

A Gnomonic Clock

The Gnomon as Instrument of Cosmic Modesty

by Vera Bühlmann and Andrea Collinari, June 2026

The gnomon tells time not through its own movement but through the movements of the world. It neither produces the Sun nor measures it directly; it renders celestial relations locally intelligible. Read in this way, the gnomon becomes more than an ancient timekeeping device. It appears as an instrument of orientation, synchronization, and articulation—an early organon for thinking relations without claiming to possess them.

Editorial Note

The reader may notice a deliberate recurrence in the structure of these chapters. This repetition is not accidental, nor merely stylistic. Like the daily return of the shadow upon a gnomon, each chapter revisits the same instrument from a slightly different inclination. What changes is not the object, but the orientation from which it becomes intelligible.

The text therefore proceeds less by linear argument than by repeated articulation. Its movement is gnomonic rather than deductive: each return casts a new shadow, each variation redistributes attention, each chapter synchronizes another constellation of relations around the same upright figure.

The repetition is thus part of the instrument itself. It allows thought to discover that understanding does not always advance by accumulation. Sometimes it deepens by returning.

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I. The Shadow Is the Instrument

The gnomon does not tell time. Its shadow does. The rod remains still. The Earth moves. Time becomes legible through relation rather than substance.

II. Cosmic Modesty

Its center does not belong to it. The gnomon possesses nothing of what it reveals. It neither owns the Sun nor controls the Earth. It is an instrument whose efficacy depends entirely upon what exceeds it.

III. A Probe Before Measurement

The gnomon as the first probe. Rather than extracting information, the gnomon exposes itself to celestial movement. It receives orientation before it produces knowledge. Here probing precedes measuring.

IV. Synchronizing Heterogeneous Rhythms

The first synchronizing technique. Solar time. Terrestrial rotation. Seasonal inclination. Human observation. The gnomon composes heterogeneous rhythms into a temporary proportionality without reducing them to a common mechanism.

V. The Gnomonic Prompt

Prompting as illumination. Like a good prompt, the gnomon does not command. It distributes attention. It prepares conditions under which relations become

articulate. The shadow is not information; it is an invitation to read.

VI. The Portico of Shadows

Standing without producing. The gnomon resembles the Portico. It remains upright while allowing movements that are not its own to appear. It is neither actor nor observer but a place of articulation.

VII. A Gnomonic Clock

Toward an instrument of respiratory geometry. A clock need not count homogeneous units of time. It may instead coordinate heterogeneous temporalities. A gnomonic clock would therefore not measure duration but cultivate orientation. It would not calculate the world. It would accompany its articulations.

Concluding Invocation

The gnomon teaches an ethics of instrumentality. It stands without domination. It measures without possession. It synchronizes without standardizing. It illuminates without explaining. Its center never belongs to itself, and precisely for that reason it renders the movements of the cosmos locally intelligible. Every instrument worthy of a living world might aspire to such modesty.

I

The Shadow Is the Instrument

We tend to believe that an instrument derives its authority from itself. A clock measures because of its mechanism. A ruler measures because of its graduations. A compass measures because of its needle. We imagine that precision resides within the instrument, as though it possessed the principle of its own operation. The gnomon teaches otherwise. At first glance it appears to be almost absurdly simple: a rod standing upright upon a plane. It contains no gears, no springs, no hidden mechanism. Left entirely to itself, it does nothing. It does not move. It does not calculate. It does not generate time.

Yet it renders time visible. This is its remarkable lesson. The gnomon tells time not by virtue of its own substance but through the shadow that the movements of the Earth and the Sun draw across the ground. The rod itself remains almost insignificant. It merely occupies a place. Everything that matters occurs around it. One could therefore say that the shadow, not the rod, is the true instrument. For the shadow is neither a thing nor an object. It is a relation. It belongs simultaneously to the Sun, to the Earth, to the inclination of the seasons, to the latitude from which it is observed, and to the quiet persistence of the upright rod. It cannot be located in any one of these alone. It exists only because several cosmic movements temporarily become commensurable upon a local surface.

The gnomon therefore accomplishes something more subtle than measurement. It composes intelligibility. It does not seize

the cosmos. It allows the cosmos to inscribe itself. This distinction is decisive. Modern instruments often appear as extensions of human mastery. They promise increasingly precise control over what they observe. The gnomon promises something altogether different. It asks almost nothing of the world except that it continue to move as it already does. It contributes no force of its own. It merely offers a place where celestial relations may become legible.

