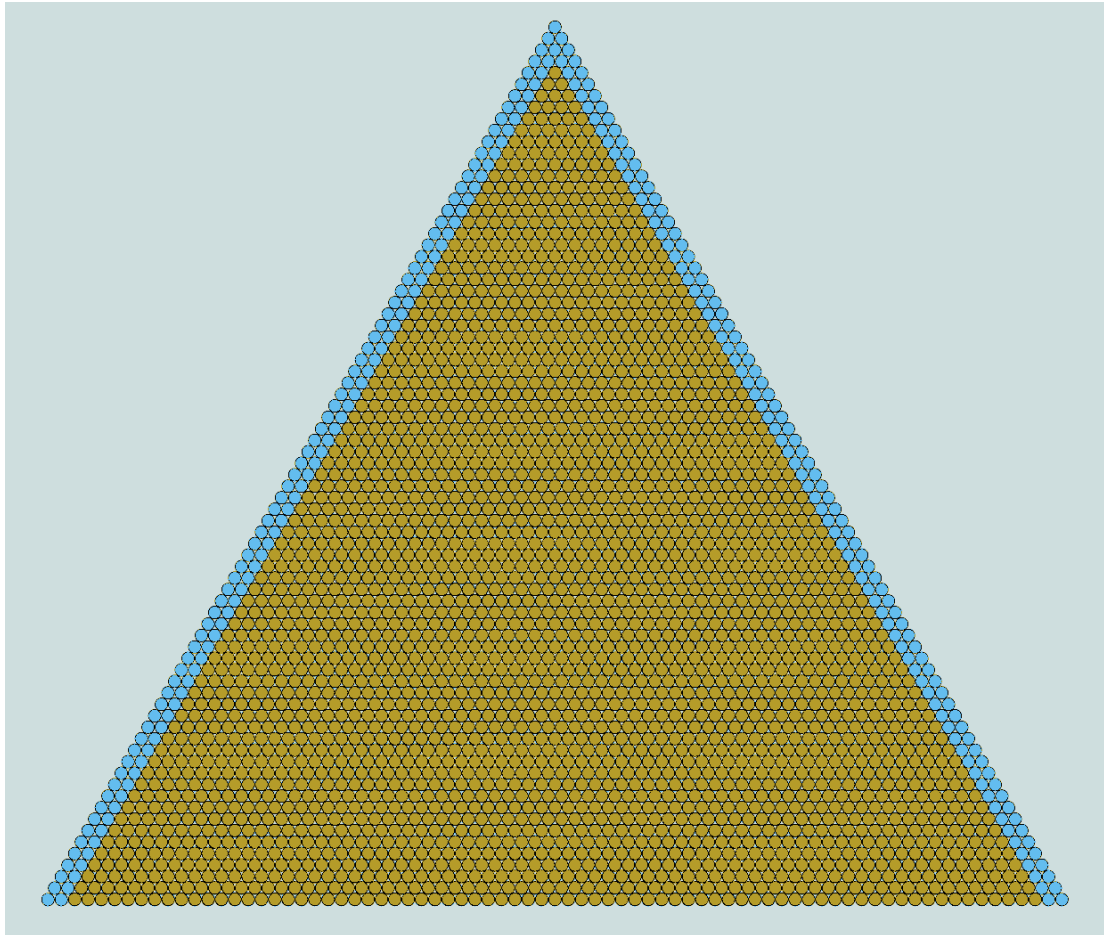
FIGURE 25. A PROTECTIVE COVER FOR THE G-TRIANGLE

Clearly, these constructions speak of the immense significance of the words of Genesis 1:1.

1.10 - The G-Hexagon

The self-intersection of the 2701 triangle representing the sum of the Bible's first 7 Hebrew words results in a hexagon of 1801.
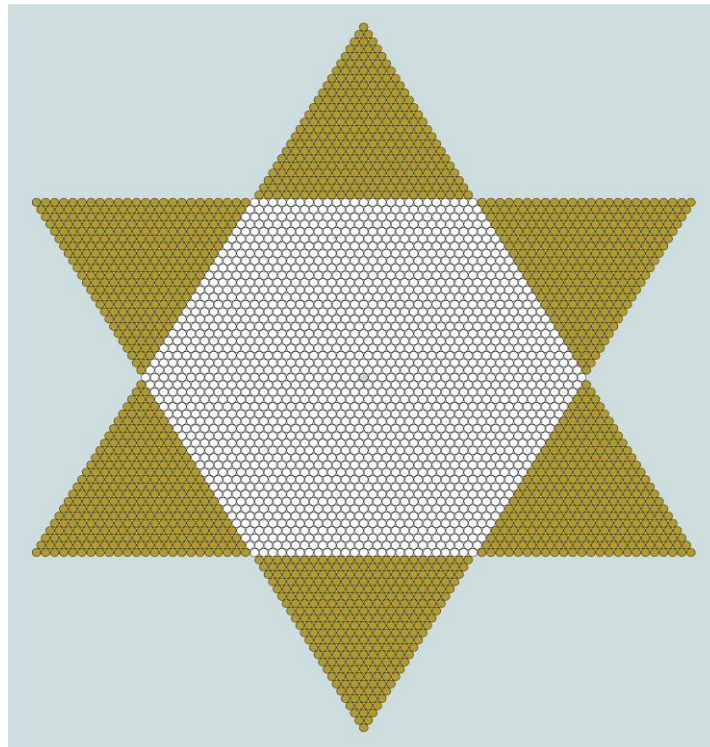
FIGURE 26. THE 1801 COUNTERS OF THE OVERLAPPED G-TRIANGLE

This hexagon is unique in that it comprises 49 rows of counters, has 25 along each side and a perimeter of 144 – the squares of 7, 5 and (7 + 5), respectively. Each of the triangular spurs comprises 300 counters.

The same hexagon occurs as the sum of words 5 – 8 inclusive, and also as he sum of words 1, 3 5 and 6; it accommodates 703-as-triangle (sum of words 6 and 7) precisely. Here is a fascinating situation, which consolidated the relationship between [G] and [G⁺], the 7- and 8-word sets.

FIGURE 27. THE G-HEXAGON IN [G⁺]

1.11 - More Views Of The G-Triangle

We may now integrate several of these features to produce a composite view of the first 8 words, which does not involve repetition. This is presented below.

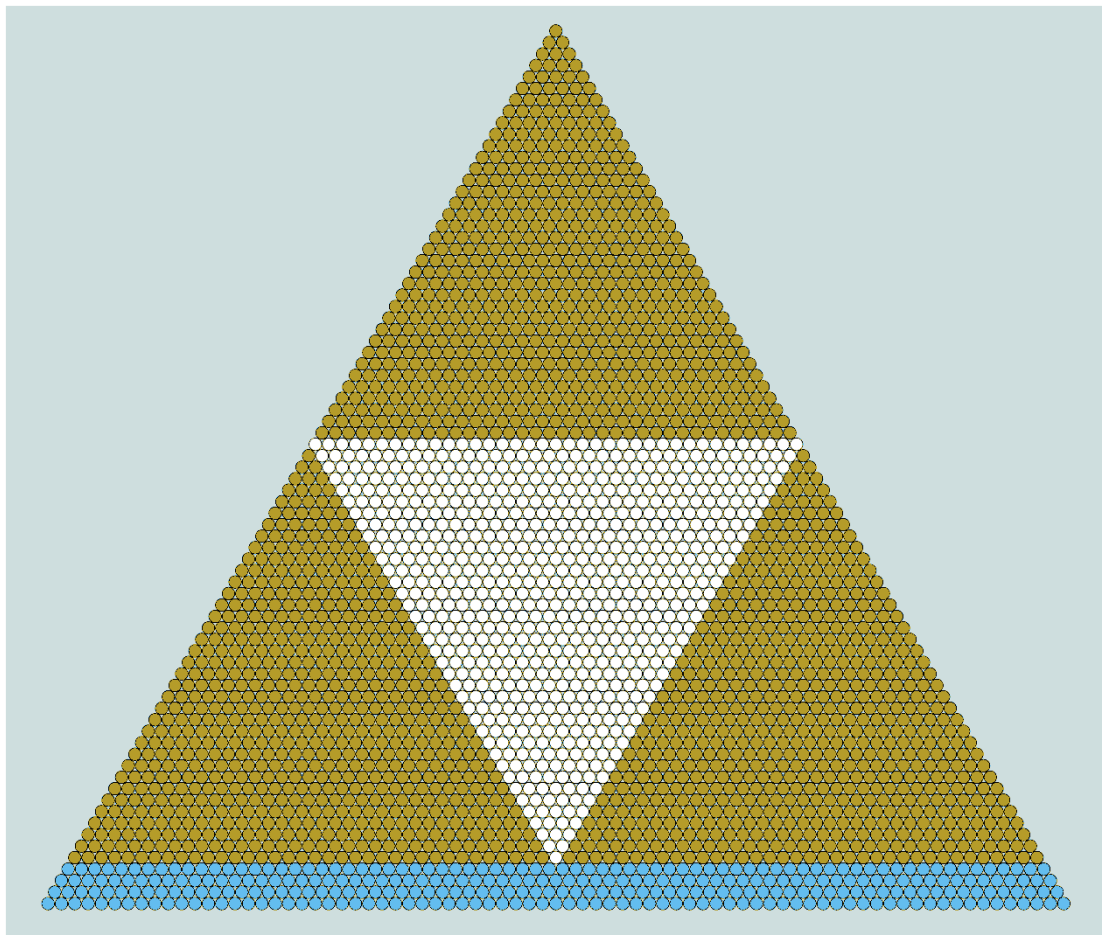

Figure 28. The G - Structure On Its Plinth

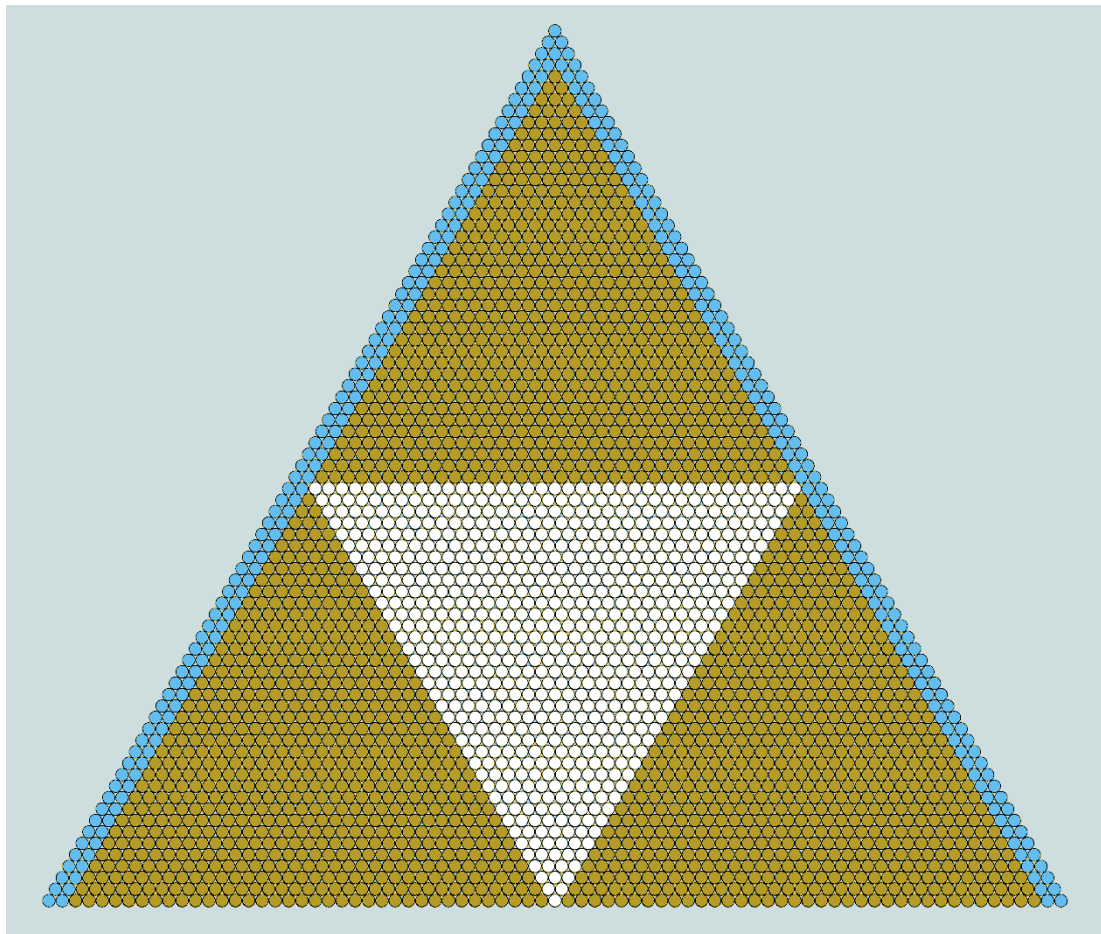Alternately, we have the following composite which again avoids repetition:

FIGURE 29. THE G - STRUCTURE WITH COVER

Here is Genesis 1:1 with a protective cover of 302 provided by the eighth word – the first of Genesis 1:2.

1.12 - The Composite Geometries

To accommodate both plinth/cover and hexagon requires some manipulation concerning word 8. Observe that whereas the central hexagon of 1801 with 703-as-triangle perfectly inscribed (= 401 + 395 + 407 + 296 + 302) presents no problems, the plinth requires a further 302, and the first three words yield a sum of 1202 (the area rendered brown) – which is 302 more than the 900 contributed by the three brown triangles. Though somewhat complicated to explain, the effort involved in presenting these well-designed and coordinated components of the first eight words together results in a most attractive picture.
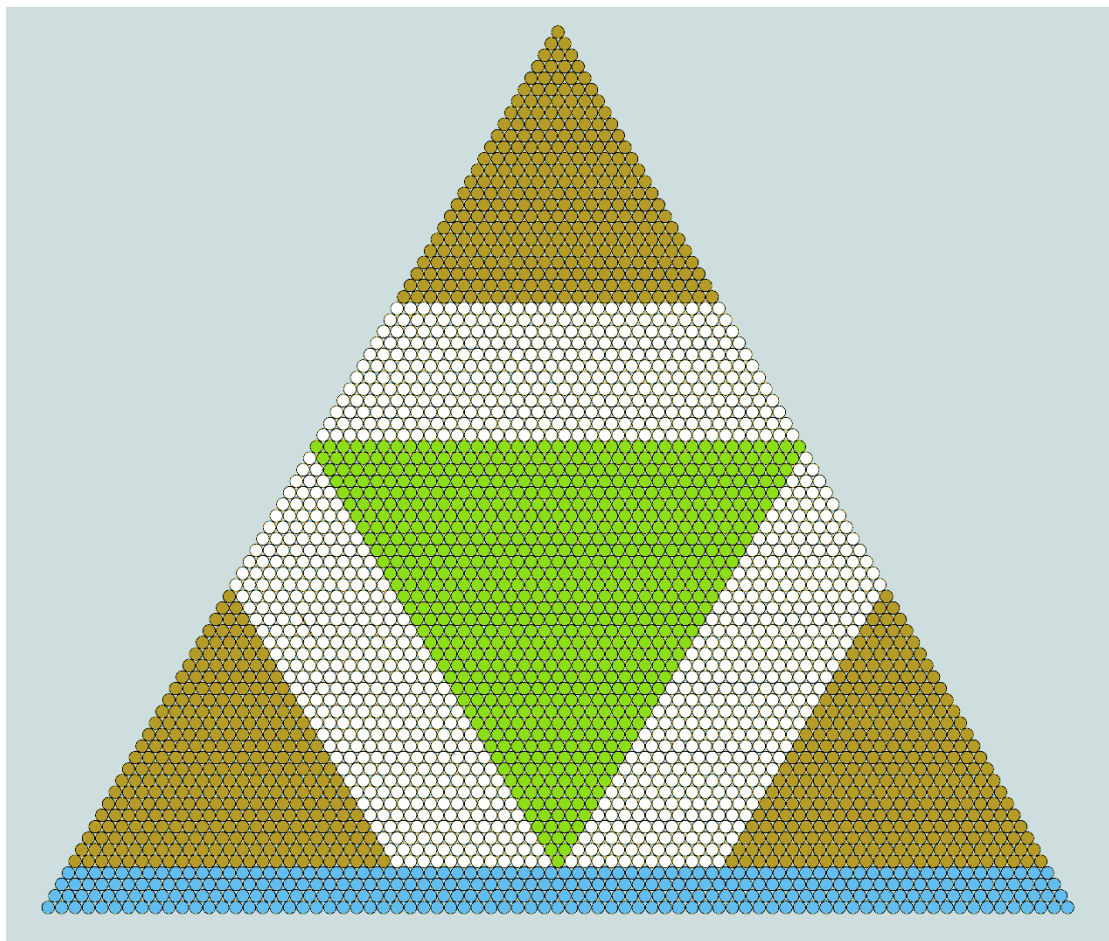

FIGURE 30. A COMPOSITE VIEW OF THE FOREGOING FEATURES
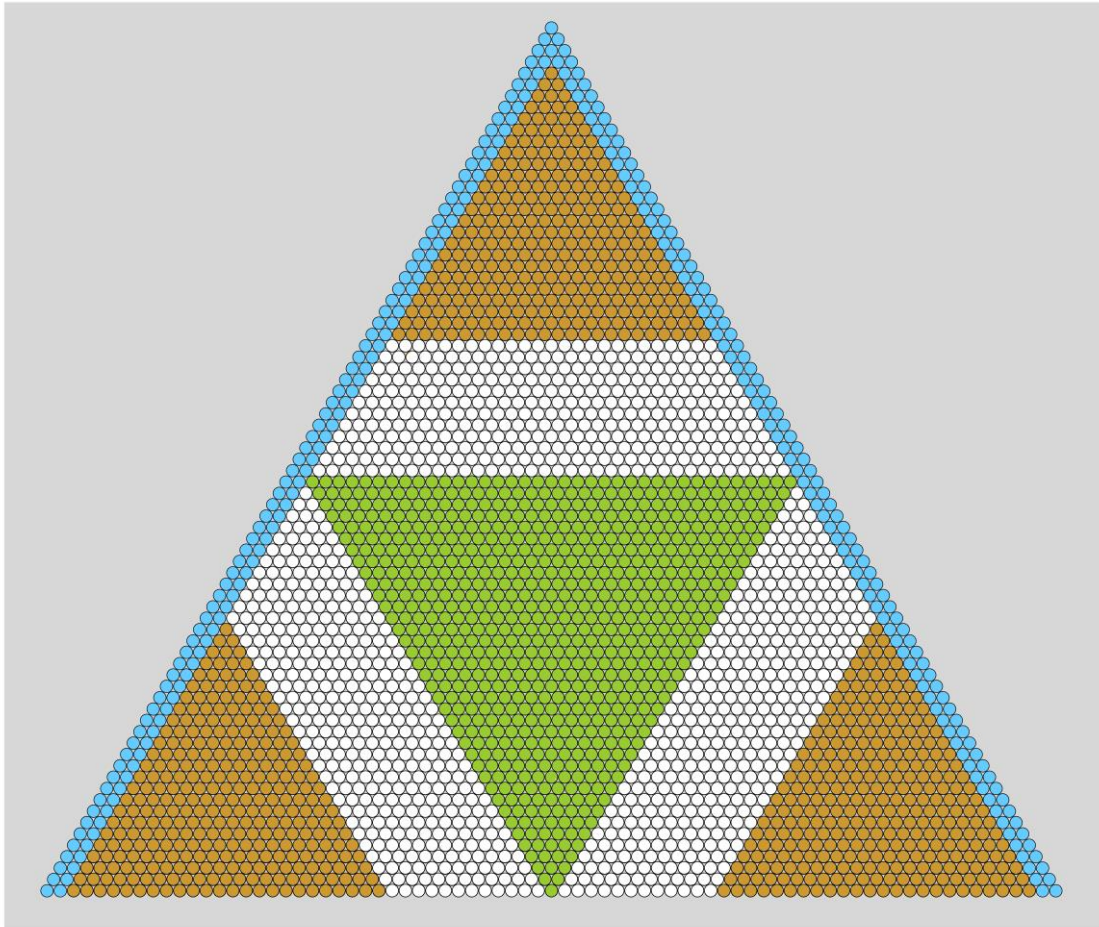
37

Here is the same with cover replacing plinth:

Figure 31. A Second Composite View

Undoubtedly, these are remarkable structures to be found associated with the first eight words of God's Book; clearly their Author knew all about the Hebrew scheme of alphabetic numeration many centuries before it became known to man!

2. The Secondary Genesis Geometries

Contents

2.1 - Another Partitioning Of The G-Triangle

An interesting phenomenon appears when the first verse is partitioned thus:

FIGURE 32. A Second Division Of Genesis 1:1

From these three segments, the following integrated structures arise:

1. (A + B) + C = 2701 = the G-TRIANGLE
2. (A + C) – B = 937; this is depicted below as the union of the inner (37th) triangle with a centred inverted copy of itself, thus creating the 13th term of the hexagram (or 'star') series in which the 12th triangle figures as a constructional element
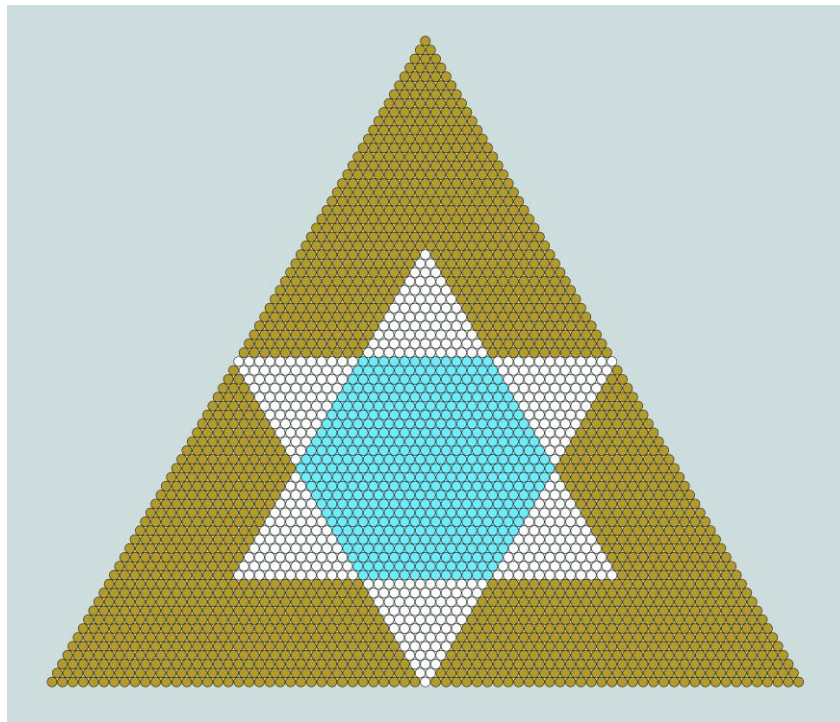3. (B + C) – A = 469; this appears as the blue hexagonal core of the hexagram

FIGURE 33. The G-Triangle With Inner Star

The interplay within [G] strongly suggests that it was designed with these beautiful coordinated geometries in mind! And the symbolic nature of the result with 12 as the dimension of the triangular spurs of the hexagram should not be missed.

2.2 - THE G -TREFOIL

This concerns a feature of [G] = [913,203,86,401,395,407,296] that is easily overlooked. Observe that the sum of the odd values, 913 + 86 + 395 + 296 = 1690; and the sum of the evens, 203 + 401 + 407 = 1011

Factorising these sums, we find 1690 = 10.169 and 1011 = 3.337. Now 169 and 337 are related geometrically; they represent the 8th numerical hexagon/star pair and tessellate, thus:
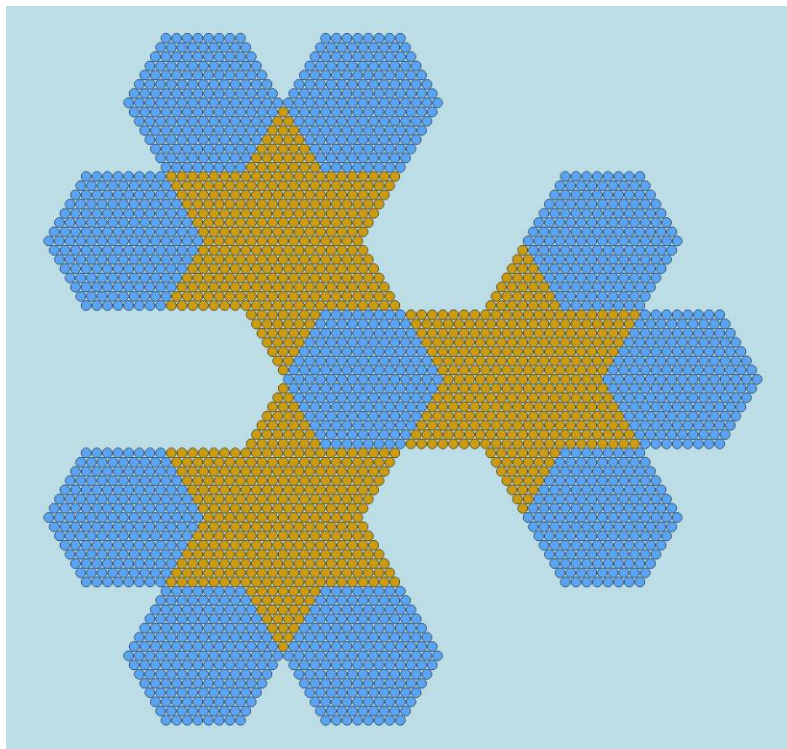

FIGURE 34. [G] EXPRESSED AS TESSELLATED TREFOIL

41

Note that this figure comprises 10 hexagons - each of 169 counters – and 3 stars of 337. In other words, a total of 2701 counters. It is, therefore, a representation of Genesis 1:1 and, like its triangular form, displays a threefold symmetry. Clearly, things needn't have worked out this way. It is indeed a very remarkable addition to what is already a significant confluence of attributes.

2.3 - THE G-STELLA OCTANGULA

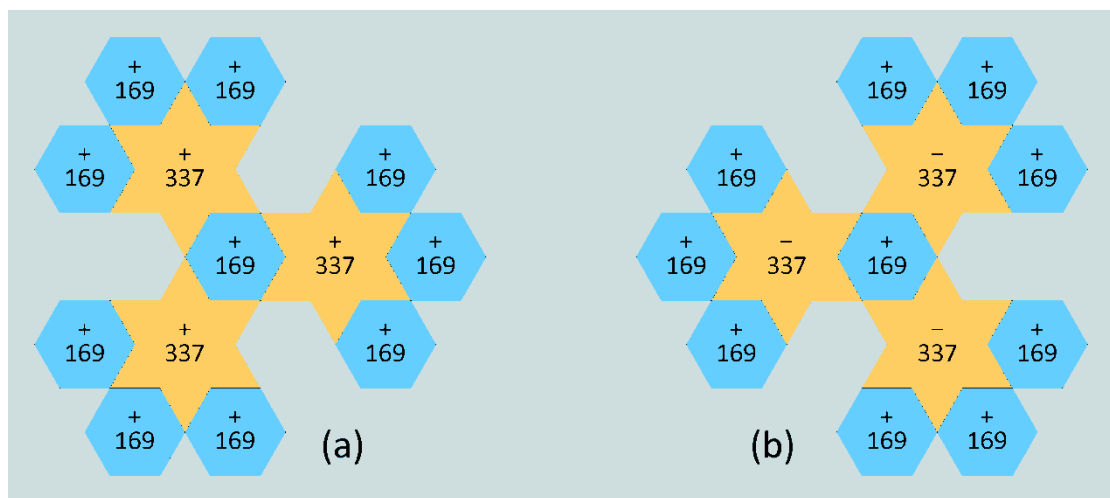Involving a further look at the G-Trefoil:

FIGURE 35. THE 2701/679 RELATIONSHIP

At (a) we see a symmetrical tessellated view of 2701 comprising 10 hexagons, each of 169 counters, and 3 stars, each of 337 counters - these figures representing the 8th H/S pair, viz.
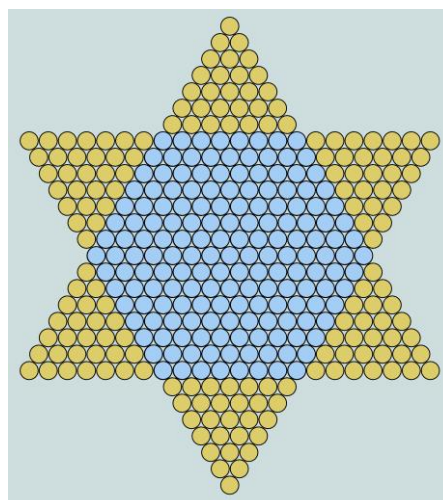

FIGURE 36. THE 169/337 HEXAGON/STAR PAIR

Thus, regarding (a) above we may write

10x169 + 3x337 = 1690 + 1011 = 2701 = [G] = 913+203+86+401+395+407+296

i.e. the sum of the odds <u>plus </u>the sum of the evens

and at (b),

10x169 – 3x337 = 1690 – 1011 = 679 = [G'] = 913-203+86-401+395-407+296

i.e. the sum of the odds <u>less</u> the sum of the evens!

Observe that Figure 35 presents a simplified view of the phenomenon; the number of counters associated with each hexagon and star is inscribed – together with its polarity. The totals represented are obtained by summing these numbers.

At (a), the total is the unique number2701; at (b), it is 679 – 7th Stella Octangula. The fact that each represents an exceedingly unlikely event, both deriving from the word CVs of Genesis 1:1, is highly significant.

[For those unacquainted with the term Stella Octangula, here is a diagram which reveals the development of this beautiful mace-like solid from the union of a pair of identical Tetrahedra. At (a), a wire-frame representation of a regular tetrahedron is depicted. As may be seen, this figure (the first of the five *platonic solids*) takes the form of a pyramid-like structure – its four faces, congruent equilateral triangles.
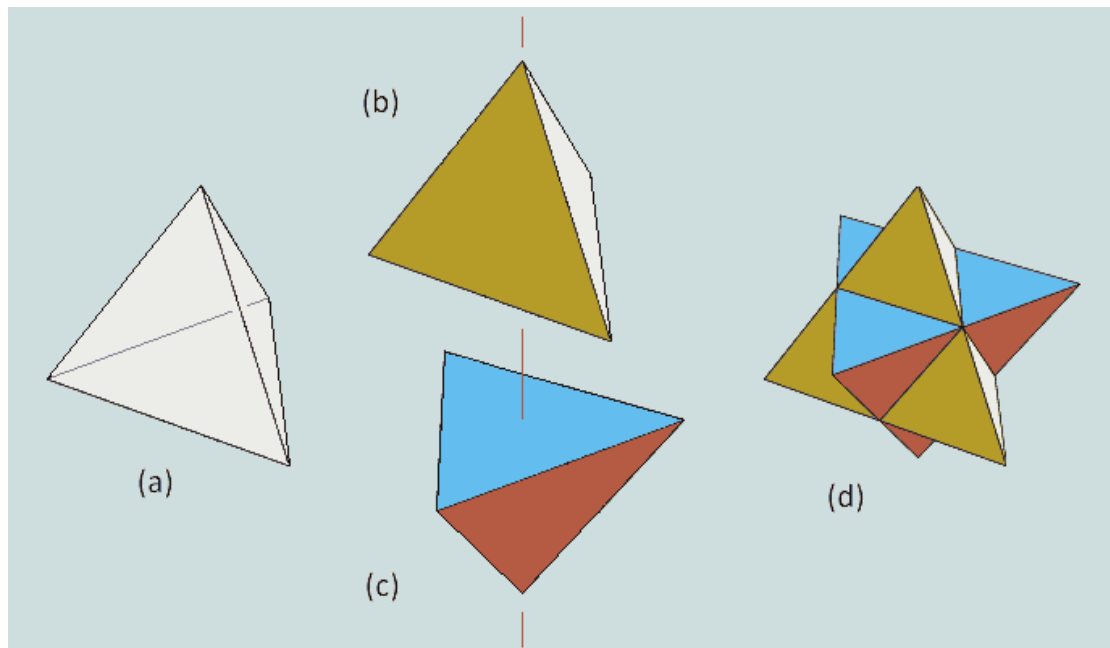

FIGURE 37. THE DEVELOPMENT OF A STELLA OCTANGULA

At (b) and (c), the pair of Tetrahedra are shown correctly aligned prior to their union, which is depicted at (d). Clearly, these figures each represent a template describing an infinite series of numbers which meet its structural requirements – involving stacks of uniform spherical counters formed from a succession of triangles, as revealed in Figure 38a.

