ATTENDING TO THE SOUNDS OF SONOROUS STONES

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INTRODUCTION

Readers will probably understand from written instructions that the task of preparing lithography stones can be slow and physically demanding. A detail in the recently updated Tamarind Techniques for Fine Art Lithography also worth noting is that 'careful attention is needed for this and all other aspects of lithography' (Devons, Hammon, and Lagutta 2008, p.126). Reflecting on the significance of this sometimes lengthy process, my tentative proposal is that, if understood as a form of contemplative labour, limestone graining may offer a way to think about the quality of the 'careful attention' needed for lithography. However, far from a silent meditative activity, graining stones is also noisy. Likewise, in this account attention and noise are equally present as the indivisible aspects of a mode of perceptual awareness that I propose is familiar to lithographers. This paradoxical coupling, I suggest, might also reveal the nature of the language engendered by the synchronic vibrations between inscribing flesh and limestone matrices.

A fragment from ongoing research that tests the generative intersection between stone lithography and language, infiltrating the seemingly mute pixels of the text that follows, is the sensory phenomenon of sound: both as the protagonist for an interdisciplinary narrative that brings lithography into dialogue with a tour of the world's sonorous stones and in a rhetorical method of disparate parts that invites the reader to experience an equivalence between listening carefully to the ephemeral, and attending closely to the particular. Alongside geologists, musicians, and acoustic engineers, shaping the terrain of this speculative coupling of lithographic and lithophonic worlds are the voices of Simone Weil, Cynthia Bourgeault, Ashon Crawley, Cecile Malaspina, Michel Serres, Salome Voegelin, and the life and work of Birgit Skiold.

NOISY ENCOUNTERS

A pioneer in the field of artists' printmaking, Swedish artist Birgit Skiold was a dynamic force whose commitment to its practices reverberated throughout the lives of many. By all accounts, her Print Workshop set up in London in the 1960s was an industrious hub of international reach that left affectionate anecdotes and a global catalogue of artists' prints in its wake. A black and white photograph in the National Portrait Gallery collection shows her inking a lithography stone;

Figure 1

Figure 2

Figure 1. Graining lithography stone. Serena Smith.
Figure 2. Birgit Skiold. Photo credit: Ida Kar. Permission to reproduce for academic publication from the National Portrait Gallery.

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attendance behind the camera of well-known photographer Ida Kar and other suited bystanders in the shot indicates that it may have been taken in a busy public space, rather than the secluded confines of the workshop (Kar c1960). Signed in white pencil, the vintage bromide tacitly suggests both something of the conviviality of the event, and a sense that the artist handled her equipment with trained familiarity. Bearing witness to memories of Birgit Skiold is an abundant archive of printed works (MacLennan and Mulhall 2007): both evidence of her technical accomplishments, and the fugitive traces of a soul who knew intimately the noise and dust of stone lithography and responded willingly to its demand for attentive labour. While she is not depicted in the studio, from the photograph, it is possible to imagine Skiold, immersed in the labour of graining lithography stone, at home in the gritty sluice, her body tipping and leaning over the graining sink, hands moving around the stone rhythmically with the ease of a practised partnership. The abrasive scouring noise, not unlike the sound of a spade of gravel thrown into a tumbling cement mixer at the end of the day, was something she would have easily recognised.

