The Pattern Pieces

Folder 30

The Pattern Science

Science Redesigned, Simplified, and True.

The Pattern Science is a unified science of Scripture and nature, built upon three foundational principles:

- **The Principle of Patterning**—using an original object (mould) to create copies (mouldings).
  - According to Wikipedia, *"A pattern is an original object used to make copies, or a set of repeating objects in a decorative design and in other disciplines."*
  - In *Ezekiel 43:10,* God instructs Ezekiel: *"Let them* (the house of Israel) *measure the pattern* (of the house)*."* Furthermore, *Ezekiel 43:11* states: *"Make known to them the design of the house."*
- **The Method of Modeling**—using building (construction) as metaphor for explanation.
- **The Truth of Testing**—validating theory through physical verification.

The scope and structure of the Pattern Science follow a systems engineering approach, exemplified by the diamond model used in the Pattern Science Presentation.

At its core, the Pattern Science is built around the **Pattern Number System**, which is similar to the decimal number system but incorporates both an algebraic component and a geometric shape component. The system reflects a reality that is both broken and unbroken, represented by its **duonity** and **disduonity** states.

Biblical measurements using **measuring rods** yield the standard shapes of the Pattern Number System. The **generic Pattern cube** is a transformation of the standard column (pair) shape within the number system.

Unification cubes (uni-cubes) are instances (copies) of the Pattern cube that align with key properties of various phenomena—both natural and biblical. Some notable unification cubes include: the **Atom cube**, the **Gravity cube**, the **Spacetime cube,** and the **City cube**.

The **City cube,** which is the highlight of this study, is a Pattern Science model representing the **New City** described in *Revelation 21 and 22*.

The Pattern Science has a **pre-creation perspective**, referencing the existence of Wisdom before creation: *"The LORD brought me forth as the first of his works, before his deeds of old."* (*Proverbs 8:22*)

Ultimately, the Pattern Science unveils a **divine design**, highlighting a recurring pattern theme throughout both the Bible and nature. It seeks to unify Scripture and nature, harmonizing biblical truth with scientific discovery.

Folder 30 *The Pattern Science* was published on *thepatternscience.com* website on 12 September 2025.

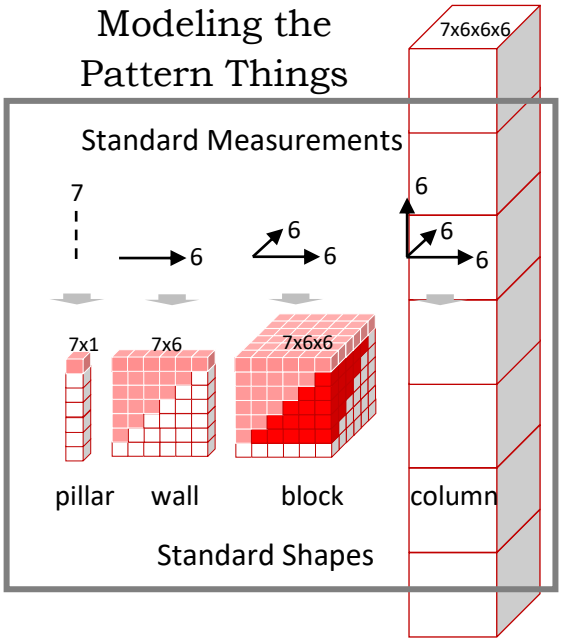
The Pattern Science Elements

The Pattern Science is based on the metaphor of **constructing a building**.
Both the building and its contents were designed according to the same abstract geometric plan, or **Pattern**.
The construction is carried out systematically and with precision, using the right tools, by **God, the Builder**.
Initially, the finished building was whole and unbroken, but it began to disintegrate following a collapse.

Building Metaphor

The construction-of-a-building metaphor of the Pattern Science applies to the modeling of abstract geometric shapes through measurements with biblical measures.

Standard orthogonal measurements with biblical measuring rods yield the standard shapes of the Pattern number system.



The Pattern Science Elements

The Pattern Science method is built upon p**atterning**, **modeling**, and **testing**.

Principle of Patterning (PoP)

The Pattern hypothesis proposes that everything in existence is a manifestation of an abstract Pattern. The Pattern manifests in abstract geometric cellular models.

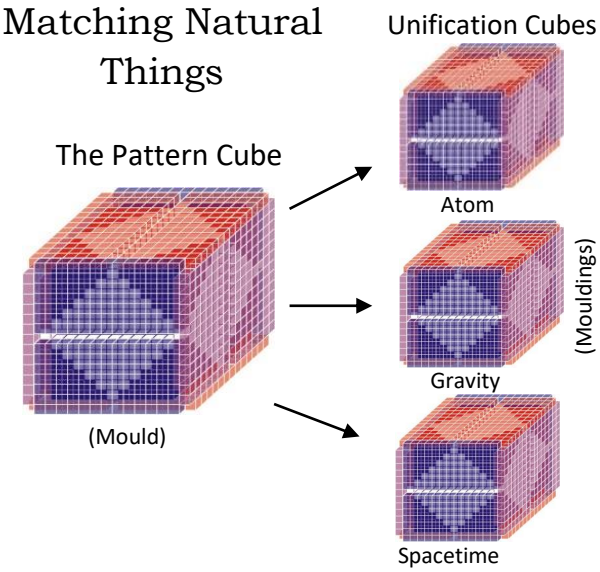
Method of Modeling (MoM)

Modeling involves the building of abstract brick-like models based on the standard shapes defined within the Pattern number system. See the modeling diagram on the right.

The Pattern number system consists of sum-and-shape numbers, which can be elevated to higher dimensions – similar to positional numbering systems, such as the decimal system.

Measure-to-build. The model-building process is carried out by performing a sequence of orthogonal measurements using standardized biblical measuring rods.

The primary model, known as **the Pattern cube**, serves as a mould for generating mouldings - instances of the Pattern cube. These mouldings, referred to as **unification cubes**, or uni-cubes, function as model representations of various phenomena, including the atom, gravity, spacetime, and biblical buildings.



Truth of Testing (ToT)

Measure-to-test. Verification of the properties of the uni-cube models (on the right) form part of the testing stage of the Pattern Science.

Traditional science measures the properties of natural phenomena to conduct observations and validate experimental outcomes.

The Pattern Conservation Law

The Pattern theorem states that a linear inverse pair of quantities yield a conserved sum.
The Pattern law states that the Pattern sum is a conserved quantity.

The Pattern Science Resources

The Pattern modeling system is described in this folder (Folder 30 *The Pattern Science*).
The Pattern number system is described in Folder 20 *The Pattern Number System.*
The Pattern Science testing (matching) models of natural phenomena is described in Folder 18 *The Pattern Cube.*
The Pattern Science testing (matching) models of biblical phenomena is described in this folder.
All these resources and any document referred to in these resources are available on *thepatternbook.com*.

The Pattern Numbers

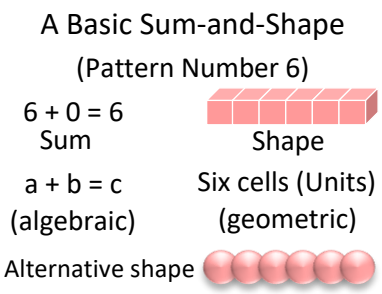
Pattern numbers are the purest expression of the Pattern idea.

Pattern Numbers are a unique type of number characterized by two main components: a sum part and a cellular shape part. For example, the number 6 represents all positive integer pairs that sum to 6. However, which specific pair represents the sum remains undetermined - only the probability of a particular value pair can be calculated. While cubes are used as the default shape, alternative forms, such as spheres, may also be used.

A Basic Sum-and-Shape

A **Pattern number** consists of an algebraic sum and its corresponding geometric shape, illustrating **algebraic-geometric equivalence**. The default sum is the Pattern number plus zero – for example, **6 + 0** - while the default shape is a row of cells equal in quantity to the sum (see illustration on the right).

A sum is composed of ***a*-type** cells plus ***b*-type** cells, where each type represents a **complementary variable** in the sum equation.

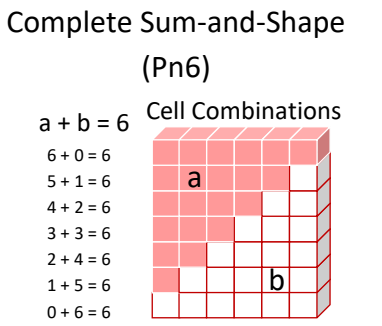


Complete Sum-and-Shape

A complete Pattern number encompasses all possible value combinations (in sequence) of the two variables that sum to the given total.

The cell array (illustrated on the right) visually demonstrates how the number of ***a*-type** cells decreases while the number of ***b*-type** cells increases simultaneously, ensuring a constant sum. Pattern number 6 (Pn6) serves as an example.

The **default shape** of the Pattern number 6 cell array is referred to as the **wall shape** – characterized by a linear diagonal where the two cell types meet.



Sum Combinations

Each row of cells in a Pattern number represents a sum formed by a distinct combination of non-negative integer values. The **table** (illustrated on the right) lists the **seven rows of Pn6**, demonstrating the possible sum combinations.

Row 1	6, 0	6 + 0 = 6
Row 2	5, 1	5 + 1 = 6
Row 3	4, 2	4 + 2 = 6
Row 4	3, 3	3 + 3 = 6
Row 5	2, 4	2 + 4 = 6
Row 6	1, 5	1 + 5 = 6
Row 7	0, 6	0 + 6 = 6

Same Sums

Pattern Number States

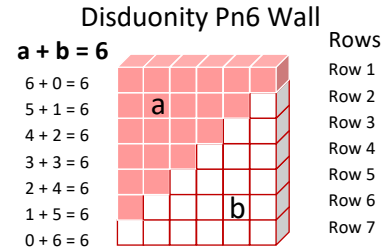
Pattern numbers exist in two distinct states: **duonity and disduonity**. The **duodisnity** variation of the disduonity state is not treated as a separate state.

The disduonity state serves as the default state.

The standard wall shape is used below to illustrate the respective states.

Disduonity State

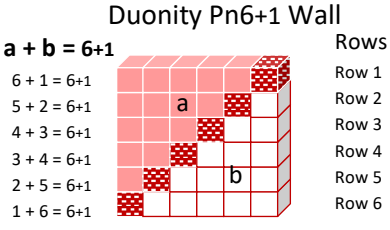
The **disduonity wall** (illustrated on the right) represents seven value pairs, **including zeros**. The Pn6 wall measures **7x6 cells**.



Duonity State

The **duonity wall** (illustrated on the right) represents six value pairs, containing **no zeros**. The Pn6+1 wall measures **6x(6+1)** = **36+6 cells**, with the six **overlaying supercells** along the diagonal depicted using dotted colouring.

A **supercell** consists of two cells in that are in a **superposition**.

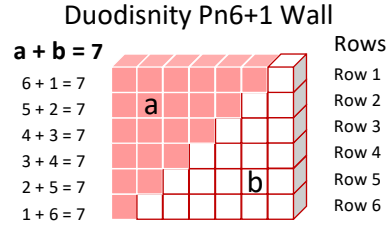


Duodisnity State

In the **duodisnity version** of the **duonity wall** (illustrated on the right), the **super-cells** are converted into **non-overlaying cells**, resulting in a total wall measurement of **6x7 cells**.

However, this wall cannot be identified as Pattern number 7 (Pn7), as Pn7 represents an entirely different Pattern number. Consequently, there is no distinction between the **duonity Pn(6+1)** and **duodisnity Pn(6+1)** number notation – aside from their structural shape differences.

It is interesting to note that the conversion of duonity to both duodisnity and disduonity could be viewed as a collapse in the quantum wavefunction context.



The Pattern Number 6 System

No knowledge without a number system.

