THE UNIVERSAL FORCE OF TIME · MEDICINE

Deafness — The Ear as T_M Receiver

The hearing register written on the lattice — four ways it fails, and the easing of each

Stephen Daubney · The Daubney Foundation · 2026 · Rev 6 (supersedes Rev 5: the condition given in full as medicine knows it; the implant, the gene therapy that restored hearing and the noise research credited; the clinic's tuning forks read; foreign-number wording and a nearest-node closeness remark removed; the statement on values corrected)

Tau (T) is the living fabric of time itself — the sole substance of which all physical reality is composed. It is generated by the Sun, as by every star for its own system, and flows outward in the form of the DNA double helix, creating matter, which it deposits at nodal points — the planets — and creating life. Every particle, force, wavelength and conscious experience is a structured configuration of T-flow. The conservation law $d\Sigma T = 0$ governs all change: T is never created or destroyed at a node, only redistributed.

THE HEARING REGISTER, NUMBER FIRST

hearing runs **20 Hz** ($2^2 \cdot 5$) to **20,000 Hz** ($2^5 \cdot 5^4$) — a span of **1000** ($2^3 \cdot 5^3$)

test tones **250 … 8000 Hz** ($2^n \cdot 5^3$) · the noise notch **4000 Hz** ($2^5 \cdot 5^3$) · tuning fork **512 Hz** (2^9)

the cochlea's **2½** turns (5/2) · outer : inner hair cells **125/36** ($5^3/(2^2 \cdot 3^2)$)

ABSTRACT

More than one and a half billion people live with some loss of hearing, and four hundred million with a loss that disables. Medicine has measured hearing for a century with great precision: a healthy ear hears from **20 Hz** [$2^2 \cdot 5$] to **20,000 Hz** [$2^5 \cdot 5^4$]; the audiologist tests it at **250, 500, 1,000, 2,000, 4,000 and 8,000 Hz**; years of noise carve their deepest loss at **4,000 Hz**; the clinic's tuning fork rings at **512 Hz** [2^9]. It has never asked why the numbers fall where they do.

This paper reads deafness in the Universal Force of Time, in full. **Part I sets out the condition as medicine knows it** — the ear and its cochlea, the hair cells, the kinds of loss, the audiogram, the implant — and what the research has found: the multichannel **cochlear implant** gives speech to people with no hearing at all (Blake Wilson and colleagues, 1991; and since); and **gene therapy restored hearing to children born deaf** for want of one protein, otoferlin (Yilai Shu, Huawei Li and colleagues, 2024). **Part II reads it in the theory.** Sound is T itself, moving through matter, and the ear is the dedicated **T_M receiver**. Its window is a lattice interval — 20 to 20,000 Hz, a span of exactly **1000** [$2^3 \cdot 5^3$]; every test tone is a lattice node of the form $2^n \cdot 5^3$; the cochlea makes **two and a half turns** [5/2]; and its two populations of hair cells stand, in the theory's reading, in the ratio **125/36** [$5^3/(2^2 \cdot 3^2)$]. Each inner hair cell holds an address on the register of hearing, written once, at the start of a life.

Part III reads the condition as four ways the register fails — the path is blocked, the most-exposed node fails first, the address is deleted, the register is absent — each paired with its easing: clear the path, shield the node, act at the register and not the cell, bridge with the electrical face. One law binds them: **the earlier the answer, the more of the register is kept, because a deleted address is not re-issued.** Fourteen propositions, P-DEAF-1 to P-DEAF-14, are stated. The research groups are credited by name; the corrective detail is held in the Foundation's clinical reference. The structure resolves into the clinical trial.