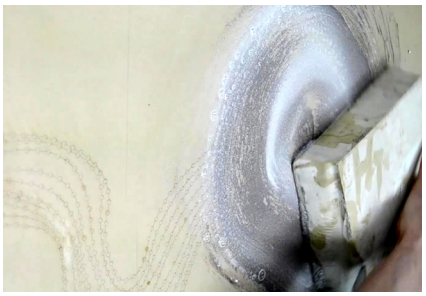

Figure 3

Figure 4

> Lithographers are not the first to notice an audible sound produced by the seemingly mute substance of limestone—for millennia, humankind has inhabited a sonic landscape left by the traces of evolution and been listening to the audible vibrations of sonorous stone (Bedarnick 2010; Salopek 2016). Left by the periglacial breakup, there are heaps of boulders in New Jersey, some of which will ring like bells when struck; scattered across hilly outcrops and deserts, dense rocks worn with impressions caused by repeated impact resound across the landscape when hit with a pebble. In caves adorned with the work of Palaeolithic artists, ledges formed by cooled volcanic magma are worn with depressions that suggest their use as percussion zones, and suspended underground, ornate mineral accumulations of speleothem stalactites can be heard echoing through the caverns when tapped with a rubber mallet (Caldwell 2013). Familiar to stone workers checking for cracks and flaws, and to geologists using the knock of a hammer to detect subtle changes in lithology, the acoustic properties of stone have been known since Neolithic culture (Morgan 2012). When these sonorous stones are used for their audible qualities, Catherine Fagg makes a distinction between 'naturally situated' rock gongs bearing the evidence of repeated play, and the more portable lithophones, which have been 'either artificially tuned, or selected for their tonal suitability' (Fagg, 1994, p.154).

Overlooked in written instructions, the sound of graining is perhaps considered insufficient material consequence to be included in textbooks, and so it seems that there is no particular term for this superfluous discordance. In embodied reality, however, it is accepted that from the rotating pressure of stone on stone, there is sound: noise mobilised by fleeting points of contact between moving bodies, the shudder and travel of particulate matter, and the obscure resonating depths of limestone. Heard, but not seen, it is a nebulous dissonance

Figure 3. Graining lithography stone. Serena Smith.
Figure 4. The singing stones of Gobustan, Baku, Azerbaijan. Photo credit: M. Ragimov (2009)

that dissipates around printmaking studios. In the mind-body-subject of the graining lithographer, it is a synchronic perceptual experience, the resistance of abrading grit felt in simultaneity with an audible dissonance. Engendered by this attentive labour of graining lithography stone is immersion in a resonating environment of both palpable substance and ephemeral turbulence.

The noise of graining limestone might also seem peripheral to academic research concerned with the intersection between language and stone lithography; in this context, however, the acoustic excess of noise brings meaning both as the sound of manual or mechanical labour and as a term to describe unwanted marks in printed information. As a subject of this text, noise is also present here metaphorically, as a random ambiguity inherent to analogue processes that complicates binary distinctions; and, in the form of a detour into the world of sonorous stones, noise is the stray matter that infiltrates the lithographic environment, an uncontrollable excess that might be understood in the light of Cecile Malaspina's concept of 'epistemological noise', as a 'restlessness' brought by the cross-fertilisation between disparate fields of knowledge (2020, p. 8,9).

Figure 5

Figure 6

A LANGUAGE OF RESONATING BODIES

It is possible that the suited bystanders in Kar's photograph were curious about stone lithography and might have been interested in reading more about the process. At the time, detailed handbooks were available for print trade apprentices, and a couple had been published for art students, although it is worth bearing in mind that while printed instructions can provide helpful information, lithographic knowledge is, in practice, the judicious handling of contingent and changeable environments. It may be for this reason that Aloys Senefelder delayed for some years the challenge of writing his own Complete Course on Lithography (1819), two centuries on, his hard-won text is still in print alongside many online resources and several technical handbooks. But while useful in their didactic purpose to provide written instructions, for the sake of clarity, these volumes have a limited capacity to depict the sensory world a lithographer inhabits, and make no mention of the estuaries and riverbeds of residue that collect in the graining sink, or the white slurry that clings to skin and accumulates as a crust on the folds of an apron.

> As Yorkshire musician and farmer Neddy Dick gathered fragments of limestone from the becks around the village of Keld, he was perhaps not concerned about distinctions between rock gongs and lithophones; he did, however, listen intimately to the particular tone of each stone he drew from the water (Amsden, Hearfield, and Pegg 2009-21). As reported by local historians, it was by chance that Dick discovered the resonating sound made by the stones from the River Swale, and patiently pursued his curiosity, collected a number, and pitched them correctly to create a full musical scale. Assembled in a row, he augmented

Figure 5. Graining lithography stone. Serena Smith.
Figure 6. Stone chime set. Shandong Provincial Museum, Jinan. Photo credit: M. Gunther (2009).

the chiming sound of the stones with several clock bells that could also be struck with a wooden mallet as he sang and played.

