The Future of Mankind

Memory, Creativity and the Turn of the Great Year: the Bronze Mean, the Trit Tile and the Years after 2027, Read Through the Vacuum.Net Theory

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Version 1.0 · 22 November 2026

Essay prepared for ResearchGate and Academia.edu

How to read this essay

This is an essay about meaning. It asks what the coming years mean for mankind. It is not a paper of calculations. The calculations exist. They are collected in a technical companion.[1] Here they are used only where they make an insight sharper.

Two kinds of knowing work together in this essay. The first is calculating. It follows rules step by step. The second is seeing. It grasps a whole at once: a shape, a movement, a rhythm. The author counts himself among the seers. The calculating in this work was done with an artificial assistant. Neither kind of knowing is enough on its own. Calculation without seeing gives numbers without meaning. Seeing without calculation gives meaning that nobody can check. This essay tries to let them go hand in hand.

A reader who looks for a proof will find proofs in the companion. A reader who looks for the meaning of 2027 should read on here.

Abstract

Mankind stands at the turn of a Great Year. The precession of the Earth's axis moves the spring point out of Pisces into Aquarius. Many traditions, and the author's own work, place a major transition around 2027. This essay asks what that transition means.

The answer rests on two patterns of three. The first is the bronze mean. It grows by "three new on one old": each new stage takes three times the last stage and adds the stage two steps back. It is a pattern of memory. A society that carries its grandparents' experience into each new generation closes its cycles. Mathematics confirms that under this rule everything closes.

The second pattern is the trit tile. It grows by three new on nothing but the source. It has no memory of two steps back. A fixed part of about 31 % never closes. That part does not die. It keeps turning in a rhythm that never settles. The research into the trit tile showed that this rhythm behaves like music: an endless tone, a scale of thirteen steps, a timbre made by arithmetic. It is a pattern of creativity.

The two patterns are equal for three stages: 1, 4, 13. Then they part. The bronze path goes to 43. The trit path goes to 40. The essay reads this as the shape of the coming age. The age of Pisces was the age of memory, of tradition, of two opposite forces. It ends when its cycle

[1] [16] Konstapel, J. (2026). Three New on One Old, version 1.0, 22 November 2026. Constable Research, Leiden. [1] Konstapel, J. (2026). The Trit Tile: a reference work on a number system that never settles, version 1.1, 21 November 2026. Constable Research, Leiden.

closes. The age of Aquarius begins a new series. It starts again from the source and unfolds by threes. Its open part is creative. It cannot be computed in advance; it has to be played.

The essay closes with what this means in practice. The future needs both layers: memory that closes and creativity that stays open. Losing either one is the real danger after 2027.

1. The question

Every age has its own way of keeping knowledge and its own way of making something new. Most of the time the two are in balance. At the turn of an age they come apart. Old knowledge no longer fits. New knowledge is not yet there.

The author has argued for years that we are at such a turn. He links it to the precession of the Earth's axis, to the passage from Pisces to Aquarius, and to a convergence of cycles around 2027.[2] He has also argued that one number pattern runs through many of these cycles: the bronze mean.[3]

In November 2026 a second pattern was found in the course of mathematical work. It is the trit tile.[4] It grows like the bronze mean, by threes. Yet it behaves very differently. Part of it never comes to rest. And the way it moves sounds like music.

This essay brings the two together. Its question is simple. What do the bronze mean and the trit tile tell us about the future of mankind after 2027?

The short answer is this. The bronze mean is the pattern of what a society remembers. The trit tile is the pattern of what a society creates. The coming age asks for a new relation between the two.

2. The Vacuum.Net theory in brief

The essay uses the language of the Vacuum.Net theory. This section explains that language. No earlier text is needed.[5]

2.1 One strand and closure

The theory starts from movement, not from things. There is one strand. It moves and returns. Every distinction we can make is a loop of this strand.

The central rule is called closure. A loop persists only if it closes on itself. What does not close does not vanish. It passes on as tension. It keeps moving until it finds a place to close, or it keeps moving forever.

Closure is therefore not good or bad. What closes, stays: it becomes structure, form, knowledge. What does not close, moves: it becomes tension, rhythm, change. A world with only closure would be frozen. A world with no closure would have no form.

2.2 Trits

Each step of the strand has one of three values. It goes forward (+1), stands still (0) or goes back (−1). Such a step is called a trit. Strings of trits are the words of the theory. Writing

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[2] [13] Konstapel, J. (2024). Hoe Abstractie de Wereld misVormde. constable.blog, 8 September 2024. [14] Konstapel, J. (2024). History and Future are a Fractal Process. constable.blog, 7 November 2024. [15] Konstapel, J. (2026). Waarom 2027–2032 cruciaal is voor onze toekomst. constable.blog, 15 May 2026.

[3] [6] Konstapel, J. (2009). About Plato and Harmony (About Harmony and the Trinity). constable.blog, 5 January 2009. [7] Konstapel, J. (2020). The Simple Geometry of the Big Transformation. constable.blog, 7 December 2020. [8] Konstapel, J. (2025). De Verborgen Boodschap van de Sri Yantra. constable.blog, 3 May 2025.

[4] [1] Konstapel, J. (2026). The Trit Tile: a reference work on a number system that never settles, version 1.1, 21 November 2026. Constable Research, Leiden. [2] Konstapel, J. (2026). The Sound of the Trit Tile. constable.blog, 21 November 2026.