The generating formulae for the associated figurate numbers are,

$$Q(n) - \text{the } n^{th} \text{ Tetrahedron} = n(n + 1)(n + 2) / 6 \text{ - - - - - - - - - - - - (i)}$$

$$\text{and,} \quad SO(n) - \text{the } n^{th} \text{ Stella Octangula} = n(2n^2 - 1) \text{ - - - - - - - - - - - - - (ii)}$$

Thus, $SO(7) = 7.(98 – 1) = 7.97 = 679$, thus confirming the remarkable numerical versatility of the 7 CVs associated with the opening words of the Hebrew Bible.
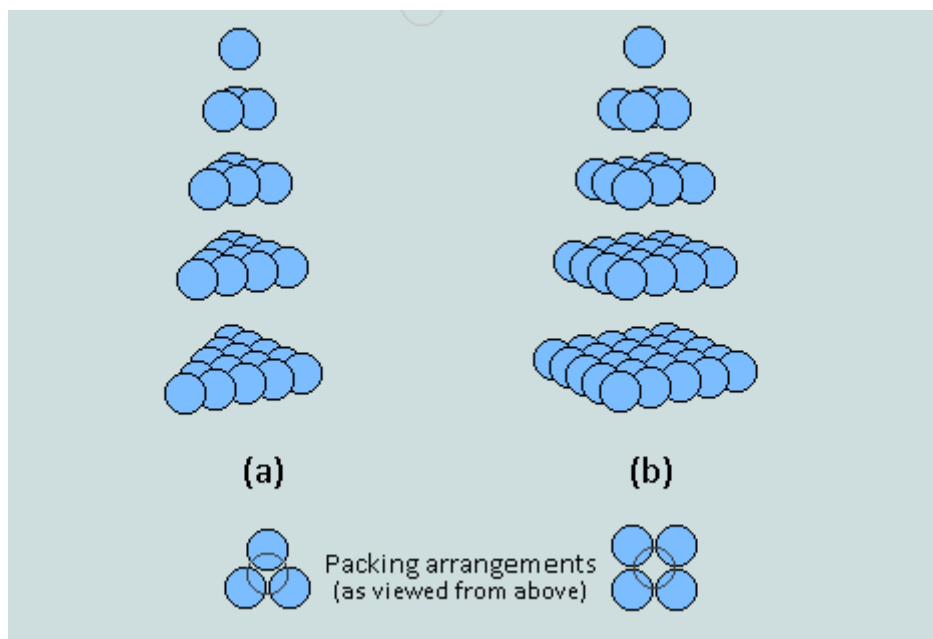
(a)

(b)

Packing arrangements
(as viewed from above)

FIGURE 38. THE SOLID FIGURATES TETRAHEDRON AND PYRAMID

2.4 - THE G-OCTAHEDRON

Here is another example of the Creator's recourse to a broader palette of figurate numbers. It involves seeing the G-triangle as a face of the 73rd tetrahedron, thus,
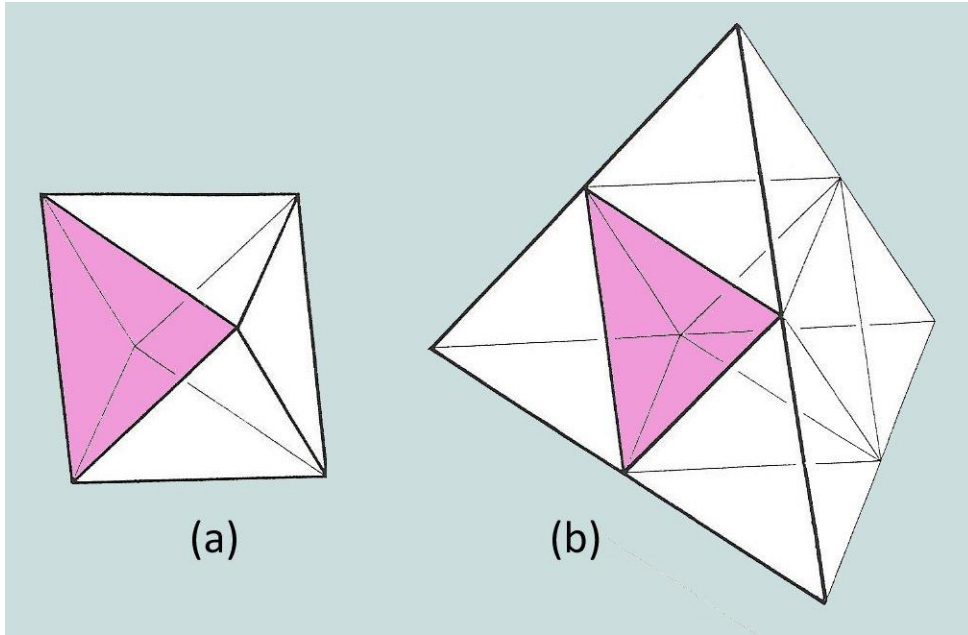
As this wire-frame diagram reveals, central to the structure of the tetrahedron is the octahedron (or double pyramid) depicted at (a) – this, surmounted by 4 smaller tetrahedra. A comparison with Figure 15 (repeated below) establishes the fact that central to each face of the 73rd tetrahedron is a face of the inner 37th octahedron, which is the 37th triangular number, value 703.
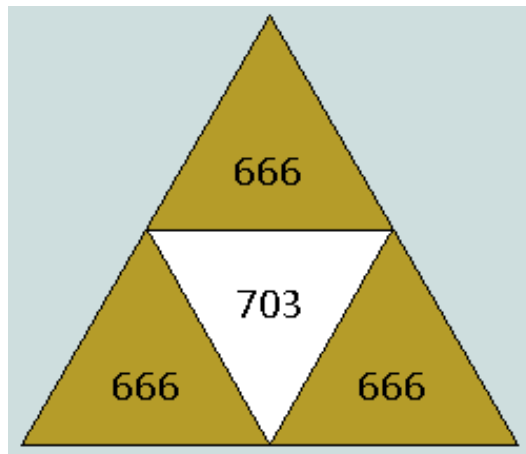
The formulae which generate the solid figurates associated with Figure 39 are:

The Tetrahedron, Q(n) = n(n + 1)(n + 2) / 6 - - - - - - - - - - - (i)

The Octahedron, O(n) = n(2n^2 + 1) / 3 - - - - - - - - - - - - (ii)

45

Thus, relevant to their observed association with the Bible, we have,

$$O(37) = 37.(2738 + 1) /3 = 37.2739 /3$$

$$= 37. 913$$

i.e. the product of a number already deeply involved in the Bible's first verse – withthe CV of its opening word!

2.5 - The G-Jigsaw

The simplest geometrical presentation of the Bible's first verse is, of course, the following rectangle; the total of unit squares (the counters) being 37.73 = 2701.
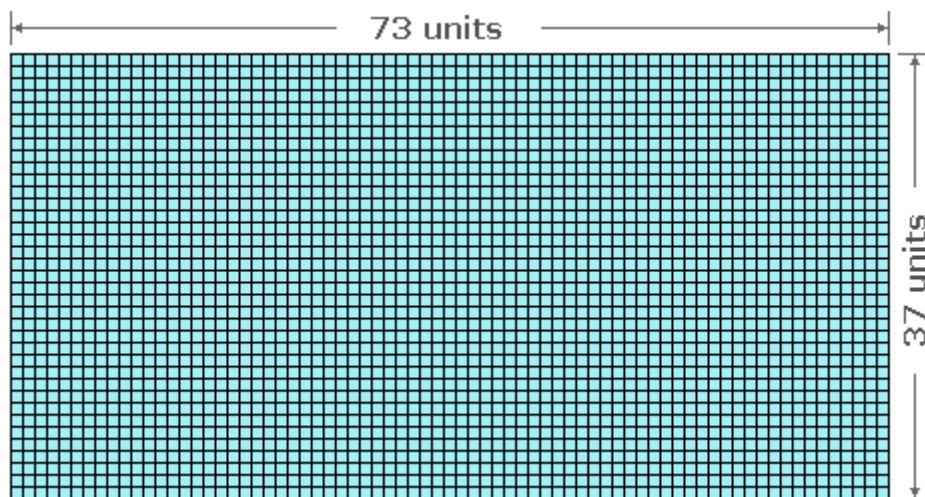
FIGURE 40. A RECTANGLE OF 2701 UNIT SQUARES

The composition of the individual words may now be represented as numbered segments of this figure,
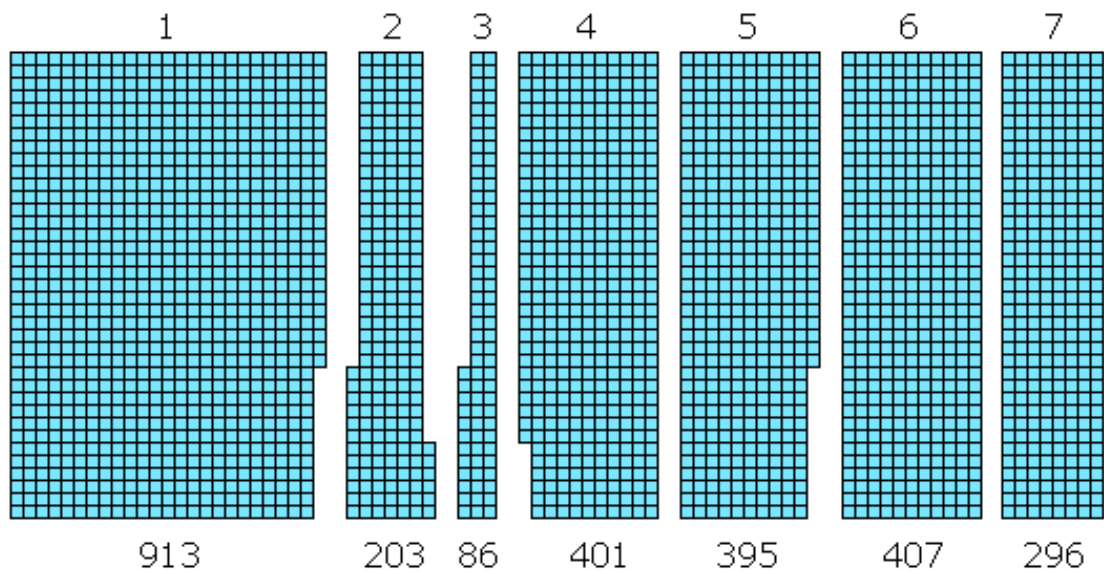
FIGURE 41. THE INDIVIDUAL WORDS OF [G]

Observe that words 6 and 7 (i.e. 407 and 296, both multiples of 37) naturally appear as fully-formed rectangles, and words 1 to 5 as rectangles augmented or diminished by some multiple of 6, such that they interlock as pieces of a jigsaw puzzle, offering two possible solutions – as depicted on the following page. This leads to a dramatic confirmation of the significance of 37 in the divine scheme of things. As we shall find, this number features as a factor in both Name and Title of our Creator (Jesus Christ), and abundantly so in the CVs of the Hebrew words of Genesis 1:1. Further, it provides evidence of the cohesion and interdependence of these opening words.
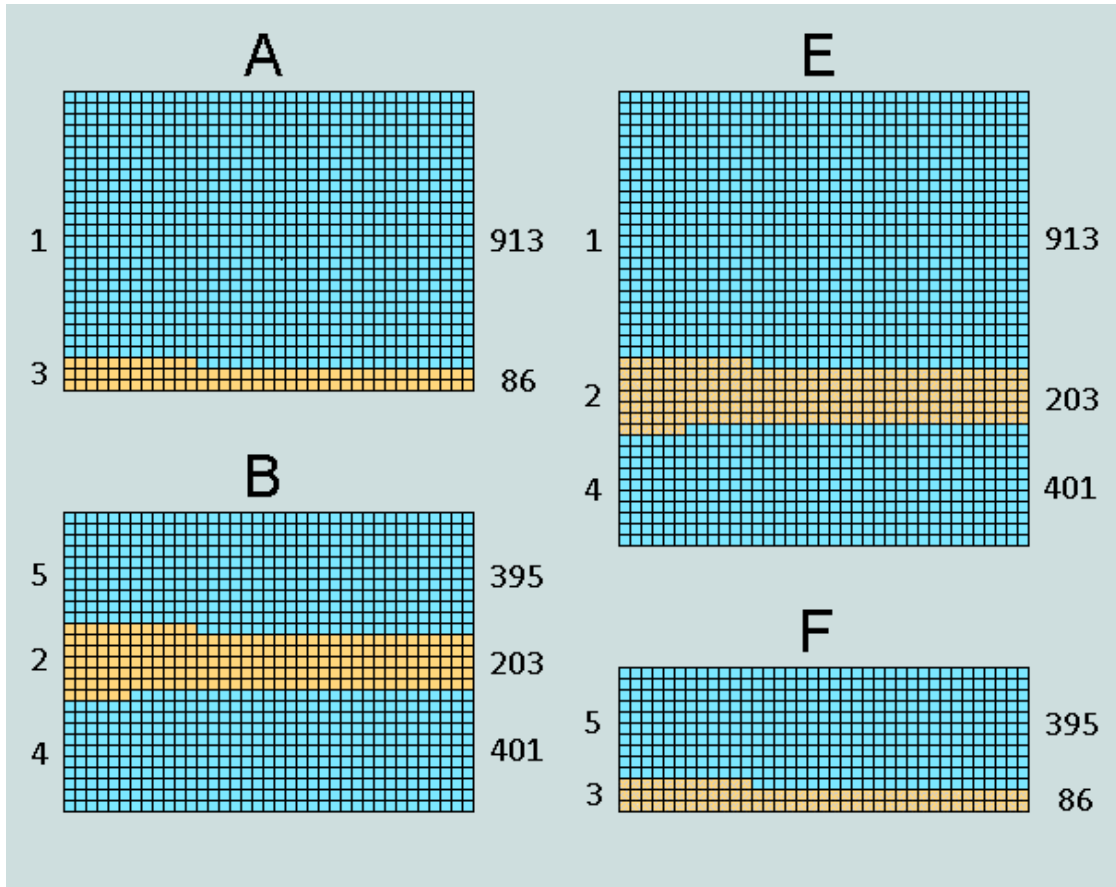
FIGURE 42. COMBINING THE PIECES

As revealed here, these 'pieces' - representing words 1 to 5 – may be assembled in one of two ways to create a pair of rectangles – either (A and B) or (E and F); clearly, because the width of these rectangles is 37, each represents a multiple of 37. In the interests of clarity, two colours have been used.
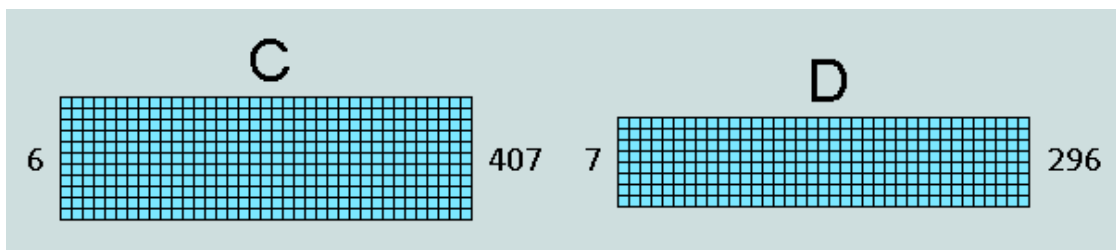
FIGURE 43. THE TWO WORDS ALREADY MULTIPLES OF 37

Words 6 and 7 are already multiples of 37. All valid combinations of the above are displayed on the following page. Observe that because the sum of the 7 words = 2701 (a multiple of 37) two multiples of 37 are represented in each of the composite

rectangles, viz. the chosen single or combination (rendered orange) and its complement (rendered white).

Recorded below each composite rectangle, in the relevant colour, are the totals involved in each case – all multiples of 37.
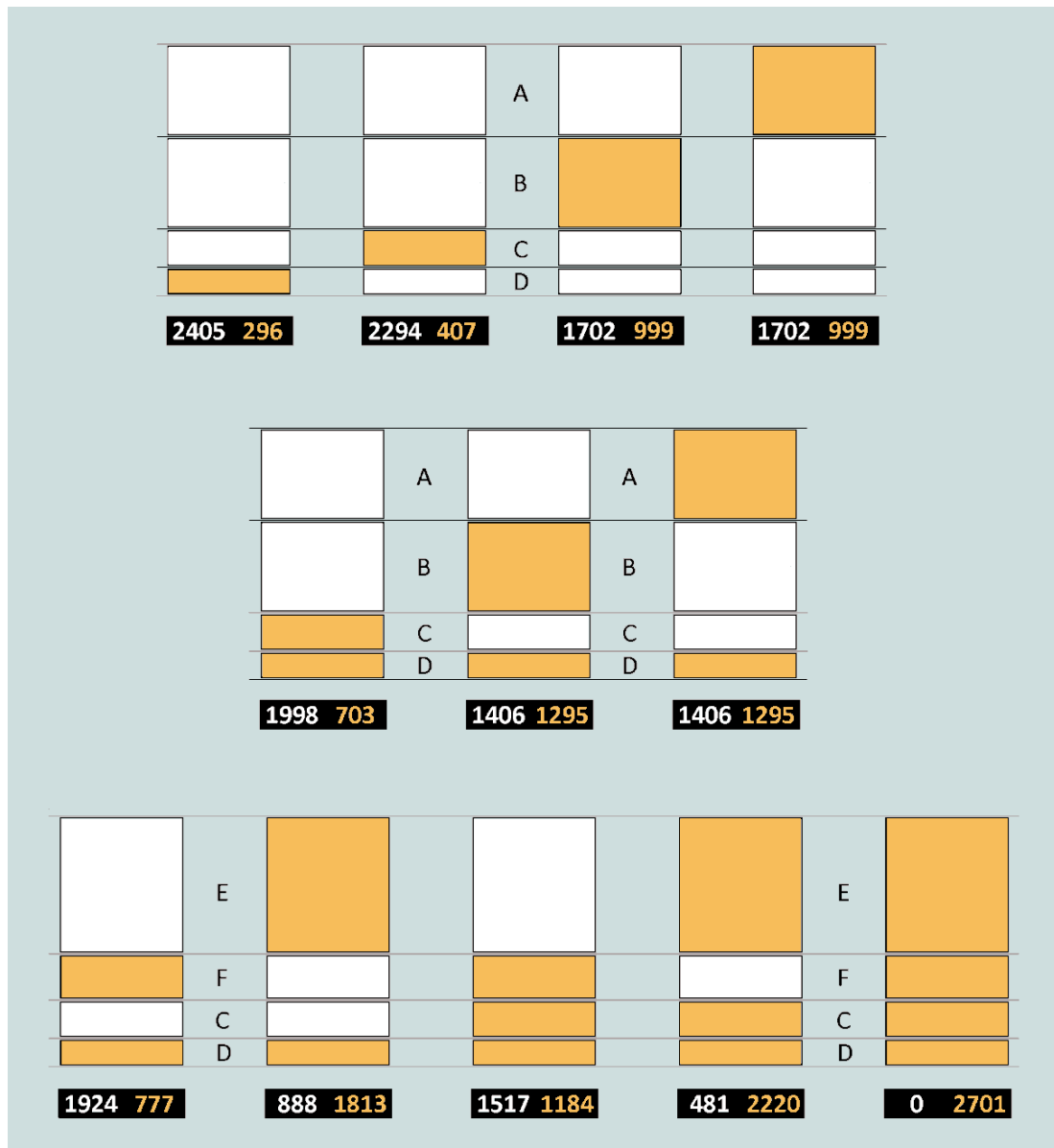
FIGURE 44. THE MULTIPLES OF 37 AS COMBINATIONS WITHIN [G]

Demonstrating a further significant feature of the Bible's opening Hebrew verse: that its 7 words, fairly read as numbers, together with their sums in various combinations (120 in all), yield a total of 23 multiples of the unique tri-figurate prime 37 – i.e. almost 7 times the statistical expectation for a random set. There follows an orderly presentation of these findings.

A careful examination of this table reveals further matters of interest, viz.

- each of the 7 words of the complete verse is involved precisely 12 (=2x6) times in creating the 23 multiples of 37; thus all carry equal weight
- the 3 nouns, 'God', 'heaven' and 'earth' generate the total 777
- the Lord's number 888 appears as the sum of words 3, 5 and 6

| No.	WORD COMPOSITION							TOTAL	TOTAL/37
	913	203	86	401	395	407	296		
1	−	−	−	−	−	−	✓	296	8
2	−	−	−	−	−	✓	−	407	11
3	−	−	✓	−	✓	−	−	481	13
4	−	−	−	−	−	✓	✓	703	19
5	−	−	✓	−	✓	−	✓	777	21
6	−	−	✓	−	✓	✓	−	888	24
7	✓	−	✓	−	−	−	−	999	27
8	−	✓	−	✓	✓	−	−	999	27
9	−	−	✓	−	✓	✓	✓	1184	32
10	✓	−	✓	−	−	−	✓	1295	35
11	−	✓	−	✓	✓	−	✓	1295	35
12	✓	−	✓	−	−	✓	−	1406	38
13	−	✓	−	✓	✓	✓	−	1406	38
14	✓	✓	−	✓	−	−	−	1517	41
15	−	✓	−	✓	✓	✓	✓	1702	46
16	✓	−	✓	−	−	✓	✓	1702	46
17	✓	✓	−	✓	−	−	✓	1813	49
18	✓	✓	−	✓	−	✓	−	1924	52
19	✓	✓	✓	✓	✓	−	−	1998	54
20	✓	✓	−	✓	−	✓	✓	2220	60
21	✓	✓	✓	✓	✓	−	✓	2294	62
22	✓	✓	✓	✓	✓	✓	−	2405	65
23	✓	✓	✓	✓	✓	✓	✓	2701	73

FIGURE 45. THE COMPOSITION OF THESE MULTIPLES

It is, therefore, clear that the Hebrew words of Genesis 1:1 are not numerically *independent (as one might have expected), but rather comprise a complete 'idea' in* the mind of their Author, and we infer that because the CVs of each of these 7 opening words may be expressed in terms of 37 and 6 alone, further lustre is added to this standing miracle, which lies at the threshold of the Judeo-Christian Scriptures!

A further remarkable feature is here revealed, viz. that the first 5 words are equally divided. Thus, rows 7 and 8 of the table reveal 913+86 = 203+401+395 = 999. As already observed, this leads to a further pictorial expression of the Ultimate Assertion - best presented as a trapezium in which the triangle 703 ('and the earth') occupies a central position flanked by two parallelograms of 999, which together represent the total of the first 5 CVs (=1998). This, of course, is the subject matter of Figure 17, p.29.

2.6 - A Tiled View Of Genesis 1:1

The figure below is inspired by the 6/37 motif found in the composition of all 7 word-values of the G-set. It depicts the G-triangle as a tiled surface – the 111 brown units, each of value 6, and the 55 blue hexagons, each of 37, so that

$$111.6 + 55.37 = 666 + 2035 = 2701 = 37.73$$

This picture, in which 666 is disseminated among the hexagons brings to mind the parable of the wheat and the tares (Mt.13:24-30).

Observe also that the factors of 2701, 37 and 73 (= 37 + 6.6) are seen to be revealed within the structure.
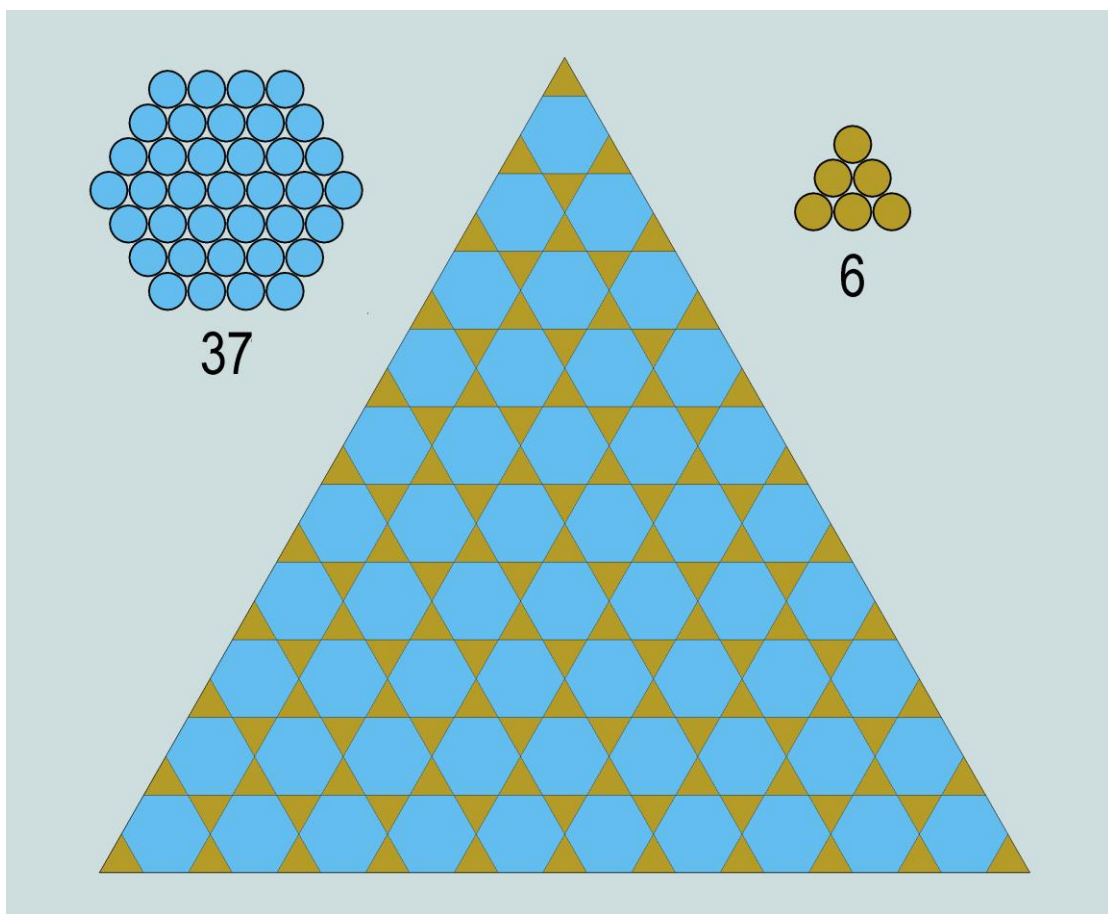

FIGURE 46. 2701 AS A PATTERN OF 6S AND 37S

2.7 - The Tri-Figurate Numbers 37 And 91

It's quite amazing that 37 should dominate these proceedings and so bind together significant portions of the biblical text. This number and its multiples also appear in the structure of the Universal Genetic Code – as reported by many researchers (Appendix 7). It is, therefore, appropriate that we look more closely at 37 and its tri-figurate partner, 91.

37 is both prime and tri-figurate (i.e. it may assume any one of three symmetrical geometries), thus:
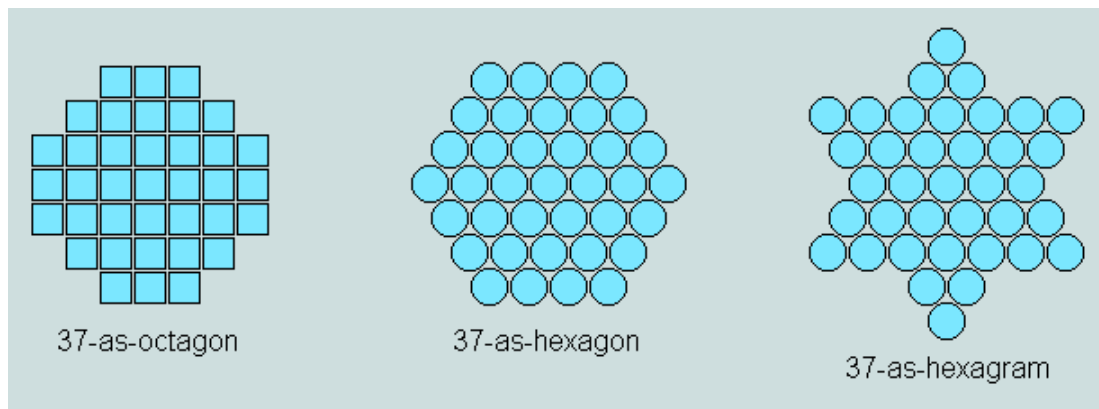

Figure 47. The Only Tri-Figurate Prime, 37

Expressed as a denary object (i.e. base 10), its digit reflection 73 is the related hexagram, thus:
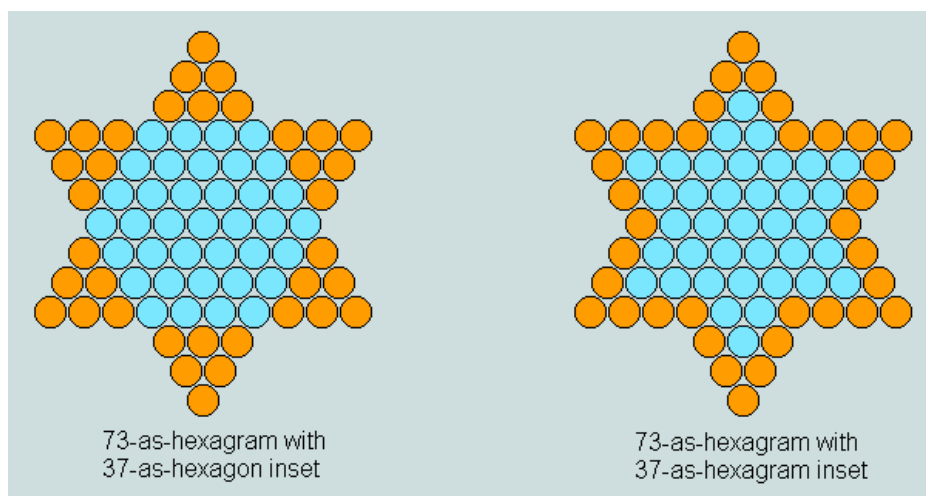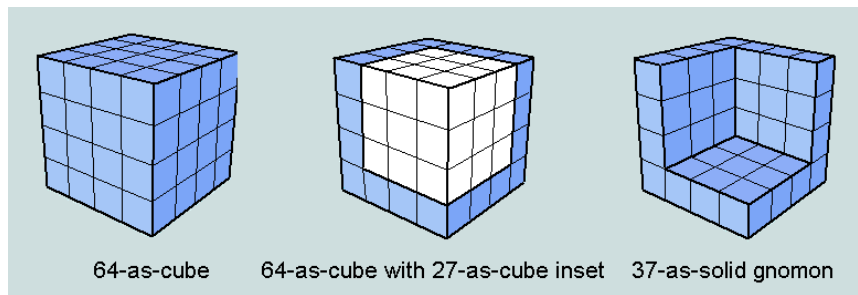

Figure 48. 37/73 and their related geometries

52

Further, because numerical hexagons describe the difference between successive cubes, 37 (= 64 – 27 = $4^3 – 3^3$) has a 3-D realisation as *solid gnomon*, thus:

64-as-cube   64-as-cube with 27-as-cube inset   37-as-solid gnomon

FIGURE 49. 37-AS-HEXAGON = 37-AS-SOLID-GNOMON

This unique prime occurs again and again in these pages; and we logically infer that it is highly regarded by our Creator.

However, 37 has a multi-symmetrical competitor which is not prime. This is 91 (which features as a factor of 3003 - sum of the Bible's first verse and following word) and, like the UA (see p.124), is a product of hexagon (=7) and related hexagram (=13). Here are the details:

91 = hexagon x hexagram
= 7.13

91-as-triangle

91-as-hexagon

91-as-pyramid

The Symmetrical Forms of 91
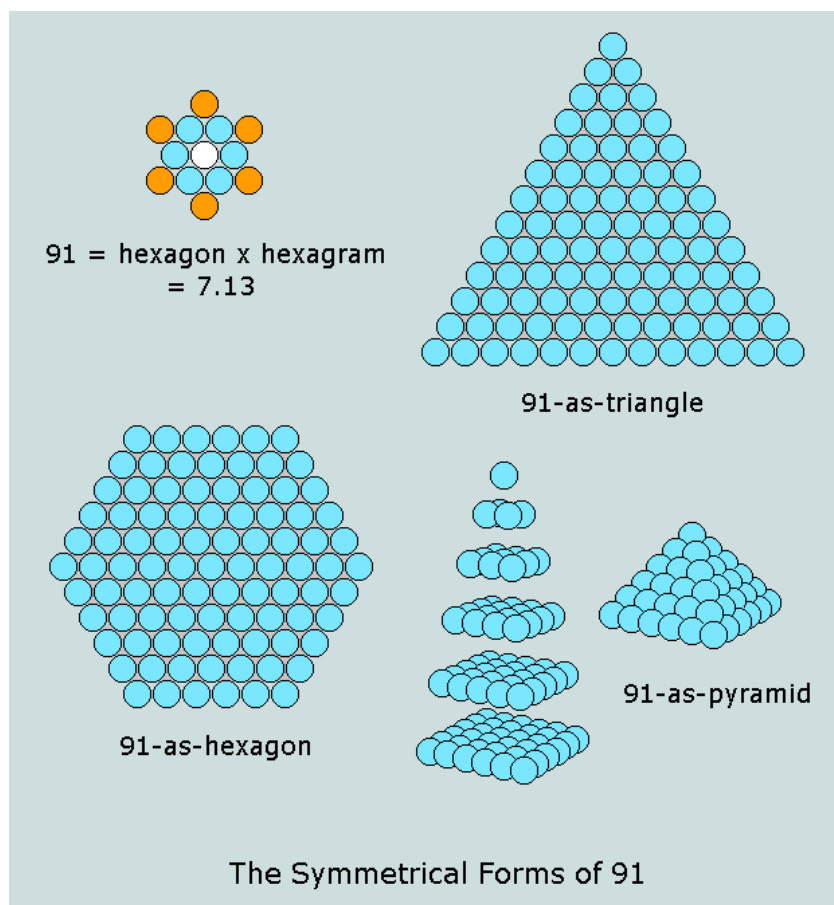
FIGURE 50 THE ONLY TRIFIGURATE COMPOSITE, 91

53

As with 37, the hexagon symmetry of this number implies the difference of adjacent cubes ($6^3 - 5^3 = 91$) and thus, an additional solid gnomon form.
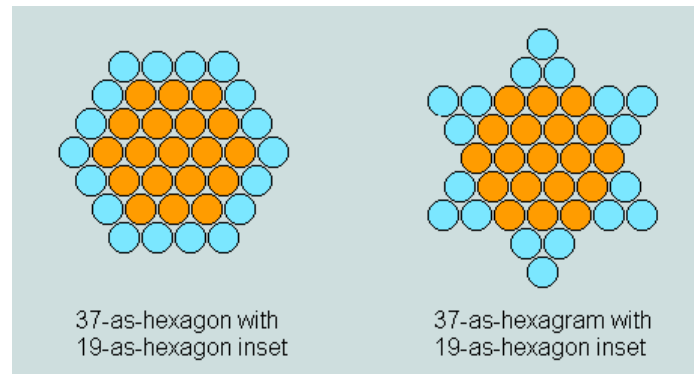
But observe too that 91 has a figurate reflection when expressed as a denary object and links up with 37, thus:

37-as-hexagon with
19-as-hexagon inset

37-as-hexagram with
19-as-hexagon inset

FIGURE 51. THE RELATED 19/37 GEOMETRIES

However, the bond between 91 and 37 lies yet deeper: these tri-figurates are independently linked via the cubes of 4 and 3, thus:

$$37 = 64 - 27 = 4^3 - 3^3; \text{ and } 91 = 64 + 27 = 4^3 + 3^3$$

and those having memories of early school algebra will have noticed something interesting here: the product of these unique numbers leads to a 'difference of two squares' scenario, thus:

$$37 \times 91 = (64 - 27) \times (64 + 27) = 64^2 - 27^2 = 3367$$

This result has important graphical implications which feature in the next section.