The Pattern Number System represents Pattern numbers that have been raised to higher powers, with each power corresponding to a specific shape of a higher dimension. The standard shapes include: 1D pillars, 2D walls, 3D blocks, and 4D columns. **The Pattern cube** is the transformed shape of a **column pair** and represents a **four-dimensional object**.

Additionally, the Pattern Number System serves as a framework for other number systems, including the **binary number system** (Pattern number 1) and the **decimal number system** (Pattern number 9).

The Pattern Number System

The **Pattern number 6 hierarchy**, ranging from the power of *0* to the power of *3,* is illustrated below.

Note that the hierarchy increases to the **right**, whereas a typical number hierarchy increases to the **left**.

	$Pn6^0$	$Pn6^1$	$Pn6^2$	$Pn6^3$	Pattern number 6 hierarchy
Unit	Pillar	Wall	Block	Column	Respective Pattern number shapes
0D	1D	2D	3D	4D	Effective spatial dimensions
$(a + b)^0 = c^0$	$(a + b)^1 = c^1$	$(a + b)^2 = c^2$	$(a + b)^3 = c^3$	$(a + b)^4 = c^4$	Respective Pattern equations

For powers higher than *3,* the system begins to repeat basic shapes. For instance, $Pn6^4$ produces a wall-like $Pn6^1$, but with greater the cell density in the higher-dimensional wall. Additionally, the positional number system functions as a dimensional system, where numbers in higher positions correspond to higher dimensions.

The Pattern Number 6 Shape Hierarchy

The standard shapes of the disduonity Pattern number 6 hierarchy are illustrated on the right. The unit itself is not assigned a Pattern number but establishes a minimum size, akin to the Planck size in physics.

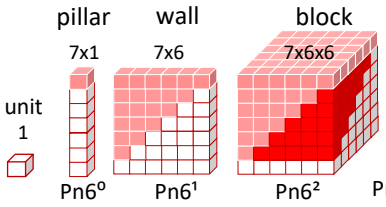
The unit **contains** all the cells of the various shapes. The pillar, for instance, represents the unit's vertical extension - representing times. A horizontal extension, which is a flat pillar, would represent distinct spaces.

The unit can be likened to a cornerstone, while the (extended) horizontal pillar corresponds to a foundation consisting of unit blocks.

The sequential dimensional extension of the unit into a pillar, wall, and beyond evokes the concept of organic growth such as with an embryo.

The Pn6 System Hierarchy

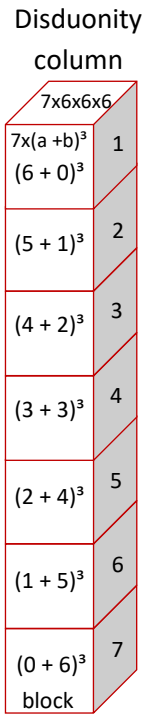
$Pn6^0$	$Pn6^1$	$Pn6^2$	$Pn6^3$
pillar	wall	block	column
7x1	7x6	7x6x6	7x6x6x6
$7x(a+b)^0$	$7x(a+b)^1$	$7x(a+b)^2$	$7x(a+b)^3$

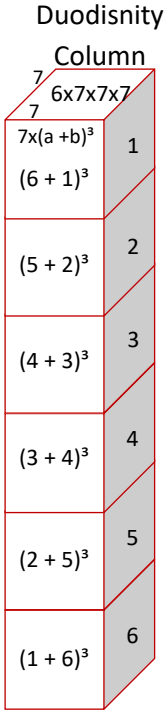


The Decimal System Hierarchy

1's	10's	100's	1000's

The number shapes are like the Pattern number shapes. Note that a comparable decimal number column would consist of 10 blocks, each 10x10x10 cells.





Unlike the other shapes, the column drawings do not display cell details.

The Duodisnity Column

The **duodisnity column**, depicted on the far right, consists of **6x7x7x7** cells. The Pattern values for the *a* and *b* variables are displayed on each block of the column.

Each of the six blocks that form the duodisnity column contains **7x7x7** cells.

The Duonity Column

A duonity column, though not illustrated, consists of **6x6x6x6** cells, with each block containing **6x6x6** cells. The Pattern values remain consistent with those used for the duodisnity blocks.

However, due to the presence of **super-cells** in the geometric rendition of duonity shapes, **the size of each block is reduced by one** cell in each of the three block dimensions. The **Pattern number expression** for the **duonity version**, however, remains identical to that of the **duodisnity version**.

The Pattern Numbers System is a system of geometrized numbers.

Measurement

To measure is to rule.

Measurement serves two primary functions: **planning and building** or **quantifying and verifying**.

Measure-to-build construction-type measurements are used to create layouts and plans for new structures. This practice dates to early Egypt, where precise measurements were employed in architectural designs. Biblical references frequently highlight measurement as a key element in creation and construction.

M**easure-to-test** measurements, n the other hand, are applied in observations of phenomena and also play a critical role in validating experimental outcomes.

Measurement in Egypt

The practice of measurement played a crucial role in Egyptian construction, particularly in the '**stretching of the cord**' foundation ceremony. This ritual was performed to lay out the plan before the construction of an important new building. Foundation ceremonies consisted of various rites, most of which were conducted the pharaoh himself. The central rite involved determining the building's plan by using a measuring line to mark the foundation layout. This **measure-to-build** process was guided by the orientation of specific stars, determined through astronomical observation.

Measurement in Science

Measurement in science typically is the **measure-to-test** type of measurement used for quantifying observations or verifying experimental results.

A Piero Martin states in *The Seven Measures of the World*:
"The modern scientific method is founded on experiments and observations and on their reproducibility. To describe these experiments, to draw new hypotheses and theories from them, or to validate or refute existing theories, a common language is needed: the language of measures."

Mathematical model predictions – such as Einstein's general relativity prediction regarding the bending of starlight due to gravity - have been confirmed through measurement. A notable example is Eddington's verification in 1919 of this prediction by Albert Einstein.

Measurement in the Bible

God challenges Job and Isaiah with thought-provoking questions about His creation:
"*Where were you when I laid the earth's foundation? Tell me, if you understand. Who marked off its dimensions? Surely you know! Who stretched a measuring line across it? On what were its footings set, or who laid its cornerstone— while the morning stars sang together and all the angels shouted for joy?".* (Job 38:4-7)

"Who has measured the waters in the hollow of his hand, or with the breadth of his hand marked off the heavens? Who has held the dust of the earth in a basket, or weighed the mountains on the scales and the hills in a balance?" (Isaiah 40:12).

As John S. Tixier states in Observations on Things Measured in the Bible: *"Not only is 'measurement' a biblical concept, but God has been intimately involved in measuring from the beginning of creation. It is apparent that God has arranged everything He created in its proper position, by design, and has confirmed it with divine measurements."*

Ezekiel's measurement instrument was a rod:
"*In the man's hand was a measuring rod six cubits long, each being a cubit and a handbreadth."* (Ezekiel 40:5)

Ezekiel was also given a measurement instruction:
"*Son of man, describe the house to the house of Israel, that they may be ashamed of their iniquities; and let them measure the pattern."* (Ezekiel 43:10)

Biblical references to measurement typically align with **measure-to-build**, signifying either planned construction (creation according to a verbalized plan) or **measure-to-test** assessment (revelation of the plan) following the completion of a structure. Biblical measurements, however, were not limited to physical structures such as Solomon's temple; they also applied to non-physical, abstract entities, such as Ezekiel's temple.

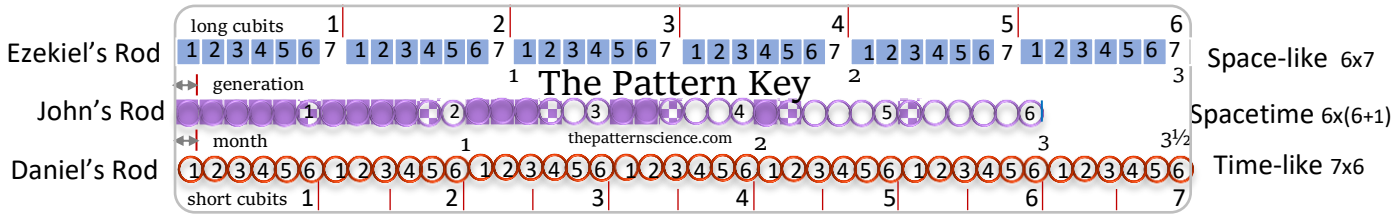
The Pattern Key

"For you have taken away the key of knowledge" *Luke 11:52*

The Pattern key consists of an ensemble of three biblical rod representations: Ezekiel's 's rod and Daniel's rod on the edges of the key, with John's rod positioned in the middle. Ezekiel's rod serves as a **space-like measure**, while Daniel's (imaginary) rod functions as a **time-like measure** - both derived from John's **spacetime measure**.

Triple-Rod Key

John's rod, centrally positioned in the key, represents the **duonity state,** while Ezekiel's rod corresponds to the **disduonity state,** and Daniel's rod represents the **duodisnity state**. John's 6x(6+1) rod contains six overlaying **supercells** (36+6), whereas the other two rods each feature 42 explicit cells. These two rods can be viewed as collapsed versions of John's rod. Measurements taken using John's rod generate John's column, which is described on page P30:14.



Key Features

Each cell gradation of a rod measures **one handbreadth** - typically **7,5 cm**. Consequently, the two outer rods, each containing **42 cells**, extend to a total length of **3.15 m**. The inner rod consists of **36 cells**, plus **6 supercells**, indicated by the dotted colouring. (A dotted cell represents a superposition of cells.)

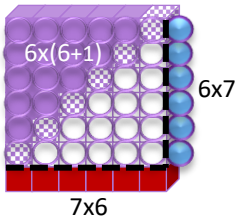
The numbering **(1, 2, 3)** adjacent to the gradations of Ezekiel's rod corresponds to **three groupings of 14 cells each**. Meanwhile, the additional numbering **(1, 2, 3, 3½)** next to the gradations of Daniel's rod signifies 3½ groupings of 12 cells each. In the biblical context, this **3½** could correspond to **42 months**, often expressed as *'a time, times, and half a time'*. This phrase denotes a specific prophetic period referred in **Daniel and Revelation** (e.g. **Revelation 11:2-3**).

Combination Wall Key

A **Pattern number 6 wall-like combination** of the three rods of the Pattern key is depicted on the right. **Ezekiel's rod** corresponds to the horizontal **6x7 rectangle of sphere cells**, while **Daniel's rod** aligns with the vertical **7x6 rectangle of cube cells**.

John's rod corresponds to the **6x(6+1) square** wall with **6 dotted supercells** along the diagonal. **John's duonity wall** represents a superposition of spherecubes, while Ezekiel and Daniel's rectangles correspond to collapsed (**disduonity and duodisnity**) versions.

Combination Wall



Significance of the Key

John's rod - with its supercells - functions as a **2D spacetime measure** that collapses into two orthogonal **1D measures**: one **space-like** and one **time-like**. It can be compared to the combination of length (meter) and duration (second) measures, implying that **Ezekiel's rod** corresponds to the length measure, while **Daniel's rod** represents the time measure.

John's rod could, for example, serve as a measure of **someone's stature,** combining **height and age**:

"*And which of you by worrying can add one cubit to his stature?"* (Luke 12:25)

John's rod could be extended into a **4D spacetime measure**, forming a **duonity column** (see Page 30:14). This **Pattern column** perspective on spacetime could, perhaps, provide a geometric portrayal of special relativity's **4D spacetime**

Additionally, Daniel's **7x6** time-like rod contains an orthogonal spatial element – the '**6**' – which could be equated to **imaginary time.** This 2D time representation might offer insight into the **no-boundary condition** for the universe, as theorized by **Stephen Hawking**.

The **42 cells** of each of the three rods represent the **invariant sum of the Pattern conservation law**.

The **Pattern Science's equivalent of a constant speed (of light?)** is calculated as the space-like measure divided by the time-like measure, yielding '**1**' **(6x7/7x6 = 1).**

The Pattern Modeling System

Measurement extends the unit.