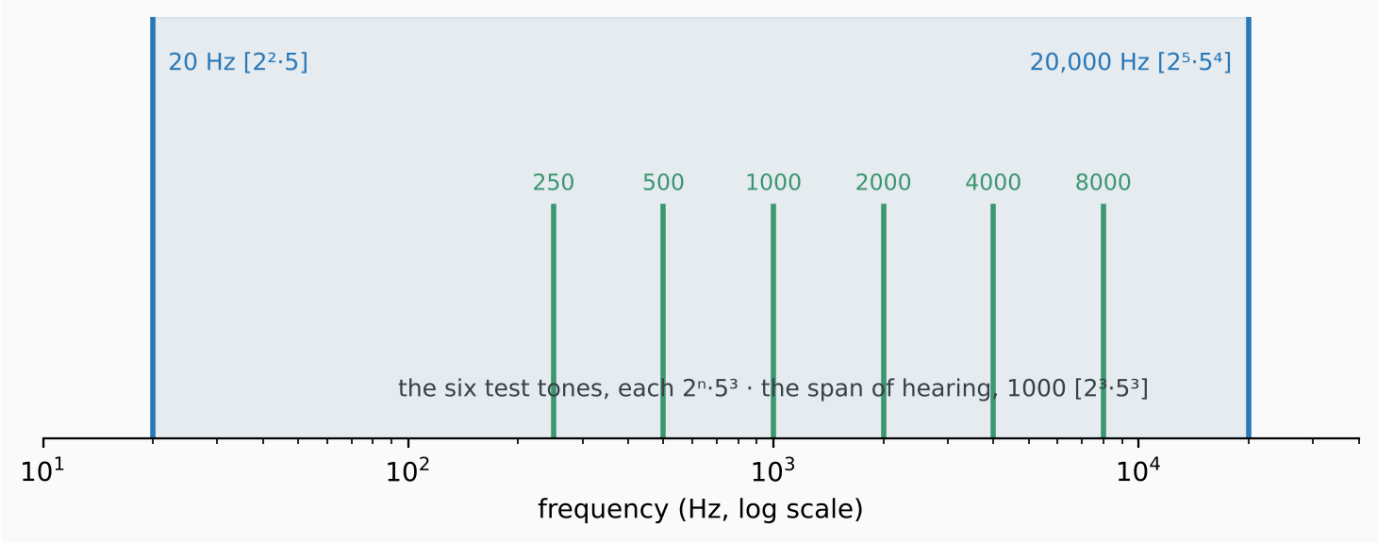


Figure 1 — The audible window, from 20 Hz [2²·5] to 20,000 Hz [2⁵·5⁴], a span of exactly 1000 [2³·5³]. The six audiometric test tones, 250 to 8,000 Hz, are each of the form 2ⁿ·5³.

THE TERMS THIS PAPER USES

T, the substance. Tau (T) is the living fabric of time itself, the one substance of which everything is made. It is generated by the Sun and flows outward as the DNA double helix, creating matter and creating life. Everything a body does — a heartbeat, a breath, the holding of its warmth — is T moving in a structured way.

An address. Every value in this framework is a product of powers of 2, 3, 5 and π, and nothing else. That product is the value's address, and the set of all such products is the lattice. A number that needs any other prime is not on the lattice.

Number first. Every value is written with its number first, as a reader meets it, and its address in brackets behind it. The number is what is there; the address is how it is built.

The free decade. Moving a value by a power of ten costs nothing on the lattice, because ten is two times five: the move shifts twos and fives together and changes nothing else. That is why 24 millimetres and 0.024 metres are one address.

The π-degree. The degree of an address is the power of π it carries, and the degree says what kind of thing the value is. An even degree is a **room** — a state, a thing that sits; it pairs, like a pair of circles. An odd degree is a **road** — a transport, a thing that carries; it is the unpaired circle. A half degree is a **door** — a source, which squares to a whole address.

The day, 864. The day is 86,400 seconds [2⁷·3³·5²], written 864 at its decade. It is the ground state of the DNA helix and the gear through which a per-second value becomes a per-day value.

The time ladder. A rate given per second is carried up the clocks by fixed steps: × 60 to the minute, × 60 to the hour, × 24 to the day. The amount is the same; only the choice of clock changes — the same quantity counted in seconds or counted in days. From the day the orbit is completed one of two ways — × 360 gives the year as a degree value, × 2π gives the year as a radian value. The two answers are two faces of one year, and both are read.

The two gears. Two numbers carry energy between the theory's registers and appear throughout the record. **10,368** [2⁷·3⁴] carries an energy in electron-volts to kilojoules per mole. **31,104** [2⁷·3⁵] carries an energy in electron-volts to a circumference. When a quantity of the body lands on one of them, it is speaking in the theory's own units.

The veil. The veil is 180/π = 57.29577951308232, the number that turns radians into degrees. In the Universal Force of Time a wavelength in nanometres is an angle in degrees directly; multiply it by π/180 — cross the veil — and the bare value it carries appears.

The register. A register is a level at which T is read. Each organ of the body is a register — a receiver tuned to one face of the time-field — and each cell, molecule and rhythm within it holds an address on that register.

The six faults. A register can fail six ways. It can be **missed** — its target still exists but it has settled at the wrong place; **demoted** — dropped to a lower order while its parts survive; **frozen** — locked at one address and unable to move; **contaminated** — carrying a foreign address; **misdirected** — its own proof-reader turned against it; or **eroded** — its nodes deleted. Under dΣT = 0 the field redistributes to the nodes that survive; it does not rebuild an address that has gone.

The conversion grammar. One value takes several forms, and fixed steps move it between them: a frequency divided by 2π is a free fall; a free fall times 49.5035535 [7776/(50π)] is a wavelength; a wavelength times π²/8 is a mass. Run in one line, frequency to mass is a single step of 9.72, and every π cancels.

Free fall. In the Universal Force of Time there is no gravity, and a free fall is not a pull. It is the flow of time at a place, in metres per second, every second — time showing itself in one more form, which current science takes for a gravitational fall. A planet makes one turn; where the turn comes in at less than 24 hours, time makes up the difference with a flow at that place, height or depth, so that the turn and the flow together make 24 hours. For the Earth, the free fall on the celestial register, **9.818362093946918** [$5^{12}/(2^7 \cdot 3^9 \cdot \pi^2)$], times 2400 — the 24-hour day, carried two decades — is the Earth's sidereal rotation, **23,564.06902547260** [$5^{14}/(2^2 \cdot 3^8 \cdot \pi^2)$]: 23 hours, 56 minutes and 4 seconds on the clock.