It is surely a standing miracle in itself that, of all numbers, the Creator should select these two as corner-stones for His design scheme.

3. The Creator/Creation Interface

Contents

3.1 - The Creator's Signature

As was mentioned in the introduction, the Hebrew scheme of alphabetic numeration was based on an earlier Greek model. Since we shall be delving into certain parts of the Greek New Testament it is therefore necessary to consider this earlier system. Here, then, is the Greek scheme: [8]

Position:	1	2	3	4	5	6	7	8	9	10	11	12
Letter:	$A\alpha$	$B\beta$	$\Gamma\gamma$	$\Delta\delta$	$E\varepsilon$	$Z\zeta$	$H\eta$	$\Theta\theta$	$I\iota$	$K\kappa$	$\Lambda\lambda$	$M\mu$
Numeral:	1	2	3	4	5	7	8	9	10	20	30	40
Position:	13	14	15	16	17	18	19	20	21	22	23	24
Letter:	$N\nu$	$\Xi\xi$	Oo	$\Pi\pi$	$P\rho$	$\Sigma\sigma\varsigma$	$T\tau$	$Y\psi$	$\Phi\phi$	$X\chi$	$\Psi\psi$	$\Omega\omega$
Numeral:	50	60	70	80	100	200	300	400	500	600	700	800

FIGURE 52. THE ALPHA-NUMERIC GREEK LETTERS

Observe that the numerals 6 and 90 are missing from this table; this is because the associated letters, *digamma* and *koppa,* became obsolete. It appears that the use of Greek alphabetic numerals was common by the end of the fourth century B.C.[9]

The Gospel of John informs us that Jesus Christ is the Creator (Jn.1:3). We are, therefore, interested in the numerical expression of His Name. Here are the facts:

FIGURE 53. THE CREATOR'S NUMERICAL SIGNATURE

Observe that both New Testament and Septuagint (a translation of the Old Testament, c.300 BC) carry this rendering of Name and Title. Remarkably, each number represented is a multiple of 37, which has already been identified as a factor of 2701 – value of the Bible's first verse – and of 703 – the sum of words 6 and7; but the value of the 7th word itself is a factor of both Name and Title! Clearly, there is much of relevant numerical interest here!

'Jesus' is present in the Bible's first verse as the sum of words 3, 5 and 6: 86 + 395 + 407 = 888. We should recollect also that the central word of Genesis 1:1 is the Hebrew equivalent of the title 'Alpha and Omega' - claimed by Jesus in his revelation to John (Revelation 1:8, 22:13).

Again, the Hebrew reading of 'Jesus Christ' is יהושע המשיח ('Joshua ha Mashiach'). This has 754 as its numerical reading. It follows that the ratio Greek:Hebrew = 2368/754 = 3.14058 = 0.9997π (i.e. a better approximation for the universal constant 'pi' than the commonly-used fraction 22/7). Putting this another way: 2368 closely approximates to the circumference of a circle of diameter 754.

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[8] The *Universal History of Numbers* (Georges Ifrah), p. 220

[9] Ibid. p.239

3.2 - The Creation: A Second Biblical View

Despite the great time interval between their respective inceptions, it is clear that there exists a strong textual bonding between Genesis 1:1 and John 1:1. Here are the respective translations as they are found in the King James' Bible:

'In the beginning God created the heaven and the earth.' (Gen.1:1)
'In the beginning was the Word, and the Word was with God, and the Word was God.' (John 1:1)

For the Christian, these writings are highly significant and informative once the identity of 'the Word' has been ascertained. The matter is resolved in John 1:14 where we read, 'And the Word was made flesh and dwelt among us...'. Undoubtedly, therefore, **Jesus Christ** is 'the Word'; and because 'All things were made by him...' (John 1:3), He is also **God, the Creator !** Here is the first verse of John's gospel:

Figure 54. John 1:1 — The Opening Verse Of John's Gospel

As may be seen, the Greek form of John 1:1 is expressed in 17 words and 52 letters (not forgetting the 'iota subscript' which features in word 2); these letters may be fairly read as numerals according to the foregoing scheme of alphabetic numeration introduced c.600 BC.

The Numerical Reading of John 1:1

The foregoing words are evaluated in the same manner as before, and from the following table of the data we derive what we shall call [J] – the John 1:1 set. Thus,

FIGURE 55. THE ALTERNATIVE READING OF THESE WORDS

As on previous occasions, the letter values are provided above and the word-values (sum of the letters involved) below. Here is the outcome of this analysis:

[J] = [55,719,58,70,373,31,70,373,58,450,420,134,31,284,58,70,373] = [3627]

The total for the verse is 3627. Remarkably, when this number is added to 2701 (representing the G-Triangle) the result is 6328 – the 112th triangular number! This has been appropriately designated the **Greater Creation Triangle** (GCT), and appears below. An examination of this structure reveals John 1:1 as a trapezium (hereafter, the *J-Trapezium*) that provides a perfect base and plinth upon which the Creation Triangle rests. Undoubtedly, there is much meaningful symbolism here.
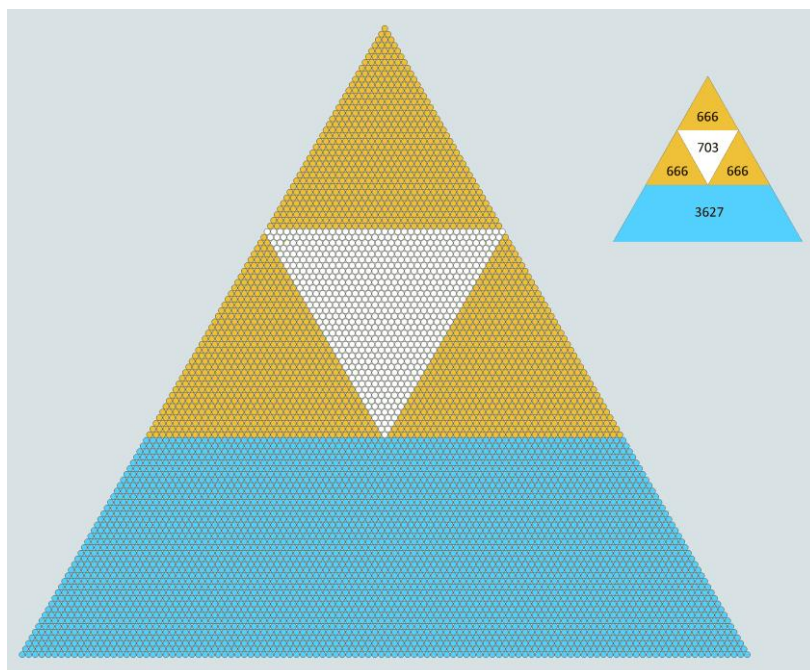
FIGURE 56. THE GREATER CREATION TRIANGLE (GCT)

59

We introduce a further wonder at this point: the Greater Creation Triangle accommodates the tessellated form of Genesis 1:1 precisely, as the following diagram proves. The G-Triangle of 2701 is here replaced by the G-Trefoil, and the J-Trapezium of 3627 (representing John 1:1) by the remaining white counters. Clearly, these associations are highly significant.
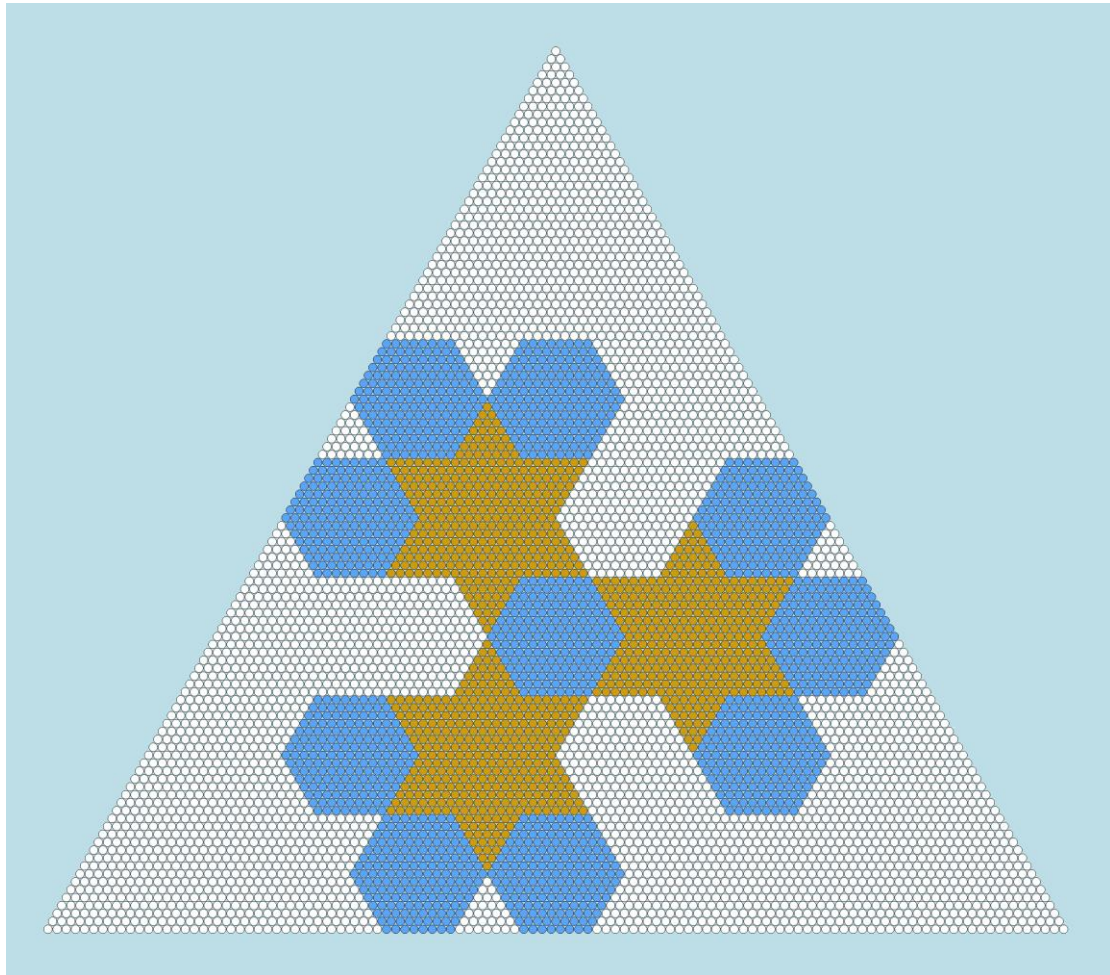
FIGURE 57. THE GCT WITH G-TREFOIL INSET

It is appropriate that we conclude this section by drawing attention to a further interesting fact which links the numerical expression of the creation verses, thus:

Whereas the G-Triangle = 2701 = 37.73, the J-Trapezium = 3627 = 39.93. In other words each of the factorisations involve a digit- reflection.

3.3 - The Logos Star

Observe that 'Word' appears three times in John 1:1. Its numerical value, 373 - and this leads to its graphical expression as LOGOS STAR – 7 of 37-as-hexagram (= 259) combining with 6 of 19-as-hexagon (= 114) to generate this total. (19 and 37 are the factors of 703). As may be seen, there are two solutions.
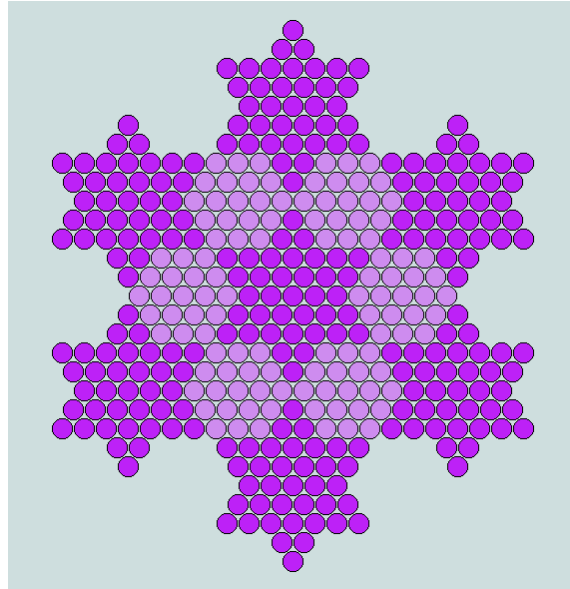
Figure 58. Logos Star 1
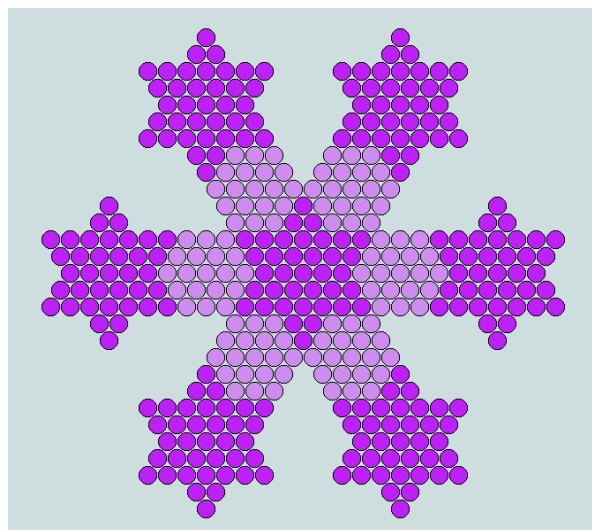
Figure 59. Logos Star 2

Two observations may be made here:

- when 2701 (CV of the Ultimate Assertion) is added to the number represented by its digits reversed, i.e. 1072, the result is 3773 – in which 37 and 73 (the factors of 2701) are uniquely revealed; remarkably, a telescoping of this result reveals 373, *the Word*
- the 6/7 'days of creation' motif is built into the Logos Star

But there is more. It may be remembered that one of the pictures of the Ultimate Assertion (Figure 9, p.23) took the form of a 'star of-stars' which led to the depiction of significant divisions of the verse. Because this representation also accommodates 'the Word' as a central feature it is reproduced here in simplified form:
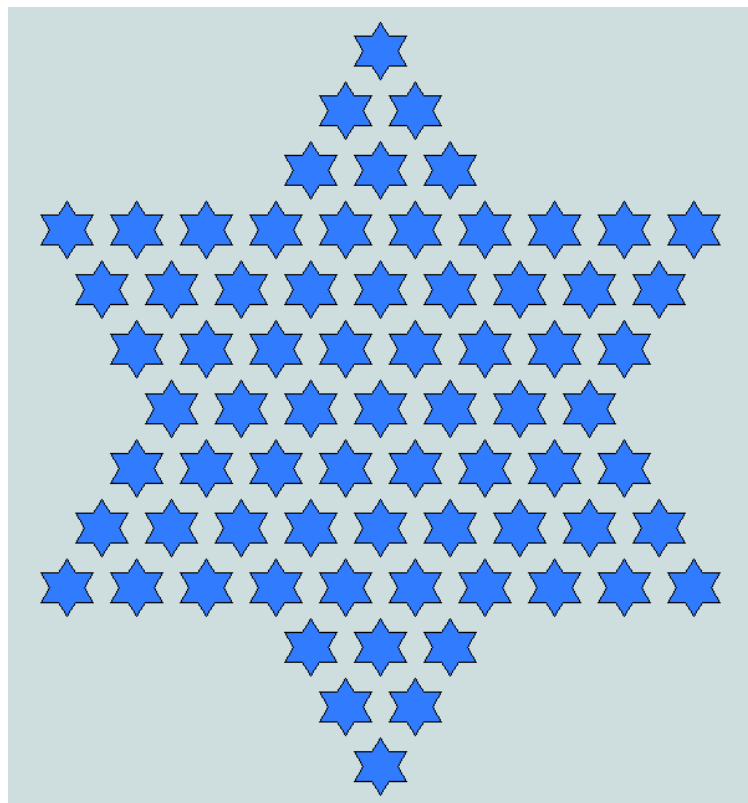
FIGURE 60. A SIMPLIFIED PICTURE OF K(73,37)

[Observe that the 73 components of the large star are now represented as solid stars – each representing 37.]

The 73 stars, each of value 37, generate the total 2701. Within this structure, the name 'Jesus' is represented symmetrically in white as the outline hexagram of 24 units (i.e. a total of 24 x 37 = 888 counters), thus:
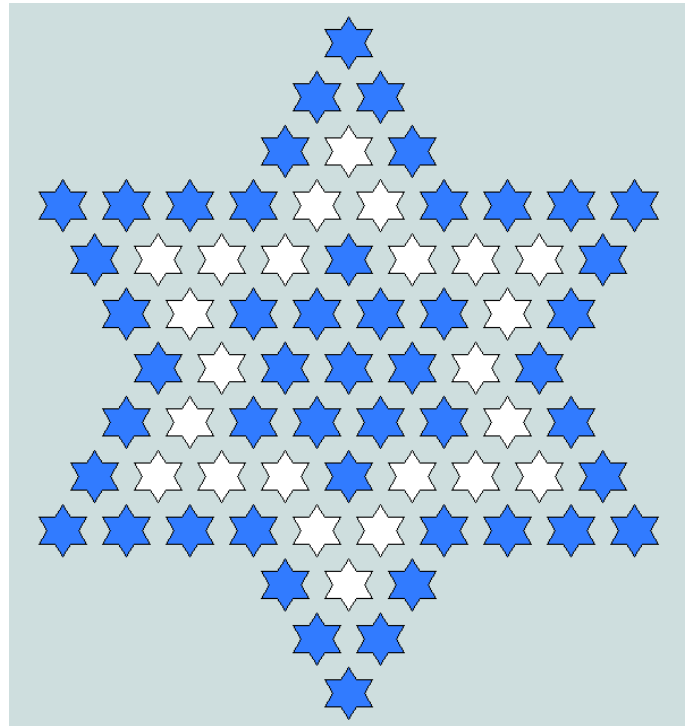
FIGURE 61. THE OUTLINE AND CENTRAL INSET OF THE SAME

As we have already seen, within this boundary we find 13 units of 37 which total 481, the sum of the CVs of Hebrew words 3 and 5 (i.e. 86 + 395) translated 'God' and 'heaven'.

As the next diagram reveals, the second representation of 'the Word' may now be superimposed at the centre of this divine confluence – with impressive effect! Jesus is revealed as Creator and Word.

63
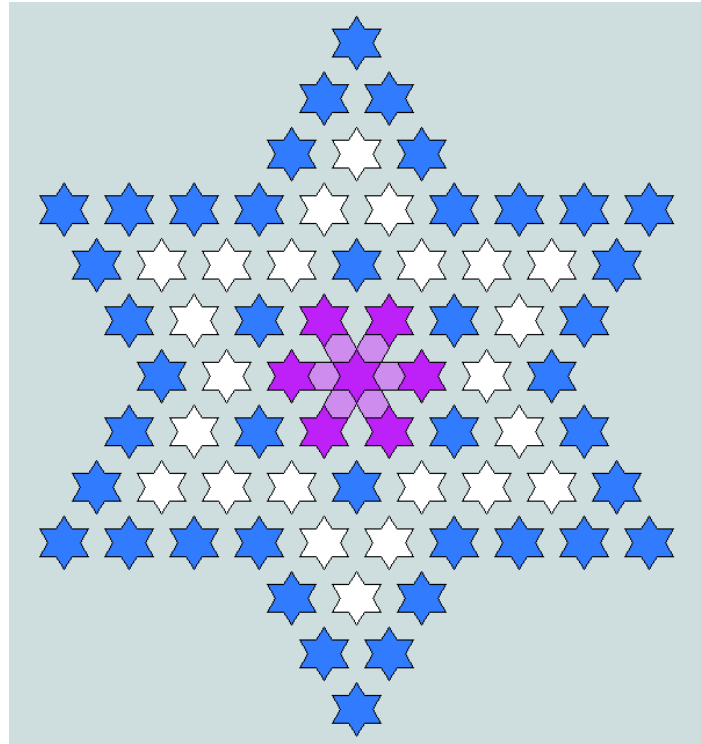
Figure 62. The Same Depicting A Centred Logos Star

This displays the Creator at the centre of His Creation, and is powerfully symbolic indeed! It is quite remarkable that the contributions from these Hebrew and Greek sources should integrate so well. It is undoubtedly yet another facet of the same standing miracle and reveals the work of the *One Omnipotent Supervisor.*

64

3.4 - The Independent Witnesses

Numbers like 666 and 888 which appear as a string of repeated digits are known as *repdigits.* Clearly, when the number of digits in the repdigit is three there is a close visual correspondence with the *cube* of that digit – as, for example, 6.6.6 (= 6^3 = 216) and 8.8.8 (= 8^3 = 512) – the stops representing the *multiplication operator*. Have the Judeo-Christian Scriptures anything to say about cubes? Indeed they have!

It is widely understood that the innermost compartment of the tabernacle – the 'holy of holies', so called – assumed the form of a *perfect cube*, and the association of this geometric structure with the biblical concept of *holiness* is confirmed by a reading of 1Kings 6:20 and Revelation 21:16. So what has the cube *per se* – to offer in respect of scriptural self-authentication?

As we have seen (Figure 13, p.26), in numero-geometric terms a cube is typically represented by a stack of unit cubes (the *counters*). Such stacks may be arranged as an infinite sequence, thus:

$$1, 8, 27, 64,… \text{ (i.e. 1.1.1, 2.2.2, 3.3.3, 4.4.4, and so on)}$$

Clearly, this is a sparse subset of the natural numbers. But it sometimes happens that some of these cubes – though relatively few – are also *square* numbers, for example,

$$1, 64, 729, 4096,… \text{ (i.e. 1.1, 8.8, 27.27, 64.64, and so on)}$$

In other words, the odds for a chance encounter with any of these, *in any context*, is extremely low. To come across two of these rare objects in the normal course of events is, therefore, exceptional. Yet a particular numero-geometric form of the Bible's first verse leads directly to a situation of this kind – closely involving both squares and cubes.

We begin our inquiry with the partitioned G-TRAPEZIUM – Z(54,91) of Figure 17, p.29, which for ease of argument we shall depict in its skeletal form:

Legend: B = 703
C = 999

(both multiples of 37)
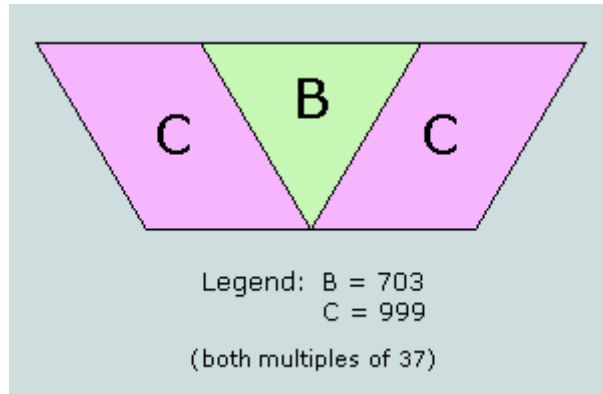
FIGURE 63. THE BASIC STRUCTURE OF 2701-AS-TRAPEZIUM

Here, the central triangle of 703 counters represents the sum of words 6 and 7 (i.e. 407 + 296), and each of the flanking parallelograms of 999 counters, 913 + 86 (i.e. sum of words 1 and 3) and 203 + 401 + 395 (i.e. sum of the words 2, 4 and 5).

We now transform this figure by first detaching the parallelograms, mirroring them and rotating each by 60 degrees, as appropriate:
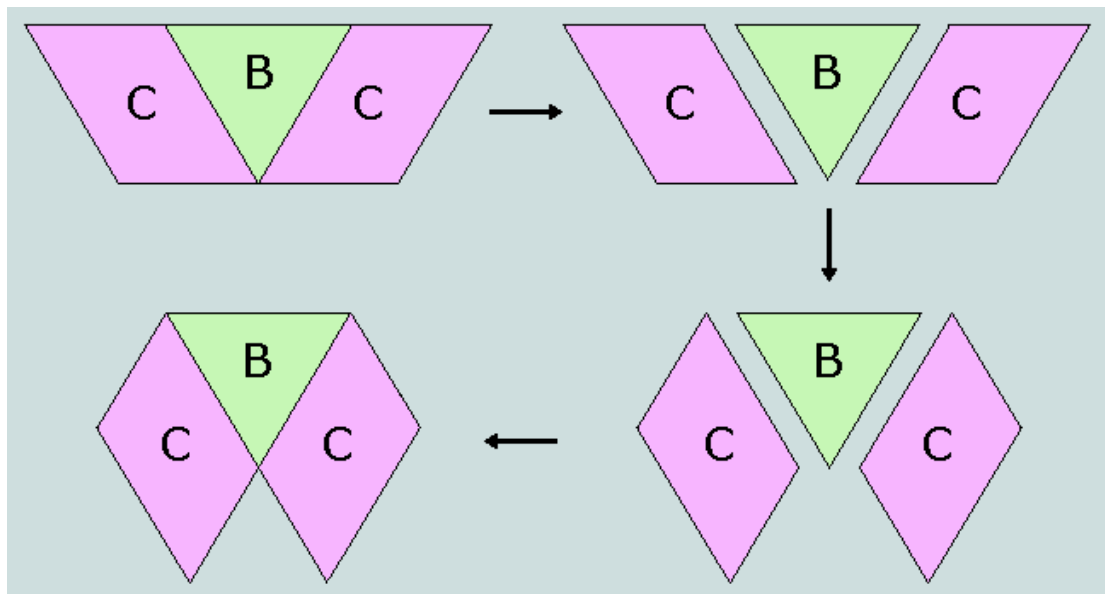
FIGURE 64. THE TRANSFORMATION TRAPEZIUM > HEPTAGON

The result is a symmetrical seven-sided representation of 2701 (the G-HEPTAGON) which, like its triangle and trapezium forms has an outline of 216 (= 6.6.6 = 6^3) counters.

Remarkably, this figure represents the central element of a rhombus[10] R of side 64 – hence comprising 64^2 (= 4096) counters. The additional components, A and D, are 666-as-triangle and 729-as-rhombus, respectively (Figure 65).

66

Now, observe the following:

- 4096 (= 16.16.16 = 64.64) and 729 (= 9.9.9 = 27.27) are *bi-figurates* – each is both cube and a square (Figure 66);
- their difference = 4096 – 729 = 3367 = 37.91 = the product of tri-figurate numbers;
- A (= 666) and the outline of 2701-as-heptagon (= 6.6.6) form a cube/repdigit pair;
- C (= 999) and D (= 9.9.9) form a second cube/repdigit pair;
- remarkably, in denary representation, 666 and 999 are 180º rotations of one another;
- C + D = 999 + 9.9.9 = 1728 = 12.12.12 = 12^3 – a cube of side 12 units;
- A + B + C = 666 + 703 + 999 = 2368 = 64.37 = 888 + 1480 = THE CREATOR, Jesus Christ = R – (C + D) = 16^3 – 12^3, i.e. a *hollow cube*!
- B + 2.C = 999 + 703 + 999 = 2701 – representing the work of THE CREATOR;
- B + 2.C + D = 703 + 999 + 999 + 729 = 3430 = 7^3 x 10 – and we further observe that the cube of 7 links with the repdigit 777 (= 86 + 395 + 296) i.e. sum of the three nouns God (word 3), heaven (word 5), and earth (word 7).
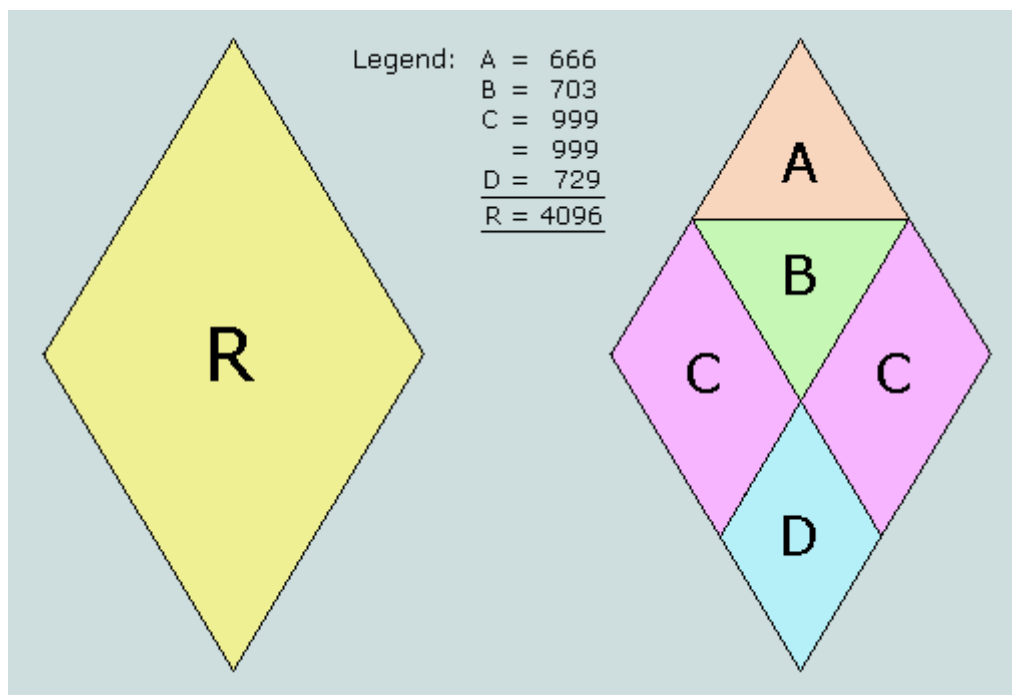
FIGURE 65. COMPLETING THE PICTURE

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(10) Observe that rhombus and square are numerically identical.

$$K = 4096 - 729 = 3367 = 37.91$$

$$= (4^3 - 3^3) \cdot (4^3 + 3^3)$$
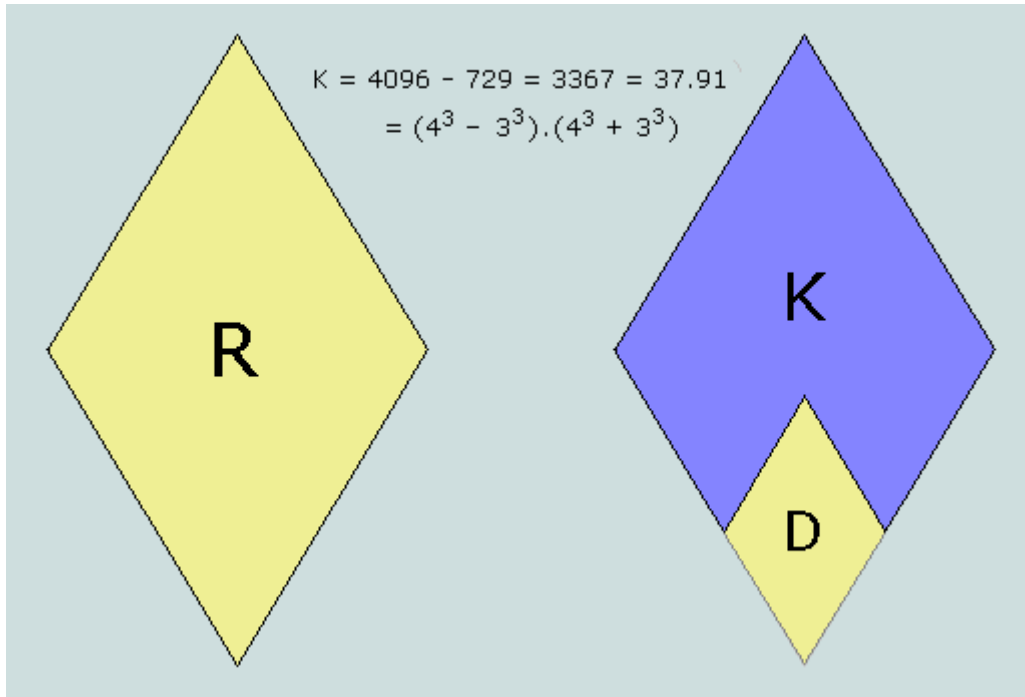
FIGURE 66. THE TWO BI - FIGURATES AND THEIR DIFFERENCE

However, there is more to be said. The outline of 666-as-triangle is 105 – a triangular number (F); its double 210, also triangular (a rare feature). These same numbers appear as differences in [G] – the Genesis 1:1 number set; thus,

401 (the 4th) – 105 = 296 (the 7th)

296 – 210 = 86 (the 3rd)

913 (the 1st) – 210 = 703 (the sum of 6th and 7th)

Figure 67 reveals the geometrical implications of the last of these, and a second even division of the verse value.

