

## NATURAL FREQUENCIES | *ATTENDING TO THE UNSEEN UNHEARD*

It is a fact that all matter vibrates.<sup>1</sup> Human and non-human, everything everywhere is oscillating at its own unique frequency.<sup>2</sup>

Artist, Tracy Hill, presents a proposition: if we allow ourselves to imagine we can see the invisible, she will show us what resonance looks like.

Her new collection of installations and works on paper, *NATURAL FREQUENCIES*, is an invitation to consider that we all act as receivers for the myriad inescapable resonances surrounding us, many vibrating in disharmony with our own natural frequencies. In her quest to make the unseen visible, Hill reminds us that what is beyond our perception can still touch us.

Living organisms have evolved within the earth's natural Schumann resonances and mounting research suggests that disruption of these natural frequencies, through cumulative electromagnetic pollution from manmade infrastructure, can be harmful to human health.<sup>3</sup> By contrast, benign, earthborn resonances can also reach us - from fresh water in aquifers that run between ancient layers of chalk and clay buried hundreds of metres beneath our streets. Geologists and Water Dowsers can locate these water courses from changes in magnetic frequencies that take place where natural springs occur - in places such as Clerkenwell.<sup>4</sup>

Tracy Hill has spent much of her life as an artist weighing the human connection with landscape and challenging easy assumptions. Through her method of slow, attentive walking and her practice of making - a fusion of traditional drawing and printmaking techniques with digital technologies and cymatics - she has quietly pursued her aim of bringing to our attention the marginal, the overlooked and neglected.

She has walked us through the vital and tranquil beauty hidden in desolate wetland terrain, revealed to us fragile ecologies threatened with harm or extinction from global heating and biodiversity loss. She has shown us that maps are not the best of guides if we want to truly know a place.<sup>5</sup>

Now, as our understanding of the physical and psychological impact of magnetic field energy grows and Hill's experience of working with specialists to explore the creative potential of such forces expands, her work asks a question: Given the exponential growth of our towns, cities and rural communities, must we attend more closely to local environmental frequencies and their affective potential?

## THE CLERK'S WELL

From estuarine marshes to arctic lakes, much of Hill's research has drawn her to watery landscapes. This project brings her to the borough of Islington under which several of London's 'lost' waterways, notably the River Fleet, find their way to the Thames. Richard Ackroyd's eminent 'biography' of the Thames River charts its history through the sacred and the profane<sup>6</sup>:-

*Long forced underground, tributaries of the Thames remain as conduits or sewers, some finding their own course as nameless 'shadow rivers' silently running below the earth. These ancient rivers still exert an influence upon the world above them, making their presence known in odours and creeping dampness - the Fleet especially, flooding basements along its course. The lost rivers were once deemed to be responsible for ague and fever, and their valleys (now carved between the streets and buildings of the city) were particularly susceptible to mist and fog. In more recent times the presence of the underground waters has been blamed for the prevalence of allergies in their vicinity.*<sup>7</sup>

The 'lost' River Fleet, covered over since the 1860s, has known many incarnations: alternately as a vital transport corridor, on whose waters the stone of old St Pauls Cathedral was borne; as the Thames's *dark shadow, a ditch, a place of 'filth, stench, and noise'*<sup>8</sup> and, importantly, as the *'River of wells.'*<sup>9</sup> Hill's interest is particularly drawn to the medieval well that gives Clerkenwell its name. Sprung from the saturated chalk reservoir sandwiched between the bedrock of the Thames basin and its famously impermeable layer of London Clay, the Clerk's Well provided fresh water for the nuns of the 12<sup>th</sup> Century Priory of St Mary and those living immediately outside its curtilage. Its name derives from the City of London's Parish Clerks who, for centuries, performed Mystery Plays near the Well on the feast of