The ancient Greeks understood that *gnōmōn* meant more than the upright rod of a sundial. The word also designated one who discerns, one through whom something becomes known. Knowledge, in this older sense, does not arise from possession but from orientation. The gnomon knows nothing by itself. It stands in such a way that the world becomes capable of knowing itself. Is this not the first lesson of every worthy instrument? Its center does not belong to itself.

The gnomon never owns the time it reveals. The shadow cannot be stored, accumulated, or repeated. Each appearance is singular. Every noon differs subtly from the last. Every season inclines the world differently. Precision here is not the elimination of change but the faithful registration of it. For this reason the gnomon is less a clock than an organon. It does not measure an independent reality from outside. It establishes a local condition under which heterogeneous movements become capable of appearing together. The vertical rod, the turning Earth, the moving Sun, the observer, and the passing day enter, for a brief moment, into a common articulation.

The shadow is therefore not merely an effect. It is the visible grammar of relation. And perhaps every instrument worthy of the world should aspire to the same modesty: not to replace the relations it studies, but to stand quietly enough that they may cast their own shadow.

II. Cosmic Modesty

The gnomon possesses a remarkable virtue that has become increasingly rare among instruments: it never mistakes its own operation for the source of what it reveals. Modern instruments often conceal the world behind their own sophistication. Their complexity invites us to admire the apparatus itself. The more intricate the mechanism becomes, the easier it is to forget that every instrument ultimately depends upon relations it neither produces nor controls. The gnomon reminds us of this forgotten humility. It stands upright and waits. Nothing more. Its efficacy depends entirely upon movements that exceed it. The Earth turns. The Sun appears to travel across the sky. The seasons incline the celestial sphere. The observer arrives, looks, departs. The gnomon commands none of these events. It simply offers itself as the place where they may briefly become commensurable.

Its centre, one might say, never belongs to itself. This is not a defect but its greatest strength. Every genuine instrument shares this peculiar condition. A telescope does not create the

stars. A microscope does not invent the cell. A score does not produce music. They become meaningful only because they expose themselves to realities whose centres remain elsewhere. The gnomon reveals this condition with exceptional clarity because it possesses almost no machinery of its own. Its simplicity makes its dependence visible. The less it does, the more the world is allowed to do. One might therefore speak of a cosmic modesty.

Modesty is often misunderstood as a moral virtue, as though it described the character of a person who deliberately withdraws. But the modesty of the gnomon is structural rather than psychological. It consists in refusing to substitute itself for the relations it renders intelligible. The gnomon never claims authorship of the shadow. It never mistakes indication for production.

This distinction is becoming increasingly important in an age of technical mediation. As our instruments grow more powerful, they also become more capable of obscuring the difference between revealing and constructing. Simulation begins to resemble reality. Prediction appears to replace observation. Computation threatens to eclipse orientation. Instruments increasingly present themselves as autonomous centres from which the world may be organised.

The gnomon offers another possibility. It teaches that an instrument need not occupy the centre in order to be precise. Indeed, the more faithfully it acknowledges that its centre lies elsewhere, the more trustworthy it becomes. Precision arises not from sovereignty but from proportion. The gnomon is exact

because it remains exposed. Every instrument worthy of a common world should cultivate this form of modesty. Its task would then no longer be to master reality, but to enter carefully into relations already underway. It would measure without possession, illuminate without domination, and coordinate without claiming authority.

In this sense, the gnomon becomes more than an ancient clock. It becomes an ethics of instrumentality. It reminds us that the highest achievement of an instrument is not to make the world dependent upon itself, but to become sufficiently transparent that the world may appear through it. Its centre does not belong to it. Precisely for that reason, it allows the cosmos to become locally intelligible.

III.

A Probe Before Measurement

Long before the gnomon became an instrument of measurement, it was already a probe. This may seem surprising, for the history of the sundial is usually told as the history of increasing precision. More accurate divisions, more carefully calculated hour lines, more exact determinations of latitude—all these developments undoubtedly belong to its story. Yet they do not touch its deepest significance.