The three registers, G0, G1 and G2. The record reads the same value at more than one level: G1, the surface register of the Earth; G2, the celestial register; G0, the register below. A value and its neighbour one register up — one level up — stand one **G-bond step** apart, 1.000090150603356 [$5^{10}/(2^4 \cdot 3^9 \cdot \pi^3)$].

The 612 step. A second fixed step, 1.000612842467911 [$2^9 \cdot 3^5 \cdot \pi/5^8$] — helium's weight divided by four (helium divided by four, per nucleon), and 36,864 × 864 × π read at its decade. Where a family of lines stands G1, G2 and then one step further, the further step is this one.

The helical turn. The helical turn, 1.004693930041152 [$5^6/(2^6 \cdot 3^5)$], is the step by which the DNA helix climbs one turn — one revolution of the helix. A value carried "one helical turn up" is multiplied by it.

What a landing is worth. Multiply or divide two lattice numbers and the answer is always on the lattice; that much is guaranteed and is not evidence. What counts is a result that lands on a **named object** the theory had already fixed — the day, body temperature, the heartbeat, the day — at a bare power of ten. Each such landing in this paper is marked as arithmetic or as a landing, in its own sentence.

PART I — DEAFNESS AS MEDICINE KNOWS IT

1. The ear

Sound is a pressure wave in the air. It strikes the eardrum, and a chain of three small bones — the smallest in the body — carries the motion inward to the **cochlea**, a fluid-filled spiral no bigger than a pea, coiled about **two and a half turns**. Along the spiral runs the basilar membrane, about 33 to 35 mm long, and each place on it answers to a different pitch: the wide base, nearest the bones, to the highest; the narrow apex to the lowest. The membrane is a keyboard of hearing wound into a shell.

2. The hair cells

On the membrane stand the **hair cells**, the true readers of sound. About **3,500 inner hair cells** in one row are the sensors: each answers to a narrow band of pitch and reports to the brain through the auditory nerve. About **12,000 outer hair cells** in three rows are amplifiers, sharpening and boosting faint motion before the inner cells read it. In people, hair cells do not grow back.

3. The range and the test

A healthy young ear hears from about **20 Hz** to about **20,000 Hz**. The audiologist tests it with pure tones at **250, 500, 1,000, 2,000, 4,000 and 8,000 Hz**, finding at each the faintest sound heard; a threshold up to about **20 decibels** is normal. The range that matters most for understanding speech runs from about 500 to 4,000 Hz. At the bedside the clinician still uses a tuning fork, most often at **512 Hz**, and sometimes at 256, to tell one kind of loss from another.

4. The kinds of loss

Conductive loss is a failure of delivery: wax, fluid behind the drum, a stiffened bone, a perforated drum. The sound never reaches the cochlea cleanly, and the loss is often fully reversible. **Sensorineural** loss is damage to the

cochlea or its nerve — from noise, from drugs that poison the ear, from infection or from the slow attrition of age — and it is permanent. **Profound** loss leaves little or nothing to amplify.

5. The mark of noise

Years near gunfire, engines, machinery or loud music leave a distinctive mark on the audiogram: hearing near-normal across most of the range, plunging at one pitch and partly recovering above it. The dip sits so reliably at **4,000 Hz** that clinicians call it the **4 kHz notch**, and why the damage concentrates there rather than at the top of hearing has long been debated.

6. What the research has found

These are the results as the research groups reported them; the credit for each is theirs.

The implant. The cochlear implant turns sound into electrical pulses delivered straight to the auditory nerve through electrodes threaded into the cochlea. Graeme Clark's multichannel implant was first placed in 1978; Blake Wilson and colleagues showed how to process the sound so that implant users could understand speech far better (*Nature*, 1991). More than a million people now hear through one — and they often describe the sound as real and useful, yet unlike the hearing they remember.

A gene restored hearing. Some children are born deaf because a single gene, *OTOF*, cannot make the protein otoferlin, which the inner hair cells need to pass their signal to the nerve; the hair cells are present, but silent. Yilai Shu, Huawei Li and colleagues in Shanghai delivered a working copy of the gene into the cochlea, and in five of six children hearing returned (*The Lancet*, 2024).

The world's burden. The World Health Organization's *World Report on Hearing* (2021) counts more than 1.5 billion people living with some hearing loss, and about 430 million with a loss that disables — much of it preventable.

That is deafness as medicine knows it, given in full because what follows reads every part.

PART II — DEAFNESS IN THE UNIVERSAL FORCE OF TIME

7. The ear is the T_M receiver

There is a moment, in a quiet room, when you notice that the world is not truly silent. Something has travelled from the world to you — not a message, not a signal in the engineering sense, but **T itself, moving through matter as vibration.** The Universal Force of Time names this directly. The ear is the dedicated **T_M receiver**: the organ built to read mechanical T, the form the field takes when it travels through a material medium as sound. The eye reads T_λ, the electromagnetic face; the ear reads T_M, the mechanical one — two windows onto the same single field. To go deaf is not to lose a signal processor. It is to lose access to a whole register of the field: the one through which a voice, a footstep or a warning reaches a living body through the matter of the world.