Observe that the areas G (= 894) are formed from words 2 to7 in the following way:

203(word2) + 395(word 5) +296(word 7) = 86(word 2) + 401(word 4) + 407(word 6) = 894

Finally, observe that rhombus R may be equally divided into eight strips of 512 (Figure 68). This enables us to see the Lord's Name and Title appear against the background of his creation, as represented by Genesis 1:1.
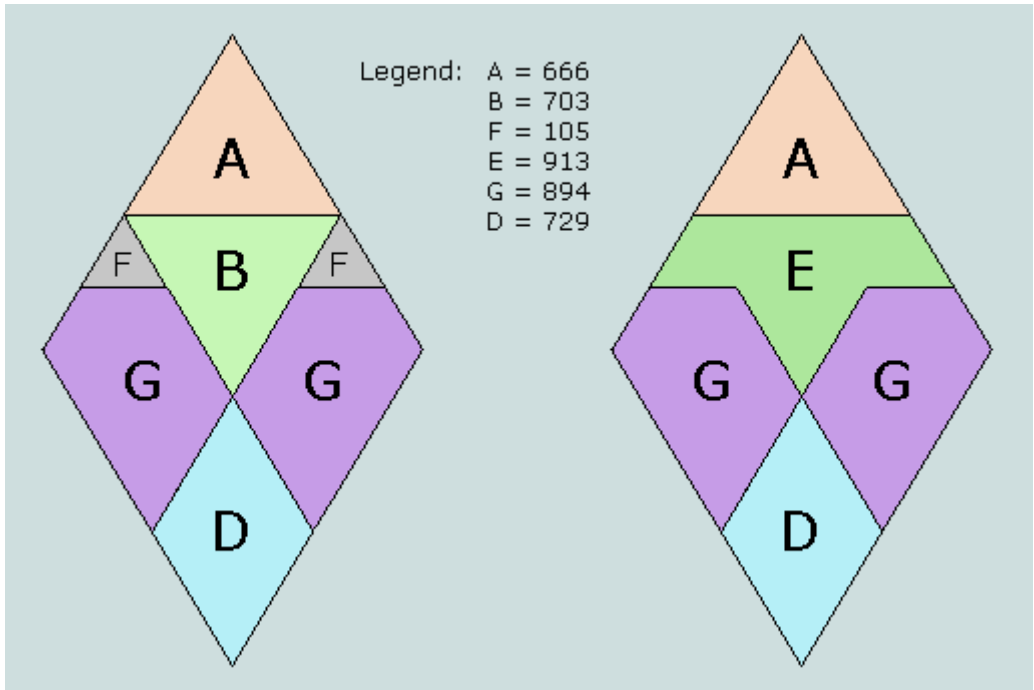
FIGURE 67. THE DERIVATION OF THE BIBLE'S FIRST WORD
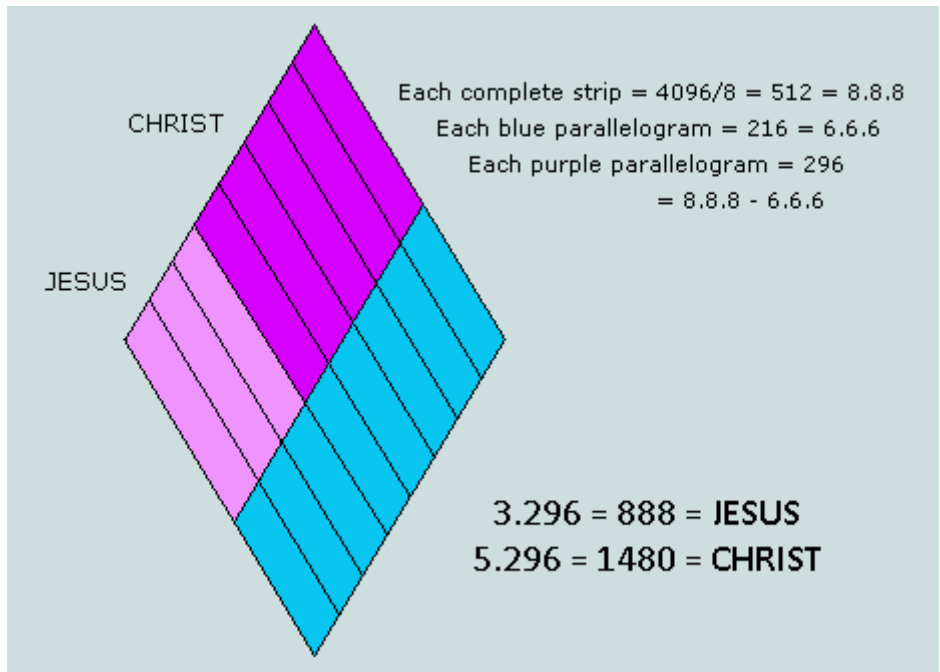
FIGURE 68. THE CREATOR'S NAME AND TITLE APPEAR

Significantly, these remarkable developments are, in part, radix-dependent – appearing only in our familiar 'base 10 ', or *denary*, system of numeration.

An alternative approach to the same rich vein of evidence for biblical truth is offered by an ancient human artefact – the humble chessboard. Details are provided in the section that follows.

3.5 - The Squaring Of Cubes

As has been demonstrated in earlier pages the numerical phenomena associated with the opening words of the Hebrew Scriptures and with the Greek form of the Creator's Name - have many interesting ramifications, which lend themselves to graphical expression. Here, we consider again their impressive pedigree, and their relationship with an ancient artefact, the chequerboard (well-known to those interested in the games of draughts and chess) - a simple structure consisting of an 8x8 arrangement of 64 unit squares. Of immediate interest is the fact that a 4x4x4 cube may be built from 64 unit cubes. Sixty-four is, therefore, an example of a *bi-figurate* number; it is the smallest that may exist as both square and cube.

64-as-cube

64-as-square

Figure 69. A Chessboard Relating Square And Cube

Deriving from a completely different kind of artefact – but also ancient – is the information provided by the words of Holy Writ which may be summarised thus:

- the cube *per se* is a symbol of holiness (1Kings 6:20, Rev.21:16);
- the opening 7 words of the Bible (as rendered in the original Hebrew, and representing the first verse) may be fairly read as the numbers {913, 203, 86, 401, 395, 407, 296} - he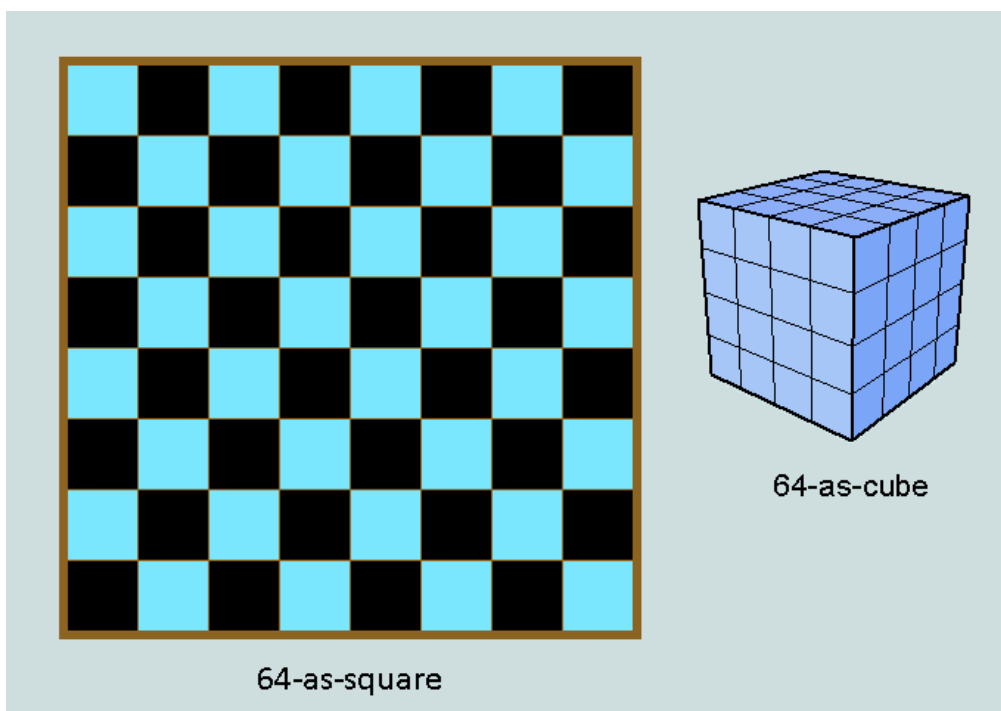re referred to as[G], total 2701 – the 73rd triangular number; the first 8, [913, 203, 86, 401, 395, 401, 296, 302] – here referred to as [G[+]], total 3003 – the 77th triangular number; the 6th and 7th total 703, 37th triangular number;
- 37 and 73 are factors of 2701; 19 and 37 are factors of 703; 91 is a factor of 3003;
- the entire numerical structure of Genesis 1:1 is founded on 37;
- from the Greek of both Septuagint and New Testament the letters forming the name 'Jesus' total 888, and those forming the title 'Christ', 1480; 37 is a factor of 888, of 1480, and of their sum, 2368;
- 666 is unique as a number *per se*; it is also the 1st triangular multiple of 37 and directs us to the Bible's opening verse where we find the 2nd and 3rd of these multiples.

The following figure represents a chessboard of chessboards, and this forms a suitable basis for the subsequent analysis:
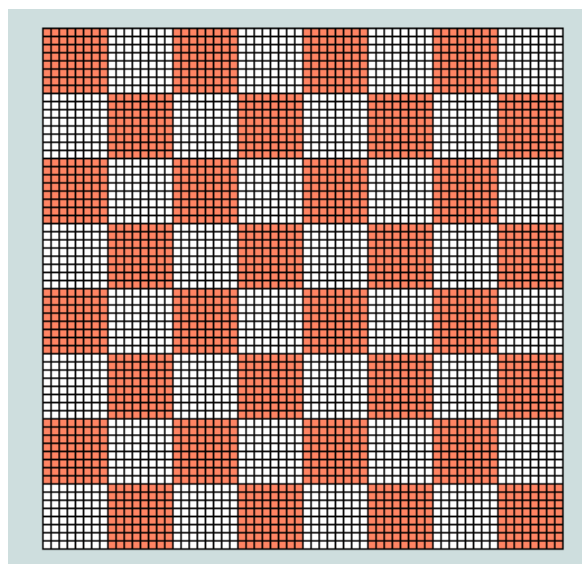
FIGURE 70. A CHESSBOARD OF CHESSBOARDS

It has been observed that the product of the two trifigurate numbers, 37 and 91 (both deeply involved in these proceedings) is 3367 – the difference between the squares of 64 and 27 (i.e. 4096 – 729 = 3367). This result is represented by the number of unit squares in the area coloured blue.

71
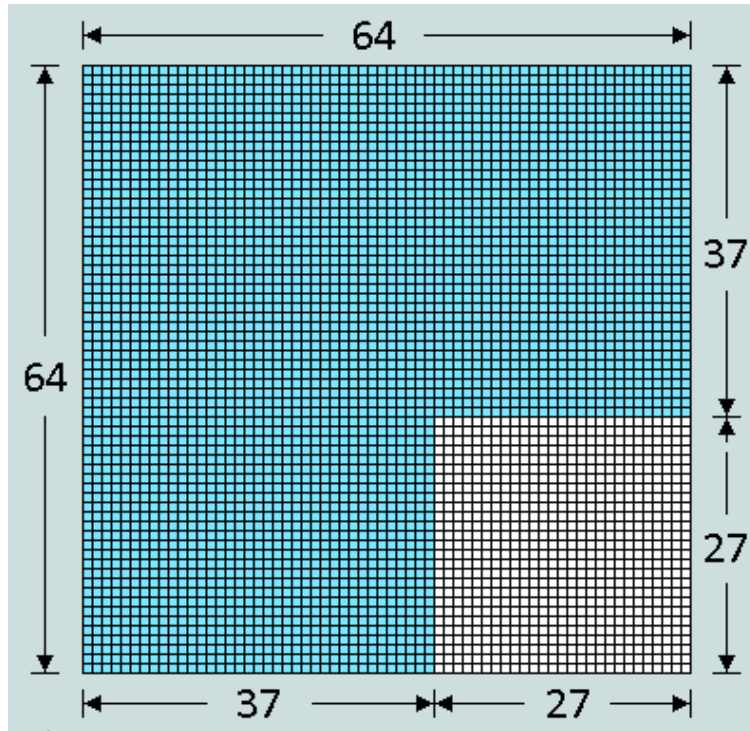
FIGURE 71. A BACKGROUND OF 4096 UNIT SQUARES

In a simple development of this figure the inner edges of the smaller square are extended, so as to divide the 'difference of squares' into three rectangular panels. This procedure is depicted in the figure following where we find:

- **a** = 1369 = 37^2; **b** = 999; **c**= 729 = 27^2 = 9^3 = 9.9.9
- (**a** + **2b** + **c**) = 4096 = 64^2 = 16^3; (**b** + **c**) = 1728 = 12^3
- (**a** + **b**) = 2368 = **'Jesus Christ' = Creator's Name**
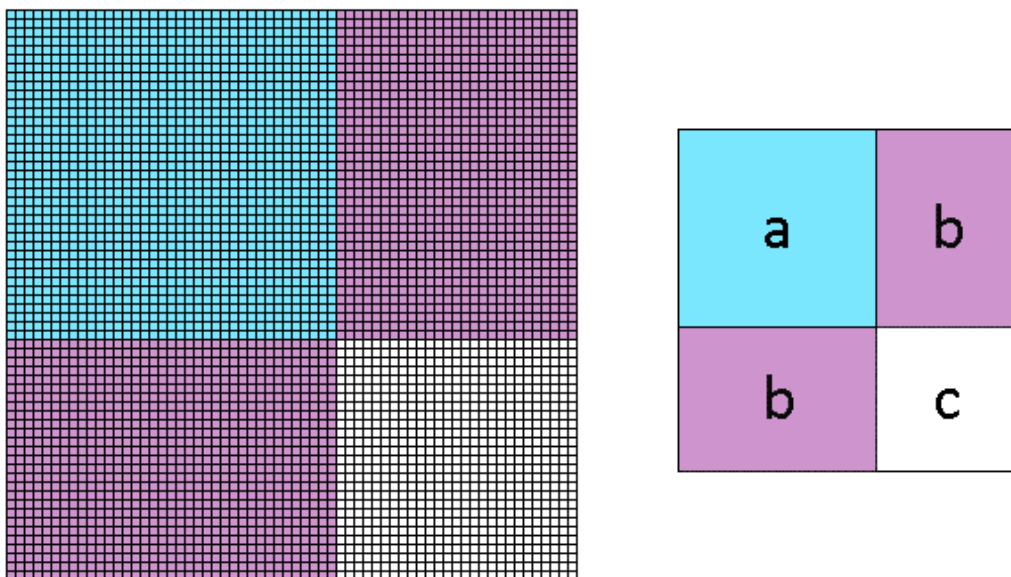
FIGURE 72. THE 37/27 DIVISION OF THE SIDES

72

Clearly, the preponderance of cubes, the 999/9.9.9 phenomenon, and the uncontrived presence of 'The Divine Signature', "Jesus Christ", combine to produce a highly-remarkable picture. It is appropriate that we remind ourselves that this has all emanated from our consideration of the product of two unique numbers!

In our next figure, the square area **a** is depicted as the sum of two triangles, a_1 and a_2. Here, a_2 = 703, and a_1 = 666 - their sum, 1369, the square of 37.

A significant consequence of this operation is:

$(b + a_2 + b)$ = 2701 = Genesis 1:1 (representing The Creation!)

contained by the two rectangles (**a + b**) - each a representation of The Creator!

Further, in this coloured heptagon we see groups of values of the 7 words of Genesis 1:1, thus:

- **b** = 999 = 913 + 86 (words 1 and 3 - "In the beginning...God...")
- a_2 = 703 = 407 + 296 (words 6 and 7 - "...and the earth.")
- **b** = 999 = 203 + 401 + 395 (words 2, 4 and 5 - "...created...the heaven...")

FIGURE 73. THE APPEARANCE OF 2701-AS-HEPTAGON

The outline of this heptagon comprises 216 (= 6^3 = 6.6.6) unit squares. So the complete figure contains a second instance of the phenomenon alluded to earlier, viz. 666/6.6.6! And this string, physically rotated through 180 degrees, yields 9.9.9/999! Clearly, such coincidences involving the symbols man has chosen to

73

represent numbers - quite independently of current considerations - carry far-reaching implications.
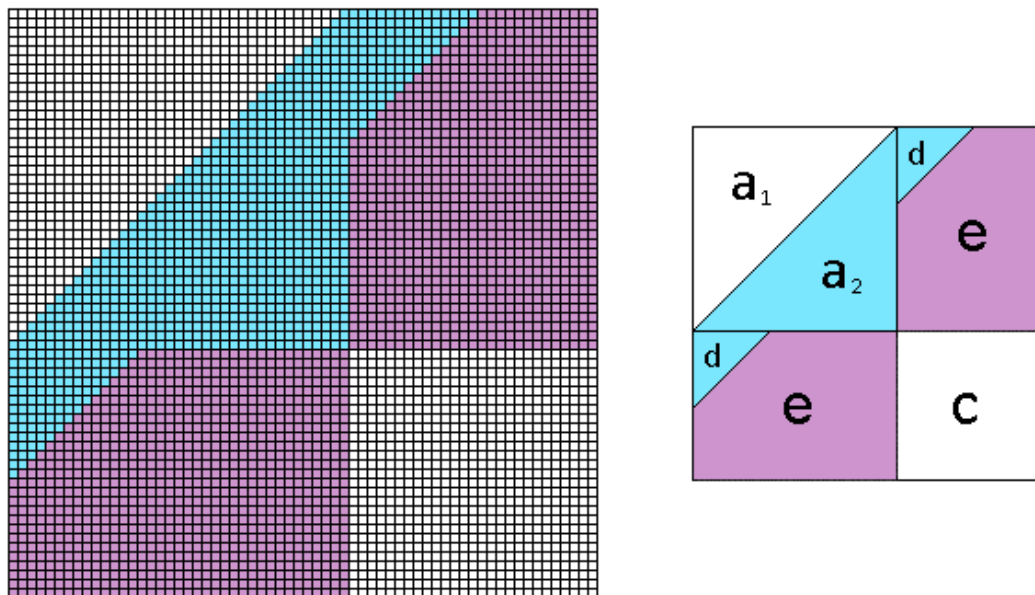
FIGURE 74. THE BIBLE'S FIRST WORD REPRESENTED

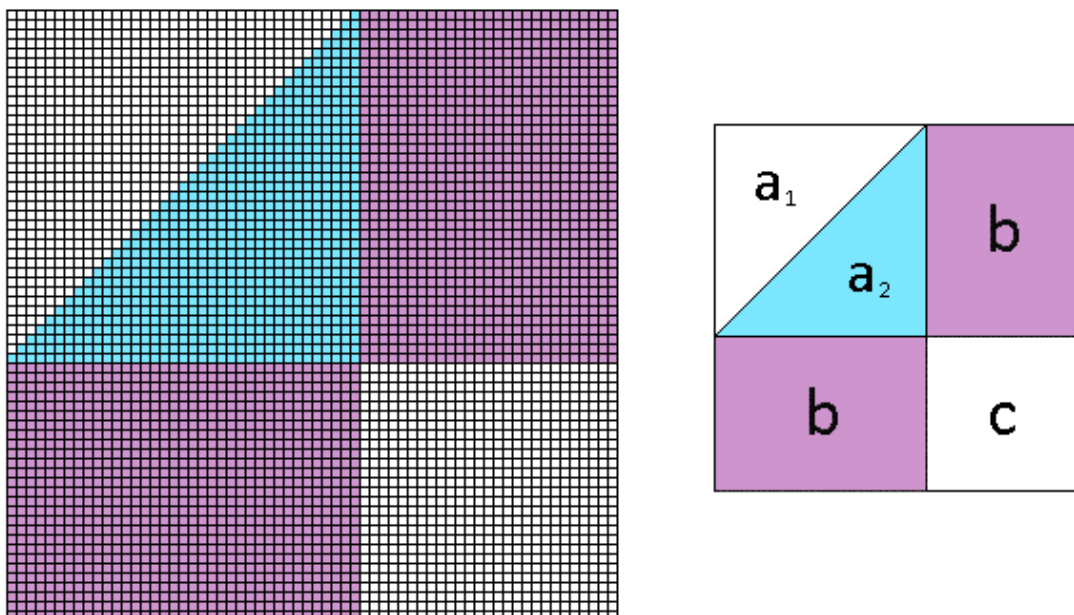We have seen that certain sums formed from [G] i.e. [913, 203, 86, 401, 395, 407, 296] may be expressed as symmetrical elements of numerical geometry within the confines of a chessboard of chessboards. But further developments, along these lines, are possible arising from the fact that the sum of CVs 2 to 7, viz. 1788, divides evenly without infringing word boundaries). Thus,

$$203 + 395 + 296 = 86 + 401 + 407 = 894$$

[Since, 894 = 999 - 105, and 105 happens to be a triangular number (the 14th), we may represent these new facts by removing a triangular segment (**d**) from one corner of each of the rectangles marked **b** in Figure 73. A typical outcome is shown. Clearly, the areas marked **e** represent 894.

The union of these triangles with a_2 generates a symmetrical representation of **913** – CV of the Bible's first Hebrew word - thus, 105 + 703 + 105 = 913.

It is surely remarkable that the Bible's first verse in the original Hebrew – together with two different combinations of its words - may be expressed as a geometric structure based upon the simple chessboard. And, of course in this representation, we should not miss the fact that the Creator's Name – Jesus Christ – takes the form of a rectangle within the same structure! - the sum of areas **a** and **b** (occurring twice) being 2368 – the evaluation of Name and Title from New Testament Greek.

74

Finally, observe the repeated incidence of cubes here – the cube being a biblical symbol of holiness, and thus an appropriate 3-D figure to be found associated with 'the Sinless One'.

So we here encounter yet another picture of the UA; one that effectively interfaces Creator and Creation (as represented by the divine prologue).

4. Subsequent Creations

Contents

4.1 - A Re-Creation

Proceeding from Genesis 1:1, the next Old Testament event which deserves our attention is the *re-creation*, which followed the destruction of the then current world order by the great flood of Noah's day. Here is the significant verse (Genesis 8:14):
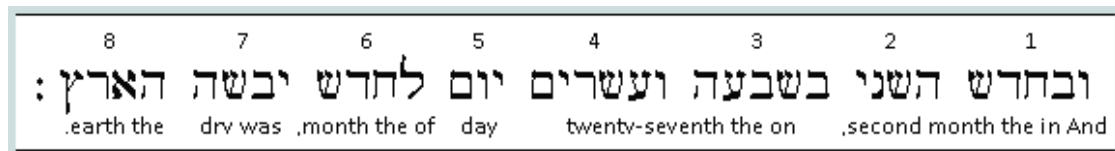
FIGURE 75. INTRODUCING A NEW BEGINNING

The circumstances attending Genesis 8:14 are interesting: because of man's gross wickedness divine judgment has now been exercised; apart from Noah's family and the animals inhabiting the ark, all terrestial life has been extinguished by the *mabbul*. We are about to read of a new beginning; the cleansed Earth is to be populated again at God's command: "Then God said to Noah, 'Come out of the ark, you and your wife and your sons and their wives. Bring out every living creature that is with you...so they can multiply on the earth and be fruitful and increase in number upon it'. So Noah came out..." (Genesis 8:15-19). The previous verse, ("And in the second month, on the seven and twentieth day of the month, was the earth dried.") therefore, stands at a critical point in Earth history: clearly, it is in the nature of an *epilogue* to the Antediluvian/Diluvian Age - to which Genesis 1:1 is the *prologue*. But it also functions as a *prologue* to the Postdiluvian experience of which we are part.

It is, therefore, a matter of some significance that the sum of the 8 Hebrew words of Genesis 8:14 is the large triangular number, 2701 – and thus identical to the sum of the 7 of Genesis 1:1 (as demonstrated in earlier pages). Here are the details:

FIGURE 76. THE EVALUATION OF THE FLOOD SET [F]

The reading is from right to left – the numbers above the text representing the letters read as numerals in accordance with the Hebrew scheme of alphabetic numeration instituted c.200 BC (Figure 3, p.15) and below, the characteristic value of

each word as determined by the sum of its letters. For convenience, we shall designate this sequence of 8 word CVs the 'Flood' set, or [F].

Clearly, [F] = {320, 365, 379, 626, 56, 342, 317, 296} = [2701] = 37 x 73 = 73rd triangular number and 'star-of-stars' (and thus having features in common with the Ultimate Assertion – Genesis 1:1). But there are further associations with the original creation, as outlined below.

- **The triangle divisions**

The triangles divide on the sums of the last two and first two CVs, respectively. Thus for Genesis 1:1, 407 + 296 = 703 = 37th triangle (coloured blue); and for Genesis 8:14, 320 + 365 = 685 = brown trapezium. Their complements are, of course, the trapezium 1998 and the 63rd triangle , 2016.
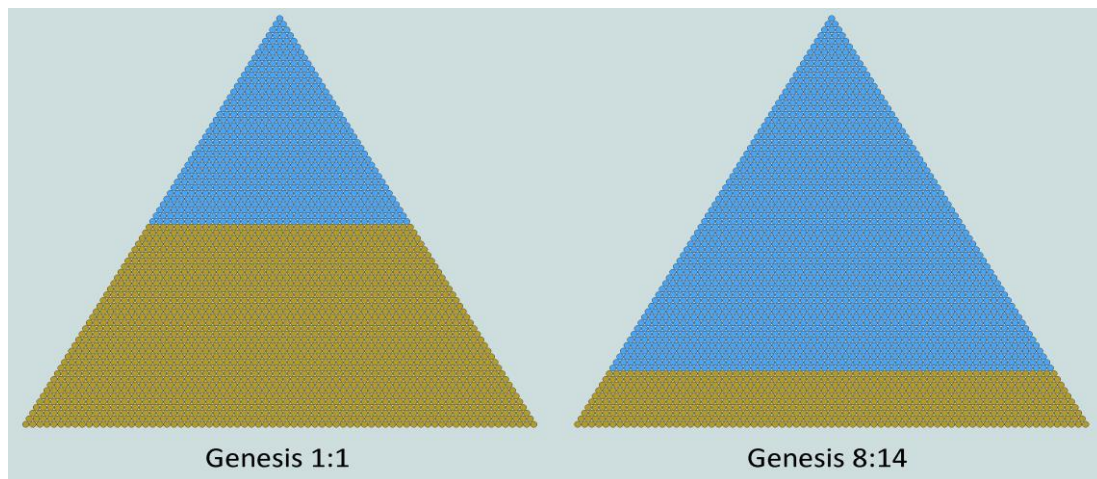
FIGURE 77. THE TRIANGLES REPRESENTED IN THE TWO VERSES

- **The tessellated trefoil**

Figure 34, p.45 reveals that 2701 may exist as a trefoil arrangement of symmetrical figures. This came about because the odd CVs were found to total 1690 (or 10x169 = 10x8th hexagon) and the even CVs, 1011 (or 3x337 = 3x8th hexagram or star). A similar situation exists in Genesis 8:14 where the sum of CVs 1 – 4 = 320 + 365 + 379 + 626 = 1690, and of CVs 5 – 8 = 56 + 342 + 317 + 296 = 1011. So both verses may appear as depicted on page 45.

- **A return to the chessboard**

Figure 72, p.76 reveals that, inspired by an ancient artefact, the Creator's Name ('Jesus Christ') may be linked with Bible's first verse (Genesis 1:1). This involved constructing a 64x64 square (termed 'chessboard of chessboards'), within which combinations of the opening words would appear as rectangular or triangular forms. The same procedure may be applied to Genesis 8:14 - with interesting effect. As

before, we begin with the basic structure depicted at Figure 72 and observe the following:

$$\mathbf{a} = 37^2 = 1369 = (4^3 - 3^3)^2; \; \mathbf{b} = 27.37 = 999 = 3^3(4^3 - 3^3)$$

$$\mathbf{c} = 27^2 = 729 = 9^3 = 9.9.9; \; \mathbf{a} + \mathbf{b} = 64.37 = 8.296 = 888 + 1480 = 2368$$

$$\mathbf{b} + \mathbf{c} = 64.27 = 1728 = 12^3$$

Amidst this preponderance of squares and cubes the Creator's Name appears: Jesus Christ (CV = 2368, see Figure 53, p.60)

It is against this highly significant backdrop that both [G] and [F] are revealed. In the next diagram the sum of the first two CVs of the latter is presented as a symmetrical diamond **d** of 685 counters, which fits precisely into the top left-hand square. Taking the upper two of the four triangles representing the remainder of the square, we find 2**e** = 342 = CV of word 6. The lower two triangles together with one complete row of 37 total 2**e** + 37 = 342 + 37 = 379 = CV of word 3. Below the upper square we have **f** = 296 (occupying 8 rows of 37) = CV of word 8, and finally, the sum of CVs 4, 5 and 7 = 999, here represented by the rectangle **b**.
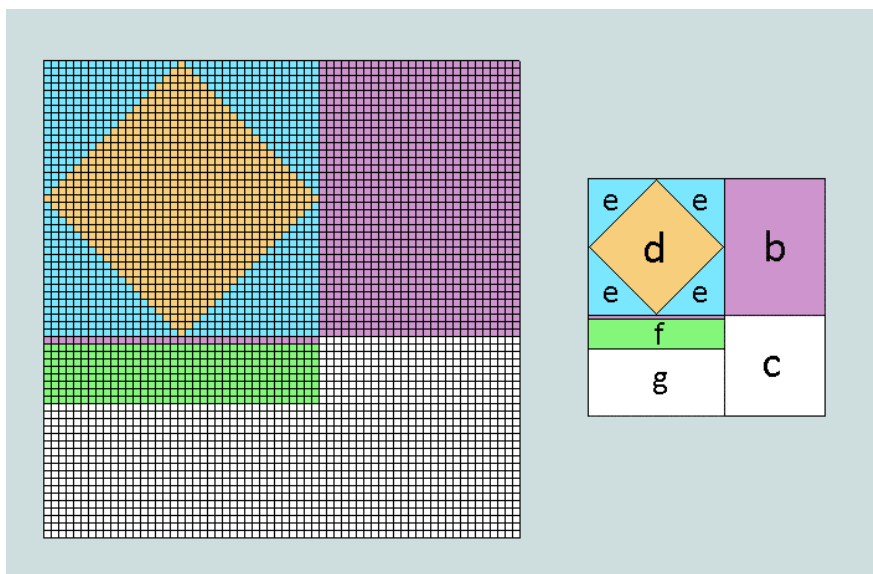
FIGURE 78. THE COMPONENTS OF [F] WHICH TOTAL 2701

Thus, gathering these pieces together, 2701-as- Genesis 8:14 appears as an asymmetrical hexagon confined within the larger square of 16^3 units, thus:
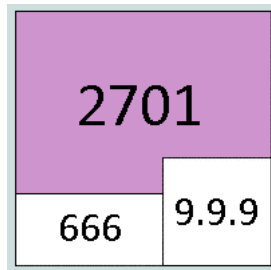
FIGURE 79. A NEW PICTURE OF THE CHESSBOARD OF CHESSBOARDS

Observe that in attendance we have the unique number 666 and its visual relation, the cube of 9, or 729.

Interestingly, the Genesis 1:1 data can be made to fit precisely the same scheme, thus:
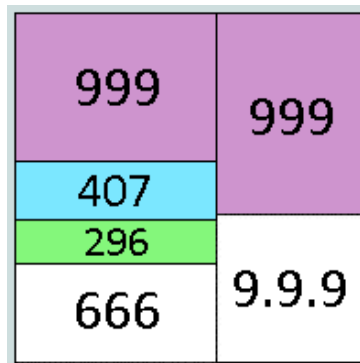
FIGURE 80. A [G]-REPRESENTATION OF THIS ARRANGEMENT

Here, each 999 represents the sum of the [G] CVs: 1 + 3 = 2 + 4 + 5; 407 is the 6th; and 296 is the 7th.

It is clear that these verses which function as a pair of 'bookends' to what may be called 'Phase 1' of Earth history are securely bound together numerically! In addition it has been demonstrated that both are inextricably linked with the Creator's Name. It follows that Genesis 8:14 must be regarded as an integral part of the standing miracle which previous pages have sought to define.

Despite the clear words of Genesis 6-9, it is widely believed that the mabbul was nothing more than an intense, but essentially 'local' flood. Without this understanding, evolutionists would find it impossible to justify their reading of the history of this planet. The direct, powerful , and logical language of the biblical narrative is now bolstered by a numerical affirmation. Is it therefore any longer reasonable to believe that the event was anything but *global*?

And, undoubtedly, accompanied by a drastic re-shaping of the Earth's surface!

4.2 - The New Creation

The features of design continue when we consider Revelation 21:1 where John speaks of a New Creation thus: "Then I saw a new heaven and a new earth, for the first heaven and the first earth had passed away, and there was no longer any sea."(NIV) This is a case in which variations do occur in the Greek. We are here drawn to the version used by the NIV translators, viz.

FIGURE 81. REVELATION 21:1 (NIV)

It is appropriate that there is numero-geometric cohesion between the two verses, which (in Hebrew and Greek, respectively) speak of the inception and dissolution of the 'first creation and re-creation' – of which we are part. These have already been examined and found to be numerically identical; the second remains to be analysed. We, therefore, begin by deriving the CVs of its 22 words in the usual manner.