[5] [3] Konstapel, J. (2026). Vacuum.Net Theory, Ninth Edition: Foundations 9.2 and Physics 9.0. Constable Research, Leiden (constable.blog).

numbers with −1, 0 and +1 is called balanced ternary. The author has argued since 2008 that it is the most economical way to write.[6]

2.3 Ladders and the comma

Trits combine into ladders. The two simplest ladders double (×2) and triple (×3). No power of 2 ever equals a power of 3. They come close at certain depths: 1, 2, 5, 12, 41, 53 and further. At depth 12 the miss is the Pythagorean comma. Twelve pure fifths overshoot seven octaves by about 1.4 %.

The comma never vanishes. In the theory it is a rest that keeps the world moving.[7] This idea returns throughout the essay. The year does not close against the stars. The scale does not close against the octave. A society does not close against its past. Each time a rest remains, and each time that rest drives what comes next.

2.4 Two layers

The theory distinguishes two layers.[8] The address layer holds frozen structure: which loops exist and how they are linked. The tension layer is the only layer that moves. Language shows the same split. A living metaphor moves; a fixed word stays.

This essay uses the two layers as its main tool. **Memory belongs to the address layer.** It holds what has closed. **Creativity belongs to the tension layer.** It carries what has not closed yet. The bronze mean and the trit tile are the mathematical shapes of these two layers.

3. Where the old knowledge was kept: the sky

3.1 Knowledge for survival and navigation

Before writing, the sky was the archive of mankind. Knowledge of stars, seasons and rain was one skill among the San of southern Africa. Polynesian navigators crossed open ocean by star points, waves and birds. Aboriginal songlines joined travel, law and landscape. Later the same knowledge was built into stone at Nabta Playa and Göbekli Tepe. Later still it became the language of kings.[9]

The sky was useful because it is reliable. It returns. Whoever knew its returns could find his way across sea and desert. He could also find his way through time: when to sow, when to move, when to expect the flood. Knowledge of the sky was knowledge of closure. It was memory written in the one book everyone could read.

3.2 The pole and the falcon

Andis Kaulins has given a detailed reading of how this sky knowledge shaped early Egypt.[10] The essential points are these.

- Around 3000 BCE no bright star stood at the celestial pole. The two bright stars Kochab and Pherkad in the Little Bear served as its guardians. Rock drawings in Sweden and reliefs at the Externsteine in Germany show them, together with the Dragon at the pole of the ecliptic.

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[6] [3] Konstapel, J. (2026). Vacuum.Net Theory, Ninth Edition: Foundations 9.2 and Physics 9.0. Constable Research, Leiden (constable.blog).

[7] [31] Konstapel, J. (2026). Why the Universe Has a Lot of Time. constable.blog, 3 September 2026.

[8] [4] Konstapel, J. (2026). Metaphor as Closure in the Vacuum.Net (Carried Across). constable.blog, 14 October 2026.

[9] [11] Konstapel, J. (2026). Convergent Sky-Knowledge. constable.blog, 5 July 2026.

[10] [17] Kaulins, A. (2005; uploaded 2015). The Origin of the Cult of Horus in Predynastic Egypt. ResearchGate, publication 265492234.

- In Egypt the guardians became the falcon, Horus. The falcon is the pole. The king who bears a Horus name holds a region of the sky, much like a sign of the zodiac. The names of kings form a calendar.
- There are two poles. The pole of the ecliptic does not move. The Dragon belongs there. The celestial pole moves slowly with the precession. The falcon belongs there. The fixed and the moving: the same two layers as in Section 2.
- The serekh, the frame around the king's name, is not a palace façade. It is the fenced region around the pole that the falcon guards.

Kaulins places the start of this calendar at an eclipse in 3117 BCE, recorded on the Narmer Palette. Narmer, "sovereign of the pole", raises his mace and defeats the darkness. Here a small fact of the Egyptian script deepens his reading. The sign of the pear-shaped mace is read ḥḏ. The same word means "white, bright". The white crown that Narmer wears on that side of the palette is ḥḏt.[11] The king wears brightness and raises brightness. The mace is the sign of light against darkness.

Kaulins also reads on the palette the names of the later Persian pair of light and darkness. The wider point is supported by mainstream sources. Late Predynastic Egypt received images and techniques from Mesopotamia and from Elam in south-west Iran. The serpopards with intertwined necks on the Narmer Palette are first known from Elam. Elamite cylinder seals reached Egypt.[12] The sky knowledge of the Nile was not isolated. It was part of a network that reached into Iran.

3.3 Drift, crisis and reform

Kaulins then describes what happened to this sky memory. It is the most important part of his account for the present essay.

The Egyptian year had 365 days and no leap day. After 479 years the calendar was 120 days out of step with the seasons. In the same time the pole had moved by almost seven degrees. The calendar no longer closed against the sky. The rest had accumulated.

The result was a crisis between Horus, the falcon of the pole, and Seth, the dog-like figure of the desert peoples. For a short time kings bore Seth names. Then King Khasekhemwy carried out a reform. He inserted the missing 120 days. In the king lists they appear as four kings who never reigned. On the base of his statue Kaulins reads the number of years that had passed: 479.

After the reform the falcon frame gave way to a ring: the shen, a rope without beginning or end. It became the cartouche around the king's name. The ring stands for the centre of the sky that turns under the precession. The god Ra took the place of Horus. The age of the falcon was over.