Northeast from Keld near Keswick, it was hornfels, a durable crystalline rock, transformed from a soft mudstone protolith by the extreme temperatures of metamorphosis that became particularly known for its sonic qualities. Quarried from Skiddaw Mountain, its pure sustained tones are said to have been first discovered in 1795 (one year before the invention of lithography) by Peter Crosthwaite. Some years later, a massive eight-octave hornfels lithophone was built and taken on popular concert tours by Joseph Richardson and his sons (Morgan 2012). Predating by centuries these Yorkshire musicians, lithophones made with limestone from the sediment-filled Huang He (Yellow River) Basin, were played during the Late Neolithic Longshan culture in China (1600–1046 BCE). The subsequent development of grinding technologies during the Shang dynasty led to the production of sets of stone chimes tuned to an eight-tone scale (Liuliu, Ying, Mingyue, and Qiao 2019).

Figure 7

In bringing attention to these acoustic dimensions, my purpose is to convey through written language something of a lithographer's realm not contained within the pages of a handbook. Similarly engaged in a labour of making thinkable through words the 'ephemeral materiality' of perceptual experience, is the sound artist and writer Salome Voegelin (2019, p. 107), whose thoughts have helped to shape mine. The task of writing about sound she describes as 'a signifying practice of invisible rhythms that make accessible what is in excess of and falls out of the frame of conventional language' (2016, p. 66). Likewise, this reflection on the 'invisible rhythms' of stone lithography takes an approach that 'falls out of the frame', the loose parts of this narrative being allowed to gather, as grains of sand that collect on the dull zones of a vibrating idiophone bar, in cymatic patterns that mark a language of resonating forces.

These resonating instincts might be discerned from the image of Birgit Skiold. Called to mind by the captured glimpse of her inking the stone, the rhythmic tack of rotating pressure and ink, the increasing warmth of roller cuffs clasped between fingers and palm, and the sleight of hand that enables the spindle of a roller to be momentarily held still or released to move freely. These acts that signal the 'tacit knowledge' of inherited practice (Polyanyi 1967) might also be understood as both the 'breathing flesh' (Crawley 2013) and language of an artisan lithographer and as the gestures of a materialising cosmos, palpable vibrations of matter in hand through which the universe might be intimately known (Weil 1947, p.141).

When using a hammer to tap the rocks in Upper Black Eddy, Pennsylvania, curious tourists intermittently encounter a ringing rock. As there is no visible difference between a rock that rings, and one that does not, this is a serendipitous activity. A mound of broken and weathered diabase strewn across a seemingly lifeless

Figure 7. Graining lithography stone. Serena Smith.

and exposed terrain, the mysterious chime of these boulders has given rise to both geological and supernatural speculation, the acoustic reason for the ethereal sounds rising from this strange landscape not having ever been fully understood. Sharon Hill (2020), a Pennsylvania geologist with an interest in anomalous natural phenomena and the paranormal, reviewing previous findings, suggests that one reason for these magical sounds is microclimate differences and differential weathering around the site. Piled up on a hill with the soil washed away, shade and the creep of vegetation enable rocks at the edges to slowly exfoliate and decompress. Alternatively, those in the centre that have been exposed over time to the heat of the sun undergo changes to their outer skin, resulting in a high degree of internal tension—these are the rock gongs that chime like fired ceramic.