FIGURE 82. THE EVALUATION OF THESE WORDS = [N]

The related set of CVs which we here designate [N] is, therefore,
[N] = [31, 139, 741, 201, 31, 61, 139, 70, 104, 1550, 891, 31, 8, 1288 ,11, 179, 31, 8, 442, 490, 565, 315] and its sum 7326

Now observe the following:

- Like 2701 (the CV of both Genesis 1:1 and Genesis 8:14), 7326 is a multiple of 37; thus, 7326 = 198 x 37, whereas 2701 = 73 x 37
- Summing the CVs of the two verses, we, therefore, have

$$7326 + 2701 = 10027 = (198 + 73) \times 37 = 271 \times 37$$
$$= 10^{th} \text{ numerical hexagon x 37}$$

There follows a graphical representation of this outcome:
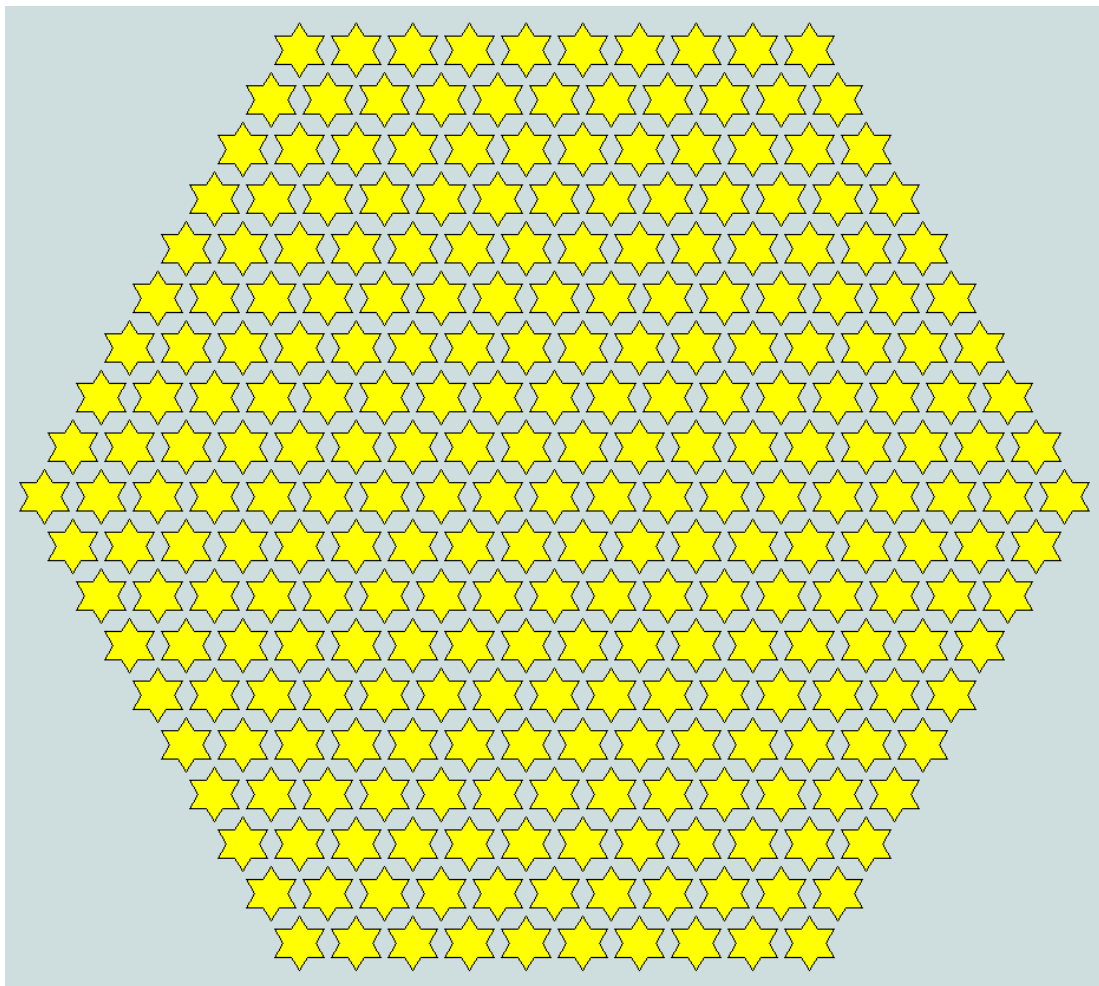
FIGURE 83. A HEXAGONAL REPRESENTATION OF THE NEW CREATION

Observe that each stellar unit of construction in these diagrams represents 37-as-hexagram. Because the 'star-of-stars' form of Genesis 1:1 is of the same texture it may be symmetrically displayed at its centre, thus:
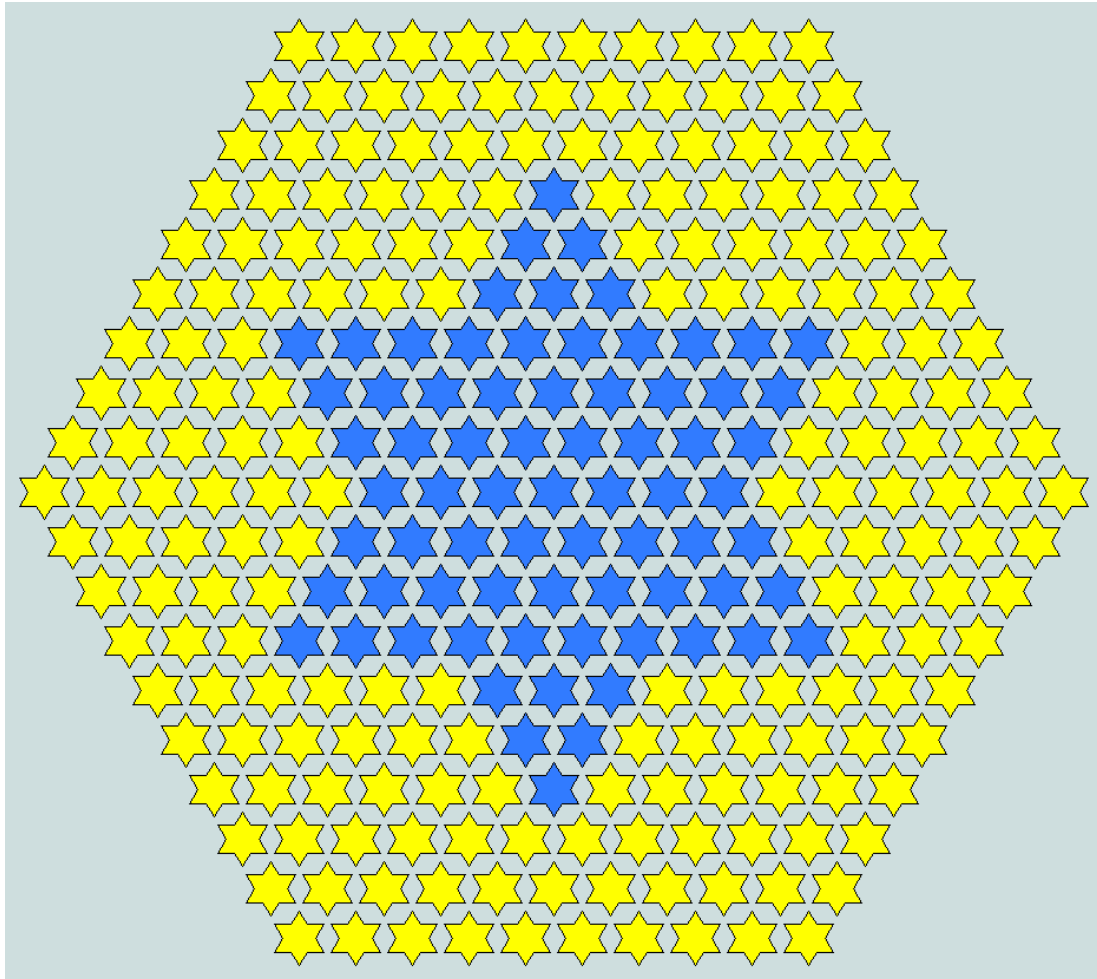
FIGURE 84. DEPICTING THE NEW CREATION CENTRED AROUND THE OLD

Here, the hexagram of 73 blue stars (recognisable as the 'star-of-stars') comprises a total of 2701 counters – sum of the CVs of the Divine Prologue. The containing hexagonal border is, therefore, formed from (271 – 73) stars, i.e. a total 198 x 37, or 7326 - the CV of Revelation 21:1.

Again, the symbolism is remarkable: we witness the 'old' swallowed up by the 'new' – the stamp of divine authority central to the 'star-of-stars' and to the whole structure!

But there is a further independent aspect to this wonder. Here, the blue hexagram of the previous picture has been replaced by a hexagon of 19, representing 'and the earth' – the sum of words 6 and 7 of Genesis 1:1 (i.e. 407 + 296 = 703).
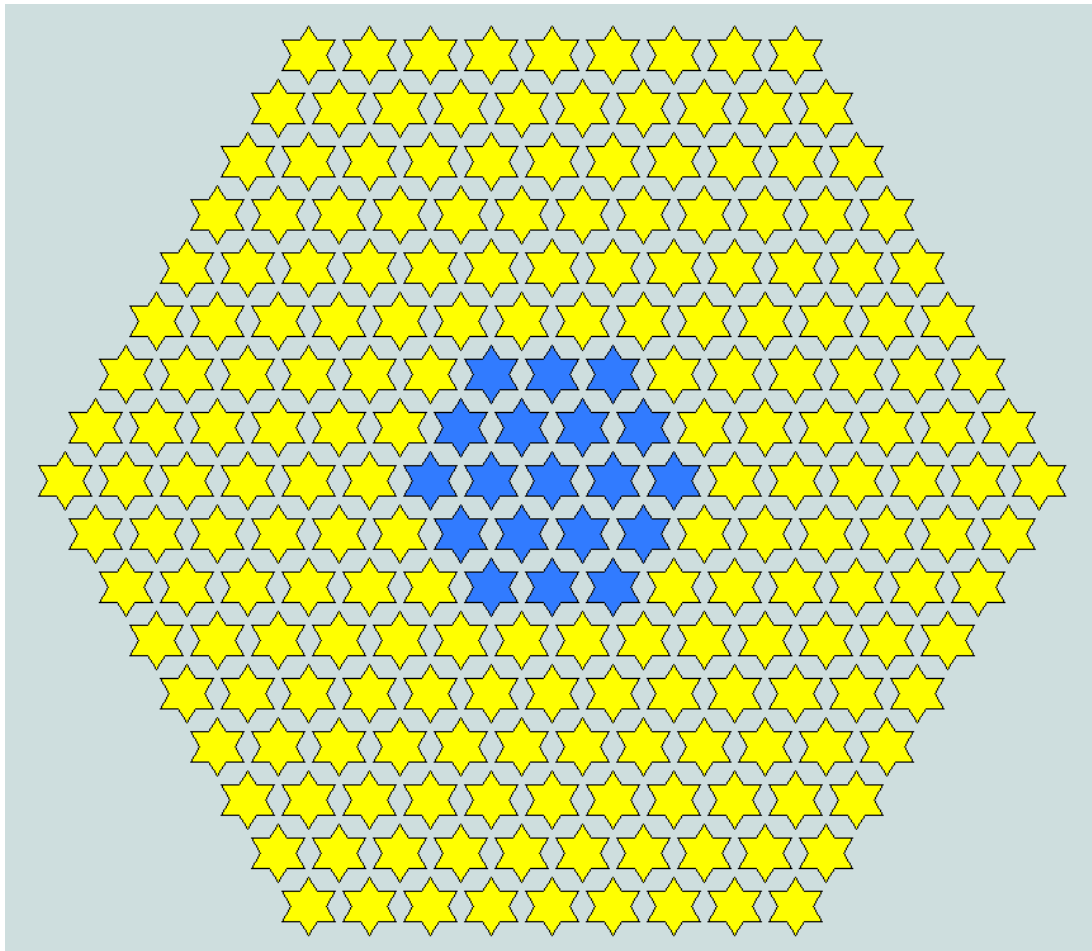
FIGURE 85. DEPICTING 'THE EARTH' CENTRED WITHIN THE NEW CREATION

As before, we form the sum 7326 + 703 = 8029 = 37 x 217. And since 217 is the 9th numerical hexagon, this must be the value represented by the whole figure. It follows that the yellow stars total 7326 – the sum of the CVs of Revelation 21:1.

These remarkable coincidences surely confirm the correct choice of the Greek text for Revelation 21:1, viz. The 21st edition of Eberhard Nestle's *Novam Testamentum Graece*.

5. The Fundamental Constants

Contents

In view of all that has gone before, it should occasion no great surprise that the two foremost 'creation' verses of Scripture, viz. Genesis 1:1 and John 1:1, between them deliver with consummate ease accurate values of the two principal universal constants π(pi) and e (the base of the natural logarithms). These derive from the application of the same simple formula to data arising from the internal structure of each of the creation verses. Both are *transcendental* numbers, i.e. neither can be defined exactly by the ratio of two integers, nor by any algebraic process.

5.1 - THE EVALUATION OF π FROM [G]

The first is most famously involved in the mensuration of circle and sphere, and has been known from ancient times. Its value is 3.141592654... - commonly approximated by the simple fraction 22/7, or 3.142857... (error: + 0.04%).

As we have seen, the Bible's first verse comprises 7 Hebrew words formed from a total of 28 letters. Hitherto, attention has focused particularly on the sums of the word-values, in total and in part. Now, however, it is the word and letter *products* that occupy centre stage. Observe that, although each word-value is the sum of its letters read as numerals, the product of the latter bears no clear and obvious relationship to the former.

Here is the basic calculation:

$$\frac{\text{Product of letters} \times \text{Number of letters}}{\text{Product of words} \times \text{Number of words}}$$

$$= \frac{2.3887872 \times 10^{34} \times 28}{3.0415352... \times 10^{17} \times 7}$$

$$= 3.141554509... \times 10^{17}$$

Observe that $3.141554509... \times 10^{17}$ underestimates π (= 3.141592654...) by a mere 0.0012%

Details of these calculations may be found in Appendix 4.

5.2 - The Evaluation Of e From [J]

The second constant 'e' is of a more recent vintage (18th century). Known also as 'Euler's number', it occurs naturally in any situation where a quantity increases at a rate proportional to its value, such as a bank account producing interest, or a population increasing as its members reproduce.

Here the number of words is 17 and the number of letters 52 (which includes the subscripted Iota); thus, using the same formula, we have

$$\frac{\text{Product of letters} \times \text{Number of letters}}{\text{Product of words} \times \text{Number of words}}$$

$$= \frac{8.436251456\ldots \times 10^{75} \times 52}{9.493022414\ldots \times 10^{35} \times 17}$$

$$= \frac{4.386850757\ldots \times 10^{77}}{1.61381381\ldots \times 10^{37}}$$

$$= 2.718312812\ldots \times 10^{40}$$

Observe that 2.718312812... overestimates e (= 2.718281828...) by a mere 0.0011%

Details of these calculations may be found in Appendix 5.

5.3 - A Review Of The π And e Evaluations

Let us first observe that any estimate of π or e that is obtained as the ratio of two integers must, necessarily, be an approximation. It is, therefore, interesting and undoubtedly significant, that the percentage errors involved in the foregoing derivations, viz. -0.0012 and +0.0011, respectively, are small, of the same order of magnitude and of opposite polarity.

It is appropriate that we derive a handle on the kind of odds against these results being chance happenings - bearing in mind the fundamental nature and close relationship of the sources involved. Here, again, are the first 10 digits of 'estimate: true value' for π and e respectively, with matching significant digits underlined:

3.141554509 : **3.1415**92654, **2.718**312812 : **2.718**281828

Clearly, if these figures are rounded, π and e are each seen to be correct to 5 significant figures. Based upon a random distribution of the variables (a not unreasonable assumption in the circumstances), a simple estimate of the combined probability of these events may, therefore, be obtained as follows:

Since the first digit in each case could have been any one of nine in the range 1-9, and each of the remaining matching digits, any one of ten in the range 0-9, each event is associated with a probability of 1/90,000; and because they are independent and represent the most significant of the physical constants, the final assessment must argue heavily against them occurring fortuitously.

Conclusion

Let us briefly recap:

- The Hebrew letters and words of the Old Testament and the Greek letters and words of the New Testament each have an uncontrived numerical dimension (the CV, or "characteristic value") that arises directly from their involvement in the alphabetic numbering systems of these early peoples.

- The application of a simple numerical procedure to the Hebrew letters and words of the Bible's first verse (Gen.1:1) generates an approximation of π, correct to 5 significant figures (error: - 0.0012%).

- The application of the identical procedure to the first verse of the Gospel of John (which has much in common with Gen.1:1) generates an approximation of e, also correct to 5 significant figures (error: + 0.0011%).

- Given the circumstantial evidence linking these two verses - both textual and geometrical - it would be extremely unreasonable to write off these coincidences as extremely remarkable accidents; indeed, far more likely that they are features of ***purposeful design.***

Clearly, the planning of these wonders must have preceded the writing of Genesis 1:1 (2nd millennium BC), the Hebrew alphabetic system of numeration (c.200 BC), and the writing of John 1:1 (c.100 AD). Further, the fundamental constant e could not have been known by man before the 18th century AD! Quite obviously, therefore, what we have described here has to be viewed as a purposeful supernatural act! And because the verses on which the phenomena are centred speak of "Elohim" and "Jesus Christ", it is not hard to deduce the identity of their author.

The standing miracle (for it is nothing less!) informs us as follows:

- The statements of Gen.1:1 and John 1:1 were made by the same author (and scientist); henceforth, their truth cannot be questioned by any of rational mind.

- There are now strong reasons for believing the whole of God's Word to be completely trustworthy.

- It is now clear that God has therein provided empirical evidence of his being and sovereignty; in this 'Age of Reason' - (and gross apostasy!) – He is acting decisively so that none should perish through ignorance or foolish presumption.

6. The [G⁺] Differences And A4 Enigma

Contents

Preliminary Comments

Earlier observations have been concerned with the <u>sums</u> or <u>products </u> of sequences drawn from one or other of the number sets,

[G] = [913, 203, 086, 401, 395, 407, 296]

(this, a fair alternative reading of the Hebrew Bible's first verse of 7 words)

and [G⁺] = [913, 203, 086, 401, 395, 407, 296, 302]

(i.e. [G] augmented by the first word of the second verse)

Here, we shall consider their <u>differences</u>.

6.1 - The [G⁺] Differences

Given a set of numbers for which some pattern is being sought, it is sometimes found that the derivation of a *table of differences* provides a way forward. Such is the table given below.

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
	913	203	86	401	395	407	296	302
Row 1	913	710	827	512	518	506	617	611
Row 2		203	117	198	192	204	93	99
Row 3			86	315	309	321	210	216
Row 4				401	6	6	105	99
Row 5					395	12	99	93
Row 6						407	111	105
Row 7							296	6

Figure 86. A Difference Table For [G⁺]

Observe that [G⁺] heads the columns of this table and [G], the rows. Each cell of the table lies at the point of intersection of a row and a column and may thus be

uniquely identified by a pair of numbers. For example, cell (2, 5) lies at the intersection of row 2 with column 5; its contents, 192 – the difference between CVs 2 and 5. The remaining cells are filled accordingly. Observe that all the tabular values are expressed as positive numbers (achieved by subtracting smaller from larger in each case).

99 and **105** (the dimensions of each of the 6 panels of an A4 sheet – Appendix 6) are observed to figure prominently in this table, thus:

$$401 - 302 = 302 - 203 = 395 - 296 = \mathbf{99}$$

$$407 - 302 = 401 - 296 = (296 - 86)/2 = \mathbf{105}$$

The remaining differences – **except those involving 913** – may each be simply expressed in terms of these parameters, thus:

6 = 105 – 99; **12** = 2.(105 – 99); **93** = 2.99 – 105; **111** = 2.105 – 99; **117** = 3.105 – 2.99; **192** = 3.99 – 105; **198** = 2.99; **204** = 99 + 105; **210** = 2.105; **216** = 3.105 – 99; **309** = 2.105 + 99; **315** = 3.105; **321** = 4.105 – 99.

[Note the use of the period (.) here to signify 'multiplied by']

But we also observe that if **296 (factor of the Lord's Name and Title, and CV of the Bible's 7ᵗʰ word)** be subtracted from each of the differences involving **913** the residues fall in with the same scheme! Thus,

710 – 296 = 414 = 3.105 + 99; **827** – 296 = 531 = 6.105 – 99; **512** – 296 = 216 = 3.105 – 99; **518** – 296 = 222 = 4.105 – 2.99; **506** – 296 = 210 = 2.105; **617** – 296 = 321 = 4.105 – 99; **611** – 296 = 315 = 3.105.

[Of passing interest, **216** and **512** (the cubes of 6 and 8, respectively) are seen to be included in the table of differences.]

Clearly, these eight values – representing a natural alternative reading of the first eight Hebrew words of Genesis – which we might have expected to be numerically independent, are here shown to belong together! These observations lead to a formal description of the opening words, thus:

If G_i be taken to represent the ith word of the Bible, then each CV of words 1 to 8 is found to be of the form:

$$G_i = 296a_i + 105b_i + 99c_i$$

the parameters, 296, 105 and 99 matching the differences established above, and the variables all small integers, as displayed in the following table:

i	G^+_i	a_i	b_i	c_i
1	913	2	4	-1
2	203	1	1	-2
3	86	1	-2	0
4	401	1	1	0
5	395	1	0	1
6	407	1	2	-1
7	296	1	0	0
8	302	1	1	-1

FIGURE 87. DEPICTING THE VARIABLES IN THE FOREGOING EQUATION

6.2 - THEIR GEOMETRICAL IMPLICATIONS

Remarkably, these related differences, 210, 105, 99 and 6, may be summarised geometrically – as in the following diagram:
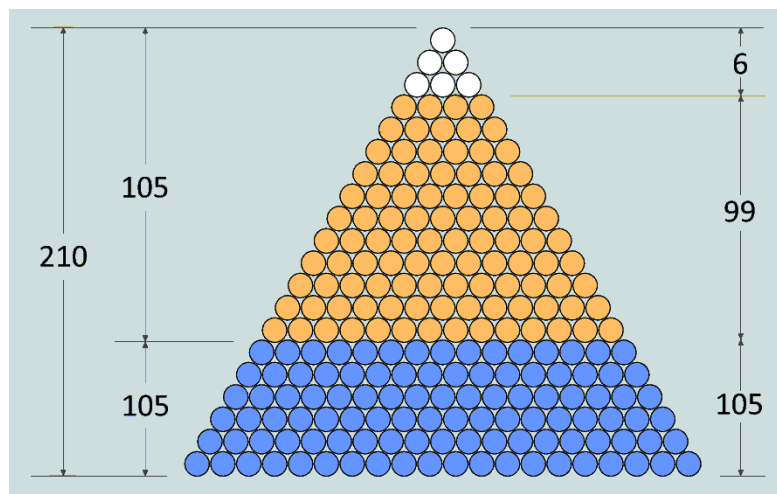
FIGURE 88. THE GEOMETRIES OF 99, 105 AND 210

Depicted here is an example of the rare phenomenon of one triangle (T_{20} = 210) being the double of another (T_{14} = 105).

6.3 - THE G-LATTICE

Observe that all the CVs represented in [G+], except the first, are each 1 less than a multiple of 3; the first, 1 more and, therefore, different in kind from the rest. Following standard conventions the following diagram depicts a spatial arrangements of these values and, in a separate relationship, reveals that 703 (the sum of CVs 6 and 7) features with 913, the first.

At (a), we find CVs 2 through 8 involved horizontally with 210 and 105 (20th and 14th triangles, respectively) and, vertically, with 99 – the difference between 105 and 6 (which marks a second double triangle since 3 is also triangular).

At (b), 703 (triangular sum of CVs 6 and 7, and also of CVs 4 and 8) is shown to be related to 913 by the triangular difference, 210.
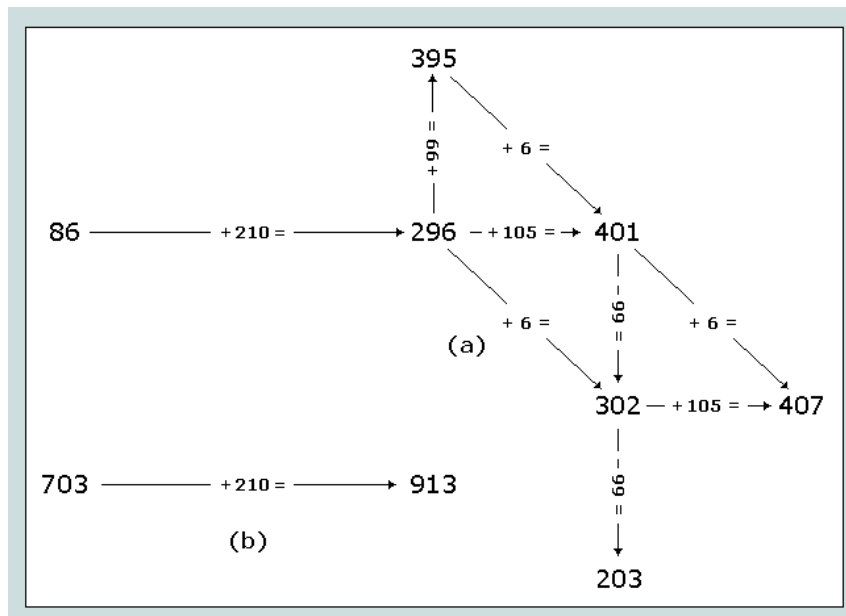
FIGURE 89. THE SUGGESTION OF A LATTICE STRUCTURE

This figure suggests that the Author of these wonders had in mind a *lattice* structure of unlimited extent comprising two sets of lines – spaced 105 units horizontally and 99 units vertically - within which numbers could be logically allocated at each point of intersection – the condition being that each number would be 105 more than its leftward neighbour and 99 more than that immediately below. On this basis, the placing of a single number (the 'seed') at any given position would immediately populate the lattice. The next figure depicts a limited region of this lattice – the appropriately chosen seed being 296, or 8.37 (marked in red) – factor of both Name and Title of Jesus Christ, and 7th CV of [G+]. Observe that all but the first CV, 913, are accommodated. However, in a parallel lattice, in which each of the numbers

represented is one more than a multiple of 3, we observe 703 and 913 to be close companions.
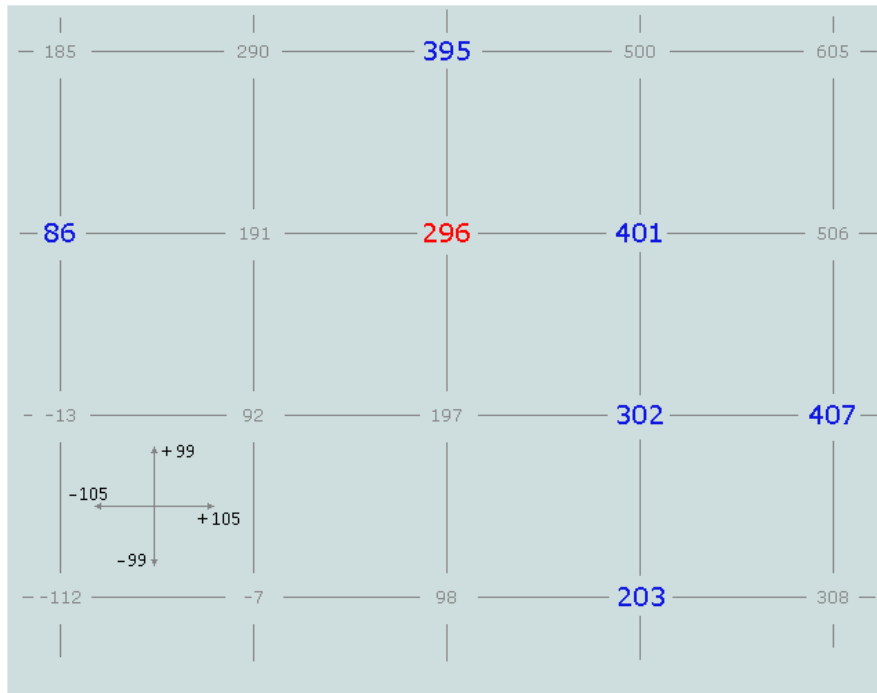
FIGURE 90. A SEGMENT OF THE G - LATTICE

Thus, while 913 may be seen as the sum of the adjacent values 506 and 407, and 703, likewise, as the sum of 401 and 302, both are better revealed as companions of the <u>doubles</u> of the foregoing CVs represented in the diagram following:
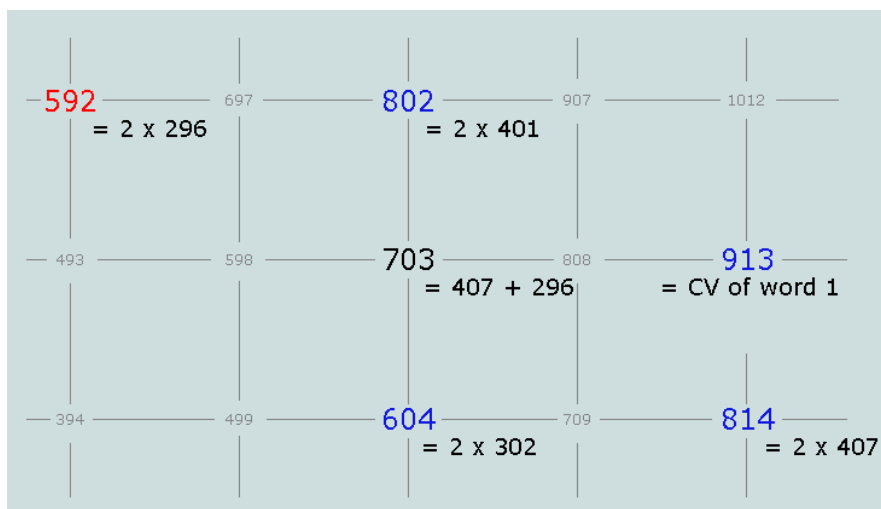
FIGURE 91. ANOTHER SEGMENT OF THE G - LATTICE

Observe that the line spacings are as before, viz. 105 horizontally, and 99 vertically.

95

6.4 - The A4 Enigma

It, therefore, transpires that all eight values of [G$^+$] may be accommodated within this small area of a pair of parallel infinite lattices. But to cap it all we find that A4, the size of paper currently used by over 90% of the world's population, represents an element of the G-Lattice! As the following diagram reveals, the nominal size of A4 is a 210mm x 297mm rectangle which may be segmented as shown:
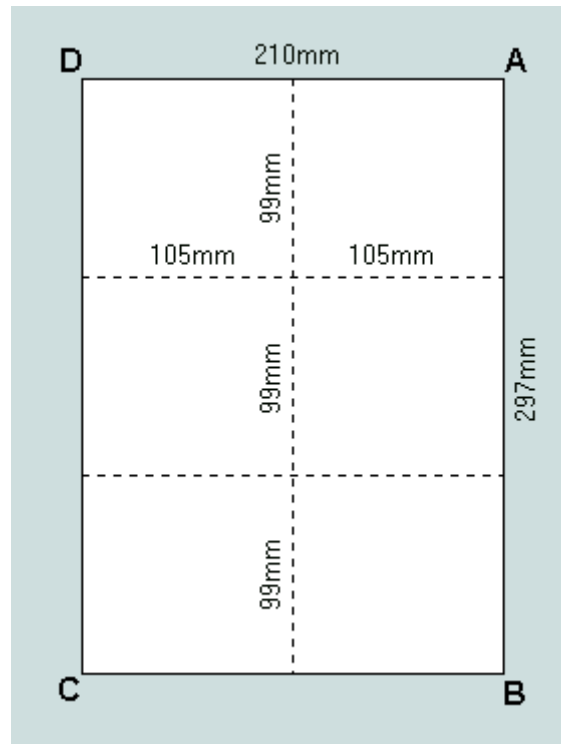
FIGURE 92. DEPICTING A STANDARD SEGMENTED A4 SHEET

[Further details of the A4 standard may be found in Appendix 6]

It follows that Figures 90 and 91 may each be seen as a pair of segmented A4 sheets laid side by side! Clearly, this lattice structure derives from a consideration of [G$^+$] differences alone, yet it accurately defines A4 - the most popular of the ISO-216 A-series formats!

6.5 - Another Fundamental Constant

From the previous figure, we find that the ratio of the sides of the panels comprising A4 is 105/99 (= 1.0606…). This is a close approximation of the twelfth root of two ($\sqrt[12]{2}$ = 1.05946…) which defines the ratio of the frequencies of consecutive semitones in the 'equal temperament tuning' (ET) of musical instruments. [This today is the bland form of tuning, which permits freedom of modulation and harmony in musical composition and orchestral and other performances.] Interestingly, the error incurred here (= +0.108%) is less than that incurred by ET when compared with 'natural' tuning (which can be of the order of +1%).

[For further details see www.whatabeginning.com/Music/M_Lesson.htm]

6.6 - An Exceptional Day

The Scriptures themselves offer further evidence of the Lord's high regard for triangular numbers and, in particular, for 666 and its geometrical features (which at least goes some way towards explaining why he offers it to us as 'the key to wisdom') for another large number appears in its close proximity, and it is appropriate that we now give it some attention. It refers to a harrowing period of time - intriguingly presented first as 1260 days (Rv.12:6); then as "a time, times, and half a time" (Rv.12:14; also Dn.12:7), i.e. three and a half years; and again as 42 months (Rv.13:5) - the two latter clearly relating to a 360-day year and 30-day month.

What can possibly lie behind this interesting variety of expression? Is the reader's attention being purposely drawn to some significant matter concerning 1260? That this is the author's intention (rather than any idiosyncrasy on the part of the translator) may be readily confirmed from an examination of the underlying Greek text. So, if not intended to draw attention to 1260 this device is surely hard to explain. What, then, are the principal features of this number? And why might they be relevant in the current context?

Like 666, 1260 displays imposing geometries based on the triangle. It is rich in factors and, though not itself triangular, is the LCM (Least Common Multiple) of the first nine triangular numbers, viz. 1, 3, 6, 10, 15, 21, 28, 36 and 45 and multiple of a further three (105, 210 and 630). Observe that, of these, 36 and 105 are respectively side and outline of 666-as-triangle.