This is a complete cycle. An event opens an age. Memory holds it. The sky moves on. The calendar no longer closes. A rest accumulates. Crisis follows. A reform absorbs the rest. A new symbol appears: a ring. The essay will meet this cycle again.

4. The bronze mean: the pattern of memory

4.1 Three new on one old

The bronze mean belongs to a family of numbers called the metallic means.[13] Each is built by a simple rule of growth. For the golden mean the rule is: the next stage equals the last stage plus the one before. For the bronze mean the rule is:

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[11] [18] Gardiner, A. H. (1957). Egyptian Grammar, 3rd ed. Griffith Institute, Oxford. Sign list, signs T1 and T3.

[12] [19] Egypt–Mesopotamia relations. Wikipedia, accessed 22 November 2026; with the article on hybrid creatures in Predynastic Egypt in the Journal of Intercultural and Interdisciplinary Archaeology (Heidelberg).

[13] [24] Spinadel, V. W. de (1999). The family of metallic means. Visual Mathematics 1(3).

$$\text{next stage} = 3 \times \text{last stage} + \text{the stage two steps back}$$

Starting from 1 and 1 this gives 1, 1, 4, 13, 43, 142, 469. The ratio between stages settles at about 3.30. The author summarises the rule as “three new, on one old”.[14] Each new stage carries the memory of the stage two steps back.

The author has read these stages for many years.[15] The first 1 is the void, the source. The second 1 is the duality. Then come the four forces (4), the zodiac of twelve around the sun (13), the full manifestation of the Sri Yantra or the Kingdom (43), and the labyrinth (142). He describes a cycle: expansion from 13 to 43, culmination, contraction back to 13, and reorientation from 13 to 4 to 1. The universe divides into trinities until balance, and then reverses.

4.2 Why this is memory

Read the rule as a rule of generations. Let one stage be one generation. Then the rule says: each new generation is made of three parts of its parents’ generation and one part of its grandparents’ generation. The grandparents are not gone. They are carried in.

This is exactly the span of living memory that cultural scientists have measured. Jan Assmann distinguishes two kinds of collective memory.[16] Communicative memory is passed on in daily life between people who know each other. It reaches back about 80 years: three interacting generations. Cultural memory is kept in texts, rites and institutions. It can span up to 3,000 years.

The bronze rule uses exactly three generations: the new one, the last one and the one before. It is the shape of communicative memory. It is how a society remembers without writing anything down.

Economists have measured the same effect. Ulrike Malmendier and Stefan Nagel showed that people who lived through poor stock markets take fewer financial risks for the rest of their lives.[17] Recent experience weighs most. Early experience still counts decades later. Lived memory steers behaviour. When the generation that lived through a crisis is gone, the memory of that crisis is gone too. The Kondratiev wave of about 50 years spans roughly two generations.[18] Read this way, a crisis returns when nobody alive remembers the last one.

4.3 Memory closes

Mathematics adds a precise statement. Under the bronze rule everything closes. Every number that the rule can produce has a finite expansion. It returns to the source in a finite number of steps. This was proved by Frougny and Solomyak in 1992.[19] Akiyama later showed that this holds exactly when the starting point lies inside the tile that the rule builds, not on its edge.[20] A check with exact arithmetic on 400,001 points confirmed it: none stayed open.[21]

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[14] [10] Konstapel, J. (2026). De Bronze Mean TiLing van het Heelal. constable.blog, 2 August 2026.

[15] [6] Konstapel, J. (2009). About Plato and Harmony (About Harmony and the Trinity). constable.blog, 5 January 2009. [8] Konstapel, J. (2025). De Verborgen Boodschap van de Sri Yantra. constable.blog, 3 May 2025.

[16] [20] Assmann, J. (2008). Communicative and Cultural Memory. In A. Erll and A. Nünning (eds.), Cultural Memory Studies, 109–118. De Gruyter, Berlin.

[17] [21] Malmendier, U. and Nagel, S. (2011). Depression Babies: Do Macroeconomic Experiences Affect Risk Taking? Quarterly Journal of Economics 126(1), 373–416.

[18] [14] Konstapel, J. (2024). History and Future are a Fractal Process. constable.blog, 7 November 2024.

[19] [22] Frougny, C. and Solomyak, B. (1992). Finite beta-expansions. Ergodic Theory and Dynamical Systems 12, 713–723.

[20] [23] Akiyama, S. (2002). On the boundary of self affine tilings generated by Pisot numbers. Journal of the Mathematical Society of Japan 54(2), 283–308.

[21] [16] Konstapel, J. (2026). Three New on One Old, version 1.0, 22 November 2026. Constable Research, Leiden.

Read through the theory, this says: a society that carries the experience of two generations back closes its cycles. What it starts, it can complete. What it learns, it keeps. That is the function of memory. It is the address layer of a civilisation.

The author called the bronze stages attractor levels.[22] He also called the letters of old alphabets named classes of closed loops. Both ideas fit. Knowledge is closure that has been given a name. The bronze mean is the rule under which such names can be kept.

5. The trit tile: the pattern of creativity

5.1 Three new on nothing but the source

The trit tile was found while studying an open question of the theory.[23] Its construction is also simple. Take the triangular lattice, the pattern of a honeycomb. Start at the centre. At each step, stretch the plane, turn it a little, and add one trit: −1, 0 or +1. Every point that can be reached this way is a point that closes. It has a finite story that leads back to the centre.