Corpus Christi. Since early humanity, rivers across all cultures have been held sacred,<sup>10</sup> wells were commonly hallowed<sup>11</sup>, and it is said that divinities of the ancient world congregated by springs, the purest of all natural phenomena. The lower course of the Fleet is stitched through with the remains of sacred spaces and vestiges of the springs and wells that heralded them. St Pancras Old Church, the Priory of St John of Jerusalem and the monasteries of the Franciscan Greyfriars, Dominican Blackfriars<sup>12</sup> and Carmelite White Friars all leave their dusty traces, whilst the presence of ‘holy’ wells still lingers in their names; in St Chad’s, St Bride’s and the Clerk’s Well. These natural springs had their individual venerated guardians, and brought not only ‘healing’ waters but, as we now understand, their own specific magnetic resonances.

*NATURAL FREQUENCIES* | a new collection of works

In response to her exploration of the hydrogeology of Clerkenwell and the history of its springs and wells, Hill offers us new place-based installations and works on paper as visualisations of unseen forces, resonances and rhythms.

*ATTENDING* and *HUM*, are new site-specific works. Hill's hand carved Kozo paper panels hold the entrance to the Gallery with a gauzy weightlessness: gossamer enigmas that quietly acquiesce to the passing air, scattering light in soft shoals. They speak to us in the language of maps though their message is mute. The very task of their fibrous paper, gift of the Japanese Mulberry tree and long used for the backing of scrolls, is to carry meaning; instead, it leaves us wondering.

Drawing only with light and space, Hill has rendered serpentine 'otherscapes' of vexing ambiguity. Her work resists classification. She defies us to ask ourselves what we see. Do we choose to notice what is solid or what is air; perhaps we focus on the sinuous filigree that binds them? Do we see a presence, or do we see the void?

Made for White Conduit Street's window, *ATTENDING* is a vignette allowing a glimpse into the mutability of Hill's craft. The work is a representation of crystalised flux, revealing to us the point at which drag force has stopped the flow of pigment ink on a lithographic stone and the tusche begins to settle into its unique formation depending on the day's temperature, airflow, atmospheric pressure, and the force of the artist's gesture in applying her brush to the surface. Finding rhythms within its ink flow, Hill has selectively traced a projected image of her now motionless gestural mark onto Kozo paper. Editing further, she thoughtfully hand-cuts the panel, pulling her attention between its positive and negative spaces, slowly releasing the drawing from its stasis to move again in the airflow of the gallery.

*HUM* tells a story of liquid sound. Many of us are aware of a subtle electromagnetic hum, persisting just on the threshold of human hearing, which now pervades our built environments<sup>13</sup>. Using hydrophones in the Clerk's Well, Hill has captured the area's unique dronings and susurrations as they vibrate through the water<sup>14</sup>.

She has created a drawing in response to the ripple effect produced in pigment ink as her recording from the Well was played in continuous tone through a vibration speaker, causing its cymatics resonance pattern to manifest in the viscous liquid. Rendered in hand cut negative space, *HUM* is Hill's three-dimensional visualisation of the acoustic vibrations in the chamber of the Clerk's Well.

At the heart of the installation is Clerkenwell's distinct cymatics resonance pattern - its own sonic portrait. In a play on her charge that we pay attention to the imperceptible, the artist offers us absence as a representation of the inaudible.

Hill's ideations with Cymatics<sup>15</sup> began during a 2022 residency at the Centre for Fine Print Research where she worked with Frank Menger and Phill Phelps to reproduce the rippling geometric patterns of site-specific resonances. In an experimental turn, Hill determined she would make it possible for gallery visitors to experience for themselves the phenomenon of unseen, inaudible energy. Her thought was to create a responsive, conductive printed surface that would unlock the 'sound' of its cymatics pattern when activated by the proximity or touch of the viewer's hand.<sup>16</sup>