The acoustic properties of lithophones, categorised as directly struck percussion plaques by the Hornbostel–Sachs system, have been more systematically analysed under the broad category of idiophones. As with a xylophone, for clear tonality vibrations must pass through the material swiftly, a process enhanced by stone with a dense, even, and homogeneous composition; discontinuities, such as pores, cracks, crevices, large crystalline particles, or structural irregularities, interrupt the transmission of sound waves, resulting in random vibrations that make noise, but do not ring (Liuliu, Ying, Mingyue, and Qiao 2019; Martorano 2018). To orchestrate this geological resonance, there are systems to measure and stabilise its variable dynamics, tools that in the hands of an attentive artisan enable limestone to be pitched to an eight-tone scale. As with the devices of scribes, artists, and musicians, these are the metrical instruments of a language-making world that couple fleeting and ephemeral phenomena to syntax.

COSMIC ATTENTION

With practised care, Birgit Skiold would have noticed subtle differences in pitch indicating changes in the balance of ink and water carried by the nap roller as she swept it back and forth across the damp stone; this attentiveness was also required for the meticulous labour that ensures a lithography stone is of equal thickness, flat, and with a flawless paper-like surface. A necessary task that might seem anachronistic and easily avoidable in an era shaped by the weightless flight of virtual communications, the results are determined by attention to detail, careful handling of the weighty substance of limestone, and an acceptance of the necessary time it will take. Useful for this and many other lithographic tasks is what Simone Weil might have termed an ‘unwavering attention’ intimately attuned to the smells and sounds of graining limestone (Weil 1970, p. 335).

Tuning lithophones can be done by knapping or grinding to alter the dimensions of the stone, which will in turn affect the musical pitch; pitch, calibrated in Hz., is determined by the

> frequency of sound waves reverberating through the material. Regulating acoustic waves in stone are both mineral properties, and dimensions—density, shape, moisture, and thickness—all affect the intonation. Manufactured idiophones are designed using geometric algorithms, with subsequent fine-tuning for pitch and harmonic overtones being done by mechanical shaping. In general, shortening an idiophone bar will raise the pitch, while reducing thickness in the centre can lower the note (Make it Primitive 2020; Maratorano 2018; Beaton and Scavone 2021).
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> A digital tuning device, had one been available in the 1950s, would have been very useful for electronic engineer and mathematician Leland Sprinkler. Devoting close attention and many hours to fine-tuning hanging limestone stalactites with sandpaper in underground caverns up to 260 feet high, the result of his ingenious labour is the Luray Stalacpipe Organ. Reported to be the largest natural musical instrument in the world, his lithophone, in the style of a pipe organ, comprises a 37-note keyboard with pedals and draw-knobs. Each key is wired to a solenoid-actuated rubber mallet that taps a corresponding stalactite when the key is pressed. Spread over 3.5 acres, the sound of the electrically amplified 480-million-year-old stalactites can be heard anywhere within the 64-acre area of the caverns (Cox 2010).

Such focused labour was highly valued by Weil, who regarded a capacity for attentiveness to be of profound significance, and physical work as foundational, in an existence she understood as indivisibly corporeal and intellectual, immanent, and transcendent (Rozelle-Stone 2009, p. 25). Although posthumously described as a phenomenologist of the body (McCullough 2012), a theological perspective shaped by critical reflection on Judeo-Christian doctrine led her to suggest that a pathway to divinity lay not in cerebrally detached thought, but in a complete sensory engagement with the world. For Weil, to submit with care and attention to the labours of daily living was to dwell in intimate relation with the mysteries of the cosmos (Radzins 2009; Rozelle-Stone 2009). Attention, she described as an act of consent akin to love, the undivided surrender to life's objects that flows from desire. Incompatible with the tenacious grasp of an individual's will, this contemplative state contrarily requires not the subject's controlling attachment but an indifference that pays attention.