The Pattern modeling system is based on the **measure-to-build** method. Standard measurements use standard rods to model standard abstract geometric shapes. Measurement with the three rods of **the Pattern key** yield three different columns.

The Pattern Number 6 Shapes

The standard shapes of the Pattern number 6 system are shown on the right. The shapes reflect the disduonity shapes of the Pattern number 6 sequence, $Pn6^0$, $Pn6^1$, $Pn6^2$, and $Pn6^3$.

The number of cells in each shape is shown. The 7x6 wall shape, for example, is a 2D array of cells with 7 rows and 6 columns. The individual cells of the 7x6x6x6 column shape are not indicated but it consists of 7 blocks of 7x6x6 cells each.

The drawing of a 7x6 measuring rod that is superimposed on the column shows an **alternative shape for the 7x6 wall** shape. The alternative shape for the 7x6x6 block is a plank as indicated on the left. The plank consists of 6 rods.

The Pattern Measurements

A sequence of orthogonal measurements with a rod yields the different shapes of a Pattern number – disuonity rod measurements yield disduonity Pattern number 6 shapes and duodisnity rod measurements yield duodisnity Pattern number 6 shapes.

Disduonity Measurements

The sequence of disduonity 6x7 rod measurements is illustrated on the right by an increasing number of vectors in orthogonal positions.

The increasing dimensions of the resulting shapes are indicated by single letters, i.e. d: depth, l: length, b: breadth, and h: height.

The depth (time?) dimension is fundamentally the origin of the shapes that fill four dimensions, rather than the usual three.

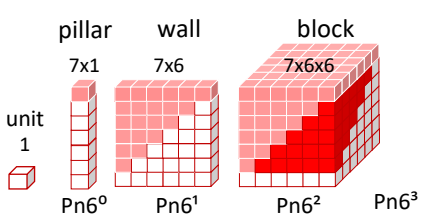
Duodisnity Measurements

The sequence of duodisnity 6x7 rod measurements is illustrated on the right by an increasing number of vectors in orthogonal positions

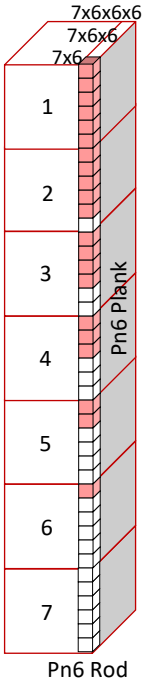
Duonity Measurements

The duonity rod measurement vectors are 6x6x6x6 for the column.

The Pattern Number 6 Shapes



Pn6 Column



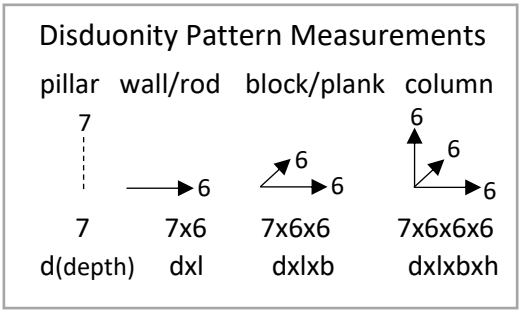
Alternative Shapes

The 7x6x6x6 column on the right contains a 7x6 rod and a 7x6x6 plank that are the alternative shapes for the 7x6 wall and the 7x6x6 block shown above.

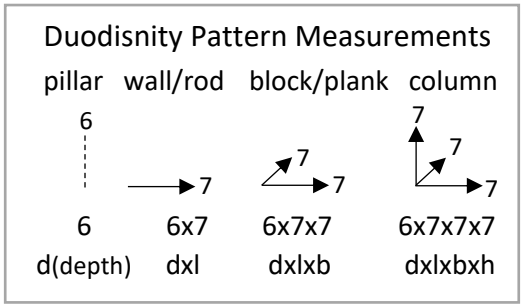
The 7x6 rod measures 7 blocks (cubits). Each block is divided into 6 cells (handbreadths).

The 7x6x6 plank consists of 6 rods and the column consists of 6 planks.

Disduonity Pattern Measurements



Duodisnity Pattern Measurements



Tensorial Mathematical Objects

The **standard shapes** of **the Pattern Number System** resemble mathematical tensors - abstract geometrical models that span multiple dimensions.

Tensors are mathematical objects commonly used to describe physical properties (Source: DoITPoMS).

The **ranks of tensors** - **vector** (rank 1), **matrix** (rank 2), **tensor** (rank 3), and **tensor** (rank 4) – correspond to the **pillar, wall, block,** and **column** shapes of the Pattern Number System.

However, the standard Pattern number shapes differ from tensors in several key ways:

- **Tensor shapes** are **variable**, whereas **Pattern number shapes** remain **fixed**.
- **Tensors** contain **elements or fields** that can hold **specific values**, while the **cells** of the Pattern shapes are **units** defined by either the ***a* or *b* types of variables** of the Pattern equation.

Thus, despite certain similarities, the Pattern shapes are distinct from commonly used tensors.

Ezekiel's Column

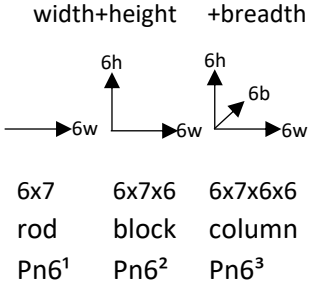
Ezekiel's column is an abstract geometric shape, modeled by the standard measurements of the east entrance of Ezekiel's temple's using **Ezekiel's rod**. It also serves as a conversion of the disduonity reference column, which is derived from the disduonity measurements presented on the previous page.

Ezekiel's Rod Measurements

"*In the man's hand was a measuring rod six cubits long, each being a cubit and a handbreadth; and he measured the width of the wall structure, one rod; and the height, one rod. Then he went to the gateway which faced east; and he went up its stairs and measured the threshold of the gateway, which was one rod wide, and the other threshold was one rod wide.*" (Ezekiel 40:5,6)

The first measurement, using the **6x7 rod** (see the diagram on the right), defines the width (**w**) and height (**h**), forming a cross-section of the wall. This measurement results in a **6x7x6 block**. The second, accumulative measurement accounts for the gateway's threshold - the breadth (**b**) - forming a 6x7x6x6 column, known as **Ezekiel's column**.

Ezekiel's Measurements



6x7	6x7x6	6x7x6x6
rod	block	column
$Pn6^1$	$Pn6^2$	$Pn6^3$

Reference Column

The **disduonity 7x6x6x6 reference column** (illustrated on the right) represents the 4D shape of the cubed Pattern number 6 system. This column was generated using standard measurements with a **disduonity 7x6 reference rod**, as explained on the previous page.

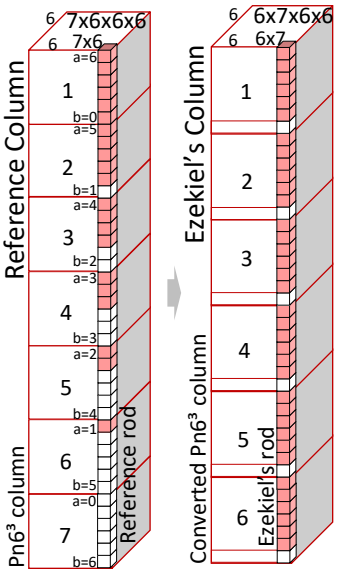
Reference Rod

The **disduonity reference rod** is an integral part of the **disduonity reference column** (illustrated on the right). It consists of **42 cells**, structured as **7 cubits**, each containing **6 handbreadths** (cells). The rod's grading system delineates the distribution of the disduonity Pattern values – a = 6,5,4,3,2,1,0; b = 0,1,2,3,4,5,6 - which corresponds to the values of the **$Pn6^1$ wall**. The wall's Pattern equation is expressed as: $(a + b)^1 = c^1$.

Ezekiel's Column

Ezekiel's **6x7x6x6 column** (illustrated on the far right) is formed using **Ezekiel's rod** measurements. However, it is also a converted configuration of the **7x6x6x6** 4D reference column. The conversion changes the 4D column into a 4D column consisting of six identical **7x6x6** 3D blocks.

Disduonity Columns



Ezekiel's Rod

The conversion of the reference column into Ezekiel's column also results Ezekiel's rod (see the illustration above). Notably, Ezekiel's rod is the only **measuring rod** in the Bible **described in such detail** that it specifies gradings.

"*In the man's hand was a measuring rod six cubits long, each being a cubit and a handbreadth.*" (Ezekiel 40:5)

The **extra handbreadth per cubit** was intended to distinguish Ezekiel's **long cubit** from the **common (short) cubit**, which only measured **six handbreadths**. In this context, the handbreadths mentioned in the text corresponds to cells, with Ezekiel's rod comprising 42 cells.

Furthermore, Ezekiel's rod is an integra part of **the Pattern key** (illustrated on page P30:10) and represents its **space-like** aspect.

The Other Threshold

The reference in Ezekiel 40:6 to the measurement of **two thresholds** may hold significance in the context of John's column that is described on page P30:14: "*Then he went to the gateway which faced east; and he went up its stairs and measured the threshold of the gateway, which was one rod wide, and the other threshold was one rod wide.*"

Each block of John's column represents both a **sphere (gate)** and a **cube (foundation)** overlaid in **superposition**. Interestingly, the Hebrew word for 'other' - *ehad* – can also mean 'joined in one'.

It is possible that one threshold measurement corresponds to the sphere rendition, while the other represents the overlaid cube rendition. When measured separately in the shadow state, the **sphere and cube each measure 6 cubits**, totalling **12 cubits** in the non-shadow state - which aligns with the **144-cubit wall** measurement in Revelation 21:17.

Daniel's Column

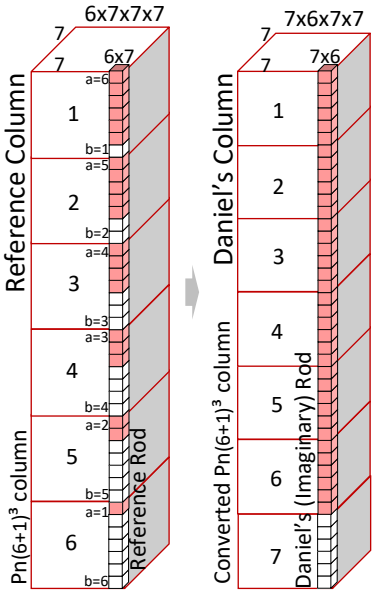
Daniel's column is not derived from measurements using a measuring rod, as Ezekiel's column is. However, it aligns with the Pattern modeling scheme, utilizing an **imaginary 7x6 rod** that expands into a **7x6x7x7 column** through the standard measurements. Daniel's column represents a **duodisnity** variation of cubed Pattern number 6. The **extended column pair** corresponds with Daniel's '**seventy-sevens prophecy**', offering an intriguing, time-like perspective on the geometrical Pattern underlying biblical writings.

Duodisnity Pattern Columns

The duodisnity reference column (illustrated on the right) represents $Pn(6+1)^3$, the cubed duodisnity version of Pattern number 6+1. *(The algebraic expression of the duodisnity column is the same as the duonity expression of the column.)*

Daniel's 7x6x7x7 column (illustrated on the far right) corresponds to a column generated by the three standard Pattern measurements using a **7x6 rod**. This column is a converted version of the duodisnity **6x7x7x7 reference column** adjacent to it.

Duodisnity Columns



Daniel's Rod

The **duodisnity reference rod** is integral to the **duodisnity reference column** (illustrated on the right). It consists of **42 cells**, structured as **6 cubits**, each containing **7 handbreadths** (cells). The rod's grading system delineates the distribution of the duodisnity Pattern values – a = 6,5,4,3,2,1; b = 1,2,3,4,5,6 - which correspond to the values of the **Pn(6+1) wall**.