Count these points stage by stage. Per half of the plane one finds:

$$1, 4, 13, 40, 121, 364, \ldots$$

The rule is: three times the last stage, plus the source. Not plus the stage two steps back. Only the source. The trit tile has no memory of the grandparents. It only remembers where everything began.

5.2 What never closes

Here the trit tile differs in a deep way from the bronze mean. Not every point of the lattice can be reached. About 31 % of all points never come back to the centre. They end in one of two opposite points that turn forever.

This open part does not settle. Its share swings between about 30 % and 32 %. Each time the scale grows by a factor 3 the swing repeats. There is no final value. There is only a rhythm. This is proved.[24]

In the language of the theory: the open part is tension that passes on. It never becomes structure. But it does not disappear. It becomes rhythm.

5.3 The new mathematics sounds like music

The research into the trit tile started as mathematics. It ended in music. This was not planned. It followed from the shape of the result.[25]

- **The tritave.** Most music repeats at the octave, the ratio 2:1. The Bohlen–Pierce scale repeats at 3:1, the tritave, and divides it into 13 equal steps.[26] The trit tile repeats at exactly this ratio. It gives the tritave a foundation in arithmetic. And 13 is the last stage that the trit tile and the bronze mean share.

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[22] [9] Konstapel, J. (2025). The Oldest Source of Knowledge Related with the Newest Physics. constable.blog, 9 November 2025.

[23] [1] Konstapel, J. (2026). The Trit Tile: a reference work on a number system that never settles, version 1.1, 21 November 2026. Constable Research, Leiden.

[24] [1] Konstapel, J. (2026). The Trit Tile: a reference work on a number system that never settles, version 1.1, 21 November 2026. Constable Research, Leiden. [2] Konstapel, J. (2026). The Sound of the Trit Tile. constable.blog, 21 November 2026.

[25] [1] Konstapel, J. (2026). The Trit Tile: a reference work on a number system that never settles, version 1.1, 21 November 2026. Constable Research, Leiden. [2] Konstapel, J. (2026). The Sound of the Trit Tile. constable.blog, 21 November 2026.

[26] [25] Mathews, M. V., Pierce, J. R., Reeves, A. and Roberts, L. A. (1988). Theoretical and experimental explorations of the Bohlen–Pierce scale. Journal of the Acoustical Society of America 84, 1214–1222.

- **The endless tone.** Roger Shepard built a tone that rises forever without getting higher.[27] The open share of the trit tile behaves the same way. It keeps changing and keeps coming back. Its shape is not designed by hand. It follows from arithmetic.
- **A timbre made by numbers.** Spectral composers such as Grisey used the measured spectrum of a sound as musical material.[28] The rhythm of the trit tile has its own spectrum: a fundamental and falling overtones. It can be heard. It is a sound that no instrument made.
- **Self-similar melody.** Per Nørgård composed with a series that contains itself at every level.[29] The trit tile is self-similar under a factor 3. A melody built from it would be a new kind of self-similar music.
- **The geometry of chords.** Dmitri Tymoczko showed that chords live in folded spaces.[30] The theory has such a folded space at its centre. Creativity in music has a geometry. It is not random.

A companion essay on the history of mathematics predicted this turn.[31] Mathematics advances until an operation cannot be undone. Then it steps back, adds a new object and moves on. Negative numbers, fractions, irrational numbers and imaginary numbers were each such a step. The essay predicted that the next new objects would often be rhythms rather than single numbers. The trit tile is the first proved case. Its answer is not a number. Its answer is a rhythm.

5.4 Why this is creativity

Creativity is the making of something that did not exist and could not be derived. It needs three things. It needs a source to start from. It needs a rule to grow by. And it needs a part that does not close: a part that cannot be computed in advance and must be played.

The trit tile has all three. Its source is the centre. Its rule is the trit. Its open part is the 31 % that keeps turning. That part is not noise. It has a precise rhythm, a mean and overtones. Yet it never comes to rest. It is the shape of an improvisation that follows strict rules and never repeats a final chord.

Musicians have lived with this for two thousand years.[32] Twelve pure fifths do not close against the octave. The rest, the comma, cannot be removed. Musicians did not try to remove it. They spread it over the scale. This is temperament. It made Western harmony possible. The open rest became the space in which music could move between keys.

This is the lesson of the trit tile. What does not close is not a failure. It is the room in which the new is made.

6. The same three, a different relation to the old

Place the two patterns side by side.

Stage	1	2	3	4	5	6
Bronze mean (memory)	1	4	13	43	142	469
Trit tile (creativity)	1	4	13	40	121	364

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[27] [26] Shepard, R. N. (1964). Circularity in judgments of relative pitch. Journal of the Acoustical Society of America 36, 2346–2353.

[28] [27] Cagney, L. (2023). Gérard Grisey and Spectral Music: Composition in the Information Age. Cambridge University Press.

[29] [28] Anderson, M. (1997). The many patterns of Per Nørgård. Tempo 202, 3–7.

[30] [29] Tymoczko, D. (2006). The geometry of musical chords. Science 313, 72–74.

[31] [5] Konstapel, J. (2026). Barriers and Back-Steps; and The Next Mathematics. constable.blog, 21 November 2026.

[32] [30] Barbour, J. M. (1951). Tuning and Temperament: A Historical Survey. Michigan State College Press.