Weil's loosening of the self-aware subject into a mode of conscious presence lost in the world was not, however, a movement that separates subjectivity from embodiment. But an indivisible state, latterly described elsewhere as a 'somatic form of witnessing' (Bourgeault 2016, p. 93) rooted in the vibrations of a sensate body, in which the thinking, labouring, and imagining 'body-subject', such as a lithographer engaged in the task of graining stones, is physically trained, synchronically attuned, and immersed in a 'perceptual dance' of touching, moving, watching, and listening (Pirucello 2002, p.481). Viscerally present to her own mortality, the spiritual reality Weil

inhabited was a realm in which self-transcendence was rooted in the sensate (McCullough 2012; Pinnock 2010; Radzins 2009; Rozelle-Stone 2009) of this world, but not visible to the naked eye, the mysterious nature of the divine being accessible through a 'cosmic attention' to the labours of embodied reality (Radzins 2009, p.236).

TRAINED ATTENTION

From reading biographical notes, I sense that Birgit Skiold approached her life with a passionate intensity (Bird in Bird, Kirkup, and Packer 1984; MacLennan and Mulhall 1997), and although her time was cut short by illness, as an artist, collaborator, exhibition organiser, and printmaking ambassador, she created a significant and lasting legacy. Born in 1923 in Sweden, Skiold came to London in her 20s. Arriving in the nascent years of a revival of artists' printmaking in the 1960s, she studied lithography in London at Regent Street Polytechnic under the tutelage of Henry Trivick, chairman of the Senefelder Group of Artist Lithographers and author of Autolithography: the technique (1960). Foregrounding the later activities of the Print Workshop, she supplemented this art school training with experience in an etching studio. The jobs undertaken there would have included printing editions—exacting work that demands an aptitude for repetitive manual labour and attentiveness to small differences.

While she travelled widely to teach, exhibit, and collaborate, Skiold's practice was most potently affected by a lifelong interest in Japanese culture. It was a fascination that bore fruit for her after she encountered first hand the temple gardens of Tokyo and Kyoto. From book works and prints produced after a trip to Japan in 1970, it can be speculated that, as well as being visually influenced by the contours and textures of raked gravel, stones, and water, she would also have known about the symbolic meaning and Buddhist context of these contemplative environments. At the time, global interest in Zen Buddhism had been nurtured by the work of Daisetz Teitaro Suzuki (1870-1966), whose dialogue with the Trappist monk and inter-religious thinker Thomas Merton (1915-1968) also helped to bring to Western theological discourse a wider understanding of Eastern contemplative traditions. In his own writings published in the 1960s, Merton remarked that the spiritual training of Buddhist monks was one that necessitates an acceptance of repetitive physical endurance, and a process of formation that privileges material encounters with the world. He described Zen as the cultivation of a tranquillity that does not seek the 'purity' of silence, but is fully present to the noise and dynamics of the cosmos, a state of enlightenment that 'requires … an undivided attention … given not to a theory or to an abstract truth, but to life in its concrete, existential reality' (Merton, p. 222).

Writing more recently on a similarity between the spiritual practices of Zen Buddhism and the thought of Simone Weil, philosopher, and Zen sensei Ann Pirruccello noted that Weil was familiar with the writings of D. T. Suzuki (2002, p. 484) and identified in the bodily cultivations of Zen practices a somatic kinship with the apprenticeship model of

learning that Weil so revered. This training of a skilled body, achieved over time through the repetition and handling of tools, is witnessed in the instrumental facility of a skilled craftsperson, such as a lithographer. For Pirruccello, the tacit knowledge of this training is also seen in 'the mastery achieved after long years of bodily practice (that) allows the mind to be emptied during the performance of some movement', understood in the context of Asian cultural traditions as a state of spiritual and artistic authenticity (2002, p.488). In the mystical praxis of Weil, the interplay of trained body and instrument engendered both intimate and expansive contact with of the universe (ibid. p.486), such grounded relations being for her existentially implicit to the cultivation of an indivisibly sensory and transcendent mode of 'attention'.