Working in collaboration with The Centre for Print Research (CFPR) to discover the possibility of integrating into the printed surface a layer of the super conductive material, Graphene, Hill developed her 2023 work, *SONOROUS*. Beneath the soft, velvet-black ink of her traditionally produced polymer gravure etching, she has hidden a screen-printed conductive drawing of microscopically observed graphene. We have only to raise a hand to the liquidly ruffling cymatics image for *SONOROUS* to play back to us the sound of itself, allowing us to experience an inaudible sonic landscape; evincing the human body as a conduit of invisible energy.<sup>17</sup>

As part of *NATURAL FREQUENCIES*, Hill is showing a third iteration of her site responsive installation, *IN THE BALANCE*. Individual woodblocks, etched with cymatics resonance patterns are printed onto delicate Kozo paper in the same dense, carbon-black ink she used to create *SONOROUS*. Gathering ribbons of her prints into tight sheaves, their collective mass holding them suspended between anchor points, she has traced around the gallery walls the wave-form of magnetic resonances captured on her dowsing walks in Clerkenwell, revealing to us the unseeable shape of the area's energy.<sup>18</sup>

We see more of Hill's lithographic renderings in *LETTERS TO THE VOID*, *STATE OF BEING POROUS* and in her series of drawings for *SURGERE* shown in the 2023 Exhibition, *A FINE TOOTHED COMB*, curated by Lubaina Himid at Manchester's HOME gallery. Each image considers the body as both a receptor and a conduit for magnetic energy and positions the *void* as the unseen force; from invisible subterranean and environmental resonances to the imperceptible tension between the artist's gesture and the "shear force" that halts the flow of tusche on a lithographic stone.

The experimental lithographs, *LETTERS TO THE VOID*<sup>19</sup> and *STATE OF BEING POROUS* were created during lockdown in 2021 at the conceptual stage of Hill's *POROSITY* project<sup>20</sup>. The idea for the works grew from her conversations with Water Dowser, Deborah Bell, and retired mining geologist, Dr Rosalind Todhunter, in which the three women discussed the differences in magnetic field energy occurring in varying geologies and the anomalies introduced by the presence of natural springs.<sup>21</sup>

Hill has built a close working relationship with Deborah Bell, whose skill at dowsing water allows her to detect the depth, volume and movement of spring water. Bell has worked with Hill to survey sites of interest including Airspace Gallery in Stoke on Trent, contributing to the production of Hill's 2021 installation, *EPHEMERAL BODIES*<sup>22</sup>, a floor drawing in salt interpreting Bell's readings from a water source found flowing beneath the gallery.

As part of their work on *A FINE TOOTHED COMB*<sup>23</sup> Hill and Bell conducted dowsing walks through Manchester. Using forked hazel sticks, they located culverts of black water and hidden freshwater springs running beneath the City's streets.<sup>24</sup> Locating the 'centre point' in an underground spring – the point at which its magnetic force is strongest - results in an unmistakable physical reaction felt through the dowser's hazel. In *SUGERE I* and *SUGERE II*, Hill allows us an insight into the corporeal energy experienced by a dowser as she "finds

centre” in a spring line running more than 100 metres within the bedrock below the gallery and through the city of Manchester.<sup>25 26</sup>

*NATURAL FREQUENCIES* marks a significant return to the urban from the untamed littoral terrains envisioned in the otherworldly prints and immersive wall drawings of previous projects. In the quadriptych, *BEARING WITNESS*, we see a tightly rendered landscape impression inspired by 3D Lidar images captured along the arid bed of Lake Walyungup in Perth, Western Australia. Hill has crafted a series of monotype prints using white carbon to transfer traces of the scan data onto an ink-black woodblock printed substrate.<sup>27</sup> During an artist residency in Perth in 2019, Hill spent time with Dr Sarah Robinson exploring the Lake and surrounding wetlands - now threatened by urban expansion - with the aim of producing a body of work that might help to shift ideas towards the conservation of marginalised and fragile wetlands. Important in Noongar culture for thousands of years, Lake Walyungup is said to connect the land's ancestors with its children.