Daniel's imaginary rod is a conversion of the reference rod. The colouring of the rod's cells highlights the **last cubit's non-overlay cells**. Furthermore, Daniel's rod is an integral part of **the Pattern key** (illustrated on page P30:10) and represents its **time-like** aspect.

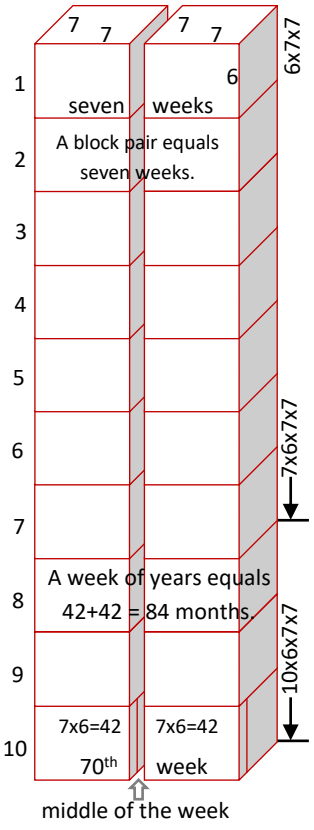
Daniel's Column Pair

Daniel's **'seventy-sevens'** vision (see quotation below) can be represented through **a pair of extended Daniel's columns**. *(Daniel's column is described above.)*

The extended column pair stands **10 blocks** tall, compared to the 7 blocks of Daniel's original column. The **10x6x7x7 column pair** geometrically represents Daniel's 'seventy-sevens' prophecy. Each **6x7x7 block pair** within the extended columns corresponds to **seven weeks of years**.

The **final week** at the base of the column pair is specially marked. It measures **6x7 + 6x7 = 42 + 42** cells. Since each cell represents one month, the **84 months** equate to **seven years**. The **middle of the last (70th) seven** (week of years) is positioned between the two columns.

Daniel's Column Pair



Daniel's Prophecy

"Seventy weeks are determined for your people and for your holy city."

". . to restore and build Jerusalem until Messiah the Prince there shall be seven weeks and sixty-two weeks."

"And after the sixty-two weeks Messiah shall be cut off, but not for himself."

"Then he shall confirm a covenant with many for one week; but in the middle of the week, he shall bring an end to sacrifice and offering." (Daniel 9: 24-27)

Accuracy of Daniel's Prophecy

Daniel's prophecy of seventy-sevens spans **490 years** (70x7). The **483-year** period, excluding the final seven years, represents the time from the decree to rebuild Jerusalem until the **Messiah's crucifixion**. Scholarly calculations suggest this timeframe is fairly accurate.

Additionally, the prophecy foretells the destruction of Jerusalem and the temple in the middle of the last week, which occurred in AD 70 under General Titus of Rome.

Biblical Column Scheme

The biblical column scheme comprises three variations of Pattern number 6 columns, each generated through measurements taken with three distinct rods. This scheme includes three types of columns: disduonity columns, duodisnity columns, and duonity columns. Conversions of these columns produce other columns within the scheme, each possessing unique properties.

The Biblical Column Scheme

The scheme below organizes **the Pattern number 6 system columns** into **disduonity, duodisnity** and **duonity** categories, along with their conversions. The top views of the columns are displayed separately, including the top ends of their rods. Additionally, **the three rods of the Pattern key** (described on the next page) are indicated.

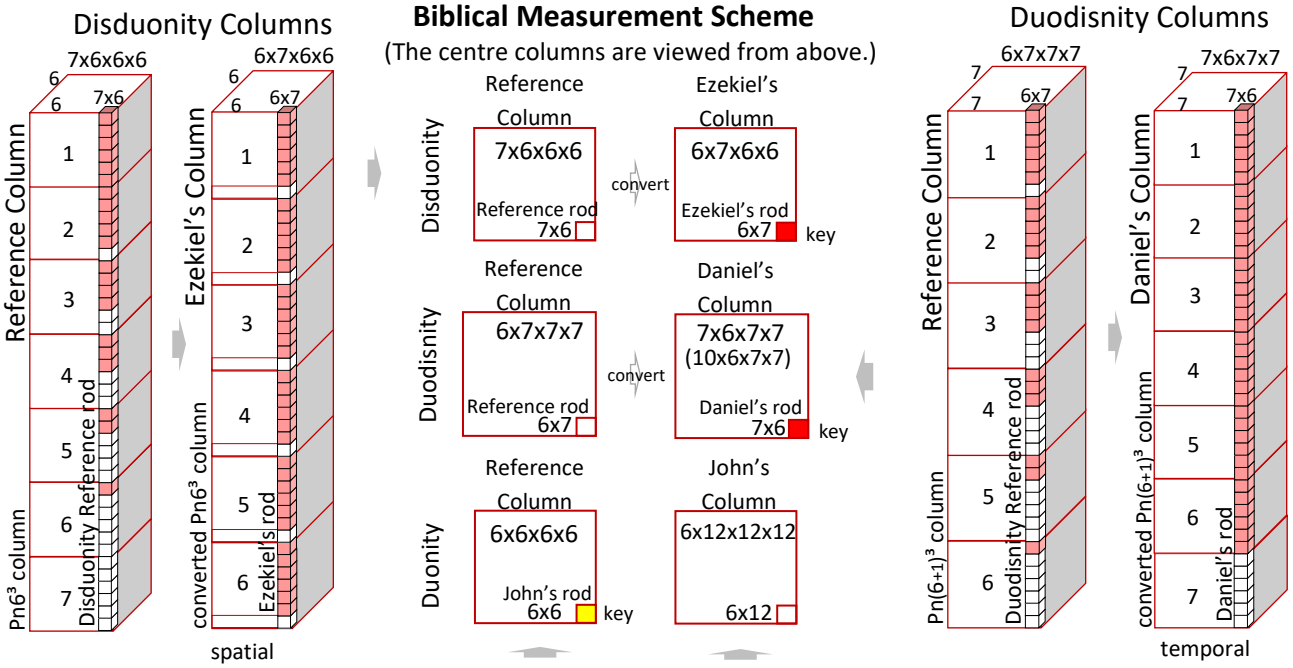
It is important to note that John's column is a conversion of the reference column and also a **superposition** of the converted **congruence** that adds the spherical aspect to the conventional cubical representations.

Column Summary

7x6x6x6 Disduonity Pattern column
6x7x6x6 Disduonity Ezekiel's column

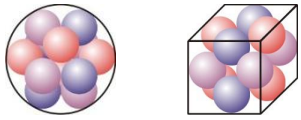
6x7x7x7 Duodisnity Pattern column
7x6x7x7 Duodisnity Daniel's column
10x6x7x7 Daniel's extended column

6x6x6x6 Duonity Pattern column
6x12x12x12 Duonity John's column

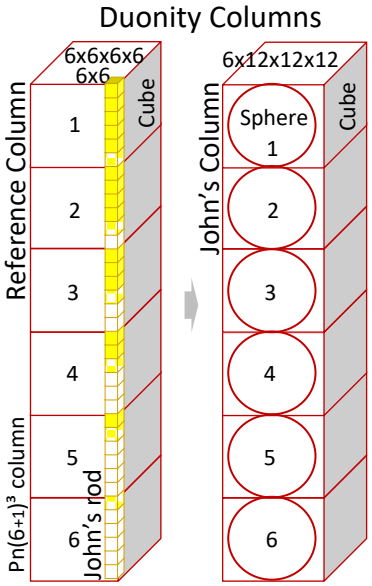


The Pattern Cluster

The Pattern cluster consists of twelve spheres arranged around a central thirteenth sphere. It fits inside both a sphere and a cube and it, therefore, represents a 4D object.



The Pattern cluster is, therefore, an example of a spherecube block. John's column (on the far right) consists of six such spherecube blocks.



John's Column

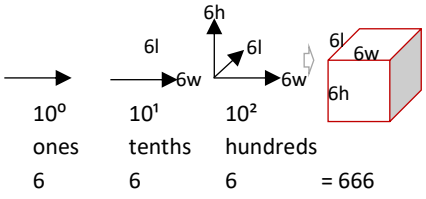
John's column of **spherecube blocks** is a duonity column with block dimensions that are twice those of the reference column.

A block is a **combination** of a sphere and a cube. The dimensions of the individual shapes are added, as described on page P30:14.

The diameter of the sphere and the length of the cube are both **6 cubits.** A block, therefore, measures **12x12x12** cubits and the column measures **6x12x12x12** cubits.

The Non-filled 666 Cube

The diagram on the right illustrates the **6>6>6** Pattern measurement sequence, which produces an empty cube corresponding to the decimal number **666** - a number referenced in Revelation 13:18: *"Let him who has understanding calculate the number of the beast, for it is the number of a man: His number is 666."*



The Pattern Cube

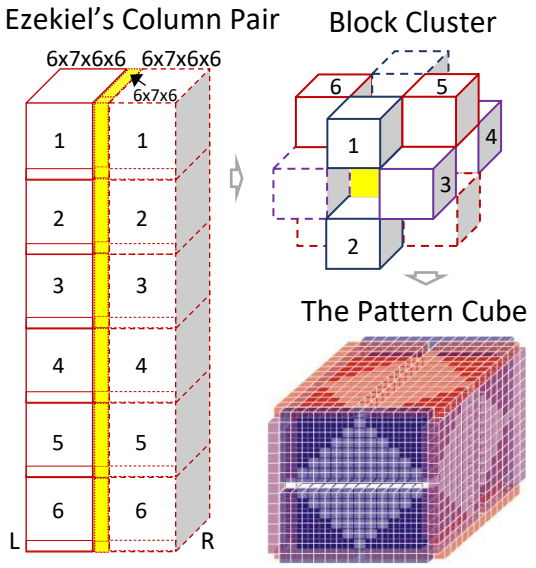
The Pattern cube is the primary shape of the Pattern Number System, derived from a column pair. It serves as a universal Pattern or mould, with instances of the cube – mouldings or copies – used as models for natural phenomena such as gravity. These instances are called unification cubes, or uni-cubes for short.

The principle of patterning can be compared to **pottery**, where clay is shaped into pots. A potter typically uses a mould to form clay into a specific shape. The same mould can be used repeatedly to create different pots, ensuring that all finished pots share the same fundamental properties.

Ezekiel's Column Pair

Ezekiel's column is the **converted version** of the disduonity reference Pattern column, as described on page P30:7. A **pair** of Ezekiel's columns is illustrated on the right. The pair configuration originates from the Pattern code, which is detailed in Folder 18 *The Pattern Cube*.)

The **6x7x6 plank** positioned between the two columns represents the **gauge field**, further explained in Appendix 1.



Block Cluster

The twelve blocks that make up **Ezekiel's column pair** can be converted into a **cluster of twelve blocks** (on the far right).

The cluster-configuration represents a 4D object in 3D achieved by means of dimensional reduction which is described in Appendix 2.

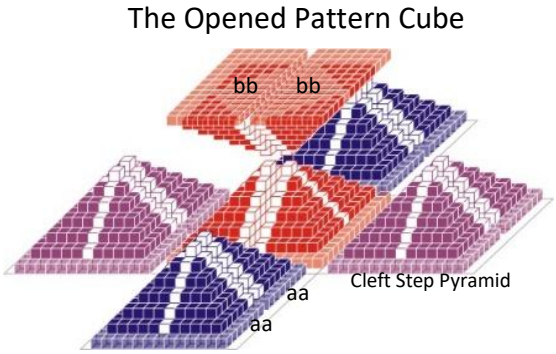
Note that the block cluster consists of twelve blocks held together by the converted **gauge field** in the centre of the cluster.

The Pattern Cube

The twelve blocks of the cluster can be **transformed** into the Pattern cube, as shown below the cluster. The transformation of one of these twelve blocks into a half-pyramid is illustrated at the bottom.

The Pattern cube serves as a generic model for uni-cubes, which can be demonstrated (see Folder 18 *The Pattern Cube*) to match properties of natural phenomena such as atoms and gravity.