8. The window is a lattice interval

Ask why a healthy ear hears from 20 to 20,000 Hz and the textbook answer is a shrug: that is simply the range the cochlea evolved to cover. The theory reads the two numbers and finds them anything but arbitrary. The lower bound is **20 Hz** [$2^2 \cdot 5$]; the upper is **20,000 Hz** [$2^5 \cdot 5^4$]; and the window between them spans exactly **1000** [$2^3 \cdot 5^3$]. The mechanical register is built from twos and fives. That is the deepest reason music sounds as it does: doubling a frequency, the power of two, is the octave, the most consonant interval there is, and the powers of three and five carry the fifths and thirds that fill the scale. **The edge of hearing is the edge of a register.**

9. The test tones are lattice nodes

The audiologist's tones were not chosen at random, and every one of them is a lattice node: 250 [$2 \cdot 5^3$], 500 [$2^2 \cdot 5^3$], 1,000 [$2^3 \cdot 5^3$], 2,000 [$2^4 \cdot 5^3$], 4,000 [$2^5 \cdot 5^3$] and 8,000 Hz [$2^6 \cdot 5^3$] — six rungs of one ladder, $2^n \cdot 5^3$. The speech band, 500 to 4,000 Hz, is a sub-interval of it. The tuning fork the clinician strikes at the bedside rings at **512 Hz** [2^9], and its partner at **256** [2^8]. A century of clinical practice, refining which tones reveal a loss most reliably, converged without knowing it on the structure of the mechanical register. **The audiogram is a lattice instrument that medicine built by trial and error.**

10. The cochlea is a register laid out in space

The cochlea's **two and a half turns** are a lattice count [5/2] — the same twos and fives that bound the window appearing again in the geometry that reads it. Its place map is the physical form of the T_M register: every point on the membrane is a coordinate, and the pitch it answers to is the address parked there. The cochlea is not a microphone that happens to be coiled. It is a ruler of addresses wound into a shell, so that an organ the size of a pea can hold the whole span of hearing.