Hill's traced monotypes are top-down Lidar images capturing the places on her walks in the parched lake at which she paused in conversation with Robinson, both *bearing witness* to the brutal unravelling of the indigenous, soul-deep relationship with land.

The white carbon rendering of *BEARING WITNESS* conceals, beneath its black woodblock ground, an earlier etching. In an act of careful sabotage, the artist has deliberately erased her work. *Bearing Witness* is a deceptive palimpsest that collapses time and space and speaks to the stealth of obliteration, reminding us that while we look the other way, cultural ecocide is being committed in pursuit of profit.

Hill leaves with us her ethereal, monochrome artworks as visual decodings of the invisible physical and spiritual forces she encounters as she moves through space - slowly, deliberately, attentively. No passive observer, however, Hill is a dedicated “*participant*”<sup>28</sup> in the landscape. Her practice is rooted in the act of walking and her relation to the world is as much corporeal as it is visual. Rather than “*picking her way around the objects lying about on the ground of a ready formed world*”,<sup>29</sup> she avoids the obvious, choosing instead to immerse herself “*in the currents of a world-in-formation*”<sup>30</sup>, recording the transient and the mercurial: the electrical frequencies, vibrations and magnetic energies of a world in an endless state of flux.

In her quest to understand resonance and to allow us to glimpse what she has discovered, Hill has become a conduit for the rhythms we are unable to see; the vibrations we are unable to hear. She is a *Rhythm analyst who listens first to her body, learning its rhythms in order appreciate external rhythms; her body serving her as metronome.*<sup>31</sup>

*The Rhythm analyst, explains Henri Lefebvre, will listen to the world, to its noises and murmurs. And finally, she will listen to its silences.*

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<sup>1</sup><https://scienceandnonduality.com/article/all-is-vibration/>

<sup>2</sup> Listen to *The Law of Vibration and Quantum Physics: A Dance of Energy and Matter* at <https://www.youtube.com/watch?v=9hh8B7DoNeo>

<sup>3</sup> Many Scientific publications and research papers available in the public domain support the thesis that electromagnetic pollution from manmade infrastructure is harmful to human health. Here are just a few examples:

<https://www.who.int/news-room/fact-sheets/detail/ionizing-radiation-and-health-effects>

<https://www.sciencedirect.com/science/article/abs/pii/S2352710215300516>

<https://www.mdpi.com/2673-8724/2/2/11>

[Anthropogenic Sources of Electromagnetic Interference in the Lowest ELF Band Recordings \(Schumann Resonances\)](#)

<https://www.biotonomy.com/post/how-electromagnetic-pollution-in-buildings-effect-our-wellbeing>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC5551208/>

[https://www.mdpi.com/journal/applsci/special\\_issues/75R13Z04HU](https://www.mdpi.com/journal/applsci/special_issues/75R13Z04HU)

<https://bigthink.com/hard-science/schumann-resonance-earths-heartbeat/>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC4355556/>

<https://www.sciencedirect.com/science/article/pii/S2319417023000033>

[Influence of electromagnetic fields on the circadian rhythm: Implications for human health and disease - ScienceDirect](#)

<https://www.mdpi.com/2076-3417/15/1/449>

<sup>4</sup> Explained by Dr Rosalind Todhunter. Retired mining Geologist.

<sup>5</sup> See Essay: *Deciduous Drawings | Insoluble Ink* by Deborah Stevenson

[https://www.academia.edu/40854385/Deciduous\\_Drawings\\_Insoluble\\_Ink\\_Walking\\_in\\_Wetlands\\_with\\_Tracy\\_Hill](https://www.academia.edu/40854385/Deciduous_Drawings_Insoluble_Ink_Walking_in_Wetlands_with_Tracy_Hill)

<sup>6</sup> Peter Ackroyd traces the Thames and its tributaries through history from its sources to the sea in his 'biography' of the river (2007) *Thames Sacred River*, Chatto and Windus