An opened version of the cube is depicted on the right, revealing the six cleft pyramids that make up the Pattern cube.

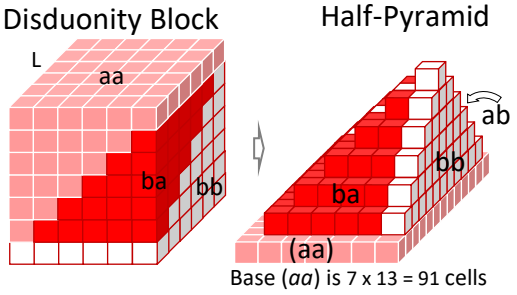


Block Transformation

Each block in the block cluster above can be transformed into a **half-pyramid**, as illustrated on the right. **Two half-pyramids** form a **cleft pyramid**, and **six cleft pyramids combine** to create **the Pattern cube**.

Note that a block pair's gauge cleft consists of **42 cells**, whereas the pyramid's cleft requires **49 gauge cells**. The total number of gauge cells missing within the virtual spaces of the cube is **99**.

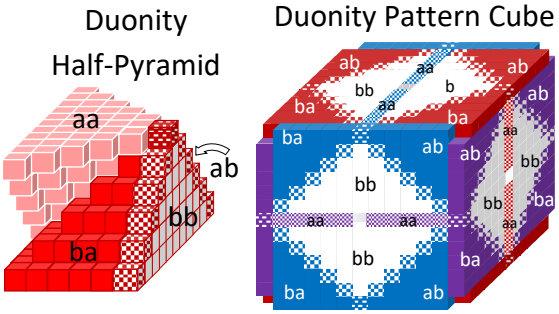
The reason for this discrepancy invites further study.



The Duonity Pattern Cube

The duonity Pattern cube, illustrated on the far right, originates from the **6x6x6x6 column pair**. The dotted cells of the cube represent overlaying cells.

The block transformation follows a similar process to the disduonity block transformation earlier. However, in this case, the resulting half-pyramid does not have a **base** but instead features a distinctive **'wing',** as depicted on the right.

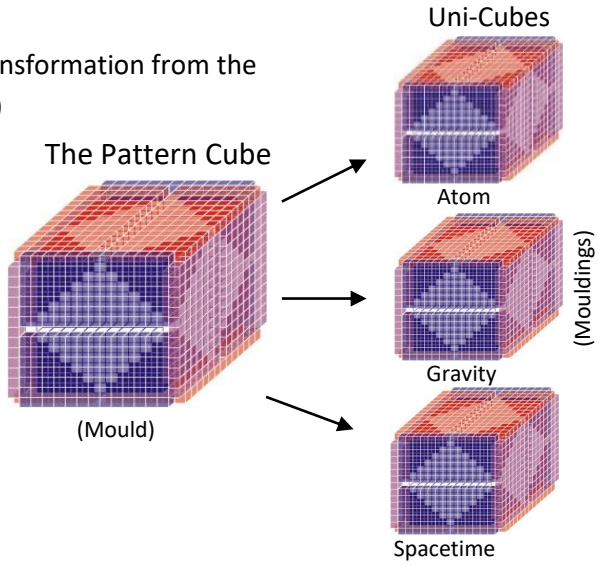


Matching Natural Things

The matching of natural phenomena serves as a method to test the validity of the Pattern hypothesis. Uni-cube models - mouldings derived from the Pattern cube - are used for this matching process. The Pattern properties of uni-cubes are compared with the natural properties of key phenomena, such as gravity, to establish correlations.

The Pattern Cube

The (disduonity) Pattern cube model (below, right) is derived by transformation from the twelve blocks of the block cluster. (See detail on the previous page.)



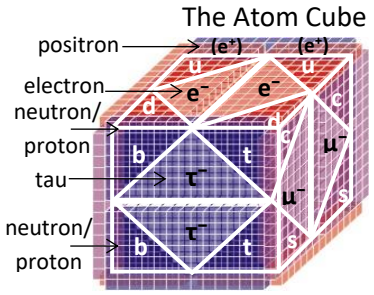
Uni-Cubes

Uni-cubes, previously called unification cubes, are instances (mouldings) of the generic Pattern cube (mould). Three uni-cube models that match properties of the atom, gravity and spacetime are shown on the right of the Pattern cube. The matching cubes represent, in effect, a type of measuring tool.

The pairs of quantities that define the different uni-cubes are given in **Folder 18 *The Pattern cube***. More detail about the Atom cube and the Gravity cube are shown below.

The Atom Cube

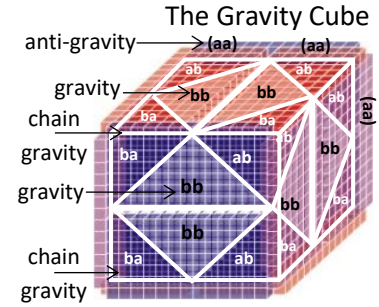
The Atom cube is shown on the right. A detailed description of this cube is provided in Folder 18 *The Pattern Cube.*



The individual parts of the Atom cube represent all the elementary particles of the Standard Model which is described in Folder 4 *The Geometric Standard Model.* The Atom cube also represents the Standard Periodic Table and the cube is, therefore, also known as the Standard cube.

The Gravity Cube

The Gravity cube is shown on the right. It consists of anti-gravity, gravity, and chain gravity parts. These compare, respectively, with the *aa, bb,* and *ab/ba* parts of the Pattern cube.



Chain gravity acts like a rubber band that exhibits low resistance with small displacement and high resistance with large displacement (see Folder 18). The corresponding parts of the Atom cube embodies the neutron/proton particles with the strong force which has the same elastic-type property called ‘asymptotic freedom’.

Dark Force

Comparisons of different cube features could lead to exciting predictions like the dark (matter) force of the gravity cube. A comparison of the vertex parts (hadrons) of the atom cube that exhibits the strong force with the equivalent parts of the gravity cube leads to the hypothesis that the dark matter effect could be a consequence of a new type of elastic (rubber band) gravity, i.e. chain gravity. The same (vertex) parts of the spacetime cube would yield elastic (chain) spacetime that could be the cause of a type of black hole. More such predictions, based on the inclusion of the vertex parts of the different unification cubes, are likely. Each new discovery will add to the proof of the Pattern.

Common Origin

Uni-cube models that match natural phenomena are proof of a common origin. Uni-cubes other than those mentioned above are the Vacuum cube, the Energy cube, the Code cube (described in Folder 18 *The Pattern Cube*), and the Genetic cube (described in Folder 5 *The Pattern Cell*). The Charge cube and the Wave cube are yet to be published.

Each cube embodies a conserved quantity and is a manifestation of a pair of physical quantities.

Mapping Biblical Things

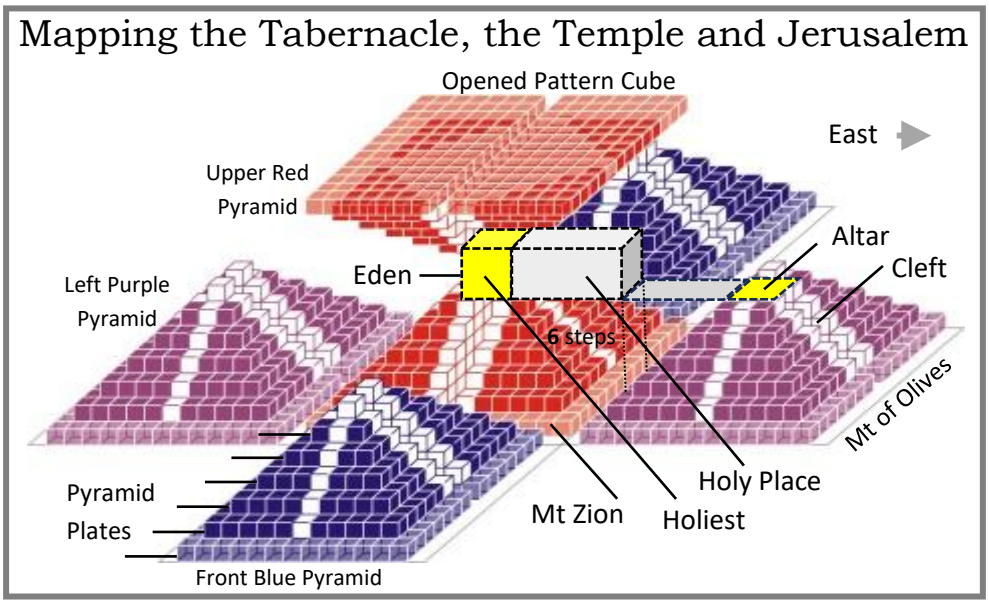
The mapping of biblical buildings is used as a method to test whether the disduonity Pattern cube could have served as the mould for **earthly biblical structures**. The **opened Pattern cube** functions as a reference frame - a kind of geometric shadow landscape - used for matching biblical buildings and their surroundings.

The Shadow Reference Frame

The opened Pattern cube reference frame consists of a central cleft pyramid with its inverse above it, surrounded by four additional cleft pyramids. The dotted shapes superimposed on the frame drawing below represent the generic plan of the tabernacle, the temple, and the city. The dotted-line cube represents the Holiest, the dotted-line box the Holy Place, and the square designates the location of the altar. The Holiest corresponds to the position of the Eden cube (see below). Notably, if the opened cube were closed, the altar's location would align with the eastern face of the Holiest. The central pyramid corresponds to Jerusalem's Mount Zion, while the eastern pyramid aligns with the Mount of Olives. Additionally, the cleft of the Mount of Olives matches the vast east-west valley described in Zechariah 14:4.

The Eden Cube

The Eden cube is positioned at the centre of the reference frame (right). (This location corresponds with the throne of the New City – see page P30:16.) The Eden cluster, which is a pre-cube, is described on page P30:15. The cluster's twelve spherecubes, reflect twenty-four entities that are described in Genesis 1 and Genesis 2. The Eden cube is the first concentric cube within the Pattern cube.



The Temple of Solomon

The Holiest of Solomon's temple (2 Kings 7) measured 20x20 while the Holy Place was 20x40. (Note that all measurements on this page are in cubits). The altar court, positioned in front of the temple, measured 100x100 – matching the footprint of the eastern cleft pyramid above.

Although the dimensions of the other courts are not explicitly provided, they may be inferred from the sizes of the temple courts in Ezekiel's vision (see below).

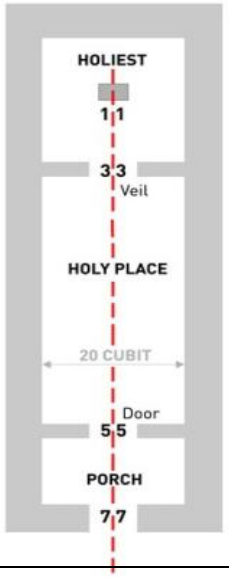
The Tabernacle of Moses

The Holiest of Moses' tabernacle measured 10x10, while the Holy Place was 10x20. The altar court, positioned in front of the tabernacle, measured 50x50, and the court surrounding the tabernacle also had dimensions of 50x50. Note that only the full length of the tabernacle enclosure - 100 - is provided in the text. The tabernacle's plan, therefore, fits exactly within the reference frame shown above, albeit at a different scale from the temple.

The Temple of Ezekiel

The Holiest and the Holy Place of Ezekiel's temple share the same dimensions as those in Solomon's temple. The altar court measures 100x100, as does the court surrounding the temple. The outer wall of Ezekiel's temple is 500x500, with the altar court placed at its centre.

The temple's floor plan is displayed vertically on the right, with the east direction pointing downward. The three openings follow a distinct pattern: 3+3, 5+5, and 7+7 – mirroring the sequence found in the Pattern cube. The table inside the Holiest measures 2x2, meaning its width could be divided into 1+1, thereby completing the sequence (1:1, 3:3, 5:5, 7:7) that characterizes the inner parts of the pyramid's layers - the plates in the drawing above.