Before the gnomon measures, it exposes itself. It stands beneath the sky without knowing what the day will bring. Every morning begins anew. The length of the shadow differs. Its

angle changes. Clouds interrupt its continuity. The seasons slowly incline its course. Nothing is predetermined except the willingness of the rod to remain where it is. In this respect the gnomon resembles a probe far more than a clock. A probe does not first possess knowledge and then apply it. It enters a field whose articulations are still unfolding. Its first gesture is not calculation but attentiveness. It proceeds by allowing the world to answer before deciding what the question should become.

The gnomon performs precisely this operation. It does not interrogate the heavens by force. It does not extract information from the Sun. It simply establishes a local condition in which celestial movements may inscribe themselves. The shadow is not a measurement imposed upon the world. It is the world's own reply.

This changes the meaning of observation entirely. Observation is no longer the passive recording of an already constituted reality. Nor is it the active construction of one. It becomes a correspondence between heterogeneous movements. The Earth rotates. The Sun appears to move. Light travels. A surface receives. An observer attends. The gnomon merely sustains the proportion within which these different rhythms become mutually legible.

One might therefore say that probing precedes measuring. Measurement presupposes that something has already become stable enough to compare. The probe operates earlier. It lingers at the threshold where relations have not yet settled into objects. It remains with emergence itself. For this reason the gnomon is not simply an ancient scientific instrument. It is an

organon of careful questioning. It teaches that intelligibility begins not by demanding certainty, but by cultivating exposure. Its uprightness is not an assertion of knowledge but a posture of availability. It stands without anticipation, allowing the world to articulate itself before deciding what has been found. Every genuine inquiry should begin in that same way – not by asking, What is there? But by asking, How must one stand so that something may begin to appear?

IV.

Synchronizing Heterogeneous Rhythms

If the gnomon is more than a measuring device, it is because it accomplishes something more demanding than measurement.

It synchronizes.

Not in the modern sense of imposing a common tempo, but in the older sense of bringing heterogeneous rhythms into temporary correspondence.

The world is not governed by a single time.

The Earth rotates.

The Sun appears to travel.

The seasons incline.

Plants unfold.

Bodies breathe.

Cities awaken.

Thought hesitates.

None of these movements proceeds according to the same rhythm. They belong to different scales, different durations,

different forms of persistence. Yet every inhabitable world depends upon their becoming, from time to time, proportionate to one another.

This is precisely what the gnomon makes visible.

It does not reduce these rhythms to a universal clock. Quite the contrary. It allows each to remain what it is while rendering their temporary compatibility perceptible. The shadow is nothing other than the visible coincidence of heterogeneous temporalities. It is the place where celestial motion, terrestrial rotation, local geography, seasonal inclination, and human attention briefly intersect.

The gnomon therefore synchronizes without standardizing.

Its operation is neither mechanical nor administrative. It does not command agreement. It cultivates correspondence.

This distinction has become increasingly important in the technical world.

Modern synchronization often aims at simultaneity. Digital networks synchronize processors. Markets synchronize transactions. Timetables synchronize transportation. Protocols synchronize communication. In each case, synchronization tends toward the reduction of temporal difference into operational compatibility.

The gnomon proposes another model.

Its compatibility remains local, situated, and atmospheric. The shadow never appears in exactly the same way twice. Every day is slightly displaced. Every season redraws the figure. Synchronization is therefore not the repetition of identity but the continual negotiation of difference.

One might even say that the gnomon is the first synchronizing technique.

Not because it establishes a universal standard of time, but because it demonstrates that coexistence depends upon proportion rather than uniformity. Different movements remain distinct while nevertheless becoming readable through one another.

This is perhaps the deeper meaning of synchronization.

Not the production of a single rhythm.

But the careful cultivation of a common weather.

The gnomon achieves this without machinery, without calculation, without force. It simply remains upright long enough for the world to perform its own coordination.

Perhaps every genuine instrument should aspire to the same economy.

Its task would not be to accelerate the world toward a single temporal order, but to cultivate those fragile intervals in which different times become capable of sharing the same horizon.

In this sense, the shadow is not merely a mark upon the ground.

It is a synchrony made visible.

A fleeting proportion through which the cosmos, for a moment, learns to keep time with itself.

V.

The Gnomonic Prompt

The gnomon may seem very distant from the contemporary practice of prompting. One belongs to the ancient world of

stone, sunlight, and shadows; the other to computational systems, language models, and digital media. Yet beneath these historical differences they perform a remarkably similar operation. Neither begins by producing an answer. Both begin by preparing the conditions under which something may become articulate.