A further numero-geometrical link with its scriptural companion is displayed in the following diagram where 1260 is seen to be the sum of the outer brown triangles of 630 that form a cradle for the 666-as-triangle.
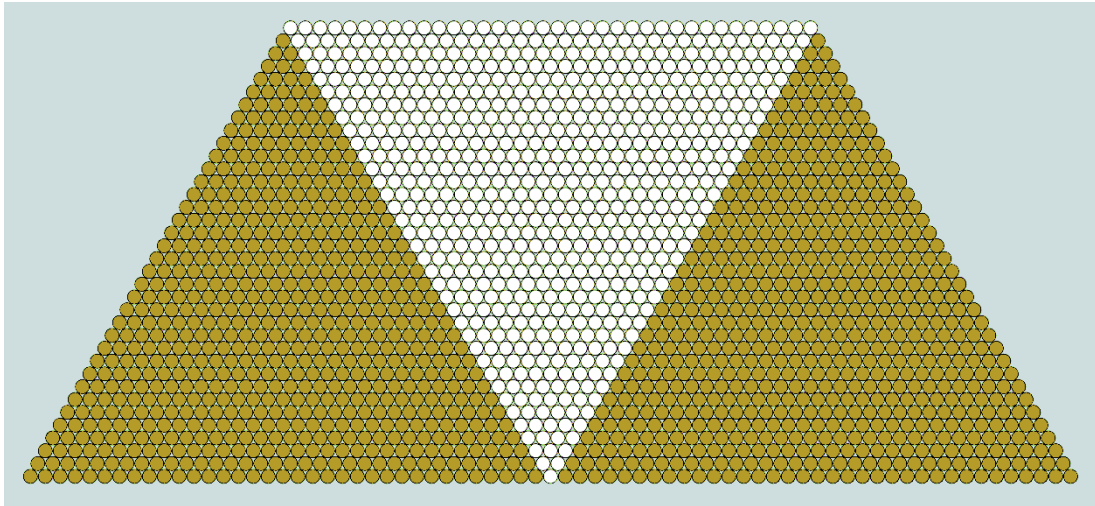
FIGURE 93.   666 CRADLED BY 1260-AS-TRIANGULAR PAIR

6.7 - AN A4 - INSPIRED VIEW OF THE 666/1260 ASSOCIATION

666 and 1260 are also bound together by the metric dimensions of a particular rectangle, length, 297 mm and breadth, 210 mm - that rectangle represented by the well-known and used A4 sheet of trimmed paper, thus:
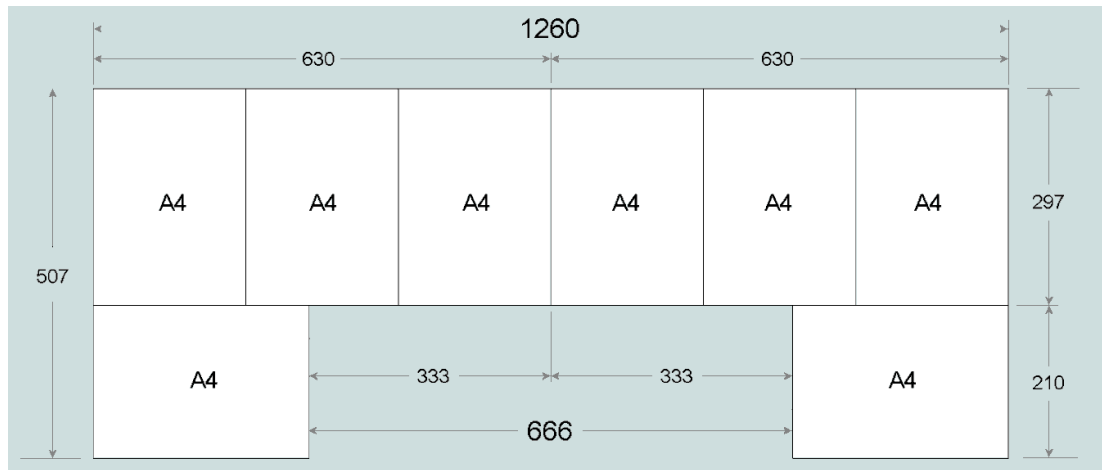
FIGURE 94. 666/1260: THE METRIC RELATIONSHIP

Depicted here is the numerical relationship between the biblically contiguous 666 and 1260 that is established using 8 x A4 sheets.

Observe: 6 x 210 – 2 x 297 = 1260 – 594 = 666

98

But 1260 is also associated with a rare feature of numerical figuracy: in the series of natural numbers it immediately precedes 1261 which is both 15th hexagram and 21st hexagon, thus:
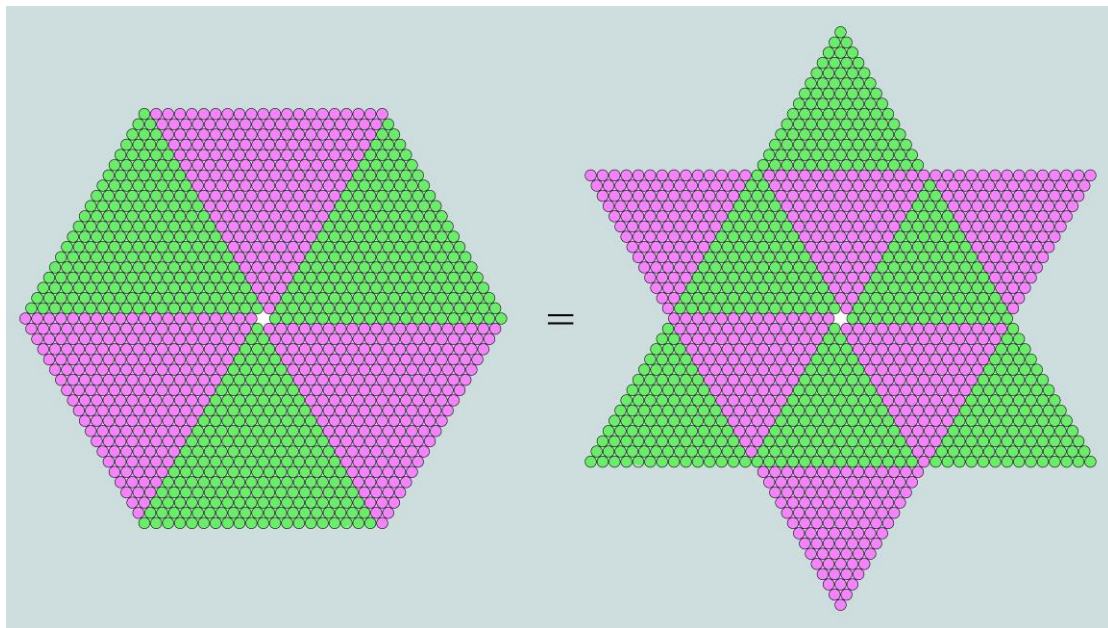
Figure 95. 1261 Revealed As A Bifigurate Number

[Observe that a numerical hexagon comprises 6 congruent triangles, drawn from the general series, disposed about a single central counter; similarly, a numerical hexagram, 12 triangles; the triangles involved in these structures are 210 and 105. There are just 2 numbers in the first 40,000 that possess both hexagon and star symmetries; they are 37 and 1261]

Clearly, if the central counters are omitted, each of these symmetrical figures represents 1260. The day following this period is the 1261st – a day of release, and relief.

Thus, the biblical neighbours 666 and 1260 are related in more ways than one – implying that they have been carefully selected for use by the Lord.

In conclusion, one further point may be made: symbolically, the six-around-one principle of the hexagon speaks of *the creation week*, and the twelve-around-one of the star or hexagram, of *Jahweh and the twelve tribes* or *the Lord Jesus and his disciples*. [In this latter connection it is significant that the disciples needed to restore their number to 12 following the demise of Judas Iscariot (Acts 1:15-26)]

These details speak for themselves. But the further conjunctions are worth repeating:

- A feature of the triangular number series is the rarity of those related pairs one of which is the double of the other; such are the pairs 6/3 and 210/105
- A feature of the A-series of cut paper sizes is that its principal representative A4 has the nominal dimensions 297mm x 210mm which may be precisely divided into six rectangular panels of size 99mm x 105mm
- A feature of the opening Hebrew words of the Judeo-Christian Scriptures is that their CVs lie on the nodes of a lattice structure (the G-Lattice) whose horizontals and verticals are spaced at intervals of 99 and 105 units, respectively
- A feature of the Book of Revelation is the adjacent pair of numbers 666/1260; as Figure 94 reveals, these are directly related to the metric dimensions of A4
- The story of A4 stretches back into the distant past. We have to begin with the Creator's decisions *vis-à-vis* the diameter of the Earth (for this is the ultimate basis for all metric measurement) and the relevant characteristics of man. [But see also 'The Genesis of a Standard', Appendix 6, p.152].

7. A Related Secular Set

An n-digit number that is the sum of the nth powers of its digits is called an n-narcissistic number or, more simply, an Armstrong number. There are just four 3-digit denary numbers after unity which are the sums of the cubes of their digits. These, we shall refer to as 'The Armstrong- or A-set':

$$[A] = [153, 370, 371, 407]$$

Here is a list of some notable features of this set which relate it to [G]:

- Its last term, 407, is the 6th member of [G]; observe that $407 = 4^3+0^3+7^3$.
- Its first term, 153, occurs as a 'surface' feature of the Bible (John 21:11) – the number referring to the number of fishes caught in a net; however, in addition, let us note that it is the ultimate outcome of summing the cubes of the digits of any multiple of 3! For example,

$$1011 (=3.337) > 1^3+1^3+1^3 = 3 > 3^3 = 27 > 2^3+7^3 = 8+343 = 351 >$$
$$3^3+5^3+1^3 = 27+125+1 = 153$$

  In addition, 153 is a triangular number [= T(17)], the sum of the first 17 integers; it is also the sum of the first five positive factorials 1!+2!+3!+4!+5! (= 1+2+6+24+120 = 153);

  Clearly, 153 has a rare pedigree!

- Concerning the Flood, Noah and his family spent a total of 371 days in the ark.
- The set has two multiples of 37, viz. 370 and 407; when added, these yield 777 (= 86+395+296 – sum of 3 related nouns from [G]).
- Their difference is the unique tri-figurate prime, 37.
- The sum 370+371 = 741 = T(38).
- The sum 153+370+371 = 894 = 203+395+296 = 86+401+407, i.e. an equal division of [G] when its first word (= 913) is omitted.
- 894 – 407 = 487 = 86 + 401 (3rd and 4th of [G]).
- [A] totals 153+370+371+407 = 1301; this is found to occur in both [G] and [G+], thus: 203+395+407+296 = 913+86+302 = 203+401+395+302 = 1301.

One further point which links this set of numbers with the Scriptures is the fact that it involves 3 – the number of digits in each term of the set – and cubes – which In biblical terms represent symbols of holiness (see 1Kings 6:20, Revelation 21:16). Further to this matter, 64 (= 4^3) and 37 (= 4^3-3^3) are the factors of 2368, the CV of 'Jesus Christ' from the Greek of the New Testament (see Figure 53, p. 60).

8. Summary Of The Structures That Derive From [G] And [G⁺]

Here again are the CVs of the first eight words of the Hebrew Scriptures, i.e. [G⁺]

8	7	6	5	4	3	2	1
302	296	407	395	401	086	203	913

LEGEND:

🟦	POSITIVE INSERT 1
🟧	POSITIVE INSERT 2
🟪	NEGATIVE INSERT
⬜	— EMPTY —
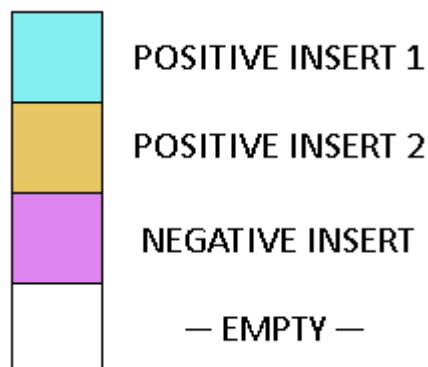
1 – Those arising from [G], i.e. Genesis 1:1

1.1 – Involving all the first seven words:

7	6	5	4	3	2	1
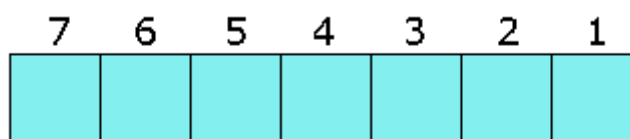
The sum of words 1 – 7 is **2701** and the associated structures are

- The G-Triangle – T(73)
- The G-Trapezium – Z(54,91)
- The G-Heptagon
- The G-Constellations – K(73,37) and K(37,73)
- The G-Trefoil

103

The tri-figurate prime number, 37, is a factor of 2701, as is its digit reversal, 73.

Thus, bearing in mind the uniqueness of 2701 as a number *per se* (Appendix 3), to find that, (a) it is associated with such a wide spectrum of geometries and, (b) it represents the numerical value of the Bible's first verse, surely warrants the close attention of all lovers of truth!

1.2 – Individual words of note:

7	6	5	4	3	2	1
			■			
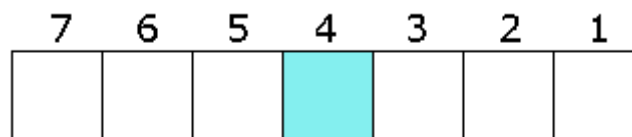
- The CV of the 4th and central word is 401 – sum of the first and last letters of the Hebrew alphabet and equivalent to 'Alpha and Omega' – a title used of Himself by the Lord!

7	6	5	4	3	2	1
	■					
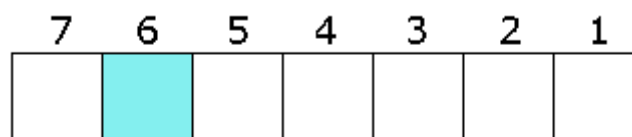
- The CV of the 6th word is 407; this is A(4) – the 4th of the Armstrong set; 37 is its principal prime factor.

7	6	5	4	3	2	1
■						
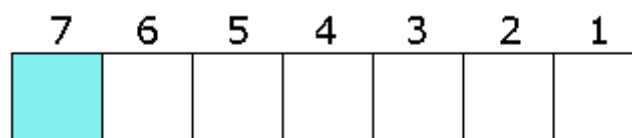
- The CV of word 7 is 296; this is a factor of both Title and Name of the Lord – 'Christ' = 1480 = 5.296; 'Jesus' = 888 = 3.296; 37 is the principal prime factor.

1.3 – Involving divisions:

7	6	5	4	3	2	1
	■	■		■		
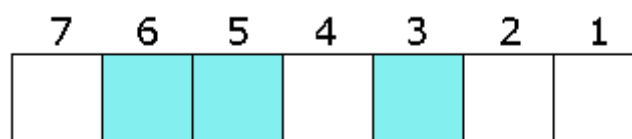
- 888 – CV of the Name 'Jesus' is found as the sum of words 3, 5 and 6, i.e. 86 + 395 + 407 = 888

7	6	5	4	3	2	1

- The difference between the odds and evens is **679** – value of the 7th Stella Octangula – SO(7); this division also determines the structure of the G-Trefoil.

7	6	5	4	3	2	1

- A prime division: words 6 and 7 = 703 = T(37) which perfectly inscribes T(73); words 1 – 5 total 1998 = 3.T(36) = 3.666; this divisions applies to T(73) and K(73,37).

7	6	5	4	3	2	1
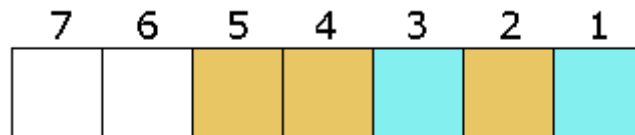
- Describing the trapezium (Z) and heptagon divisions involving two parallelograms of 999 (i.e. involving words 1 + 3 = words 2 + 4 + 5).

7	6	5	4	3	2	1
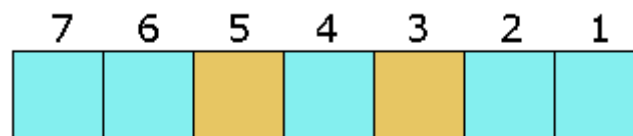
- Describing the K(73,37) star division 481 (= 13.37) centred within 2220 (= 60.37).

7	6	5	4	3	2	1
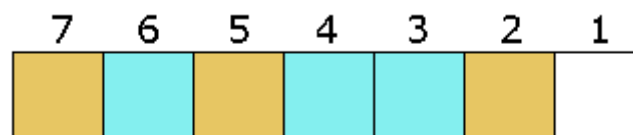
- Describing the trapezium Z(54,91) division, 894/913/894. The Armstrong number set [A] is also involved; the sum of the first 3 of [A] = 894.
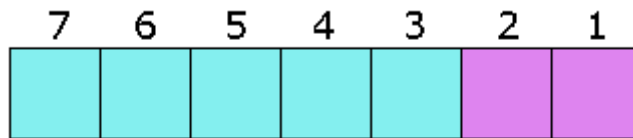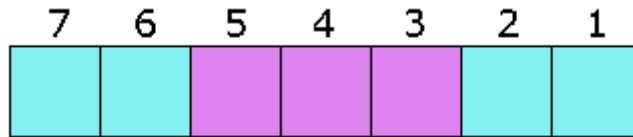
- Describing the 'inner star' of [G]: first, 937 [the star derived from the self union of T(37)]; then, 469, the matching hexagon.
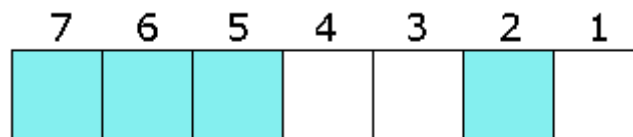
- 1301 - sum of the Armstrong set [A] as found within [G].

2 – Those arising from [G⁺], i.e. words 1 - 8

2.1 – Involving all eight words:
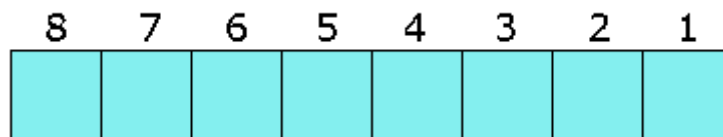
- The sum of words 1 – 8 is **3003**, and the principal associated structure is T(77); the tri-figurate composite number, 91, is a factor of 3003.

2.2 – Involving individual words:

8	7	6	5	4	3	2	1
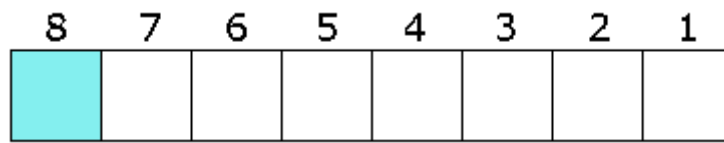
- The CV of the 8th word is 302; it functions as 'plinth' (or 'underscore') or otherwise as 'protective cover' for the first 7, i.e. [G].

2.3 – Involving divisions:

8	7	6	5	4	3	2	1

8	7	6	5	4	3	2	1
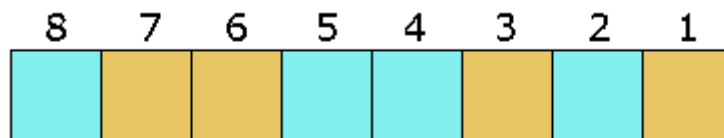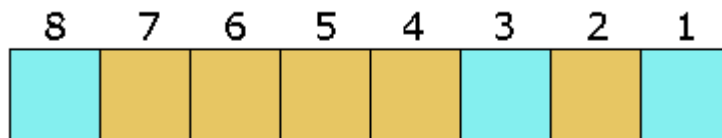
- The blues sum to 1301; the browns to 1702 - an anagram of [G] and multiple of 37 (1702 = 46.37); observe the reflection, 64.37 = 'The Lord'!

8	7	6	5	4	3	2	1
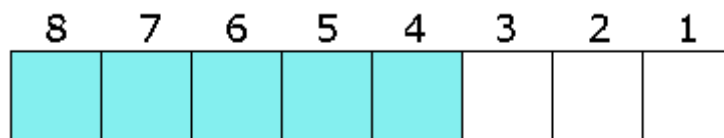
- 1801, the 25th hexagon; the self-intersection of T(73) = [G].

Concluding Remarks

Preamble

The line of inquiry pursued in these pages has arisen from the acknowledgement of two simple facts and their potential implications, viz.

1. Hebrew and Greek are alphanumeric languages, i.e. their letters and words may be fairly read as numbers;
2. The Bible largely derives from translations of ancient documents written in Hebrew and Greek.

We, therefore, have an intriguing situation: all Bibles rest on a solid foundation of number. Did our Creator anticipate this development? Might He even have engineered it? Could it be that He has used it as a 'second channel' to communicate further information to mankind? As this account makes clear, all three questions are to be answered in the affirmative.

So, what are we to learn from this largely unexplored aspect of God's word? It seemed to the author that he was building upon the Apostle Paul's inspired words concerning belief in God, viz.

> "For the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power and Godhead; so that they are without excuse: because that, when they knew God, they glorified him not as God, neither were they thankful; but became vain in their imaginations, and their foolish heart was darkened. Professing themselves to be wise, they became fools… " (Romans 1:20-22}

[Observe that many have been able to dispute this on the seemingly reasonable grounds that 'invisible things' are not necessarily 'clearly seen'; instead, they invoke the assumed powers of Mother Nature to answer the difficult questions. But now, those who once thought they had a legitimate excuse find themselves overtaken by the Lord's mercy and grace. Truth that was once 'invisible' is now 'clearly seen' by all prepared to look – and Mother Nature is no longer able to help! Here, surely, is the Ultimate Christian Apologetic – evidence-based proof that a Mind of immense potential does exist! It is He who speaks to us through the Judeo-Christian Scriptures; for the Jew, He is 'elohim' and for the Christian, the Divine Triumvirate: 'Father, Son and Holy Spirit.']

The Ultimate Assertion

In his peer-reviewed paper, *The Ultimate Assertion: Evidence of Supernatural Design in the Divine Prologue*[1]*,* the author – speaking of the numerical phenomena that accompany Genesis 1:1 and following word – concluded his analysis as follows:

> These facts speak for themselves: beyond all reasonable doubt they are an eloquent testimony of skilful design and lofty purpose. In order to facilitate the discussion, let us designate the author **A**, and his motives, **M**.
>
> It is clear that **A** has caused a number of independent threads of symmetry, singularity and symbolism to converge in these eight words, in particular, those based upon
>
> - the lexical structure of words 1 to 7 - 'surface features' that cleverly hint at the 'hidden treasures' contained in this sequence (speaking here of the fact that 28 - the number of Hebrew letters forming the first verse - is the 7th triangular number, and second perfect number);
> - the figurate properties of 2701 and its factors, involving the phenomena associated with the first three triangular multiples of 37 (viz. 666, 703 and 2701);
> - the eighth word, and the resulting augmented verse (speaking here of 302, and the fact that 2701 + 302 = 3003 - the 77th triangular number).
>
> Clearly, **A** has linked these features visually by calling upon the simplest of all figurate numbers, the triangle.
>
> It may be further observed that
>
> - the main attributes of Genesis 1:1 catalogued here derive from *running sequences* of words - a fact that should not be overlooked in any assessment of probabilities;
> - clear principles are established - particularly **A**'s partiality for the unique, the eye-catching, and the symbolic;
> - **A**'s scheme of numerical design rests upon the firmest foundation known to man, namely, mathematics - revealing an awareness that there can be no better basis for an exercise of this kind;
> - remarkably, features that belong specifically to our present system of numeration appear to have been anticipated by **A** (for example, the multiples of 3x37 that catch the eye - like 666, 777, 888 and 999 -

would not have been visible to numericists working with either Greek or Hebrew schemes of numeration); and

- **A**'s scheme makes no great demands of the human intellect, and is open to - and, no doubt, intended for - a wide audience.

For those who will want to determine the identity of **A**, there is one further significant detail to consider: it is that <u>**A**'s words were recorded many centuries before the invention of Hebrew alphabetic numeration!</u> Such feats of anticipation, design and execution surely extend far beyond the capabilities of mere mortals!

Finally, for those who would go on to consider **M** - the purposes that lie behind this display of **A**'s exceptional abilities - the unique and strategic position these words occupy in a large and highly-controversial Book; their direct challenge to the many other ideas now abroad; and the fact that their numerical complement has only recently become more fully known; are essential starting points. However, the whole matter is surely summed up by the words of the Apostle Peter, viz. "He (God) is not willing that any should perish, but that all should come to repentance." (2Peter 3:9). Here, surely, is the principal motive behind these revelations.

For some 2000 years the Bible has been for many a source of comfort and inspiration; for others, an object of controversy, criticism and rejection. It is, in effect, a 'maker's manual' – a book of instructions for living a life pleasing to our Creator. As we have discovered in these pages, it begins with what must be considered the most remarkable combination of words ever written: a literary miracle and a wonder of the world. We stand amazed that so much numero-geometric information has been packed into so few words; amazed too that this all happens at the very beginning of a large book. Undoubtedly, what we have here is a manifestation of extreme ingenuity. Clearly, it is the work of an exceedingly able and purposeful Mind, and we infer that it undoubtedly has serious intent. At its centre stands the foundational assertion "In the beginning God created the heaven and the earth." These words – now so heavily underscored – convey a vital and urgent message to a largely unbelieving world, viz. that our Creator really exists and that His powers are immense. Indeed, His Being and Sovereignty are longer to be considered 'matters of opinion' (based on faith), but 'hard fact'.

Of course, this markedly changes the whole landscape of current thinking concerning who and what we are, of our potential destiny following death, and a host of related matters. Undoubtedly, the Bible – now completed by the revelations of its Second Edge – acquires extreme power and authority to speak on these fundamentals which concern us all. It lays bare the foolishness of all who deny God and the supernatural, and promises to fulfil the prophecy of Isaiah 29:13-14, viz.

"Forasmuch as this people draw near to me with their mouth, and with their lips do they honour me, but have removed their heart far from me, and their fear toward me is taught by the precept of men: therefore, behold, I will proceed to do a marvelous work among this people, even a marvelous work and a wonder: for the wisdom of their wise men shall perish, and the understanding of their prudent men (or intelligentsia) shall be hid. "

The suggestion is that this will be done openly, i.e. all will be aware of what is happening! It is likely to begin with the fall of methodological naturalism.

The Bible's Message

What then is the essential message of the Judeo-Christian Scriptures? It is that man – created with a free will – is no friend of his Creator; indeed, he is from birth an enemy of God – inheriting that rupture of fellowship with his Maker brought about by the disobedience of Adam and Eve in the Garden of Eden. [It is not easy to get one's mind around these matters, but because the Bible says so, we must accept that we all share this condition, and are sinners in God's eyes]. However, God has ordained that heaven is to be populated only by those who are free from sin. It follows that in our natural state we are unacceptable to a Holy God – and that is why He has made it clear that the dilemma can only be resolved by a ready acceptance of the Gospel of Jesus Christ.

Before the coming of the Lord Jesus, the sins of God's chosen people, the Jews, were expiated on an annual basis on the Day of Atonement (Leviticus 16, Hebrews 9). This ritual involved the shedding of the blood of various (innocent) animals and served to define God's way of dealing with the problem of human sin. [Again, it is not easy for us to rationalise all this, but because the Bible says so, we must swallow our incredulity/revulsion]. These things – first begun in the desert of Sinai following the Exodus from Egypt – foreshadowed the blood-letting and death of the incarnate Son of God on Calvary's cross some 1300 years later. Jesus, the sinless sacrificial victim willingly offered up his life to cancel – for all time – the sins of all who believe and desire to be his friend. The Saviour's burial and resurrection completed this process of restoring the former repentant sinner to a right relationship with his Maker. But one will reasonably inquire, "What about the 'good works' that other religions rely on to bring them safely home? Are these no longer important?" Of course they are. But the emphasis has now changed: our desire for a sin-free life and a love for others is based upon our love for Jesus, and his continuing approval of our thoughts and actions.

The Concealment of the Gospel

Today, we Christians face many enemies – not least, the enemies within. The Lord Jesus warned that his future Church would comprise 'tares' mingled with the 'wheat'. In other words, that those meeting together in his name, would not necessarily be 100% committed seekers of God. And so we find that over the centuries since Calvary the tares have been hard at work within the Church – muddying the waters, and preventing many from understanding the essential teachings of the Bible – in particular, shrouding the pure gospel that Christ was sent to bring. Man-devised ceremonials and practices, candles, bells, incense, glittering vestments, liturgies and rules, stained glass and imposing buildings have all contributed to draw men's eyes away from the reality of what the Bible is all about. Indeed, many would-be 'teachers' have become rich and powerful by trading the bogus promise of heaven for hard cash! Without these trappings, the gospel itself – the message Jesus came to bring and fulfil – is readily understood, even by the least of us.

Concerning Our Battle With Sin

Here are the key points taught by the scriptures:

- Every child born into this world possesses a physical body, a mind, a God-conscious activating spirit and an eternal soul (whom he/she refers to as 'me');
- The chief concern of all thinking people is (or should be) the ultimate destination of his/her soul – the scriptures making it clear that neither re-incarnation nor 'oblivion' are available as possible alternatives;
- There are two opposed supernatural agencies who share this same interest, viz. God our Creator (who desires a loving relationship with us) and Satan (who hates us); they raise the question "which of us will he/she join at the close of his/her life on earth?
- Whether or not we realise it, whether or not we like it, we are from birth pitched into a battle which rages in the heavenlies – a prime issue: the destiny of every human soul;
- Satan is accompanied by a host of fallen angels and demons; he encourages people to worship him, and of course, some do (so intense is their hatred of God!); many dabble dangerously with the occult and thereby open themselves up to the enslavement of their souls, and the risk of being possessed by evil spirits;
- Satan's greatest achievement has been to persuade mankind that he and his evil cohorts don't exist!

- Most human agencies – governments, the media, academia, educationalists, religionists, scientists and others are no friends of the gospel;
- Only by seeking the Lord's help, cultivating our relationship with him, desiring the indwelling of his Spirit at all times, and living a life pleasing to Him can we remain safe from these terrible dangers;
- These are the big issues with which the gospel is concerned.

A Name For The Numero-Geometric Phenomena

It is desirable that we coin a name for these Bible-ratifying phenomena. *Aleph-Tau (A-T)* appears to be most appropriate because, (1) Aleph and Tau are the first and the last letters of the Hebrew alphabet, which themselves suggest 'Alpha and Omega, the beginning and the end' – a term used of himself by our Creator, Jesus Christ, (2) together, they form the central untranslatable word of Genesis 1:1 and, (3) they outline what is effectively the *Ultimate Christian Apologetic (UCA).* These Aleph-Tau phenomena speak for themselves; they are no idle curiosities! If we are convinced they are true, then it should follow that we carefully consider their implications and so understand and act on the message they convey.

As we have seen, associated with the biblically-based *A-T* are the phenomena arising from a study of number *per se.* We shall refer to this extrabiblical structure as *Nun-Resh* (pronounced 'noon-reysh') – the two letters forming the Hebrew word for 'Lamp' (נר). The structure is centred around the numerical singularity 2701 and is heavily concerned with 37 and its other multiples.

Working The Matter Out

- In English translation the Bible exists most famously as the 'King James' Authorised Version' (the *KJV* or *AV*). This is a beautiful and dependable text which points the way to the kind of life God desires us to lead. We are given to understand that it is complete; this Canon of Scripture may neither be added to, nor subtracted from.
- It follows that the question 'Is it trustworthy?' may be fairly asked by the uncommitted individual. Again, 'Is it completely true? – or simply, partially true? Opinions vary, but all would agree that hitherto these have depended on *faith* or personal experience alone. Thus, despite the efforts of Christian apologists through the centuries, no empirical (i.e. evidence-based) proof has been found to satisfy its critics (despite the fact that *fulfilled prophecy* appears a reasonable candidate!) Strangely, many of those who confess to believing in a Loving Heavenly Father seem unable to accept that He would surely tell us no lies! Clearly, with due allowance for 'figures of speech', this is an 'all or nothing' situation; there is no 'middle way'!

- So, currently, it is what science persuades us to believe that usually carries the day, and doubts are, therefore, constantly being raised about the reliability of Holy Writ. The presence of the Bible's Second Edge (and what it is, as demonstrated in previous pages) indicates that this problem was foreseen from the beginning, and has been appropriately dealt with.
- Here is the suggested line of divine thinking:

A Theory Of Divine Intent

The proposition that the Creator would want to underwrite the truth of a statement that He foresaw would, one day, be flatly denied or watered down by the majority of mankind seems eminently reasonable. There can be little doubt that the authority of the Bible as a whole rests, ultimately, upon the authority of its opening verse, "In the beginning God created the heaven and the earth."(Genesis1:1). Taken at face value these are the received words of a Sovereign God for whom nothing is impossible; a God more than capable of creating all things from nothing in six literal days some six thousand years ago. Yet the sad fact is that over the centuries - and particularly since the 1850s – the biblical account of a special creation has been vigorously denied. Our scientific establishment - discarding its customary rigour - has preferred an explanation of primary origins that does not require the involvement of a Sovereign God - nor any appeal to the miraculous, and though still officially designated *theory*, there can be little doubt that the *concept* of evolution has itself evolved into hard fact as far as this establishment and the media are concerned. Indeed, this philosophy has become an essential peg supporting a host of other theories and speculations.

Clearly, therefore, for one reason or another people are not readily convinced that they should believe words first recorded more than 3000 years ago. How then is it possible to restore respect and belief in the face of such resistance? Observe that God has already promised to deal effectively with this situation (witness Psalm 2 and Isaiah29:13-16). Of the many methods at his disposal he has chosen to reaffirm the words of Genesis 1:1 in a unique and wonderful manner, and so confound those who refuse to acknowledge and fear him. It is both interesting and instructive to observe His method:

To carry any weight with an establishment that is largely hostile to His message, any verifying principle would need to satisfy at least three important criteria, viz.

1. it would need to be universal in its scope, i.e. be completely independent of language, of intellect, of time and of place;
2. it would need to appeal strictly to self-evident truth and logical argument, i.e. no step of faith would be required to grasp its import;

3. it would need to be decisive, i.e. leave no room for doubt that the Creator is its Author.

Only the language of *number* appears to fulfil these exacting requirements. But how can the words of an ancient language lead *uniquely* to a meaningful set of numbers? By what generally-acceptable method can this first and crucial step be accomplished?

By arranging that, at the appointed time, Hebrew letters would also function as numerals!