Heavenly Pattern The earthly (shadow) buildings described in the Bible follow the same fundamental plan, aligning with the opened Pattern cube above. The City cube/cluster, as described on page P30:15, serves as the heavenly Pattern for the earthly structures.

The temple functioned as a kind of bridge - steps - between the shadow and the substance.

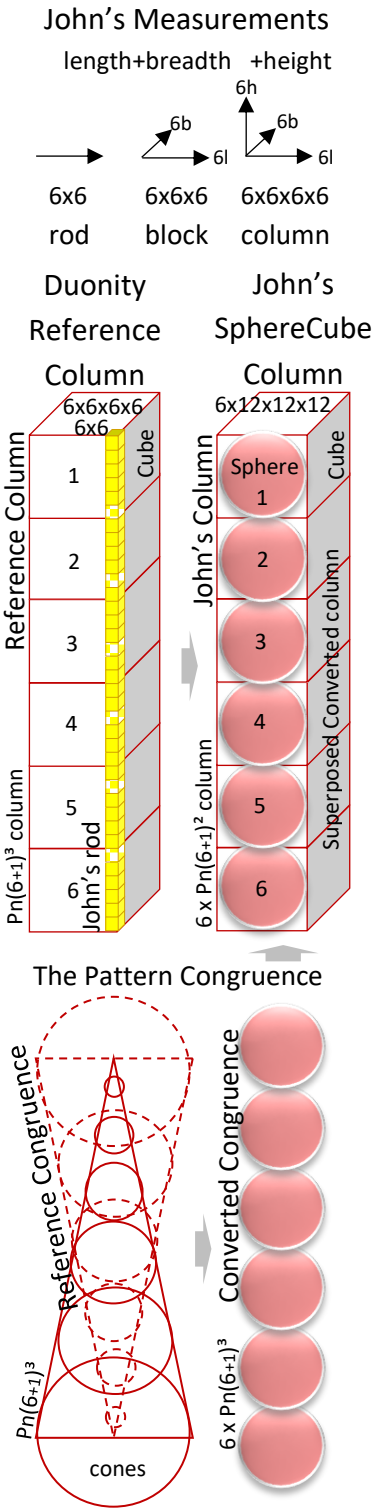
John's Column

John's column is derived from measurements taken by an angel of the New City using a golden rod. The measurements are described in Revelation 21. The standard (orthogonal) measurements produce the duonity reference column. John's spherecube column is a converted cube column combined with a converted sphere congruence. John's spherecube column is unique because it consists of six blocks that, unlike his duonity column, are spherecubes - superpositions of spheres and cubes.

John's City Measurements

John's first measurement - length (**l**) & breadth (**b**) - taken with the duonity 6x6 rod is represented by two orthogonal vectors (see diagram on the right) defines a square. This measurement with a **duonity rod** yields a **duonity 6x6x6 block**. The second measurement adds the height vector (**h**), resulting in a **duonity 6x6x6x6 column**.

Revelation 21:15,16,17 "15 *And he who talked with me had a gold reed to measure the city, its gates, and its wall. 16 The city is laid out as a square; its length is as great as its breadth. And he measured the city with the reed: twelve thousand stadia. Its length, breadth, and height are equal.* 17 *Then he measured its wall; one hundred and forty-four cubits according to the measure of a man, that is, of an angel."*



Congruence refers to a collection of curves that fill 4D space without intersecting.

John's Rod

John's 6x(6+1) rod represents the **duonity state of Pn6+1**, which is depicted as part of the Pattern key on page P30:6. John's rod is shown (on the right) to be integral to the **duonity reference column**. (The duonity reference column is structured according to P(n6+1)³.Note that the column's algebraic size is; **6x(6+1)x(6+1)x(6+1),** but its geometric size of **6x6x6x6** is used in drawings.

The last part of the quotation above, *'according to the measure of a man, that is, of an angel.'* could imply the duonity state which is represented by John's rod because it doesn't distinguish between length and time like Ezekiel's and Daniel's rods.

John's Column

John's column consists of identical **spherecube blocks** that are **each a superposition of a solid cube and a solid sphere**. The solid spheres emanate from the Pattern congruence described below.

The Pattern Congruence

The solid-spheres come from the converted congruence that is shown below John's column. The reference congruence on the left is structured according to Pn(6+1)³ and is another example of **a spherical Pattern number shape** that is explained on the next page. In this instance the equivalent congruence (a hyper-solid-sphere) is replaced by six solid-spheres according to **the Pattern identity**. The identity states that, amongst other shapes, a hyper-solid-sphere could be replaced by six solid spheres. The shape of a hyper-solid-sphere is a cone pair (on the right) that represents six decreasing and six increasing solid-spheres. Note that the cones of the fill terms are not shown.

The size of a block in John's column is **12x12x12** cubits, which implies that the dimensions of the superposed cubes and spheres - **6x6x6** cubits in each instance – add up in the superposition. It appears to be a simple linear addition.

The measurements of the drawing on page P30:16 confirm that a spherecube's dimensions are **12x12x12**. This result aligns with the biblical **wall measurement as 144 cubits**, assuming each spherecube is 12 cubits in length or diameter.

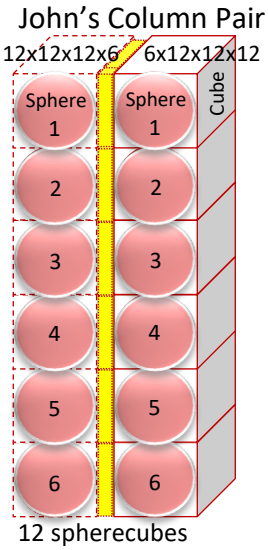
The Golden Rod It is interesting to note that **the golden rod** is the only *instrument*' described with the New City. A rod is a tool of a ruler and symbolises authority. Therefore, the golden rod is interpreted as God's universal key (*sceptre*) - to create (by measurement), to reveal (by measurement), and to judge (by measurement).

The City Cluster

The City cluster is a cubical 3D cluster configuration consisting of twelve spherecube blocks. The spherecubes of the cluster are the blocks of John's column **pair**. (A biblical justification for this pair configuration has yet to be found.) A spherecube block is a superposition of a solid-sphere and a solid-cube.

John's Column Pair

John's column, consisting of six spherecube blocks, is described on the previous page.
John's column pair, with a glue (gauge) plank positioned between them, is depicted on the right.
Each individual block measures 12x12x12 cubits.
The conversion of the duonity column pair into a block cluster - the City cluster – mirrors the conversion of the disduonity column pair into the Pattern cube on page P30:11.



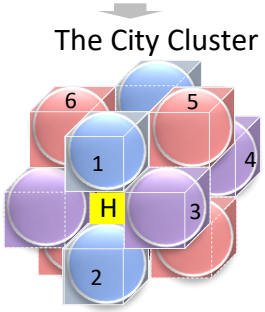
The City Cluster

John's column pair is converted into the City cluster (illustrated on the right). This cluster configuration represents a 'shadow' projection of a 4D object – one that cannot be fully visualized within the limitations of three-dimensional space. The shadow version applies a dimensional reduction technique, as described in Appendix 3.

The cluster measures 36 cubits on each side and spans 144 cubits across its four sides, precisely matching the critical wall measurement given in Revelation 21:17. (For reference, a spherecube's diameter measures 12 cubits.)

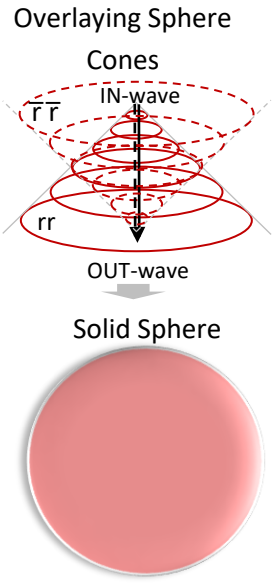
Importantly, the core of the cluster (H) corresponds to the converted gauge plank of John's column pair - a detail of particular significance.

Furthermore, the City cluster shares the same configuration as the Eden cluster (cube), which is briefly described on page P30:16 and explored in greater detail in *The Creation Map Guide* on thepatternbook.com.



The Pattern Number 6 Spherical Shapes

The cubical renditions of the Pattern number shapes introduced so far each have a corresponding spherical counterpart, listed in the table at the bottom.
By substituting the duonity Pattern values, six instances of each spherical shape combine to form the next shape in the hierarchy. For example, six spheres merge to form a solid-sphere. This progression is illustrated on the right, displaying a pair of cones along with the equivalent solid-sphere representation below them.



The detail of the calculation is as follows: The $4\pi r^2$ formula for a sphere can be patternized by incorporating the complementary radius from the Pattern equation, i.e. $(a + b)^2$ becomes $\pi (\bar{r} + r)^2$. See Appendix 3 for details on patternization.

The relative surface areas of **the sphere-cone sequence**, which represents a solid-sphere, depend only on r^2 or $\bar{r}^2$, as the 4π constant cancels out when comparing only the relative areas. For example, if r = 1, sphere = 1, if r = 2, sphere = 4, if r = 3, sphere = 9, etc. The drawing on the right displays the overlaying wave cones for both $\bar{r}^2$ and r^2.
Note that the (fill) wave cones arising from the $\bar{r}\,r$ and $r\,\bar{r}$ terms are not shown.

Table of Pattern Number 6 Shapes - Extract from Appendix 3.

The duonity Pattern numbers:		$Pn(6+1)^0$	$Pn(6+1)^1$	$Pn(6+1)^2$	$Pn(6+1)^3$
Standard cubical shapes:	unit	pillar	wall	block	column
Equivalent spherical shapes:	point-pair	circle	sphere	solid-sphere	hyper-solid-sphere
Patternized formulae, $r = (\bar{r} + r)$:	$= (\bar{r} + r)^0$	$= 2\pi(\bar{r} + r)^1$	$= 4\pi(\bar{r} + r)^2$	$= 2\pi^2(\bar{r} + r)^3$	$= 8/3\pi^2(\bar{r} + r)^4$
Substitution of values yields six shapes:		6 x point-pairs	6 x circles	6 x spheres	6 x solid-spheres

The City Cube

The City cube, represents the grand transformation of the City cluster, standing as the ultimate realization of the Pattern science. An artistic rendering provides a visual interpretation of the City cube, depicting its twelve cluster pearl gates and twelve cluster block foundations, all illuminated by its radiating Glory.