Table 1. The two patterns of three. They are equal up to 13 and part at the next stage.

For three stages they are the same. The source, the four forces and the twelve around the centre belong to both. At the fourth stage they part. With memory the next stage is 43, the Kingdom of the Sri Yantra. Without memory it is 40. From there they grow apart.

Both start with the same “three new”. Both grow from the same source. The only difference is the relation to the old. The bronze rule takes the grandparents along. The trit rule takes only the source along.

	Bronze mean	**Trit tile**
Rule	three new on the stage two steps back	three new on the source alone
Layer	address layer: memory	tension layer: creativity
Closure	everything closes	about 31 % stays open and turns
End state	a fixed ratio, 3.30	no end state; a rhythm that repeats per factor 3
In society	tradition, living memory of three generations	improvisation, new forms, art
Danger	rigidity: nothing new can enter	restlessness: nothing new is kept

Table 2. Two patterns, two layers.

Neither pattern is better. They are two halves of one life. A culture with only memory would close every cycle and never open a new one. A culture with only creativity would make new forms every day and keep none of them. The question for the future is not which pattern wins. It is how the two are joined.

7. Pisces, Aquarius and the new Great Year

7.1 The precession is a rest that does not close

The Earth’s axis turns slowly in a cone. One turn takes about 25,770 years at the present rate.[33] Because of this, the year measured by the seasons is about 20 minutes shorter than the year measured against the stars. Each year falls a little short. The rest accumulates. Over two thousand years it moves the spring point by one sign of the zodiac. Over the full cycle it moves it through all twelve.

The precession is therefore a comma. The year does not close against the stars. What does not close passes on. It moves the sky through the ages. In Kaulins’ Egypt the same rest moved the pole away from the falcon and the calendar away from the seasons.[34]

7.2 Twelve turns around a centre

The trit tile turns by 30 degrees at each step. After twelve steps it points in its original direction again, but larger.[35] Thirty degrees is one sign of the zodiac. The trit tile is a zodiac in the plane: twelve turns around a centre, growing with each round. Its turning runs against the usual direction, as the precession runs against the yearly path of the sun.

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[33][33] Capitaine, N., Wallace, P. T. and Chapront, J. (2003). Expressions for IAU 2000 precession quantities. Astronomy & Astrophysics 412, 567–586.

[34][17] Kaulins, A. (2005; uploaded 2015). The Origin of the Cult of Horus in Predynastic Egypt. ResearchGate, publication 265492234.

[35][16] Konstapel, J. (2026). Three New on One Old, version 1.0, 22 November 2026. Constable Research, Leiden.

Twelve around one centre is the author's 13: the zodiac with the sun in the middle. It is the last stage that memory and creativity share. Beyond 13, at the turn of the Great Year, the two paths part.

7.3 Pisces: the age of two

The sign of Pisces shows two fishes swimming in opposite directions. The author has described the age of Pisces as the age of duality: good and bad, light and dark, the battle of opposites.[36]

In the trit tile the part that does not close ends in two opposite points that turn forever. It is a picture of two fishes. In the bronze cycle the age ends with contraction: from 43 back to 13, from 13 to 4, from 4 to 1. Everything returns to the source. The old age closes. Its memory is complete.

7.4 Aquarius: a new series begins

The author has written that we stand at the beginning of a new precession cycle, and that this beginning is called Aquarius.[37] He has also written that the new age is the age of imagination, which creates reality.[38] He asked whether artists should lead the great transformation.

The two patterns give this view a precise shape. When the old cycle has closed, the count starts again from the source. A new series unfolds. Its first stages, 1, 4 and 13, are the same in both patterns. What happens after 13 is open. The new age does not inherit a finished form. It inherits a source, a rule of three, and an open part that has to be played.

This is why the coming age is creative. Not because people decide to be creative, but because the structure of a new beginning leaves a part open. That part cannot be computed in advance. It is the 31 % of the trit tile. It is the comma in the scale. It is the free play of a musician who knows the rules and does not know the next note.

7.5 Two eclipses over Egypt

Kaulins places the opening of the old age at an eclipse in 3117 BCE.[39] On 2 August 2027 a total eclipse will cross Egypt. Its longest totality, 6 minutes and 23 seconds, falls near Luxor.[40] Between the two lie about 5,143 years: the span the author has used for one phase of the Great Year.[41]

A model calculation of the ancient eclipse, made for the companion essay, suggests that it was a ring: the Moon did not cover the whole Sun.[42] Such old calculations depend on assumptions about the Earth's rotation that Kaulins himself disputes. They should be read as one model, not as a verdict. As an image, however, the pair is striking. The old age would have opened with a ring of light that did not close. The 2027 eclipse closes fully. In the language of this essay: the age of Pisces began with an open rest and ends with complete closure. After it, a new series can begin.

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[36][7] Konstapel, J. (2020). The Simple Geometry of the Big Transformation. constable.blog, 7 December 2020. [13] Konstapel, J. (2024). Hoe Abstractie de Wereld misVormde. constable.blog, 8 September 2024.

[37][13] Konstapel, J. (2024). Hoe Abstractie de Wereld misVormde. constable.blog, 8 September 2024.

[38][12] Konstapel, J. (2021). Moeten Kunstenaars de Leiding nemen in de Grote Transformatie? constable.blog, 23 November 2021.