And by what means can such numbers acquire a generally-acknowledged significance?

*Simply by taking a prominent and absolute number structure (*i.e. N-R) *as a basis, and guiding the development of vocabulary, syntax and semantics to achieve coincidence with it!*

Whether or not we believe that God plays such an active role in the affairs of mankind, we must face the implications of the empirical evidence presented here and elsewhere. And, in doing so, let us not overlook the fact that the principal object of our attention, Genesis 1:1, is both a challenging and strategically-placed verse! It is indeed difficult to avoid the conclusion that these are all carefully co-ordinated features of purposeful design - intended to meet the demands of a desperate human situation.

There can be little doubt that man's *God-given reason, and its proper application*, are essential factors in bringing this divine plan to fruition. But there are disturbing signs that these essentials cannot be taken for granted!

Further Implications

- While interesting patterns can, and sometimes do, arise by natural law or chance, the strategically-placed, systematic, comprehensive and coordinated display we find here speaks clearly of design and purpose.
- Because its components span the millennia and involve precognition, *A-T* cannot be the result of any human enterprise.
- Its supernatural origin thus established, and because it exalts God and the Scriptures, we deduce its Author to be our Creator and Lord.
- As promised (Rev.13:18), we are thus made wise to the fact that what the world esteems as 'wisdom' is frequently nothing more than imagination!

- It must result in the demise of Liberal Theology and of all attempts to denigrate the Judeo-Christian Scriptures.
- God's thoughts and actions are not to be limited by man's ideas regarding how a deity should behave.
- It must foretell the demise of 'methodological naturalism' – a pernicious doctrine which governs the current practice of science.

  [" The philosophical doctrine of methodological naturalism holds that, for any study of the world to qualify as "scientific," it cannot refer to God's creative activity (or any sort of divine activity). The methods of science, it is claimed, "give us no purchase" on theological propositions – even if the latter are true – and theology therefore cannot influence scientific explanation or theory justification. Thus, science is said to be religiously neutral, if only because science and religion are, by their very natures, epistemically distinct. However, the actual practice and content of science challenge this claim. In many areas, science is anything but religiously neutral…" – Alvin Plantinga]

All scientists are thus following rules invented by atheists!

- Clearly there can now be no guarantee that the findings of science are free – or ever have been free – from supernatural interference.

  [Proof of this may be found in the prologue to the Book of Job where, within the limits imposed by the Lord, Satan is granted permission to afflict the righteous Job.]

- It follows that the doctrines of an 'old earth' and of Darwinism come under close scrutiny.

  [As noted earlier, Richard Dawkins – arch Darwinist and rabid atheist – has stated "It is absolutely safe to say that, if you meet somebody who claims not to believe in evolution, that person is either ignorant, stupid, or insane." But unless this man can suggest a direct line of evolutionary development from fishes to birds, the tables are turned; the Creation account (of which Genesis 1:1 is the prologue) clearly states fishes and birds came into being on Day 5, followed by land animals (including dinosaurs) on Day 6. Current evolutionary theory on the other hand has it that birds are the descendants of dinosaurs!

Clearly, these – and more – constitute the 'wisdom' that results from our counting to 666. Theologians of all hues have dismissed as superfluous and meaningless the Lord's directive of Rev.13:18 – despite the warnings associated with this book! (Rev.22:18,19). Their unaccountable failure to obey a simple command has deprived Christians of an effective answer to the depredations of evangelical atheism and liberal theology

As has already been observed, God has promised to destroy the wisdom of the wise. The suggestion is that this will be done openly, i.e. all will be aware of what is happening! It is likely to begin with the fall of methodological naturalism and the general understanding that the supernatural enemies of mankind are real.

There are two conflicting accounts of who and what man is. On the one hand we are repeatedly and 'reliably' informed by people like David Attenborough, Richard Dawkins, and a multitude of other clever people, that man is essentially an animal whose roots extend back via his ape-like ancestors into the mists of time, conservatively reckoned to be a billion or so years. Their evidence is based on the inductive methods of science which, in turn, rest upon the philosophical doctrine of 'methodological naturalism'. As expressed by the evolutionist George Gaylord Simpson, "Man is the result of a purposeless and natural process that did not have him in mind."

However, it is important that we point out that, on that assessment, the human mind is held to be the ultimate product of an unguided and mindless process, operating over aeons of time. It is clear that Darwin himself was worried about the implications of this, for it undermined his theory. Here is what he wrote to a colleague in 1881:

> With me the horrid doubt always arises whether the convictions of man's mind, which has been developed from the mind of the lower animals, are of any value or at all trustworthy. Would anyone trust the convictions of a monkey's mind, if there are any convictions in such a mind?

This problem is, of course, brushed over by most of his adherents!

ON THE STRUCTURE OF THE CHRISTIAN CANON

In drawing to a conclusion we point to what must be considered a further outworking of the Bible's Second Edge: the KJV has 66 books, 1,189 chapters and 31,102 verses – the two latter, apparently arbitrary divisions introduced over the centuries to facilitate citation.

Of the books: 39 derive from the 'Old Testament' (i.e. the Jewish Bible) and 27 from the 'New'. Representing these statistics as an ordered collection of uniform circular counters, we uncover the following 'picture':
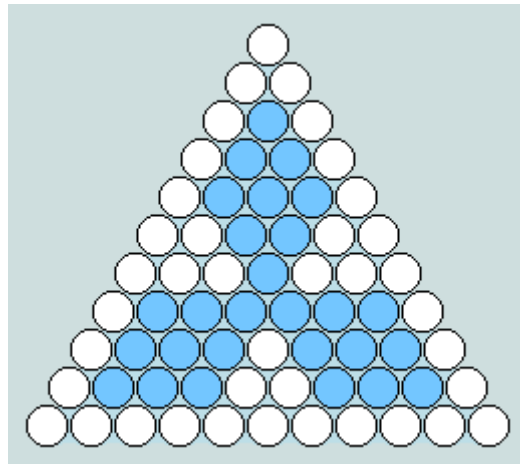
FIGURE 96. THE CANON OF SCRIPTURE

Observe the division of the equilateral triangle of 66: 27 is symmetrically represented as three sets of 9 – each set taking the form of a rhombus; the remaining 'white' counters total 39. Clearly, the impression created is that of a unified book of two related Testaments – the second embedded in the first; its Author, the Triune God of the Christian Scriptures. However, in case we are tempted to ascribe these wonders to human agency alone, it is salutary to read of the gradual development of the Canon over several centuries.

We have observed that the books of the KJV are presented as 1189 chapters. Clearly, therefore, there is a central chapter; it is the 595th and happens also to be the shortest. Psalm 117 reads as follows:

> O PRAISE the Lord, all ye nations: praise him, all ye people.
>
> For his merciful kindness is great toward us: and the truth of the Lord
>
> endureth for ever. Praise ye the Lord.

The number of verses in these 66 books is 31,102 (the phenomena documented in previous pages having been chiefly concerned with the Hebrew of the first of these); this means that central to this arrangement are verses 15,551 and 15,552. Remarkably, these are the first two of Psalm 103, viz.

> Bless the Lord, O my soul: and all that is within me, bless his holy name.
>
> Bless the Lord, O my soul, and forget not all his benefits.

And Finally…

While these developments – which uphold the clarity and authority of God's Word – should represent heartening news for all who, by faith, already believe that "In the beginning God created the heaven and the earth…", for those who don't – who maintain that all that is claimed to be true must be tested and proved by reason alone – this book offers a thought-provoking challenge.

To leave God out of life's equation; to pretend He isn't there , or doesn't care; to underrate His capabilities; leads, ultimately, to futility, madness and disaster! In the Aleph-Tau phenomena He has graciously provided (amongst other things) a collection of simple visual aids which can lead all thinking people back to Him.

The sins of unbelief and apostasy are as old as man himself. They were rife in Israel in the days of the prophet Isaiah, and God – the 'Holy One of Israel' – speaking through him, invited the people to "Come now, and let us reason together…" (Is.1:18). The invitation is open to all people of every age. May we accept it, and in humility drink freely of the Fountain of Truth!

Vernon Jenkins MSc

www.whatabeginning.com

www.otherbiblecode.com

A Glossary of Terms and Definitions

Nun-Resh (N-R) - Those structures of number *per se* which provide a firm basis for the biblical phenomena.

Aleph-Tau (A-T) - The biblically-based numerical structures that map onto **N-R**.

Figurate number - Within the context of this book, a figurate number is one which, represented as a collection of uniform counters, completely fills a symmetrical polygonal or polyhedral frame. The counters may be circular or square, spherical or cubic, as appropriate. When a particular number is found to possess more than one geometry, it is referred to as bi-figurate, tri-figurate, and so on.

Numerical Geometry - The kind of geometry involving the study and application of figurate numbers, as here defined (see also Appendix 1).

'CV' = 'Characteristic Value' - Relating to the fair reading of a Hebrew or Greek word or verse as a number.

'UA' = 'Ultimate Assertion' - The divine prologue, Genesis 1:1, fully comprehended.

'GTC' = 'Greater Creation Triangle'- The composite figure which associates the Hebrew of Gen. 1:1 with the Greek of John 1:1.

'ISO' = 'International Organization for Standardization' - A non-governmental organisation established in 1947 to promote the development of standardisation and related activities in the world.

factor – A number by which another is exactly divisible.

factorise – To resolve a number into its factors.

prime number – One that is divisible only by itself and 1.

product – A quantity obtained by multiplying numbers together.

composite number – The product of two or more factors greater than 1.

denary or **decimal numeration** – The familiar 'base 10' system of representing numbers symbolically.

multiplication symbol – 'x' or '.' or simple adjacency - as is common in algebra [e.g. d(d+1) meaning d times (d+1)].

Constellation ('K' or 'Star-of-Stars') – a compound figurate number involving adjacent terms of the Star- or Hexagram-series – the device K(S1,S2) meaning a Star (value S1) of Stars (each of value S2).

THE BIBLICAL DATA SETS

[G] = [913,203,86,401,395,407,296]

(The set of 7 CVs derived from the Hebrew words of Genesis 1:1)

[G⁺] = [913,203,86,401,395,407,296,302]

(The extended set of CVs derived from the Bible's 8 opening words)

[F] = [320,365,379,626,56,342,317,296]

(The 'Flood' set derived from Genesis 8:14)

[J] = [55,719,58,70,373,31,70,373,58,450,420,134,31,284,58,70,373]

(The set of 17 CVs derived from the Greek words of John 1:1)

[N] =
[31,139,741,201,31,61,139,70,104,1550,891,31,8,1288,11,179,31,8,442, 490,565,315]

(the set of 22 CVs derived from the Greek words of Revelation 21:1, NIV)

THE ARMSTRONG SET

[A] = [153,370,371,407]

(the set of 4 numbers, each equal to the sum of the cubes of its digits)

List Of Figures

Appendices

Contents

Appendix 1 - The Figurate Numbers: An Introduction
Simple examples of life's eternal truths

Many clever people today would convince us that truth is not absolute, but rather exists in relation to context: cultural, societal, or historical. It is the purpose of this essay to confront and refute this view. To do this, it is appropriate that we begin with the understanding that mathematics is widely respected as a primary source of objective truth. At its heart lie *number* and *form* – concepts that are found uniquely combined in a particular class of numbers - the *figurates*. As we shall find, these simple structures are capable of providing a solid basis upon which to build those wider and vital truths of importance to all.

[Note: in what follows, the use of the word *number* will be restricted to mean *whole number* or *positive integer*.]

In general, numbers appear to the senses, (a) as objects or events of interest to be counted, or (b) as sounds or symbols to be interpreted. These absolutes mentioned in (a) may be idealised with reference to collections of 'counters' – typically, uniform discs or spheres. Those of (b) are to do with matters of human expediency; they involve choice of base or radix, and the creation (or adaptation) of a set of symbols, together with rules for their use. The currently-used method of number writing represents the final stage in a long process of evolutionary development; included in this was a period during which complete alphabets were requisitioned for use as numerals as, for example, among the Greeks (from c.600 BC) and the Jews (from c.200 BC). Because the original documents of the Judaeo-Christian Scriptures were written in Hebrew (Old Testament) and Greek (New Testament) it follows that they may also be fairly read as sets of numbers. Details of these schemes may be found in the text proper.

Whether arising from (a) or (b), numbers sometimes exhibit interesting patterns. In the case of (a) it may be possible to place the objects to be counted (uniform discs or spheres, as suggested) inside a regular polygonal or polyhedral frame so as to fill it precisely and completely. In such situations the numbers represented are said to be *figurate.* A typical example is found in the game of snooker where the 15 'reds' are thereby arranged in the form of an equilateral triangle at the beginning of each encounter. With regard to (b), it may be that the repetition of a particular digit catches the eye, or it is seen that a number reads the same backward as forward, or again that a simple digit rotation yields a multiple of the original number. When many events of this kind are observed to occur in a small set of numbers, we may feel strongly led to associate them with design and purpose.

Long before the invention of symbolic methods for recording numbers, notched sticks or bones, vertical strokes on a piece of papyrus or soft clay, or a pile of pebbles were set in a one-to-one correspondence with the things counted. Clearly, such primitive methods, though tedious, have the advantage of representing numbers *absolutely* – i.e. they require no set of symbols or rules of construction to function and are thus universally comprehended. The procedure may be idealised by using a set of uniform spheres as counters – and that is where our study begins.

Let us, therefore, consider some number as being represented by a line of such counters. For example, the number fifteen (symbolically written '15', i.e. one ten plus five) would then appear as
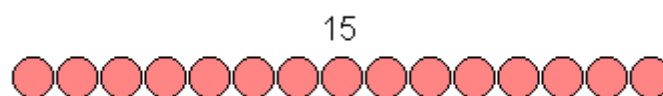
By inspection, we find that this line divides into three equal groups of 5 – which enables us to represent fifteen, alternatively, as a 5x3 rectangle, thus:
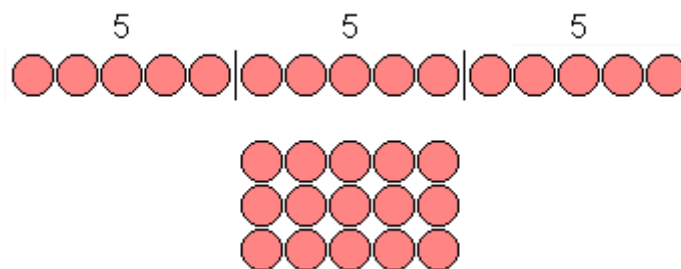
Observe that we have thus *factorised* fifteen: 15 = 3 x 5 – the dimensions of the rectangle – and, moreover, have converted it into a simple *symmetrical picture*. All *composite* numbers may be represented in this way; *prime* numbers* may not. The entry of *symmetry* into the proceedings is highly significant - it being a criterion that is invisible to the world of symbolic numeration. All rectangles possess two *axes* of symmetry, thus:

127
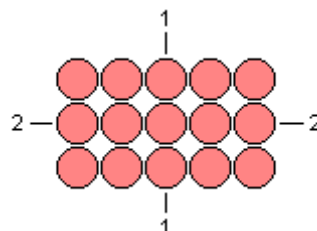
Clearly, if a mirror is placed along a line of symmetry an exact copy of the original shape is seen. Alternatively, if folded along the line, one half of the shape fits exactly into the other.

*Of the first million numbers, 78,498, or 7.8498%, are prime.

A simple adjustment of the counters generates a trapezium having one axis of symmetry:
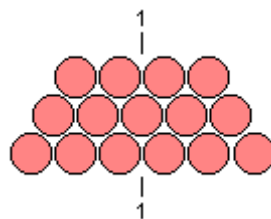
But fifteen is associated with another form of symmetry based upon the fact that it may also be seen as the sum of a sequence beginning one, thus:
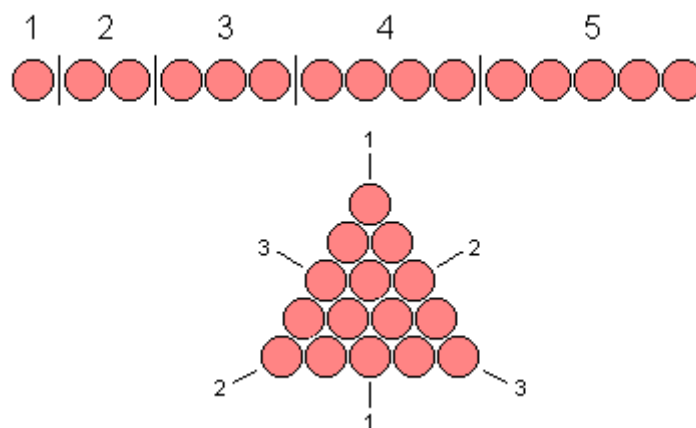
Referred to earlier, this is a familiar figure on our television screens: it portrays the arrangement of the 15 'reds' at the beginning of each frame of snooker. Observe the threefold symmetry in this arrangement. Not surprisingly, numbers of this kind are said to be *triangular*. Fifteen is positioned 5th in this infinite series – its order defined by the number of counters forming a side.

An even more symmetrical picture is found when the number of counters is increased to sixteen:

16
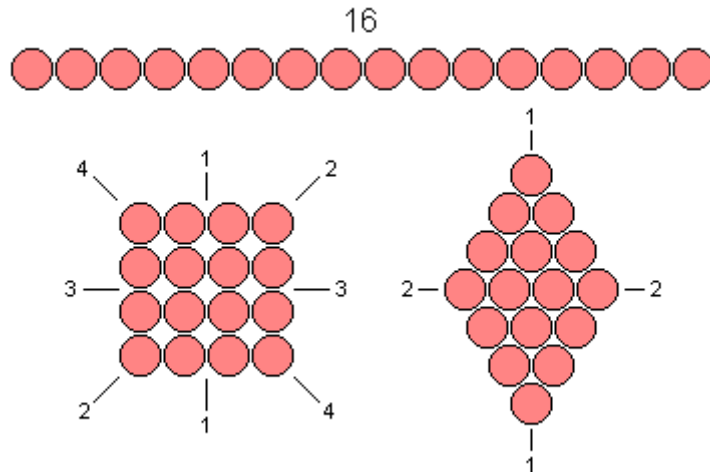
In the 4x4 *square* arrangement four axes of symmetry are seen; but the numerically-equivalent *rhombus* has just two.

But yet more symmetrical figures are found when the number of counters is reduced to thirteen (an example of a *prime* number, i.e. divisible only by 1 and itself): here we find two figures – each having 6 axes of symmetry – a hexagram (or *star*) with a hexagonal core of seven. Observe that this pair derives from the centred union of a triangle (the 4th in this case, viz. 10) with an inverted copy of itself. Only 1 in 3 numerical triangles possess this capability.

13
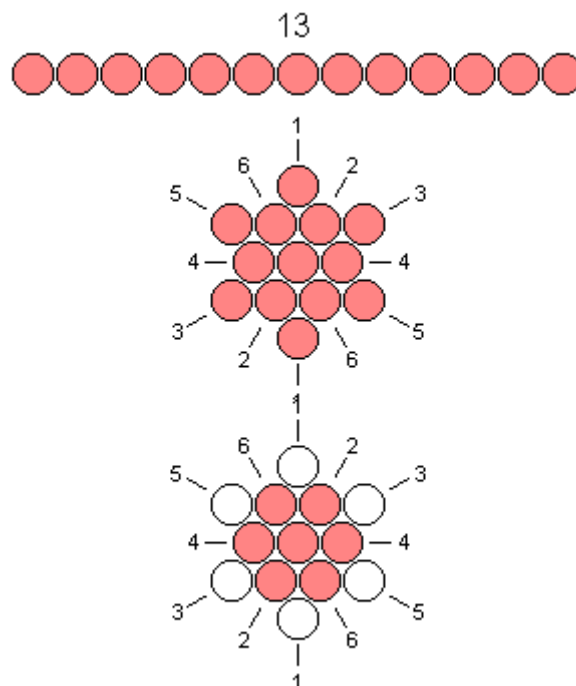
The foregoing forms represent the most prominent of the 2-dimensional numerical geometries with which we shall be concerned. However, there are three 3-dimensional figures of interest, viz. cube, tetrahedron and pyramid. Each of these may be constructed from the spherical counters at our disposal. Here, for example, is

a pyramid constructed from 91 counters arranged as a stack of the first 6 squares – 1, 4, 9, 16, 25, and 36.
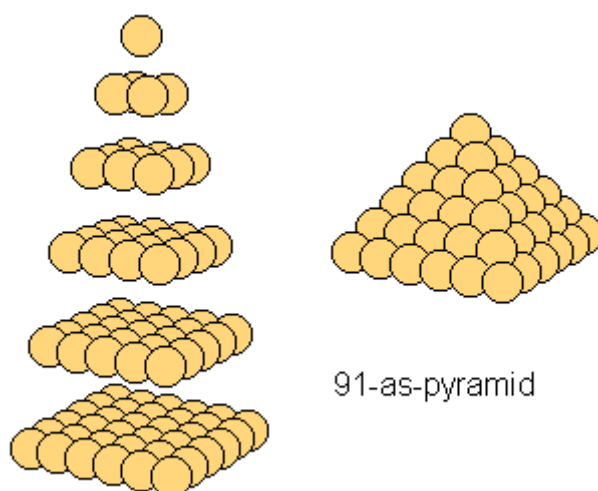
FIGURE A1/1. A PYRAMID OF 91 SPHERES

This figure possesses a single vertical axis of symmetry and 4 *planes* of symmetry (meaning that it may be sliced vertically in 4 different ways to produce identical halves).

Cubes are simply stacks of identical squares, and tetrahedra, stacks comprising a sequence of triangles, beginning 1 (interpreted as a *degenerate* triangle).

Some comments:

(1) In the familiar symbolic form of number representation there is no hint of these symmetrical *number pictures*; they are only revealed when numbers are expressed absolutely as organised groups of uniform counters.

(2) Because of their abundance, rectangles (being a property of all composite numbers) are of little use in furthering the analytical support we seek and are therefore discarded.

(3) Of the remaining polygonal forms, the trapezium - though common and possessing only one axis of symmetry – is nevertheless retained as representing the *difference* of two triangles.

(4) The 'weight' (and usefulness) of each of the remaining figurate types will depend upon its symmetry (as represented by the number of axes or planes) and its relative abundance in the number series. These data are recorded in the first of the tables below.

(5) Additional features which add significance to particular figurate numbers include,

- **Relatedness**: in which one figure is seen to be a symmetrical part of another, e.g. the hexagon/star pair listed above
- **Polyfiguracy**: in which a given number may be realised pictorially in a number of ways, e.g. thirty-seven is a unique prime in that it exhibits three distinct symmetries, thus:

37-as-octagon   37-as-hexagon

37-as-hexagram
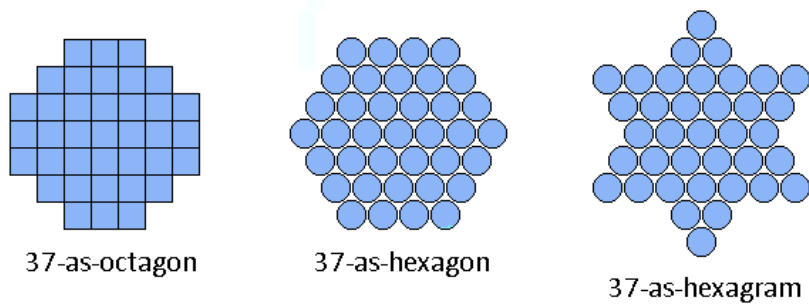
FIGURE A1/2. THE TRIFIGURATE PRIME NUMBER 37

Observe here the alternative use of square or cubic counters (where this is appropriate) and the entry of a new figure – the octagon, or *truncated square*.

The table below lists the frequency of appearance of each of these figurate numbers in the first million natural numbers. Clearly, they are comparatively rare.

Each type of figurate is represented by an infinite series of numbers – these characterised by a formula in which the variable **n** defines the number of counters forming a side of the given figure – and also its position in the series. The second table reveals the formula governing the associated series while the third table lists the values of the first ten members of each series.

	Picture	Symmetry		Occurrences in the first million numbers
		Axes	Planes	
2-D	TRIANGLE	3	n/a	1413 = 0.1413%
	SQUARE	4	n/a	1000 = 0.1000%
	HEXAGON	6	n/a	577 = 0.0577%
	HEXAGRAM	6	n/a	408 = 0.0408%
3-D	TETRAHEDRON	7	6	180 = 0.0180%
	CUBE	13	9	100 = 0.0100%
	PYRAMID	1	4	143 = 0.0143%

FIGURE A1/3. A SUMMARY OF THE PRINCIPAL FIGURATES

Observe: the symmetry axes of a 3-D object are lines about which it can be rotated so that it appears the same as when in its starting position.

	Picture	Generating Formula
2-D	TRIANGLE SQUARE/RHOMBUS HEXAGON HEXAGRAM	$T_n = n(n+1)/2$ $S_n = n^2$ $X_n = 3n(n-1)+1$ $Y_n = 6n(n-1)+1$
3-D	TETRAHEDRON CUBE PYRAMID	$Q_n = n(n+1)(n+2)/6$ $C_n = n^3$ $P_n = n(n+1)(2n+1)/6$

FIGURE A1/4. THE FIGURATE GENERATORS

	Picture	Position in Series (n)									
		1	2	3	4	5	6	7	8	9	10
2-D	TRIANGLE	1	3	6	10	15	21	28	36	45	55
	SQUARE	1	4	9	16	25	36	49	64	81	100
	HEXAGON	1	7	19	37	61	91	127	169	217	271
	HEXAGRAM	1	13	37	73	121	181	253	337	433	541
3-D	TETRAHEDRON	1	4	10	20	35	56	84	120	165	220
	CUBE	1	8	27	64	125	216	343	512	729	1000
	PYRAMID	1	5	14	30	55	91	140	204	285	385

FIGURE A1/5. THE FIRST TEN TERMS OF THE VARIOUS SERIES

Note that the density of the figurates in their respective series progressively decreases as the numbers increase in size.

Detecting Figuracy

Clearly, figuracy is a hidden characteristic of certain numbers. Here we address the question, 'Short of applying trial-and-error procedures involving counters, is there a method by which this may be revealed in respect of some given number (N, say)?' Yes there is. It involves the use of the characteristic formulae listed in the second table, a little simple algebra, and a good electronic calculator. Simplest of all is the detection of squares and cubes.

- **Squares:** provided $\sqrt{N}$ is integral (i.e. a whole number) then N is a square and $\sqrt{N}$ defines its position in the square series
- **Cubes:** similarly, provided $\sqrt[3]{N}$ is integral then N is a cube and $\sqrt[3]{N}$ defines its position within the cube series.

The procedures for the remaining forms are more involved. (Note: to avoid ambiguity, the asterisk is used as a symbol for multiplication in some of the arithmetical operations which follow).

- **Triangles:** the generating formula is $T_n = n(n+1)/2$ (where n represents the number of counters forming a side of the triangle and also its position in the series). Transposing this we obtain $n(n+1) = 2T_n$ or, $n^2 \approx 2T_n$ and $n \approx \sqrt{2T_n}$. (Observe the use of the sign '$\approx$' to mean 'approximately equal to').
  It follows that if N is to be triangular, $n \approx \sqrt{2N}$ will mark its approximate position in the series. But, of course, n must be integral - so we drop any fractional component and calculate $M = n(n+1)/2$; then, provided M = N, we can declare $N = T_n$.

    Example 1: Is 276 (= N) a triangular number?
      $n = \sqrt{2*276} = \sqrt{552} = 23.4946... > 23$; $M = 23*24/2 = 276 = N$
      (Note here the use of the symbol '>' to represent 'greater than')
      Therefore, 276 is triangular, and 23rd in the series (i.e. $276 = T_{23}$).

    Example 2: Is 30971 (= N) a triangular number?
      $n = \sqrt{2*30971} = \sqrt{61942} = 248.8814... > 248$; $M = 248*249/2 = 30876$;
      In this case M≠N, and we can say 30971 is definitely not triangular.
      (Note here the use of the symbol '≠' to mean 'not equal to')

- **Tetrahedra:** the generating formula is $Q_n = n(n+1)(n+2)/6$ (where n represents the number of counters forming a side of the tetrahedron and also its position in the series). Transposing, and proceeding as before, $n(n+1)(n+2) = 6N$, or $n^3 \approx 6N$
  and $n \approx \sqrt[3]{6N}$; again, n has to be integral, so we drop any fraction, calculate $M = n(n+1)(n+2)/6$ and test for M = N; if this is so, N (the given number) = n^{th} member of the tetrahedron series.

    Example: Is 391 (= N) a tetrahedral number?

      $n = \sqrt[3]{6N} = \sqrt[3]{6*391} = \sqrt[3]{2346} = 13.2874...$

      $M = 13*14*15/6 = 455 \neq 391$; thus 391 is not tetrahedral.

- **Pyramids:** the generating formula is $P_n = n(n+1)(2n+1)/6$ where n represents the number of counters forming a side of the pyramid and also its position in the series). Transposing, and proceeding as before, $n(n+1)(2n+1) = 6N$, or $2n^3 \approx 6N$
  and $n \approx \sqrt[3]{3N}$; again, n has to be integral, so we drop any fraction, calculate $M = n(n+1)(2n+1)/6$, and test for M = N; if this is so, N (the given number) = n^{th} member of the pyramid series.

  > Example: Can 16206 (=N) uniform spherical counters, properly stacked, assume the form of a symmetrical pyramid?

  > $n = \sqrt[3]{3N} = \sqrt[3]{3*16206} = \sqrt[3]{48618} = 36.4977...$

  > M = 36*37*73/6 = 16206 = N; thus, this number of spherical counters can be used to create the 36th numerical pyramid.

A little adjustment to this procedure accommodates the remaining figurates listed, viz. hexagon and hexagram (or star). Observe that these only become possible when (N - 1) is a multiple of 3 or 6, respectively.

- **Hexagons:** the generating formula is $X_n = 3n(n-1) + 1$ (where n represents the number of counters forming a side of the hexagon and also its position in the series). Transposing this we obtain $n(n-1) = (N-1)/3$ or, $n^2 \approx (N-1)/3$ and n $\approx \sqrt{(N-1)/3}$ and now, <u>adding 1</u> to this result and discarding the fraction, as before, we proceed to find $M = 3n(n-1) + 1$, and test against the given number N.

  > Example: Is 1261 (=N) a numerical hexagon?

  > $n \approx \sqrt{(N-1)/3} \approx \sqrt{1260/3} \approx \sqrt{420} \approx 20.4939...$
  > so we try n = 21 to obtain M = 3*21*20 + 1 = 1261 and thereby confirm that 1261 is 21st numerical hexagon.

- **Hexagrams:** the generating formula is $Y_n = 6n(n-1) + 1$ (where n represents the number of counters forming a side of the hexagon and also its position in the series). Transposing this we obtain $n(n-1) = (N-1)/6$ or, $n^2 \approx (N-1)/6$ and n $\approx \sqrt{(N-1)/6}$ and now, <u>adding 1</u> to this result and discarding the fraction, as before, we proceed to find $M = 6n(n-1) + 1$, and test against the given number N.

Example: Is 762241 (=N) a numerical hexagram?

$n \approx \sqrt{(N-1)/6} \approx \sqrt{(762240/6]} \approx \sqrt{127040} \approx 356.4267...$ so we try n = 357 to obtain M = 6*357*356 + 1 = 762553 and thereby confirm that 762241 is not a numerical hexagram.

In conclusion, it is worth repeating that the figurate numbers – because they represent a small subset of numbers in general and because they provide symmetrical pictures of particular numbers - are reliable criteria in the search for evidence of intelligent design, among those ancient Hebrew and Greek documents which form the basis of our Bible translations.

Compound Figuracy

The product of two or more numbers, all of which are figurate, may be represented graphically - the unit counters of the figures previously discussed now being replaced by symmetrical clusters, or clusters of clusters. As an illustration, let us consider 370, the product of 10 and 37:
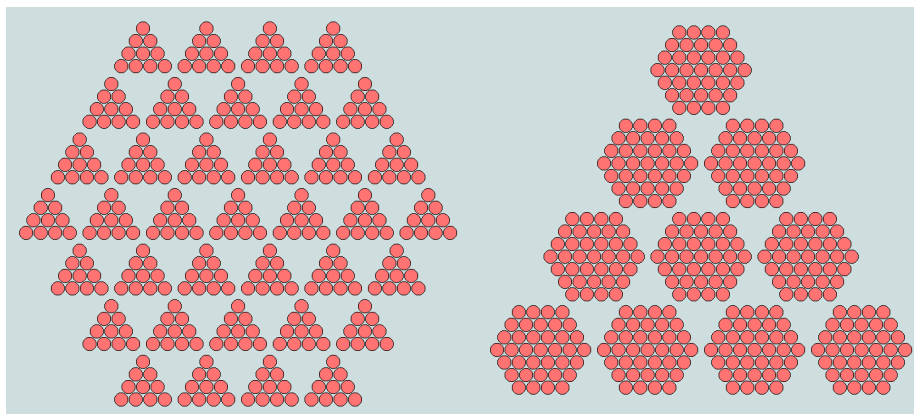
FIGURE A1/6. EXAMPLES OF COMPOUND FIGURATES

Because 10 counters can be set out on a flat surface as an equilateral triangle, and the 2-D forms of 37 include the hexagon, their product, 370, can be represented as shown above.(left). Alternatively, a triangular arrangement of 37's convey the same total (right).

Clearly, many numbers will exhibit such compound figuracy; thus, unless there are other matters involved, the phenomenon is not as remarkable as it might at first appear.