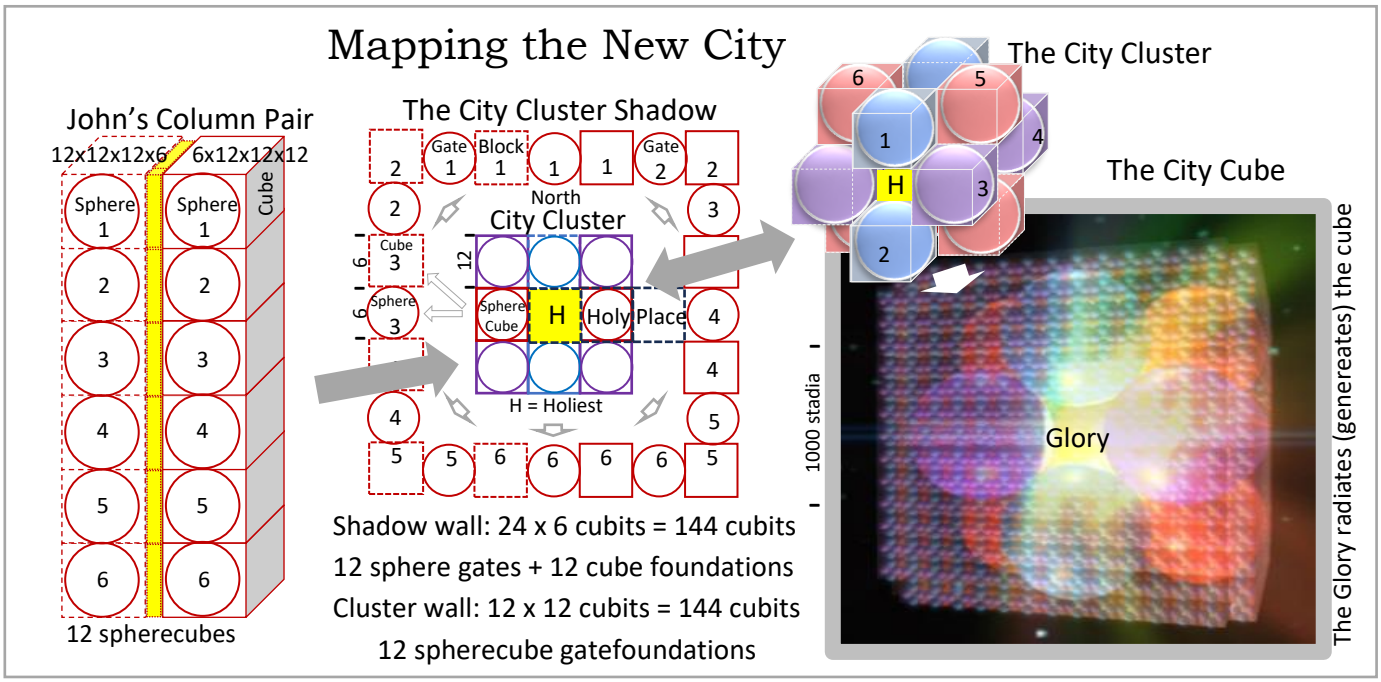
The City Cluster

The City cluster, illustrated below, serves as an example of a reduced 3D dimensional object, as described in Appendix 3. This structure is a conversion of John's spherecube column pair.

The City Cluster Shadow

The 2D mapping of the City cluster visually demonstrates the splitting of its spherecubes, leading to the formation of a square wall, composed of 12 spheres (gates) and 12 cubes (foundations).

The space between the Holiest and the wall is represented by the Holy Place that exists solely due to the presence of a shadow. This spatial relationship highlights the City cluster as the substance that casts the shadow, which is the temple itself. The temple is, therefore, an earthly instance of the heavenly cluster Pattern.



The City Cube

The duonity City cluster undergoes a **transformation** to become **the City cube** above. This is like the block cluster transformation that formed the Pattern cube (detailed on page P30:11).

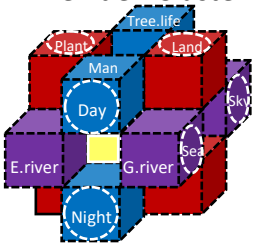
According to Revelation 21, the city's wall is composed of **12 pearl gates and the 12 foundations**. The gates (spheres) symbolize the tribes of Israel while the foundations (cubes/blocks) represent the apostles. (While the specifics of this transformation into the City cube invite further study, the 1000-stadia sphere/block size of the City cube that is indicated above remains a conjecture.)

Notably, there is no temple - God and the Lamb are the temple - and the city is illuminated by the fullness of God's glory. The (Eden) cluster and the (City) cube are duonity related, which means that they are **one and the same place** and of **one and the same size** – the cluster inside the cube and the cube inside the cluster.

The artistic rendering of the City offers a visual interpretation of the City and the Glory of God, drawing from biblical descriptions that provide only glimpses into a structure and design too wondrous to fully grasp.

The Eden Cluster The City cluster depicted above corresponds to **the Eden cluster** of spherecubes on the right. It is described as the SphereCubes Cluster in *The Creation Map Guide*. This cluster is the converted shape of a spherecube **pillar** pair akin to the spherecube **column** pair pictured earlier. The twelve spheres of the pillar pair symbolize the time-like aspect of the six-day creation (Genesis 1), while the twelve cubes (overlapping the spheres) represent the space-like aspect of creation (Genesis 2). It is truly remarkable that identical clusters of spherecubes appear both at the beginning and at the end of the Bible.

The Eden Cluster



Seamless Science

The **idea of a unified science** has a long history but the Vienna Circle's attempt about a hundred years ago is representative. Their goal was to establish a unified science in which all scientific disciplines, from physics to social sciences, could be understood within a single, coherent framework.

The Patterning Concept

The idea of a geometric pattern functioning as a mould to shape other things is a recurring theme in the Bible - it lies at the heart of God's creative process. One notable example is the construction of the tabernacle in the desert, which was built according to God's precise design: *"According to all that I shew thee, after the pattern of the tabernacle, and the pattern of all the instruments thereof, even so shall ye make it."* (Exodus 25:29)

The Pattern Science Philosophy

The Pattern Science posits that all things created through patterning originally existed in a perfect state but gradually collapsed into the present, ever-degenerating state of entropy. Though traces of the original, flawless creation – akin to a grand edifice – remain visible in the ruins of the natural world, the biblical perspective unveils its true blueprint. While conventional science primarily studies these remnants, the Pattern Science focuses on the blueprint itself, offering a simpler and more accessible approach.

Implications of the Pattern Science

The benefits of the Pattern Science are extensive, though only a few aspects are highlighted here:

- **Advancing Mathematical Foundations**: The Pattern equation surpasses the squared constraints of the Pythagorean theorem, offering new mathematical insights.
- **Quantum Phenomena & Unification**: The Pattern Number System reflects quantum properties such as spin, uncertainty, and entanglement. It may also contribute to unifying quantum and classical physics.
- **The Universal Pattern & Its Manifestation**: The Pattern Science uncovers a universal Pattern, predominantly expressed through the innate Pattern code of the Pattern cluster of spheres.
- **Modeling Fundamental Forces**: Uni-cubes provide a coherent and standardized approach to modeling natural phenomena like gravity, potentially addressing unresolved issues such as dark matter.
- **Geometrizing the Standard Model**: The Pattern Science introduces the Standard Periodic Table of electrons, along with the muon and tau periodic tables, integrating them into the Pattern cube version – the Standard Cube - of the Standard Model of Elementary Particles.
- **Insights into DNA Geometry**: By explaining the geometric structure of DNA, the Pattern Science may offer new perspectives on the origin of life.
- **Refining Scientific Formulas**: Patternization updates general scientific formulas, aligning them with the Pattern Science expressions for greater simplicity.
- **Biblical & Mathematical Harmony**: The abstract geometric shapes achieved through biblical measurements align precisely with the structures and their derivatives found in the Pattern Number System.
- **Genesis to Revelation Connection**: The Pattern Science reveals a three-dimensional cluster shadow shape—a cluster of spherecubes—recognizable in both Genesis and Revelation.

Advantages of the Pattern Science

The Pattern Science is elegantly simple, governed by a single law—the Pattern law—one theorem, the Pattern equation, and a single pair of quantities (*a, b*).

Its greatest strength lies in its ability to explain previously inexplicable aspects of the universe—including the origin of DNA—in a clear, coherent, and scientific manner.

By introducing a revolutionary way to study reality, the Pattern Science reinforces the biblical principle that God created everything according to a pattern. This groundbreaking approach represents a major milestone in restoring confidence in the inerrancy of the Bible.

While not a conventional science book, the Bible can be understood as a foundational source of scientific insight. The patterning module of the Pattern Science diamond – explained in the Pattern Science Presentation – represents the divine origin of creation, which is the starting point of the Pattern Science.

"The heavens declare the glory of God; And the firmament shows His handiwork." (Psalm 19:1)

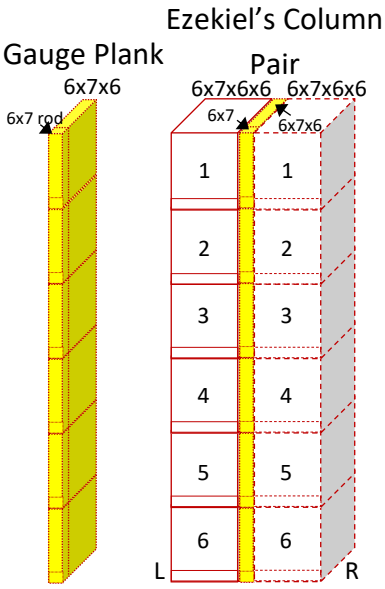
Appendix 1: The Pattern Gauge Fields

The concept of gauge fields could, perhaps, be considered the scientific equivalent of a biblical measuring rod. In quantum field theory, the gauge concept is used to measure properties of different fields. Gauge field theory forms the foundation of the Standard Model of Elementary Particles.

Different Pattern gauge fields correspond to the shapes of the Pattern number system. For instance, the Pattern number 6 plank shape serves as the connecting field - the glue - between a pair of columns.

The Geometric Standard Model

The Pattern-based version of the Standard Model is known as the Geometric Standard Model, later referred to as **the Standard cube**. The arrangement of bosons within the virtual openings of the Standard cube is detailed in Folder 4. These bosons are depicted as the clefts (photons), the chains (gluons) and the core (Higgson) of the Standard cube.



Gauge Plank

The measuring rods of the Pattern key could serve as gauge fields in a quantum context, filling the spaces between paired shapes in the Pattern number system.

A gauge plank, depicted on the right, fits between two columns as a form of structural 'glue'. Specifically, a **6x7x6 plank** consists of six **6x7 rods**.

A gauge rod represents an extended shape variation of the Pattern number system, with its equivalent shape being the 6x7 wall.

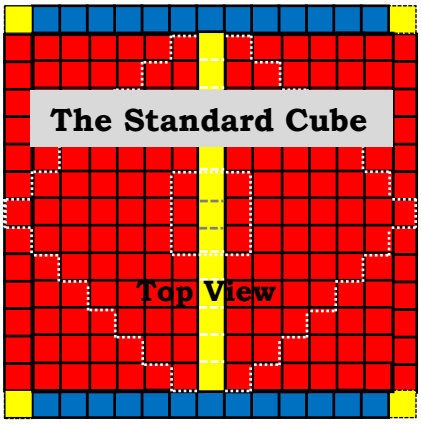
In the drawing at the bottom of this page, gauge fields are illustrated as the adhesive components within the Pattern glue field hierarchy.

The Gauge Fields of the Standard Cube

The gauge plank field is converted into the core of a block cluster before being distributed in the virtual regions of the Standard cube. (The block cluster is the converted configuration of the column pair.)

The gauge field types are represented by the core, clefts and, chains within the Standard cube. In the diagram on the right, only the top four vertex links of the gluon chains and the upper part of the vertical red cleft are visible. The core field is positioned at the centre of the cube and is, therefore, not visible.

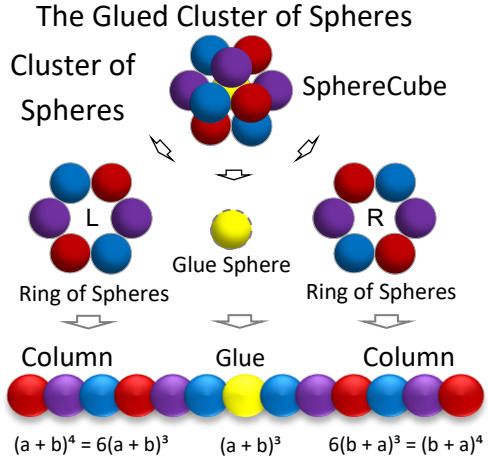
Notably, the cube lacks 99 gauge cells, as the plank has 252 cells while the transformed cube has (virtual) space for 351 gauge cells.