[39][17] Kaulins, A. (2005; uploaded 2015). The Origin of the Cult of Horus in Predynastic Egypt. ResearchGate, publication 265492234.

[40][34] Wikipedia contributors (2026). Solar eclipse of August 2, 2027. Wikipedia, accessed 22 November 2026; with NASA, Eclipses During 2027.

[41][14] Konstapel, J. (2024). History and Future are a Fractal Process. constable.blog, 7 November 2024.

[42][16] Konstapel, J. (2026). Three New on One Old, version 1.0, 22 November 2026. Constable Research, Leiden.

7.6 The cycle of Khasekhemwy, again

Section 3 described a full cycle in early Egypt: an event, memory, drift, accumulated rest, crisis, reform, and a new ring. The present turn can be read in the same way.

- **Event.** An age opens with a sign in the sky.
- **Memory.** The knowledge of the age is kept: in the sky, in the calendar, in the living memory of three generations.
- **Drift.** The sky moves on. The year does not close. The rest accumulates.
- **Crisis.** Old knowledge no longer fits. Opposites fight: Horus and Seth, the two fishes.
- **Reform.** The rest is absorbed. Khasekhemwy inserted 120 days. Musicians spread the comma.
- **A new ring.** A new symbol appears that turns with the sky instead of fixing a point.

The reform that the coming age needs is of this kind. It is not a return to the old fixed point. It is a way to live with what does not close: a temperament for society.

8. The future of mankind: memory and creativity hand in hand

8.1 The two dangers

The two patterns show two ways in which the coming age can fail.

The first danger is the loss of memory. Communicative memory lasts about three generations. When the link between grandparents and grandchildren breaks, a society loses its bronze term. It falls back to the trit rule: three new on the source alone. Then about a third of what it starts never closes. Crises return because nobody remembers them. New forms appear and vanish without being kept. The open part becomes restlessness instead of creativity.

The second danger is the loss of openness. A society that only remembers closes every cycle. It turns tradition into a fixed point, as the falcon was fixed to a pole that had moved away. It resists the reform that the drift requires. Then the rest accumulates until it breaks out as crisis.

8.2 The two routes after 2027

In May 2026 the author described two routes for the years after 2027.[43] Route A is a hierarchical lock: a few strong centres impose one order. It resembles the 13-fold order around one centre. It needs constant force to hold. Route B is a distributed lock: many local pairs tune to each other and keep each other in step. It resembles the 43-fold network.

The trit tile shows what Route B can look like at its best. Its open part has no centre. It turns between two opposite poles. That turning is stable. It does not decay and does not settle. A pair of opposites that neither merges nor falls apart is the living form of the network route. Joined with memory, it is no longer the fight of two fishes. It becomes the alternation of two voices in one piece of music.

8.3 The seer and the reasoner

The same two layers appear in the way people know. The reasoner calculates. He follows rules step by step and closes each step before the next. That is the bronze way: knowledge that closes and can be kept. The seer sees. He grasps the whole rhythm before the steps are known. That is the trit way: insight that stays open and keeps moving.

Machines now take over much of the calculating. This makes the seer more important, not less. A machine can close what is closable. It cannot decide which open part is worth playing. The future of mankind, read this way, is a partnership. Calculation keeps and checks. Seeing opens and directs. This essay was made in that way.

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[43] [15] Konstapel, J. (2026). Waarom 2027–2032 cruciaal is voor onze toekomst. constable.blog, 15 May 2026.

8.4 What follows in practice

The essay does not offer a plan. It offers a direction in five points. Each is a reading of the two patterns.

- **Keep the three generations together.** Living memory spans three generations. Families, schools, firms and towns that deliberately join grandparents and grandchildren keep the bronze term alive.
- **Keep the sky knowledge.** For most of history the sky was the shared archive. Knowledge of cycles, seasons and returns is the oldest memory of mankind. It deserves a place again in education.
- **Teach improvisation, not only rules.** Creativity is rule-bound play with an open part. Music shows how it is learned: scales first, then free playing within them.
- **Temper, do not force closure.** What does not close cannot be removed. It can be spread, as musicians spread the comma and as Khasekhemwy inserted the missing days. Institutions that absorb their rest in small steps avoid the large crisis.
- **Expect a rhythm, not an end state.** The trit tile has no final value. Neither does history. A forecast after 2027 can name a phase and a direction. It cannot name a final destination.

9. How the reading can be shown

An essay about meaning should still say how its meaning can be tested. Three lines of evidence are open.

Memory. If the bronze rule describes living memory, then quantities that grow per generation should depend on the generation two steps back, and not only on the last one. Data on experience and behaviour, such as those of Malmendier and Nagel, can measure the weight of the grandparents' generation directly.[44] A second test looks at crises. Do they return more often once the generation that lived through them is gone?

Creativity. If the trit pattern describes the open part of a culture, then that part should show a rhythm that repeats at a fixed ratio, as the trit tile does. Physicists know how to find such rhythms.[45] The trit-tile reference describes a cycle detector for exactly this purpose.[46]

The turn. If the years after 2027 begin a new series, early signs should appear first where the open part is largest: in music, art, play and new mathematics. That is where a new age is heard before it is seen.

These are directions for research, not proofs. The mathematics behind the two patterns is proved. Their meaning for mankind is a reading. It has to prove itself in life.

10. Conclusion

Two patterns of three run through this essay. The bronze mean grows by three new on one old. It keeps the generation two steps back. Under it everything closes. It is the pattern of memory: of the sky as archive, of tradition, of three generations living together.