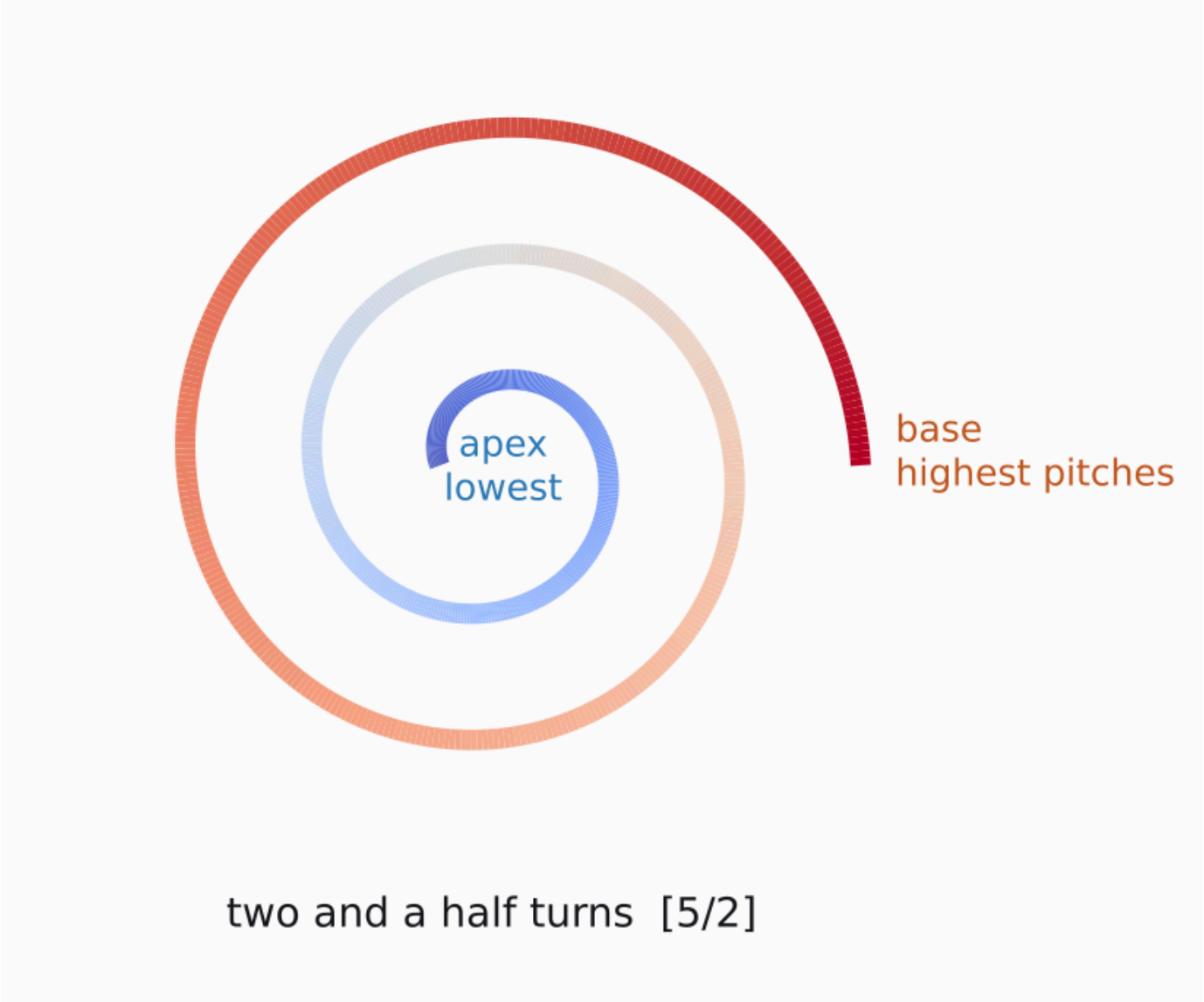


Figure 2 — The cochlea spirals two and a half turns [5/2]. The base reads the highest pitches, the apex the lowest; each place carries its own fixed address on the register of hearing.

11. The hair cells are the register's addresses

The two populations of hair cells are, in the theory's reading, lattice numbers. The inner sensors, measured at about 3,500, the theory reads at **3,456** [$2^7 \cdot 3^3$]; the outer amplifiers number about **12,000** [$2^5 \cdot 3 \cdot 5^3$]; and the two stand in the ratio **125/36** [$5^3/(2^2 \cdot 3^2)$]. Each inner hair cell holds a unique **T_M address**, fixed at birth — the cell's coordinate in the register, deciding exactly which pitches it answers to. The full set of these addresses is the register of human hearing, written once, in the lattice, at the start of a life. Every failure that follows is something happening to this register of addresses.

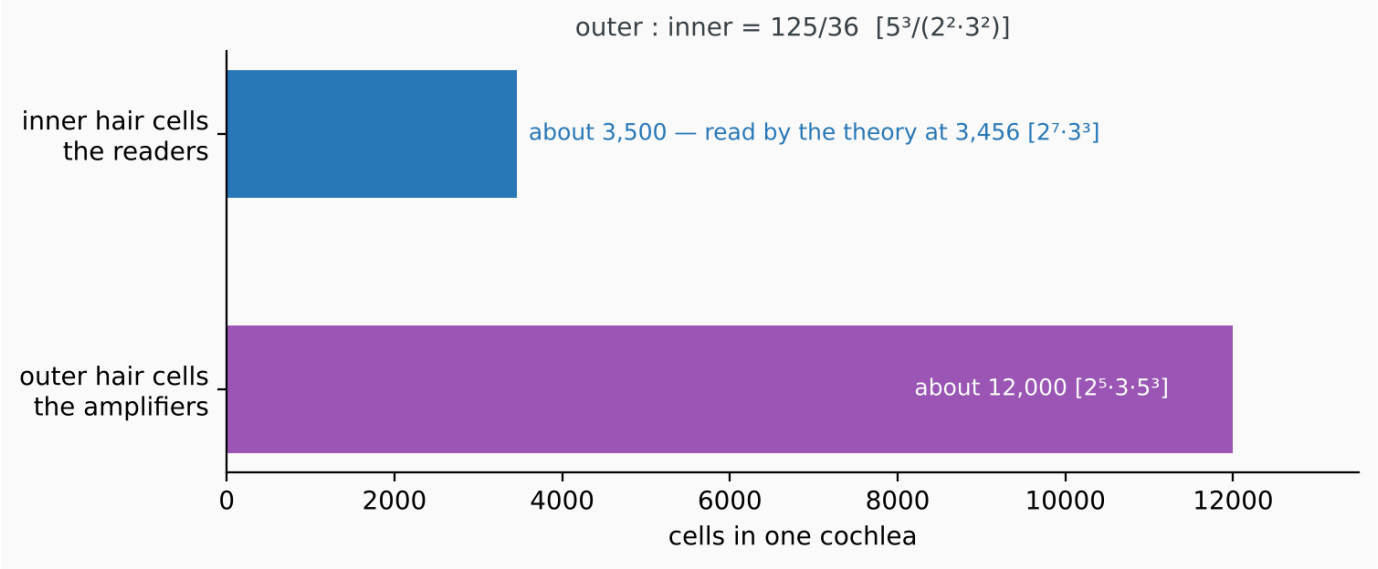


Figure 3 — The two populations of hair cells: the inner readers, about 3,500, read by the theory at 3,456 [$2^7 \cdot 3^3$], and the outer amplifiers, about 12,000 [$2^5 \cdot 3 \cdot 5^3$], standing in the ratio 125/36 [$5^3/(2^2 \cdot 3^2)$].