<sup>7</sup> Ackroyd, P. (2007) *Thames Sacred River*, Chatto and Windus, p 43-44

<sup>8</sup> Ackroyd, P. (2007) *Thames Sacred River*, Chatto and Windus, p 50

<sup>9</sup> <https://www.camden.gov.uk/documents/20142/1458280/River+Fleet.pdf> p.5

<sup>10</sup> See Acroyd, P. (2007) *Thames Sacred River*, Chatto and Windus

<sup>11</sup> See Sacred Waters. A cross-Cultural Compendium of Hallowed Springs and Holy Wells:

<https://doi.org/10.4324/9781003010142>

<sup>12</sup> See Ackroyd, P. (2007) *Thames Sacred River*, Chatto and Windus, p 79-82 *From early humanity, rivers have been held sacred. The ancient Persians considered it blasphemous to pollute them. The Ganges has been treated as a god. Pulpits atop the pillars of Blackfriars Bridge, where the Fleet runs into the Thames, reference the monastic traditions of the river at this point. The Knights Templar settled by the river. To be baptised in the river is to be reborn*

<sup>13</sup> <https://www.theguardian.com/cities/2019/mar/13/what-is-the-mysterious-gl-hum-and-is-it-simply-noise-pollution>

<https://www.theguardian.com/books/2021/jul/07/the-hum-mystery-noise-says-a-lot-about-modern-life>

<sup>14</sup> The rebuilding of 14-16 Farringdon Lane in 1924 led to the excavation of the basement of number 16 and the rediscovery of the Clerk's Well and chamber. Information provided by Friends of Islington Museum

<sup>15</sup> See Cymatics: A Study of Wave Phenomena & Vibration. Available at: <https://archive.org/details/hans-jenny-cymatics/mode/2up>

<sup>16</sup> See essay by Jacqui McIntosh May 2023 *Sonorous: The sonic landscapes of Tracy Hill*

<https://porosity.co.uk/2023/06/07/sonorous-3/>

<sup>17</sup> <https://tracyhill.co.uk/project/sonorous/>

<sup>18</sup> <https://tracyhill.co.uk/commission/in-the-balance/>

<sup>19</sup> <https://porosity.co.uk/traces/letters-to-the-void/>

<sup>20</sup> <https://porosity.co.uk/>

<sup>21</sup> See Hill's record of these conversations at <https://porosity.co.uk/conversations/> Dr Rosalind Todhunter explained how changes occur in geological magnetic energy where natural springs are present

<sup>22</sup> <https://tracyhill.co.uk/commission/ephemeral-bodies/>

<sup>23</sup> The Exhibition, *A Fine Toothed Comb* is documented in a catalogue published by HOME in 2023 which includes Lauren Elkin's essay *What Lies Beneath*

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<sup>24</sup> <https://porosity.co.uk/2023/11/22/city-walk/>

<sup>25</sup> <https://tracyhill.co.uk/commission/surgere/>

<sup>26</sup> <https://porosity.co.uk/traces/finding-centre/>

<sup>27</sup> Further detail of Tracy Hill's 2019 Perth residency can be found at her web address:

<https://tracyhill.co.uk/project/contact-point/>

In a deceptive palimpsest that collapses time and space, the white carbon rendering of *Bearing Witness* conceals, beneath its black woodblock ground, an earlier etching depicting the wild wetland landscape of the Hunter Valley in New South Wales - taken from Hill's *Matrix of Movement* (2016 – 2020)

<sup>28</sup> Ingold, T. (2011) *Being Alive Essays on movement, knowledge and description*, Routledge

<sup>29</sup> Ingold, T. (2011) *Being Alive Essays on movement, knowledge and description*, Routledge, p.129

<sup>30</sup> Ibid. p.29

<sup>31</sup> See Lefrevbre, H. (2004) *Rhythmanalysis: Space, Time and Everyday Life*, Continuum, p.19