The trit tile grows by three new on the source alone. A part of it never closes. That part is not lost. It turns in a rhythm that sounds like music. It is the pattern of creativity: of what cannot be computed in advance and must be played.

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[44] [21] Malmendier, U. and Nagel, S. (2011). Depression Babies: Do Macroeconomic Experiences Affect Risk Taking? Quarterly Journal of Economics 126(1), 373–416.

[45] [32] Sornette, D. (1998). Discrete scale invariance and complex dimensions. Physics Reports 297, 239–270.

[46] [1] Konstapel, J. (2026). The Trit Tile: a reference work on a number system that never settles, version 1.1, 21 November 2026. Constable Research, Leiden.

The two are equal up to 13, the twelve around the centre. Then they part. At the turn of the Great Year the old age closes and a new series begins. Its source is known. Its rule is known. Its open part is not. That open part is the work of the coming age.

Kaulins showed how an earlier age handled such a turn. The sky moved, the calendar no longer closed, crisis followed, and a reform absorbed the rest. The ring replaced the falcon. The coming age asks for a reform of the same kind: not a return to the old fixed point, but a way to keep memory and openness together. Memory closes. Creativity stays open. The future of mankind lies in the music they make together.

Annotated references

[1] Konstapel, J. (2026). The Trit Tile: a reference work on a number system that never settles, version 1.1, 21 November 2026. Constable Research, Leiden.

Why read: *The mathematical source of the trit tile and of its musical reading: the tritave, the endless tone, the arithmetical timbre, self-similar composition and the cycle detector. Read Parts IV and V for the link with music.*

[2] Konstapel, J. (2026). The Sound of the Trit Tile. constable.blog, 21 November 2026.

Why read: *Short public version. States the prediction that the next answers of mathematics will often be rhythms rather than single numbers, and gives the trit tile as the first proved case.*

[3] Konstapel, J. (2026). Vacuum.Net Theory, Ninth Edition: Foundations 9.2 and Physics 9.0. Constable Research, Leiden (constable.blog).

Why read: *The governing statement of the theory: one strand, closure, trits, the two ladders, the comma and the windings. Background for Section 2.*

[4] Konstapel, J. (2026). Metaphor as Closure in the Vacuum.Net (Carried Across). constable.blog, 14 October 2026.

Why read: *Explains the two-layer law: an address layer that holds frozen structure and a tension layer that moves. This essay reads memory as the address layer and creativity as the tension layer.*

[5] Konstapel, J. (2026). Barriers and Back-Steps; and The Next Mathematics. constable.blog, 21 November 2026.

Why read: *The history of mathematics as a chain of barriers. Each barrier is crossed by stepping back and adding a new object. Predicts that new answers will be rhythms. The basis of Section 5.*

[6] Konstapel, J. (2009). About Plato and Harmony (About Harmony and the Trinity). constable.blog, 5 January 2009.

Why read: *First statement of the bronze mean as the pattern of the Sri Yantra, of "a Trinity behind the Trinity", and of the cycle of division until balance followed by reversal.*

[7] Konstapel, J. (2020). The Simple Geometry of the Big Transformation. constable.blog, 7 December 2020.

Why read: *The bronze mean as the expansion pattern of "nothing", breathing as <-.->, and the link with the precession cycle.*

[8] Konstapel, J. (2025). De Verborgen Boodschap van de Sri Yantra. constable.blog, 3 May 2025.

Why read: *Dutch. The stage-by-stage meaning of 1, 1, 4, 13, 43, 142; the cycle of expansion, culmination, contraction and reorientation; the shift from a 13-fold hierarchy to a 43-fold network.*

[9] Konstapel, J. (2025). The Oldest Source of Knowledge Related with the Newest Physics. constable.blog, 9 November 2025.

Why read: *Links the bronze sequence to old alphabets and calls its terms attractor levels. Letters are read as named classes of closed loops: the idea of knowledge as stored closure.*

[10] Konstapel, J. (2026). De Bronze Mean TiLing van het Heelal. constable.blog, 2 August 2026.

Why read: *Dutch. "Three new, on one old": each term carries the memory of the term two steps back. Contrasts the bronze sequence with the Sierpiński counts 40 and 121, which turn out to be the trit-tile counts.*

[11] Konstapel, J. (2026). Convergent Sky-Knowledge. constable.blog, 5 July 2026.

Why read: *One line of sky knowledge over some 200,000 years: from the San and Polynesian navigation to Egyptian kingship, the three sky paths of MUL.APIN and the living Baltic Jāņi tradition. The frame of Section 3.*

[12] Konstapel, J. (2021). Moeten Kunstenaars de Leiding nemen in de Grote Transformatie? constable.blog, 23 November 2021.

Why read: *Dutch. Calls the coming age of Aquarius the age of imagination that creates reality, and asks whether artists should lead the transformation. Source for Section 7.*

[13] Konstapel, J. (2024). Hoe Abstractie de Wereld misVormde. constable.blog, 8 September 2024.

Why read: *Dutch. States that we stand at the beginning of a precession cycle of about 25,000 years, and that this beginning is called Aquarius.*

[14] Konstapel, J. (2024). History and Future are a Fractal Process. constable.blog, 7 November 2024.