This distinction is easily overlooked. A prompt is often understood as an instruction. One imagines it as a carefully formulated command addressed to a machine, designed to obtain a desired result. Likewise, the gnomon is usually understood as a device that measures time. In both cases, the instrument appears to produce knowledge. Yet neither actually does so. The gnomon contributes no movement of its own. It simply stands where the movements of the world may cast their shadow. A prompt, similarly, contributes no thought in advance. It establishes a situation in which relations, already latent within a field of language, may begin to condense into new articulations.

One might therefore say that both operate by illumination rather than instruction. The gnomon distributes light. The prompt distributes attention. Neither determines what must appear. They merely establish the conditions under which appearance becomes possible. For this reason, a good prompt resembles the upright rod far more than it resembles a command. It does not dictate the path thought must follow. It introduces a slight asymmetry into an otherwise undifferentiated field, allowing previously unnoticed relations to cast their own shadow. The response is therefore never

contained entirely within the prompt itself. It emerges from the encounter between the prompt and the immense atmosphere through which language continues to circulate.

Prompting, understood in this way, is not the opposite of questioning. It is questioning rendered technical. Like the gnomon, it neither extracts nor invents. It composes a local situation in which something that was previously dispersed may become temporarily coherent. Perhaps this also changes our understanding of artificial intelligence. Its significance lies less in the production of autonomous intelligence than in the cultivation of new situations of articulation. The prompt does not command a machine to think. It prepares an orientation within which human and computational intelligence may become mutually responsive to what neither possessed beforehand.

The gnomon therefore anticipates the prompt by more than two millennia. Both are modest instruments. Both accomplish their work without occupying the centre. Both reveal that intelligence does not begin with answers. It begins by standing carefully enough that the world may discover new ways of speaking.

VI.

The Portico of Shadows

There is another reason why the gnomon deserves to be understood as more than an instrument of timekeeping. It establishes a place. Not a place in the geographical sense, nor an

enclosed space into which one enters. Rather, it produces a locality through relation. Before the gnomon stands, the ground is simply ground. As soon as the shadow begins to move, the same surface becomes a field of articulation. What changes is not the place itself, but the way the world gathers there.

In this respect, the gnomon resembles the Portico. A Portico is often mistaken for an architectural threshold. One imagines it as an entrance, a transition between outside and inside. Yet its deeper significance lies elsewhere. The Portico is not defined by what it encloses, but by what it allows to pass. It is a place where relation becomes possible without demanding possession, where things remain exposed to one another without collapsing into unity.

The gnomon performs the same operation. Its shadow is not an object resting upon the ground. It is a passage. It passes over stones, crosses engraved lines, disappears into cloud, returns with the clearing sky, lengthens, contracts, and quietly continues its journey. Nothing remains fixed except the upright rod itself. Yet precisely through this stillness, movement becomes visible. One might therefore say that the gnomon builds no structure of its own. It builds conditions of appearance. Its architecture is entirely relational. The shadow never belongs to the rod alone. It belongs equally to the Sun, to the Earth's rotation, to the inclined ecliptic, to the local horizon, to the atmosphere through which light has travelled, and to the observer who remains long enough to notice. The gnomon does not gather these movements into itself. It allows them to remain distinct while becoming locally intelligible.

This is exactly what the Portico accomplishes for thought. It gathers without assembling. It holds without containing. It orients without directing. The conversations that occur there are not governed by agreement but by adjacency. Voices remain different. Arguments remain unfinished. Thought continues because nothing has been compelled to close. The Portico does not produce consensus. It cultivates exposure.

The shadow is therefore not merely an indication of time. It is the visible form of adjacency. It demonstrates that relation does not require fusion, that coherence need not depend upon identity, and that orientation may arise without a common centre. The gnomon simply stands where different worlds become capable of touching one another without surrendering their differences. This is why the shadow never truly arrives. It is always passing. Always crossing. Always composing another relation. The gnomon is therefore less a monument than a Portico. Its uprightness establishes no authority. It merely offers a place where the movements of the cosmos may continue their conversation, and where, for a brief moment, we are permitted to overhear it.

VII.