Appendix 2 - Introducing The Numerical Trapezia

A numerical trapezium is best seen as the difference between two triangular numbers, so we write

$$Z(m,n) = T(n) - T(m) = [n(n + 1) - m(m + 1)]/2 = [n^2 - m^2 + (n - m)]/2$$

$$\text{and, since } (n^2 - m^2) = (n - m)(n + m),$$

$$Z(m,n) = (n - m)[(n + m) + 1]/2 \text{ - (i)}$$
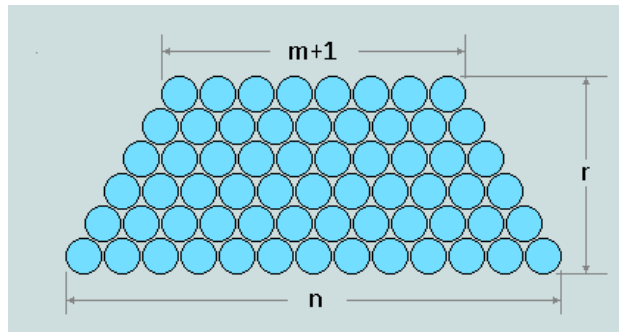
FIGURE A2/1. THE GENERAL NUMERICAL TRAPEZIUM

Observe that the number of rows, r = n – m

The objective of these preliminaries is to demonstrate that – expressed as a simple figurate number – the product of star (S) and related hexagon (H) is both triangle and trapezium. This proof involves a consideration of the elemental triangles (e) which feature in the structures of both S and H. We take as an example the S/H pair that generates 2701, thus:

73-as-star (S)
with 37-as-hexagon (H) inset
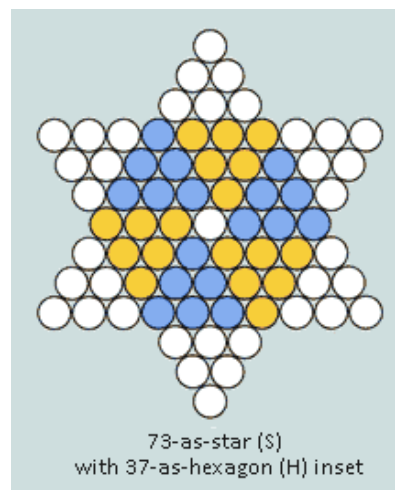
FIGURE A2/2. THE ELEMENTAL COMPOSITION OF STAR(S) AND RELATED HEXAGON(H)

136

Observe that S = 12e + 1 and H = 6e + 1 − both odd numbers. The elemental triangle in this instance is e =T(3) = 6. As may be seen, the general form of the product S.H is

$$(12e + 1) (6e + 1) = (12e + 1) (12e + 2)/2 = S(S + 1)/2 = T(S)$$

If this product is also to represent a trapezium, then from (i)

$$Z(m,n) = (n - m)[(n + m) + 1]/2 = S(S + 1)/2 \text{ - - - - - - - - - - - - - - - (ii)}$$

Seeking to determine m and n and remembering that S must be an odd number we proceed, comparing terms on either side of the equality:

Either (n − m) = S <u>and</u> [(n + m) + 1]/2 = (S + 1)/2 - - - - - - - - - (Case 1)

or (n − m) = (S + 1)/2 <u>and</u> [(n + m) + 1]/2 = S - - - - - - - - - (Case 2)

Case 1

(n − m) = S and (n + m) = S; hence, by addition,

$$2n = 2S, \text{ and } n = S \text{ - - - - - - - - - - - - - - - - - - (iii)}$$

and by subtraction, 2m = 0, and m = 0 - - - - - - - - - - - (iv)

Clearly, these data relate directly to the triangular form of the product S.H

> <u>Check</u>: in respect of the trapezium Z(m,n) = 2701, we have the star S = 73, and the hexagon H = 37; their product therefore is Z(0,73) = T(73)

Case 2

(n − m) = (S + 1)/2 and (n + m) = 2S − 1; hence, by addition,

$$2n = (S + 1)/2 + 2S − 1 = [(S + 1) + 4S − 2]/2 = [5S − 1]/2$$

$$n = [5S − 1]/4 \text{ - (v)}$$

and by subtraction, 2m = 2S − 1 − (S + 1)/2 = [(4S − 2) − (S + 1)]/2

$$m = 3[S − 1)]/4 \text{ - (vi)}$$

> <u>Check</u>: in respect of Z(m,n) = 2701, we have the star S = 73, and the hexagon H = 37; evaluating (v) and (vi) we therefore find
>
> n = (5.73 − 1)/4 = (365 − 1)/4 = 364/4 = 91 and m = 3.72/4 = 54
>
> The related trapezium is therefore Z(54,91).

Here is a simplified representation of this trapezium:
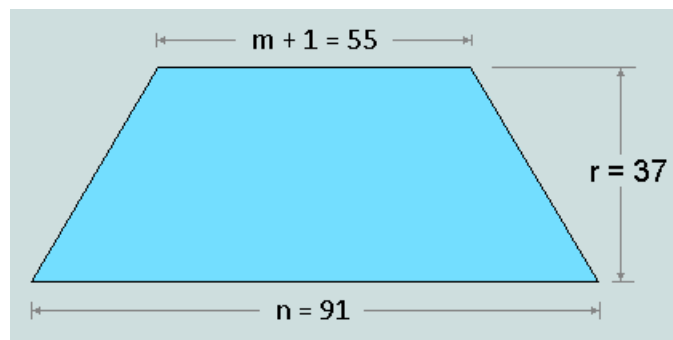
FIGURE A2/3. THE SPECIFIC OUTCOME: Z(54,91) = 2701

Thus, in general terms,

(1) for the 'trapezium = triangle' outcome

n = S; m = 0; r = n − m = S, and the product of hexagon by related star

$$= H.S = Z(0,S) = T(S) \text{ - - - - - - - - - - - - - - (vii)}$$

(2) for the 'trapezium' outcome:

n = (5S − 1)/4; m = 3(S − 1)/4; r = n − m = (S + 1)/2 = H

$$H.S = Z(m,n) = Z[3(S − 1)/4, (5S − 1)/4] \text{ - - - - - - - - - - - - - (viii)}$$

We conclude that the product of hexagram (or star) by related hexagon is, inevitably, both triangle and trapezium.

Appendix 3 - 2701: Establishing Its Singularity

First, a word on the subject of numerical triangles – the simplest of all figurate numbers. Here is a representation of the first eight terms of the triangle series:
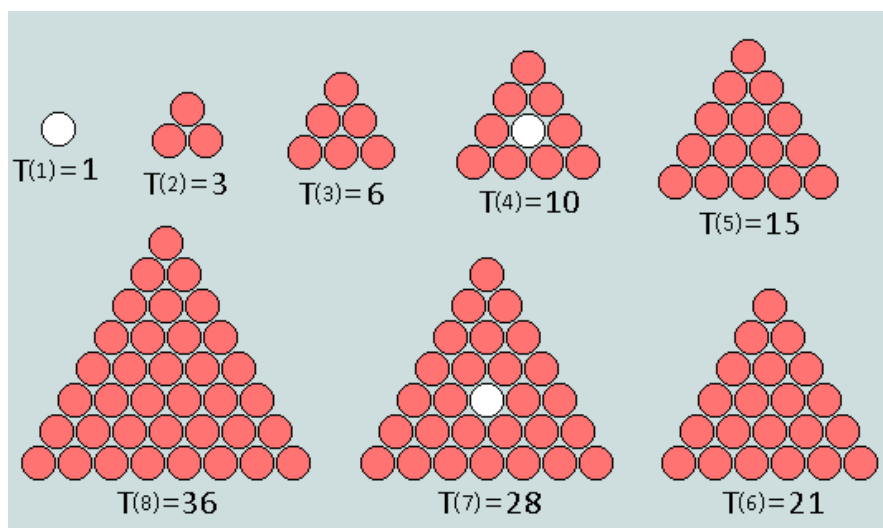
FIGURE A3/1. THE EARLY TERMS OF THE TRIANGLE SERIES

All figurate series are associated with a *generating formula.* For triangles that formula is T(n) = n(n+1)/2 – where n represents the *order number* of the figure, i.e. its position within the series.

Observe that every member of the series represents the sum of a sequence of whole numbers, beginning with one; also that every third member, beginning with the first (which is said to be *degenerate*, since it is not obviously triangular), has a central (or *centroid* counter – here rendered white). Such are termed *generator(g-)*triangles because they have the ability to create a hexagon/star pair (H/S) by self-intersection/self-union. This is made clear in the next diagram where we observe first, T(10) = 55 uniting with an inverted copy of itself to yield the pair 37/73, i.e. H(4)/S(4) and again, T(7) = 28 generating the pair 19/37, i.e. H(3)/S(3) by the same means. However, triangles are again involved in the basic structures of these figures. Such are appropriately termed *elemental(e-)*triangles and in the foregoing instances are T(3) = 6 and T(2) = 3, respectively.

In general, we may express the composition of each of these related figures as follows,

g (the generator triangle) = 9e + 1

H (the hexagon) = 6e + 1

S (the six-pointed star) = 12e + 1

Returning to the matter in hand, we have observed that 2701 (the CV of the Bible's first Hebrew verse) may be expressed absolutely in a variety of ways: (a) as the 73rd triangle, T(73), (b) as the trapezium Z(54,91), (c) as the constellation K(73,37) – i.e. a compound star comprising 73 units of 37 and, (d) as the constellation K(37,73) – i.e. a compound star comprising 37 units of 73. The following diagram captures the essential principles involved in the generation of these figurate structures involving 2701 and its analogues:

37-as-hexagon
(H)

37-as-star
(S2)

73-as-star
(S1)
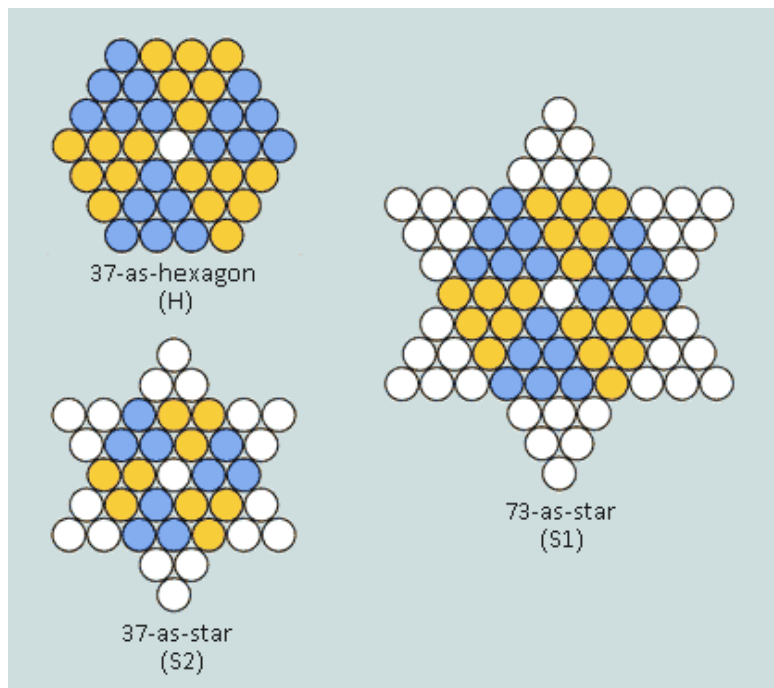
FIGURE A3/2. THE ESSENTIAL STRUCTURE OF RELATED STAR AND HEXAGON

Observe:

(1) The triangular form of 2701 is the product H.S1, i.e. 37.73

(2) The constellation(K) forms of 2701 are the products K1 = S1.S2 and K2 = S2.S1, i.e. 73.37 and 37.73 – consecutive terms in the S-series

(3) The corresponding elemental triangles are e1 (=6) and e2 (=3)

(4) The hexagon central to S1 = H = S2, i.e. 6e1 + 1 = 12e2 + 1; hence e1 = 2.e2 – the criterion which determines all analogues of 2701

(5) Clearly, we need to identify instances of the phenomenon $T_j = 2T_i$, in the general triangle series; here are the first 5 solutions: (clearly, such triangle pairs are not common!)

140

n	T_i	$T_j = 2T_i$	i	j
1	3	6	2	3
2	105	210	14	20
3	3570	7140	84	119
4	121278	242556	492	696
5	4119885	8239770	2870	4059

FIGURE A3/3. EXAMPLES OF THE T_J = $2T_I$ PHENOMENON

We now have the ability to generate the figures associated with each of these triangle pairs, thus:

n	Larger Star [S1]	Smaller Star = Hexagon [S2= H]	2701 and analogues [S1.S2 = S1.H]
1	73	37	2701
2	2521	1261	3178981
3	85681	42841	3670659721
4	2910673	1455337	4236010111801
5	98877241	49438621	4888354443324661

FIGURE A3/4. NUMBERS WITH BOTH T AND K CHARACTERISTICS

Observe that 2701 is the only number in this group that satisfies, <u>in addition,</u> the further attributes,

1) the triangle has a cubic outline
2) its factors are reflective
3) and are displayed when the usual symbolic representation
   of the number is reversed and added to the original.

Clearly, over the extensive range considered, 2701 is unique, and we may surely extend this conclusion to embrace the entire range of whole numbers.

Appendix 4 - Details Of The π Calculation

Here is the required formula:

$$\pi = (NL \times PL) / (NW \times PW)$$

where NL = number of letters, and NW = number of words

PL = product of letters, and PW = product of words

This formula is now applied to the numerical reading of the Hebrew of Genesis 1:1.

The tabulated results that follow represent the first stage of the 'letter products' calculation; each number in the coloured column is the product of the letters found in the individual words. These have yet to be multiplied together to yield the desired 'product of letters' required by the formula.

1. בראשית 913	> 2 x 200 x 1 x 300 x 10 x 400	= 480,000,000
2. ברא 203	> 2 x 200 x 1	= 400
3. אלהים 86	> 1 x 30 x 5 x 10 x 40	= 60,000
4. את 401	> 1 x 400	= 400
5. השמים 395	> 5 x 300 x 40 x 10 x 40	= 24,000,000
6. ואת 407	> 6 x 1 x 400	= 2,400
7. הארץ: 296	> 5 x 1 x 200 x 90	= 90,000

A4/1. Product Of Letters

$$PL = 48 \times 4 \times 6 \times 4 \times 24 \times 24 \times 9 \times 10^{27}$$

$$= 2.3887872 \times 10^{34}$$

$$PW = 913 \times 203 \times 86 \times 401 \times 395 \times 407 \times 296 = 3.041535258 \times 10^{17}$$

Since the number of letters is 28, and the number of words 7, we are now able to apply the formula, thus:

$$\pi = (28 \times 2.3887872 \times 10^{34}) / (7 \times 3.041535258 \times 10^{17})$$

$$= \underline{3.14155 \times 10^{17}} \text{ , i.e. a good approximation of } \pi \ (= 3.14159\ldots) \text{ appears.}$$

Appendix 5 - Details Of The e Calculation

Here again is the required formula:

$$e = (NL \times PL) / (NW \times PW)$$

where NL = number of letters, and NW = number of words

PL = product of letters, and PW = product of words

The tabulated results that follow represent the first stage of the 'letter products' calculation; each number in the coloured column is the product of the letters found in the individual words. These have yet to be multiplied together to yield PL.

1. $E\nu$ > 5 x 50 **55**	= 250	10. $\pi\rho o\varsigma$ > 80 x 100 x 70 x 200 **450**	= 112,000,000
2. $\alpha\rho\chi\eta$ > 1 x 100 x 600 x 8 x 10 **719**	= 4,800,000	11. $\tau o\nu$ > 300 x 70 x 50 **420**	= 1,050,000
3. $\eta\nu$ > 8 x 50 **58**	= 400	12. $\theta\varepsilon o\nu$ > 9 x 5 x 70 x 50 **134**	= 157,500
4. o > 70 **70**	= 70	13. $\kappa\alpha\iota$ > 20 x 1 x 10 **31**	= 200
5. $\lambda o\gamma o\varsigma$ > 30 x 70 x 3 x 70 x 200 **373**	= 88,200,000	14. $\theta\varepsilon o\varsigma$ > 9 x 5 x 70 x 200 **284**	= 630,000
6. $\kappa\alpha\iota$ > 20 x 1 x 10 **31**	= 200	15. $\eta\nu$ > 8 x 50 **58**	= 400
7. o > 70 **70**	= 70	16. o > 70 **70**	= 70
8. $\lambda o\gamma o\varsigma$ > 30 x 70 x 3 x 70 x 200 **373**	= 88,200,000	17. $\lambda o\gamma o\varsigma$ > 30 x 70 x 3 x 70 x 200 **373**	= 88,200,000
9. $\eta\nu$ > 8 x 50 **58**	= 400		

FIGURE A5/1. PRODUCT OF LETTERS

PL = 25 x 48 x 4 x 7 x 882 x 2 x 7 x 882 x 4 x 112 x 105 x 1575 x 2 x 63 x 4 x 7 x 882 x 10^{50}

= 8.436251456 x 10^{75}

PW = 55 x 719 x 58 x 70 x 373 x 31 x 70 x 373 x 58 x 450 x 420 x 134 x 31 x 284 x 58 x 70 x 373

= 9.493022414 x 10^{35}

Observe, there are now 52 letters (including the subscripted Iota) and 17 words. Thus, applying the same formula, we have:

e = (52 x 8.436251456 x 10^{75}) / (17 x 9.493022414 x 10^{35})

= 2.71831 x 10^{40} , i.e. the number e (= 2.7182818…) correct to 5 digits!

Appendix 6 - The ISO 216 A-Series of cut paper sizes

Recommended as an international standard by ISO* in 1961, the **A-series** of cut paper sizes is now widely established. It is based upon a rectangle (A0) having an area of one square metre and sides in the ratio √2:1. These proportions are automatically conferred upon its progeny A1, A2, A3, and so on, by a modified process of halving. All dimensions are expressed to the nearest whole number of millimeters.

ISO 216 A-Series Formats	
A0	841 x 1189
A1	594 x 841
A2	420 x 594
A3	297 x 420
A4	210 x 297
A5	148 x 210
A6	105 x 148
A7	74 x 105
A8	52 x 74
A9	37 x 52
A10	26 x 37
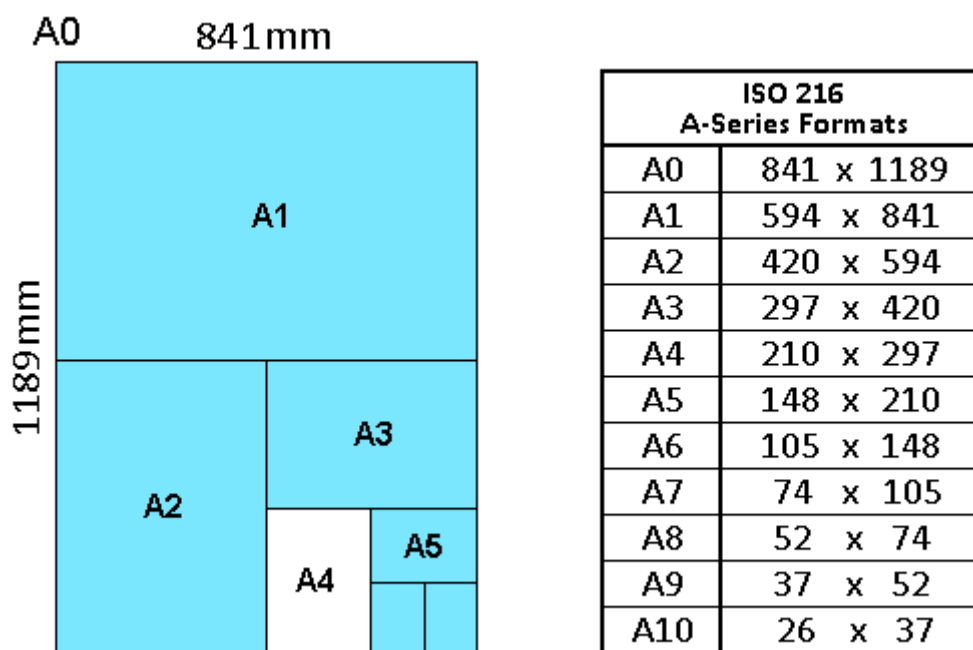
FIGURE A6/1. THE A-SERIES OF CUT PAPER SIZES, ISO 216

Interestingly, 841 (the width of A0) = 29^2 and 1189 (its length) is the number of chapters in the Bible; further, the details concerning the A-series were published as ISO 216 – 216 being 6^3, or 6.6.6, the peripheral count of the G-triangle and sum of the attributes of 666-as-triangle.

* International Organization for Standardization. **ISO** is a non-governmental organisation established in 1947 to promote the development of standardisation and related activities in the world. It comprises a network of national standards institutes for 140 countries, working in partnership with international organisations, governments, industry, business and consumer representatives.

In the present context, A4 - its best known representative and currently the most popular medium for recording and communicating the written word (accepted and used by more than 90% of the world's population) – occupies centre stage. Its dimensions are nominally 297 x 210 millimetres.

The 'root' format, A0 has an area which closely approximates to one square metre (= 1,000,000 square millimetres) and sides in the ratio $\sqrt{2}$:1. The precise dimensions of a rectangle with these targets in mind may be derived as follows:

Let the required width be **w** millimetres so that the corresponding length is $\sqrt{2}$**w** mm and the area, $\sqrt{2}$**w²** = 1,000,000 square mm. Solving this equation, we find

w (the width) = **840.8964...** and $\sqrt{2}$**w** (the length) = **1189.2071... mm**

Observe that these figures are rounded to 841mm and 1189mm because the standard does not allow fractions of a millimetre.

The development of the nominal dimensions of the remaining formats then proceeds by a process of **halving - in which fractions are ignored**. Thus, the length of A1 becomes the width of A0 (i.e. 841) and its width, half the length of A0 (actually 594.5), or 594. Similarly, A2 becomes a 420 x 594 rectangle, and so on. In this manner, the ratio of the sides is closely maintained to $\sqrt{2}$:1 throughout the series.

The A4 Sheet And Its Subdivision

Because 210 is divisible by 2, and 297 by 3, a nominal A4 sheet may thus be divided into 6 identical panels of dimension 105mm x 99mm, as the following diagram reveals:
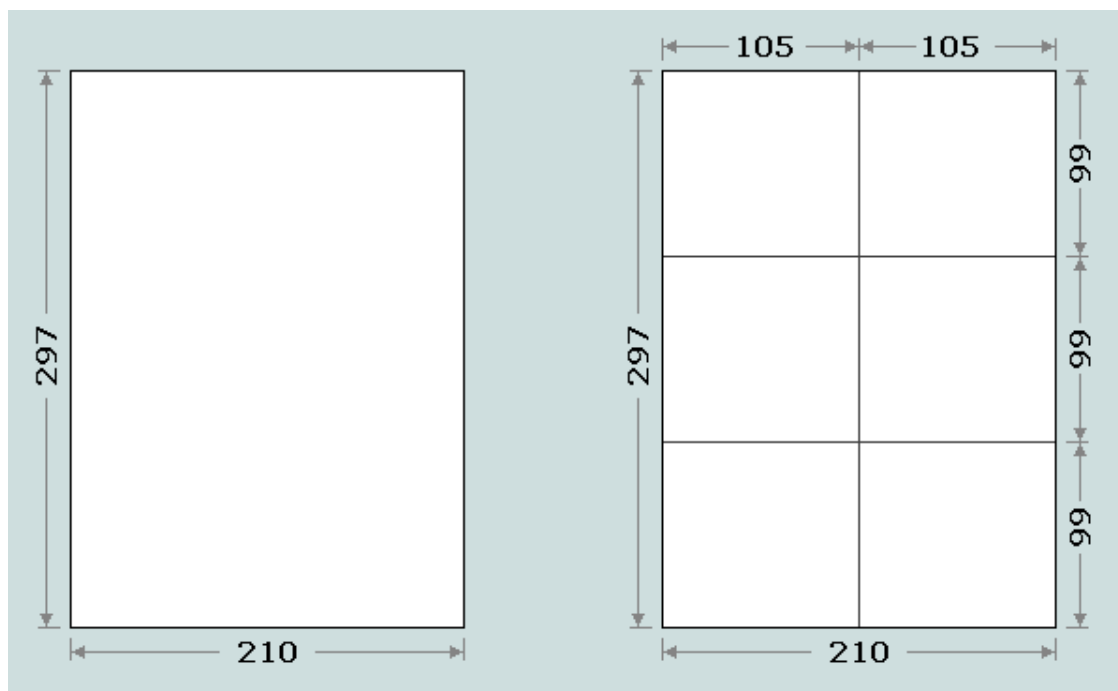

FIGURE A6/2. The Subdivided A4 Sheet (Dimensioned In mm)

The Metre. In 1793, during Napoleon's time, the French government adopted a new system of standards called the *metric system*, based on what they called the *metre*. Relying on the assumed constancy of the earth's size as a basis for the permanency of their standards, this unit was reckoned to be one ten-millionth part of the distance from North Pole to Equator measured on a straight line running along the surface of the earth through Paris. Other linear units of the system were then set up in decimal ratios with the metre. Of particular interest in the present context is the *millimetre* - one thousandth part of a metre. Today almost all countries use a modernised metric system called *SI*.

The Genesis of a Standard. It is profitable that we briefly review the sequence of events that has led inexorably to the appearance of A4 in our day:

- He who created the earth must already have decided what size it should be – a decision that would become a key factor in determining the absolute length of the metre in the 18th century;
- He who created the earth also created man – having already made decisions concerning his physical, mental, and other attributes which, ultimately, would determine a suitable and preferred document shape and size for general use;
- He who created had also made it clear that ten was a significant number – particularly suitable for use, (a) as radix for man's systems of number representation and, (b) as a multiplier and sub-multiplier to complement the metre in the establishing the *metric system's* dominance in 21st century metrology;
- man's decision to choose the square root of 2 ($\sqrt{2}$) as the ratio of the sides of his preferred shape, the rectangle, has arisen from considerations of utility, economy, and simple logic – as befitting those created in God's image.
- man's need to communicate and calculate led to the development of language and an evolving system of numeration

It is, therefore, exceedingly difficult to avoid the conclusion that all who, though unwittingly, had a hand in bringing about the *Ultimate Assertion / A4* phenomena were simply responding to the dictates of a Higher Authority! An adequate explanation thus demands the existence of an Omniscient, Omnipotent, Interested and Purposeful *Supervisor.* Surely, He can be none other than *Elohim*, the God of Creation – the Lord Jesus Christ!

Appendix 7 - Extracts From A Relevant Abstract

Arithmetic inside the universal genetic code

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Abstract

The first information system emerged on the earth as primordial version of the genetic code and genetic texts. The natural appearance of arithmetic power in such a linguistic milieu is theoretically possible, and practical for producing information systems of extremely high efficiency. In this case, the arithmetic symbols should be incorporated into an alphabet, i.e. the genetic code. A number is the fundamental arithmetic symbol produced by the system of numeration. If the system of numeration were detected inside the genetic code, it would be natural to expect that its purpose is arithmetic calculation e.g., for the sake of control, safety, and precise alteration of the genetic texts. The nucleons of amino acids and the bases of nucleic acids seem most suitable for embodiments of digits. These assumptions were used for the analysing the genetic code.

The compressed, life-size, and split representation of the *Escherichia coli* and *Euplotes octocarinatus* code versions were considered simultaneously. An exact equilibration of the nucleon sums of the amino acid standard blocks and/or side chains was found repeatedly within specified sets of the genetic code. Moreover, the digital notations of the balanced sums acquired, in *decimal* representation, the unique form 111, 222, &#x2026, 999. This form is a consequence of the criterion of divisibility by 037. The criterion could simplify some computing mechanism of a cell if any and facilitate its computational procedure. The cooperative symmetry of the genetic code demonstrates that possibly a zero was invented and used by this mechanism. Such organisation of the genetic code could be explained by activities of some hypothetical molecular organelles working as natural biocomputers of digital genetic texts…

Appendix 8 - A Subjective View: The Music Of J.S.Bach

The subjective evidence for the existence of God and the supernatural must include that which is abundantly demonstrated in the life and work of the composer/virtuoso Johann Sebastian Bach (1685-1750). Speaking of him in his book *Music in the Castle of Heaven*, Sir John Eliot Gardiner poses the question "…what kind of person was capable of composing music so complex that it leaves us completely mystified, then at other moments so irresistibly rhythmic that we want to get up and dance to it, and then at others still so full of poignant emotion that we are moved to the depth of our being?" You don't have to be religious to be deeply affected by Bach's music, but many would agree that it possesses a mysterious spiritual beauty and opens a door to the transcendent; and remarkably, his music continues today to influence all genres, from orchestral music to jazz and pop.

Bach has been justly described as one of the most enigmatic, accomplished, and versatile creative geniuses our civilisation has ever produced. His music at base comprises an intricate fabric of vibrations impinging on the ear, which appear to emanate from heaven itself – clearly, positive answers to the composer's prayers as he penned his masterpieces. He was a man for whom the experience of God was an existential reality. As he himself wrote, "The aim and final end of all music should be none other than the glory of God and the refreshment of the soul." Over the centuries theologians have proclaimed God to humanity, trying to offer explanations and proof. Bach enters into dialogue with humanity; he leads us into unimaginable spiritual realms, into realities for which words are often inadequate. It is a tribute to his genius to be able to tell the story in the most eloquent and artful sermons in song and sound ever created

Arriving at Leipzig in 1723, Bach took up his post as Cantor of St.Thomas's, which primarily involved the provision and performance of music at the city's four main churches. Thus, much of the time until his death in 1750 was spent composing cantatas, passions, oratorios and masses to further the teaching of the Christian gospel. Now regarded as the epitome of his art, the B minor Mass – composed over a period of more than 20 years – provides a short summary of the life of Jesus, and of salvation history in the *Credo*, from his birth to his ascension and reigning in glory.

Remarkably, some two centuries would elapse before these masterpieces became widely known and fully appreciated; many today acclaim his work as the *Fifth Gospel*, and he himself as the *Fifth Evangelist*. However, although a deeply religious man, Bach probably never thought of himself as a holy person to be named in one breath with Matthew, Mark, Luke and John!

So, what kind of person was Bach? Undoubtedly, a sinner like the rest of us. And the source of his inspiration? I believe a powerful clue is provided by the following observation: Bach invariably ended his compositions with the motto "Soli Deo Gloria" (to God alone be the glory) – having offered up a prayer for assistance before he began with "Jesu Juva" (Jesus, help)! I suspect that this neither was (nor is) common practice among composers of music - or others who put pen to paper! Of great significance too must be the fact that his life coincided with the Great Evangelical Awakening of the eighteenth century when gifted preachers like the Wesleys, George Whitfield, Daniel Rowlands, Howell Harris, and others were abroad – inspired, as was Bach, by the Holy Spirit.

Bringing us up to the present day, the eminent Japanese conductor and harpsichordist, Masaaki Suzuki, who has recorded and performs publicly all of Bach's religious works sees himself as a missionary, and believes that Bach has already converted tens of thousands of Japanese to the Christian faith.

In a word, for those with an ear for beauty in sound, the music of J.S.Bach assures us of the reality of God and of celestial things.

Vernon Jenkins MSc

About the author

Vernon Jenkins is a life-long Christian and a native of Gorseinon – formerly a highly-industrialised town some 6 miles west of Swansea. As a pianist and choir member of St Catherine's Church, at age 13 he became organist in 1941 following the 'calling up' of the incumbent to the armed forces. He has subsequently pursued this musical side of his career by serving as organist to a number of Christian and Jewish congregations and as concert accompanist to several choirs.

In 1946 he left Gorseinon for Cardiff, to study mining engineering at the University College of South Wales and Monmouthshire; graduating with a BSc Honours Degree in 1950, he then entered the National Coal Board's scheme of *Directed Practical Training* with the intention of becoming a colliery manager. However, a period of ill-health interrupted that plan and in 1954 he became a lecturer in the Department of Mining at what was eventually to become the Polytechnic of Wales, Treforest.

During his time there he undertook research into problems concerning the distribution of air in coal mines. This intensely 'number-crunching' exercise demanded the use of the college's newly-installed IBM 1130 computer and resulted in his successful acquisition of an MSc by thesis in 1968 – the title of the work being *Flow-Balancing: a Computer-Assisted Technique of Fluid Network Analysis*. This additional qualification enabled him to apply for, and obtain, a lectureship in the Department of Mathematics and Computing prior to the collapse of the mining industry and the end of the teaching of coal mining at the college.

While in his new post, and until his retirement in 1987, he became interested in the potential implications of two simple observations, viz.

> 1.   All Bible translations rest upon certain ancient documents written largely in Hebrew and Greek;
> 2.   Hebrew and Greek are alphanumeric languages, i.e. their words may be alternatively and fairly read as numbers.

This book is, therefore, the outcome of some 40 years of investigative effort based upon the hypothesis:

The numbers that result from a fair alternative reading of the divinely inspired Hebrew and Greek originals are themselves inspired, and are thus included in Paul's words to Timothy: "All scripture is given by inspiration of God, and is profitable for doctrine, for reproof, for correction, for instruction in righteousness: that the man of God may be perfect, thoroughly furnished unto all good works." (2Tm.3:16,17)

To believe words requires faith; on the other hand, to find intricate and related patterns in the numbers that derive from words is hard evidence of purpose; we thereby infer that the related words are true – no longer by faith alone!

[for the back cover]:

With the emergence of English as the world's *lingua franca*, the computer as man's general factotum, the Internet as his comprehensive database, and an ability to communicate near-instantaneously, we appear to have returned to a situation of which our Creator has said "Behold, the people is one, and they have all one language...and now nothing will be restrained from them, which they have imagined to do." (Genesis 11:6).

Clearly, to meet the challenges of what has undoubtedly become a *hyper-Babel* situation, some form of divine intervention is urgently needed – and is to be expected; and while the original remedy took the form of a 'confusion of tongues' and a 'scattering abroad' (Genesis 11:7,8), we now have a revelation of the Being and Sovereignty of the One True

God - and this expressed in a manner which no rational being can fail to understand. Clearly, all who genuinely seek Truth may now find it.

This book has been written to reveal the many wonders concealed within God's Word, the Bible and, thereby, provides a solid basis for rational discussion concerning the deepest issues of life.

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