12. Why noise breaks the ear at 4,000 Hz

The theory reads the notch and the puzzle dissolves. **4,000 Hz** [$2^5 \cdot 5^3$] is the top rung of the speech ladder — the most-used, most-loaded address of the mechanical register, carrying the consonants of speech and the bright edge of almost every everyday sound. A register fails first where it is worked hardest; under acoustic overload the 4,000 Hz address is the first to give way. That the break begins at a lattice node, and at the top of the speech band, is what a register built on the lattice predicts: **damage tracks the lattice.**

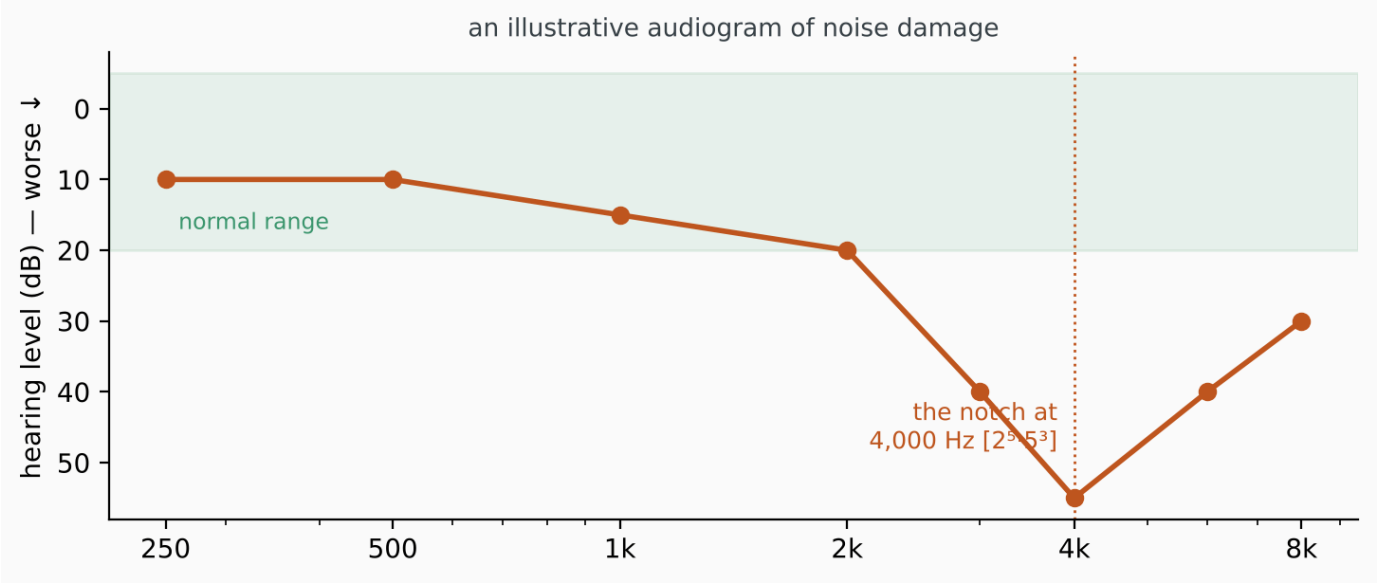


Figure 4 — An illustrative audiogram of noise damage: the deepest loss at 4,000 Hz [$2^5 \cdot 5^3$], the top rung of the speech ladder and the most-worked address of the register.

13. The implant and the gene, read

The two great results read directly. The **implant** does not restore the T_M register; it **bridges two registers**. It converts mechanical T into electrical T_E and delivers it straight to the nerve, and the nerve carries T_E exactly as it would have carried T_M. The result is functional hearing — and the subtle difference implant users describe is **register incompleteness**, exactly what the theory predicts: the brain receives a translation, not the original.

The **gene therapy** reads as the other half of the law. The children born without otoferlin had hair cells in place — the readers and their addresses were there — but the reading could not be passed on. Supply the missing protein,

and the addresses read again. It is the clearest demonstration yet that a register whose addresses survive can be restored, while one whose addresses are gone cannot be restored by tissue alone.

14. Where these results come from

The research is theirs. The implant is Graeme Clark's and Blake Wilson's and their colleagues'; the otoferlin gene therapy is Yilai Shu's and Huawei Li's groups'; the hair-cell amplifier is the work A. James Hudspeth gathered; the burden is the World Health Organization's count; the notch is a century of audiology's. It was their results that pointed this paper to these parts of the problem, and their work is the supporting evidence on which these sections are built. What this paper adds is the theory's reading — the window, the tones, the turns and the cells as lattice addresses, and the failures as things happening to a register — offered to those groups, and to any team so minded, to test.

PART III — FOUR WAYS THE REGISTER FAILS

15. A register fails along its own structure

A medical paper of the Universal Force of Time acknowledges the illness, reads the problem as the distinct routes by which it arises, and pairs each with the correction that would set it right. A register laid out on the lattice cannot fail in arbitrary ways. It fails along its own structure, and the clinic has long known the failures one by one without seeing that they form a single ordered set. There are four. They run from the outside in: from a register fully intact but cut off from the world, to a register that is no longer there.