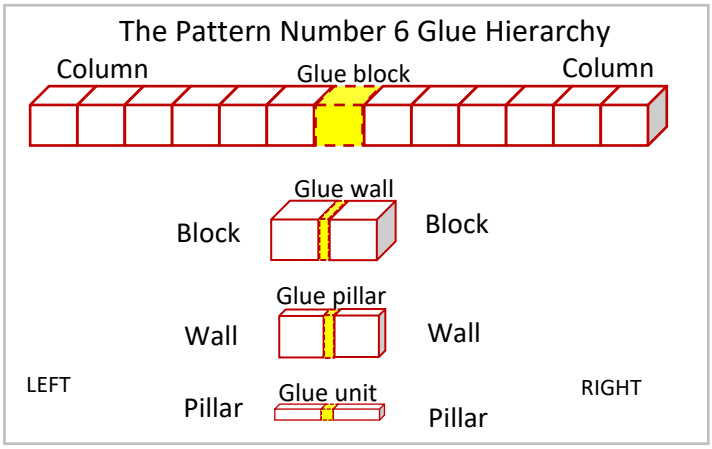


Origin of the Pattern Gauge Fields

The Pattern cluster of spheres embodies the Pattern of creation. Its configurations yield the Pattern code and the Pattern cube (described in Folder 18 *The Pattern Cube*). The central sphere within the cluster serves as the 'glue', binding the surrounding spheres together, as illustrated below. The splitting of the cluster into two rings and the subsequent rearrangement of the spheres into two glued columns is also depicted.

Additionally, the glue hierarchy of the Pattern number 6 shapes is shown below.





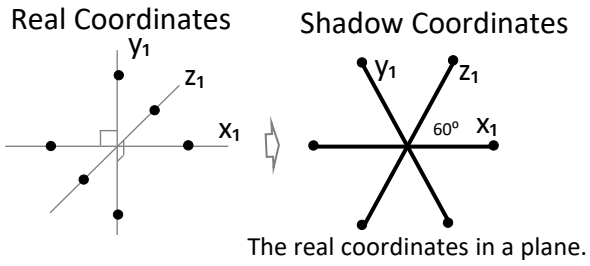
Appendix 2: Dimensional Reduction

Shadow clusters are formed by compressing the x, y, and z coordinates into a single plane. This reduction in dimensionality enables a 4D object to be represented in 3D, allowing its properties to be analyzed to reveal aspects of its 4D nature. The Pattern cluster is identified as a type of dimensionally reduced (shadow) object.

Shadow Coordinates

The **dimensional reduction** process rotates the y-axis – bringing it into the same plane as the x- and z-axes - and reduces the angles between all three axes to **60°**. The two diagrams on the right illustrate the configurations before and after the rotation.

The **imaginary axes** of the respective real axes are not shown but remain at **90°,** extending into 'imaginary space' above and below the plane formed by the three real axes – the **real plane**.

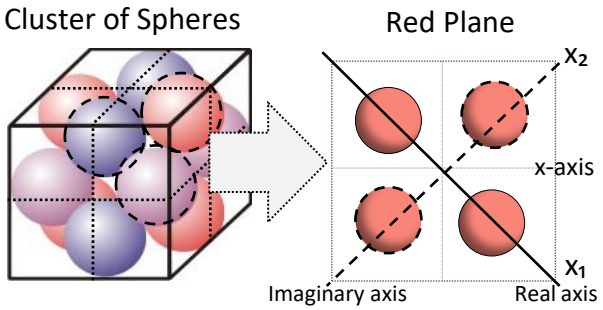


The real coordinates in a plane.

The Cluster Coordinates

The Pattern cluster of spheres illustrates a dimensionally reduced object. The cluster, shown in its cubical orientation on the right consists of three distinct planes: four blue spheres are in one plane; the four purple spheres in an orthogonal plane, and four red spheres in yet another orthogonal plane.

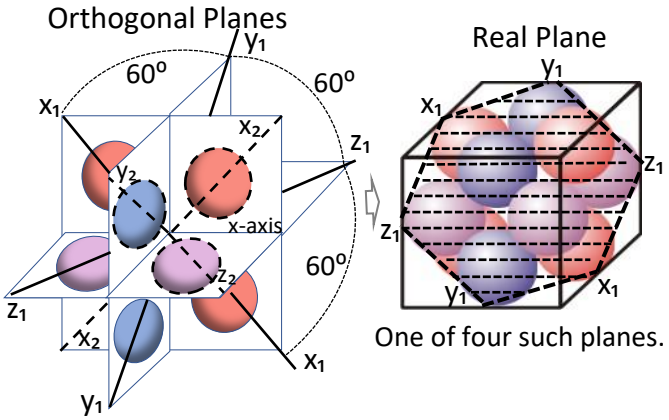
The red plane , containing four spheres, is separately depicted (on the far right) alongside its x_1 (real) and x_2 (imaginary) axes. Notably, the real and imaginary coordinates are offset by **45°** from the **x**-axis of the Cartesian framework.



Cluster's Real Plane

The Pattern cluster of spheres (shown on the right) illustrates **three orthogonal planes**, each containing four spheres, for a total of twelve spheres. The diagram presents the **real axes** along with their respective **imaginary axes**, which lie within the planes of the cluster. The **imaginary axis** belonging to each **real axis** is indicated by dotted lines. It is at a **90°** offset with respect to the **real axis**.

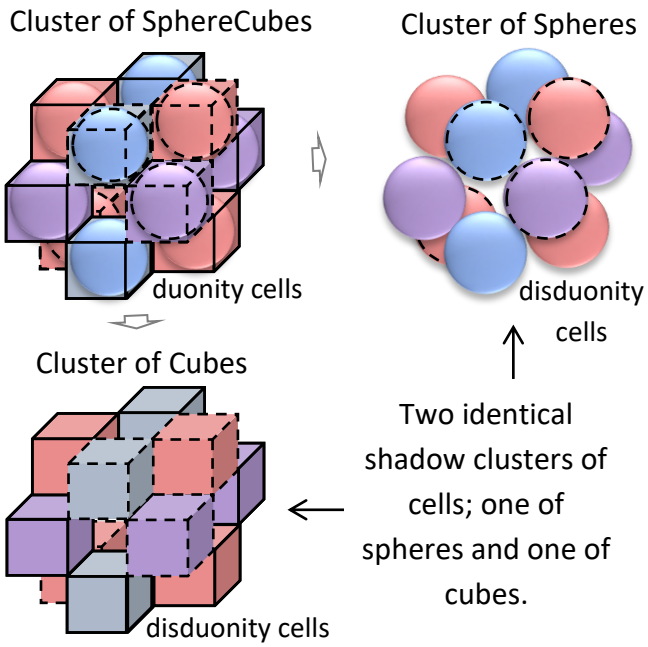
The x_1 real axis with its x_2 imaginary axis are depicted within the vertical red plane. The three real axes are spaced at **60°** intervals and collectively form a **real plane**, visually represented by the hexagonal shape on the far right.



The Cluster of Spherecubes

The cluster of **spheres** used above originates from the cluster of spherecubes, as depicted on the right. A similar cluster of cubes, emanating from the spherecube cluster, is also shown. A spherecube is the superposition of a sphere and a cube of equal dimensions, representing a 24-cell.

The illustration demonstrates that the Pattern cluster is a shadow projection of a 4D object. The properties of this shadow cluster provide valuable insights into the characteristics of the corresponding 4D structure.



Shadow Science Invisible higher-dimensional phenomena can be studied by analysing their shadows.

In a biblical context, it is significant that the real (natural) is represented as a plane, while the imaginary (spiritual) is depicted as a volume - and vice versa. In the case of four imaginary planes, they converge at the core - the throne.

Appendix 3: Patternization

The patternization of key physics formulae harmonizes the Pattern science with general science. The hierarchy of motion formulae matches the Pattern number system and is used to illustrate the process of patternization. The cubical shape hierarchy of the Pattern number system represent translational shapes and their equivalent spherical shapes represent radiation. Pattern number 6 is used to illustrate the hierarchies. (Note the inverse direction of the hierarchy.)

The Pattern number system (Disduonity version)		$Pn6^0$	$Pn6^1$	$Pn6^2$	$Pn6^3$
The Pattern number system shapes	unit	pillar	wall	block	column
Effective spatial dimensions	0D	1D	2D	3D	4D
Respective Pattern equations	$(a + b)^0 = c^0$	$(a + b)^1 = c^1$	$(a + b)^2 = c^2$	$(a + b)^3 = c^3$	$(a + b)^4 = c^4$

The *a* variable of the Pattern equations could be modified by replacing it with $\bar{b}$ owing to the observation that the *a* values are the complements of the *b* values (a = 6,5,4,3,2,1,0 and b = 0,1,2,3,4,5,6).

The eq.'s with modified variables	$(\bar{b} + b)^0 = c^0$	$(\bar{b} + b)^1 = c^1$	$(\bar{b} + b)^2 = c^2$	$(\bar{b} + b)^3 = c^3$	$(\bar{b} + b)^4 = c^4$

The Pattern Radiation Hierarchy

Radially expanding 'surfaces' manifests as discrete radiation. The 'surfaces' are illustrated at the bottom with drawings.

Generalized sphere hierarchy	0-sphere	1-sphere	2-sphere	3-sphere	4-sphere
Spherical surface's physics formulae	point pair r^0	circle = $2\pi r^1$	sphere = $4\pi r^2$	solid = $2\pi^2 r^3$	h.solid=$8/3\pi^2 r^4$
Value* substitution (r=1,2,3,4,5,6) yield six of each shape:		6 x circles	6 x spheres	6 x solids	6xhyper-solids
Six of each shape equals the next shape which is:		= sphere	= solid	= hyper-solid	
Patternized formulae	$= (\bar{r} + r)^0$	$= 2\pi(\bar{r} + r)^1$	$= 4\pi(\bar{r} + r)^2$	$= 2\pi^2(\bar{r} + r)^3$	$= 8/3\pi^2(\bar{r} + r)^4$

*The full set of Pattern values are: disduonity $\bar{r}$ =6,5,4,3,2,1,0; r=0,1,2,3,4,5,6 and duonity $\bar{r}$ =6,5,4,3,2,1; r= l,2,3,4,5,6.

The Pattern Translation Hierarchy

Linear actions manifest as discrete translation. The translational 'shapes' are illustrated at the bottom with drawings.

Generalized cube hierarchy	0-cube	1-cube	2-cube	3-cube	4-cube
Geometric descriptors	point (d^0)	length (d^1)	area (d^2)	volume (d^3)	hyper-vol. (d^4)
Translation (motion) descriptors	point	distance	speed	acceleration	jerk
Standard physics (motion) formulae (t = time)		d = d	v = d/t	a = d/t^2	j = d/t^3
Pattern formulae with values* (values = times)		d = d^0@values	v = d^1@values	**a=d^2@values	j = d^3@values
Value substitution (d=1,2,3,4,5,6) yield six of each shape:		6 x distances	6 x speeds	6xaccelerations	6 x jerks
Six of each shape equals the next shape		= speed	= acceleration	= jerk	
Patternized formulae		d=$(\bar{d}+d)^0$@values	v =$(\bar{d}+d)^1$@values	a=$(\bar{d}+d)^2$@values	j=$(\bar{d}+d)^3$@values

*The full set of Pattern values are: disduonity $\bar{d}$=6,5,4,3,2,1,0; d=0,1,2,3,4,5,6 and duonity $\bar{d}$=6,5,4,3,2,1; d= l,2,3,4,5,6.

**This form of constant acceleration sequences is according to Galileo's odd number rule. (See Folder 22 Appendix 5.)

The patternized formulae emulates the respective physics motion types. After patternization, constant acceleration, for example, manifests as an ensemble of four acceleration sequences, i.e. $(\bar{d}+d)^2 = \bar{d}\bar{d} + \bar{d}d + d\bar{d} + dd$.

Cubical and Spherical Pattern Shapes

The cubical Pattern number shapes are geometrizations of the coefficients of the substituted values of the sums. The respective standard shapes for the disduonity Pn6 tuple are shown below, on the left. The shape sizes are indicated. The spherical shapes of the radiation hierarchy are shown below, on the right. A doublet has both $\bar{r}$ and r terms.