Why read: *Ties 2027 to the Great Year and to five phases of about 5,144 years counted from 3117 BCE. Also gives the Kondratiev wave of about 50 years.*

[15] Konstapel, J. (2026). Waarom 2027–2032 cruciaal is voor onze toekomst. constable.blog, 15 May 2026.

Why read: *Dutch. Five converging cycles and two routes after 2027: a hierarchical lock and a distributed lock of symmetric pairs.*

[16] Konstapel, J. (2026). Three New on One Old, version 1.0, 22 November 2026. Constable Research, Leiden.

Why read: *The technical companion of this essay. Contains the comparison of the bronze mean and the trit tile, the closure test, the twelve-step rotation and the corrections to earlier figures. Read it for the calculations; read the present essay for their meaning.*

[17] Kaulins, A. (2005; uploaded 2015). The Origin of the Cult of Horus in Predynastic Egypt. ResearchGate, publication 265492234.

Why read: *Reads the Horus falcon as the celestial pole, the Horus names as a calendar of sky regions, and the Narmer Palette as the record of an eclipse in 3117 BCE. Describes the cycle of drift, crisis and calendar reform under Khasekhemwy. The basis of Section 3.*

[18] Gardiner, A. H. (1957). Egyptian Grammar, 3rd ed. Griffith Institute, Oxford. Sign list, signs T1 and T3.

Why read: *The pear-shaped mace (T3) is read ḥḏ, a word for "mace" and for "white, bright". The white crown is ḥḏt. Used in Section 3 for the meaning of Narmer's raised mace.*

[19] Egypt–Mesopotamia relations. Wikipedia, accessed 22 November 2026; with the article on hybrid creatures in Predynastic Egypt in the Journal of Intercultural and Interdisciplinary Archaeology (Heidelberg).

Why read: *Summarises Mesopotamian and Elamite influence on late Predynastic Egypt: cylinder seals, the Gebel el-Arak knife and the serpopard, which is first attested in Elam (Susa II).*

[20] Assmann, J. (2008). Communicative and Cultural Memory. In A. Erll and A. Nünning (eds.), Cultural Memory Studies, 109–118. De Gruyter, Berlin.

Why read: *Distinguishes communicative memory, which reaches back about 80 years or three interacting generations, from cultural memory, which can span up to 3,000 years. The key to reading the bronze mean as memory.*

[21] Malmendier, U. and Nagel, S. (2011). Depression Babies: Do Macroeconomic Experiences Affect Risk Taking? Quarterly Journal of Economics 126(1), 373–416.

Why read: *Shows that lived experience of economic shocks shapes behaviour for decades. Recent experience weighs more, but early experience still counts. Empirical support for living memory in society.*

[22] Frougny, C. and Solomyak, B. (1992). Finite beta-expansions. Ergodic Theory and Dynamical Systems 12, 713–723.

Why read: *Proves that for the rule $x^2 = ax + b$ with $a \geq b \geq 1$ every non-negative number of the system has a finite expansion. For the bronze mean this means: everything closes.*

[23] Akiyama, S. (2002). On the boundary of self affine tilings generated by Pisot numbers. Journal of the Mathematical Society of Japan 54(2), 283–308.

Why read: *Shows that full closure holds exactly when the origin lies inside the central tile. In the trit tile the origin lies on the edge.*

[24] Spinadel, V. W. de (1999). The family of metallic means. Visual Mathematics 1(3).

Why read: *Standard reference for the metallic means, including the bronze mean as the root of $x^2 = 3x + 1$.*

[25] Mathews, M. V., Pierce, J. R., Reeves, A. and Roberts, L. A. (1988). Theoretical and experimental explorations of the Bohlen–Pierce scale. Journal of the Acoustical Society of America 84, 1214–1222.

Why read: *The scale that repeats at 3:1 (the tritave) instead of the octave, divided into 13 steps. The musical counterpart of the trit tile.*

[26] Shepard, R. N. (1964). Circularity in judgments of relative pitch. Journal of the Acoustical Society of America 36, 2346–2353.

Why read: *The endless tone that rises forever without getting higher. The share of open points in the trit tile behaves in the same way.*

[27] Cagney, L. (2023). Gérard Grisey and Spectral Music: Composition in the Information Age. Cambridge University Press.
Why read: *How spectral composers turned the measured spectrum of a sound into musical material. The trit tile offers a spectrum taken from arithmetic.*

[28] Anderson, M. (1997). The many patterns of Per Nørgård. Tempo 202, 3–7.
Why read: *Nørgård's infinity series: a melody that contains itself at every level. A model for self-similar creation.*

[29] Tymoczko, D. (2006). The geometry of musical chords. Science 313, 72–74.
Why read: *Chords live in folded spaces (orbifolds). Shows that musical creativity has a precise geometry.*

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[31] Konstapel, J. (2026). Why the Universe Has a Lot of Time. constable.blog, 3 September 2026.
Why read: *The comma as the motor of dynamics. A rest that never vanishes keeps things moving.*

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[33] Capitaine, N., Wallace, P. T. and Chapront, J. (2003). Expressions for IAU 2000 precession quantities. Astronomy & Astrophysics 412, 567–586.
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[34] Wikipedia contributors (2026). Solar eclipse of August 2, 2027. Wikipedia, accessed 22 November 2026; with NASA, Eclipses During 2027.
Why read: *The 2027 eclipse: total, Saros 136, longest totality of 6 min 23 s near Luxor in Egypt.*