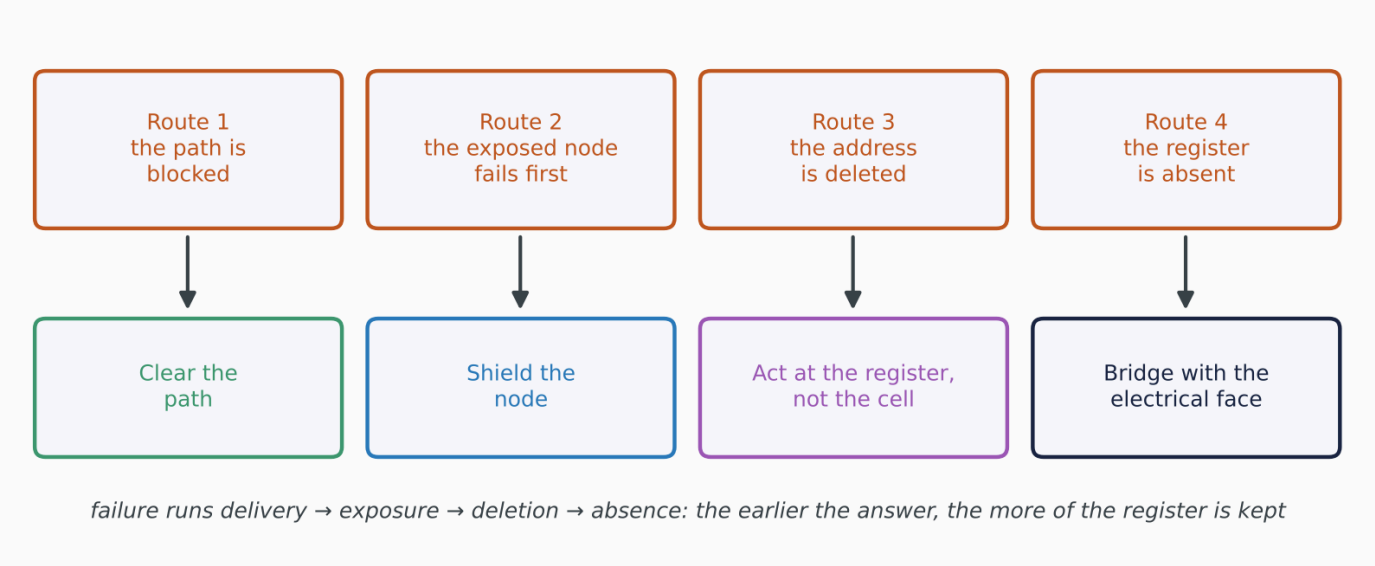


Figure 5 — The four ways the hearing register fails and the easing of each, in the order of failure: delivery, exposure, deletion, absence.

16. Route 1 — the path is blocked

Wax, fluid, a stiffened bone, a perforated drum: the mechanical T never reaches the cochlea cleanly. But the addresses in the register are untouched — every coordinate is still there, waiting; only the road to them is shut.

Easing 1 — clear the path. Restore delivery, and the intact addresses read again at once. Nothing in the register had to be repaired, because nothing in the register was lost. It is the gentlest failure and the most complete recovery, precisely because it never reached the lattice.

17. Route 2 — the exposed node fails first

Before a register is deleted, it is worn — and it wears first at its most-worked address, 4,000 Hz.

Easing 2 — shield the node. Because the failure point is known in advance — written into the structure — the easing is prevention aimed exactly where it is needed: unload the most-worked address before overload deletes it. Protect that one node and you protect speech itself. This is the only route whose correction acts before the loss rather than after it, and it is possible only because the lattice tells us, ahead of time, which coordinate will give way.

18. Route 3 — the address is deleted

When an inner hair cell dies, the address it held vanishes from the register. And an address, once deleted, is not re-issued: there is no mechanism in the field for resurrecting a lost coordinate. That is the real reason sensorineural loss is permanent. The loss is not at the level of tissue or chemistry, where medicine has been searching; it is at the level of the register.

Easing 3 — act at the register, not the cell. No drug, diet or surgery has restored sensorineural loss, because the search has been for a tissue-level cure to a register-level loss. Even a hair cell regrown by future work would be a receiver tuned to nothing until its address is re-established in the register. The otoferlin result shows the other side: where the addresses survive, restoring their reading restores hearing. The principle is that any genuine restoration must act on the address, not merely on the cell; the detail is held in the Foundation's clinical reference.

19. Route 4 — the register is absent

In the deepest losses there is no reader left at all — the mechanical register is gone, and there is no address to clear a path to, shield or re-establish.

Easing 4 — bridge with the electrical face. The implant is the easing of Route 4, and the theory says exactly why it works and exactly what it cannot do: it bridges the mechanical register to the electrical one, and the nerve carries the bridged signal as its own. It restores the function without restoring the register. The implant is named here as the established standard of care that illustrates the bridge principle, not as a prescription of this paper.

20. The order of failure, and the register-level law

The four routes are not a list; they are an order. **Delivery, then exposure, then deletion, then absence** — and that order is also a measure of how much of the register survives. In Route 1 every address is intact; in Route 2 one stands at the brink; in Route 3 an address is gone for good; in Route 4 the register itself is gone. The single clinical consequence is plain: **the earlier in this order you answer, the more of the register you keep.** Protection at the worn node spares Route 3; catching a loss before it deepens spares Route 4. And above all sits one law: restoration must act at the level the loss lives at — the address, not the tissue. Guard the coordinate while it lives; bridge to the electrical face only when it is gone.