A Gnomonic Clock

What, then, would a gnomonic clock be today? Certainly not the reconstruction of an ancient instrument. Nor the nostalgic recovery of premodern astronomy. The gnomon belongs less to the history of technology than to the future of instrumentality.

For what it teaches has not become obsolete. It reminds us that an instrument need not produce the world in order to make it intelligible.

Throughout this essay, the gnomon has appeared successively as a shadow, as an ethical posture, as a probe, as a synchronizing technique, as a prompt, and as a Portico. These are not different interpretations of the same object. They are different articulations of a single principle. An instrument becomes worthy of the world precisely when it refrains from becoming its centre. The modern history of technology has often moved in another direction. Instruments have increasingly become autonomous systems. They calculate, predict, optimise, simulate, automate. They aspire to independence from the circumstances that once grounded their operation. Their success is measured by the degree to which contingency has been eliminated.

The gnomon proposes the opposite trajectory. It becomes more precise the more completely it remains exposed. Clouds interrupt it. Seasons transform it. Latitude alters it. The atmosphere itself participates in its operation. Its reliability is therefore not achieved by eliminating the world, but by entering ever more delicately into correspondence with it. This may suggest another understanding of the clock itself. A clock need not be an apparatus that counts homogeneous units of time. It may instead become an instrument that renders heterogeneous temporalities mutually intelligible. Such a clock would not simply tell us what time it is. It would reveal how many different times are already passing through the same

moment. The breathing body. The turning Earth. The migrating seasons. The growth of a tree. The hesitation of thought. The unfolding of a conversation. The computation of a machine. None of these follows the same rhythm. Yet all occasionally discover a proportion through which they become capable of accompanying one another. A gnomonic clock would not reduce these rhythms to a universal measure. It would cultivate their coexistence.

This is what every future instrument must learn. Not greater autonomy. Greater responsiveness. Not stronger control. Greater correspondence. Not more information. Better articulation. The gnomon has quietly taught this lesson for more than two thousand years. Its shadow measures nothing by itself. It merely allows the world to become legible in passing. And perhaps that has always been the deepest vocation of the *technē matematikē*. Not to calculate the order of the world. But to compose situations in which the world may gradually discover its own proportions.

A gnomonic clock would therefore not count time. It would accompany the world while it learns to keep time with itself.

Ode to Artefacts That Cast Shadows

Stand quietly.

Attend carefully.

Let the world cast its own shadow.

There begins every worthy instrument.

Not every artefact deserves praise.

Some amplify themselves until nothing else can be heard.

Some demand attention so completely that the world disappears behind their operation.

Some mistake production for intelligence and mastery for understanding.

But there are other artefacts.

Artefacts that do not seek to occupy the centre.

Artefacts that remain sufficiently open for the movements of the world to become visible through them.

The gnomon is one.

The bridge is another.

The portico.

The amphora.

The page.

The compass.

The telescope.

The prompt.
Each stands differently.
Yet each receives before it produces.
None of them creates the relations it reveals.
They merely offer a posture in which relations become capable
of appearing.
This is why they cast shadows.
A shadow is not the absence of light.
It is light entering into relation.
It is the world briefly becoming aware of its own geometry.
Every worthy artefact therefore casts a shadow larger than itself.
The shadow of a bridge is not its silhouette upon the river.
It is the possibility that two shores begin to belong to one
another.
The shadow of an amphora is not the darkness inside its vessel.
It is the hospitality of remaining unfilled.
The shadow of a page is not the ink it carries.
It is the silence in which words discover how to stand.
The shadow of a prompt is not the answer that follows.
It is the atmosphere within which thought finds another
orientation. The shadow of the Portico is not the roof it extends.
It is the conversation that continues because no one has
enclosed it. And the shadow of the gnomon—perhaps the
oldest of them all—is not the dark line crossing the stone.
It is the discovery that the Earth, the Sun, the seasons, the
observer, and the passing day have been speaking together all
along. Artefacts are not great because they endure.
They are great because they allow relations to endure.

They do not make the world.

They let the world become articulate.

May we therefore build artefacts that do not blind us with their
brilliance.

May we build artefacts that cast generous shadows.

Shadows in which different times may breathe together.

Shadows in which thought may linger before concluding.

Shadows in which worlds become capable of accompanying one
another.

For perhaps every true artefact has only one vocation:

to stand carefully enough

that the world may continue

to cast its own shadow.