21. One loss, many receivers

Deafness is not alone in this shape. The body builds several organs whose only work is to read a register of the field — the ear the mechanical, the eye the electromagnetic — and these receiver organs share a signature of failure. Where cancer and diabetes are an off-lattice drift of a living tissue, and the autoimmune diseases an address misdirected against the self, **the receiver organs fail by address deletion**: a coordinate lost from a register and not re-issued. That is why the permanence of sensorineural deafness and the permanence of photoreceptor loss in advanced macular degeneration rhyme so exactly, and why the same two-part clinical logic appears in each: guard the most-exposed coordinates while they live, and where a register is wholly lost, bridge to another.

22. The resolution — the clinical trial is the next step

We have acknowledged the illness — a register of the one field that can be blocked, worn, deleted or wholly absent. We have read the receiver on the lattice: the window of hearing a span of 1000, the audiogram a lattice ruler, the tuning fork a power of two, the cochlea two and a half turns, the hair cells a register of addresses. We have read the notch as the lattice giving way where it is worked hardest, the permanence of sensorineural loss as the permanence of a deleted coordinate, the implant as a bridge between two registers, and the gene therapy as addresses read again. We have named four routes and given for each its easing, bound by one order.

The easings are stated as principles precisely because the next step is not to prescribe them to a reader but to put them to a clinical trial.

PROPOSITIONS

- **P-DEAF-1.** Sound is T moving through matter; the ear is the dedicated T_M receiver.
- **P-DEAF-2.** The audible window, 20 Hz [$2^2 \cdot 5$] to 20,000 Hz [$2^5 \cdot 5^4$], spans exactly 1000 [$2^3 \cdot 5^3$]: the edge of hearing is the edge of a register.
- **P-DEAF-3.** The six audiometric test tones are each $2^n \cdot 5^3$ (n = 1 to 6); the speech band, 500 to 4,000 Hz, is a sub-interval of that ladder.

- **P-DEAF-4.** The clinic's tuning forks ring at 512 Hz [2^9] and 256 Hz [2^8].
- **P-DEAF-5.** The cochlea makes two and a half turns [5/2]; its place map is the T_M register laid out in space.
- **P-DEAF-6.** The hair cells, read by the theory at 3,456 inner [$2^7 \cdot 3^3$] and 12,000 outer [$2^5 \cdot 3 \cdot 5^3$], stand in the ratio 125/36 [$5^3/(2^2 \cdot 3^2)$]; each inner cell holds a unique address fixed at birth.
- **P-DEAF-7.** Noise breaks the ear first at 4,000 Hz [$2^5 \cdot 5^3$], the top rung of the speech ladder and the most-worked address: damage tracks the lattice.
- **P-DEAF-8.** A deleted address is not re-issued: that is why sensorineural loss is permanent.
- **P-DEAF-9.** The implant bridges the mechanical register to the electrical one; its difference from natural hearing is register incompleteness.
- **P-DEAF-10.** Where the addresses survive, restoring their reading restores hearing — the otoferlin result.
- **P-DEAF-11.** Routes 1 and 2: the path is blocked; the exposed node fails first. Easings: clear the path; shield the node.
- **P-DEAF-12.** Routes 3 and 4: the address is deleted; the register is absent. Easings: act at the register, not the cell; bridge with the electrical face.
- **P-DEAF-13.** Order law: delivery → exposure → deletion → absence; the earlier the answer, the more of the register is kept.
- **P-DEAF-14.** The receiver organs — the ear and the eye — fail by address deletion, and obey one law.

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APPENDIX — EVERY NUMBER, REBUILT

Every value can be rebuilt with any calculator, from twos, threes, fives and π. The script D_calc.py asserts every station; it passed in full.

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THE EAR, NUMBER FIRST
   lowest ; highest pitch          20 Hz ; 20,000 Hz             2^2.5 ; 2^5.5^4
   the span                        1000                          2^3.5^3
   test tones                      250 ; 500 ; 1000 ; 2000 ; 4000 ; 8000 Hz    2^n.5^3, n = 1..6
   the noise notch                 4,000 Hz                      2^5.5^3
   tuning forks                    512 ; 256 Hz                  2^9 ; 2^8
   normal threshold                up to 20 dB                   2^2.5
   cochlear turns                  2.5                           5/2
   inner ; outer hair cells        3,456 ; 12,000                2^7.3^3 ; 2^5.3.5^3
   outer : inner                   125/36                        5^3/(2^2.3^2)
```

A NOTE ON THE NUMBERS

Throughout this paper a value is given first as the plain physical reading a clinician or laboratory would make, and only then, in brackets, as its place on the {2,3,5,π} lattice. The bracket is the address; the physical number is the thing you can hold. Where the theory reads an approximate count at a lattice value, the paper says so. The easings

are stated as principles; the corrective detail is held in the Foundation's clinical reference and is not prescribed here.

The Daubney Foundation is in ongoing discussions with medical establishments regarding clinical trials of Universal Force of Time solutions to the conditions described in this paper. Any institution or researcher wishing to put themselves forward for participation in these trials is invited to make themselves known through: thedaubneyfoundation@gmail.com

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