> Listening to stone artefacts from the African continent stored in ethnographic collections of French museums, Paleo-musicologist Erik Gonthier's idiophonic investigations revealed that a small number of hitherto silent cylindrical rods were not, as had previously been assumed, pestles for pounding grain, but lithophones. Weighing 5 to 10 kilos with diameters of between 4 to 8 centimetres (Gonthier cited in Caldwell 2013). Gonthier's extensive research found that these meticulously crafted, portable, and precious, Neolithic instruments were acoustically and ergonomically optimised both by rock selection and in their flawlessly carved dimensions. Observing a quartertone difference between the lateral and dorsal faces, he concluded that for clear sonorous tonality the optimal length of the lithophones was at least 4.5 times the diameter, and that an instrument that could be easily grasped needed to be at least 36 centimetres long. Some distance from Africa in New England, equally rare long stone rods, painstakingly modified by hand, have been identified as two-tone lithophones, and found to be almost identical in both rock type (chloritoid schist), and dimensions. One small difference is a lateral curve that led researchers to test the acoustics of the instrument, as it may have originally been used, resting across a lap with the dull zones of the sinusoidal wave corresponding with the player's knees (Caldwell 2013).

DISPARATE RELATIONS

In spite of the distractions of company and the limitations of a photographic record, Skiold seems to have been captured physically immersed in the work she loved. Being at home in the paradoxical nature of lithography perhaps enhanced her capacity, in a public demonstration of lithography, to simultaneously handle the social expectations of the event, and to ink the stone. No stranger to the bustle of exhibition events, she was evidently aware of the curiosity of onlookers, and while her smile suggests that she was open and receptive to their interest, her trained gaze is kept on the task at hand: to carefully mediate the antagonistic equilibrium of ink and water, through the speed and pressure of a calfskin roller.

In the chemistry of this lithographic contact, however, lies a paradox. For while a drawn stone is originated by an irreducible closeness,

the traces that bear witness to this act of language making linger in opposition, their functionality dwelling in the antipathy of oil and water. Brought about by the intimate touch of hand and limestone, is an incompatibility that reverberates through the process, an antipathy that registers autographic traces across the planographic surface as marks that exceed fixed structures of containment. The spill and trail of drawing, leaving a memory of the fleeting encounter, as superficial differences that provisionally alter a geological microclimate, invisible deposits of grease with the potential to reappear under the pass of an inked roller. As such, it is through discordant coupling that this viscerally engendered language materialises, dependent not on the stability of defined structures, but on the metastable equilibrium of opposing forces, and a focused attention that patiently mediates this disparity.

> The popular tunes and classical pieces performed by Julliard-trained professional organist Monte Maxwell on the Luray Stalacpipe Organ are available on his 2001 album Midnight in the Caverns (Maxwell 2001). Also available online is an earlier recording of Leland Sprinkle playing the instrument (Sprinkle c1960), listening to the opening moments, it is evident that little has been lost in transferring the original magnetic tape to a digital sound file. Filling the headphones, before the haunting resonance of limestone speleothems, heard is the whisper of static noise, mingling in unrehearsed symphony with spatters of rain and a continuous high-pitched fluttering that presumably is the sound of scrolling tape as it moves through rotating wheels. Anticipating folk tunes and hymns played on the lithophone, a listener might strain to hear the fragile melody in the background: its faltering pace and unscripted pauses suggest that Sprinkle's fingers hovered tentatively over the keyboard, and that this accomplished electronic engineer was not a trained organist. Somehow momentarily heard, however, amongst the quivering cadences, erratic amplification, spectral echo of underground humidity, and signal interference, is the distant voice of a soul that spent hours sanding dust from limestone to make music.

For a practice that operates through the serendipitous alliance between Jurassic limestone and 19th-century technology, and a lithographer's patient mediation of material antipathies, Andrea Nye's words on Simone Weil are resonant: 'The key to thought is not assertion, or the logical connections between assertions, but "attention": the patient holding in the mind of seemingly incompatible truths (...) the tolerance of uncertainty' (Nye 1994, p. 60). Likewise speculating on a mode of attention that has the 'capacity to bear paradox', modern-day mystic and wisdom teacher Cynthia Bourgeault, like Simone Weil, draws on Judeo-Christian thought (Bourgeault 2016, p.4). Informed by a close reading of the writings of the Christian monk and poet Symeon the New Theologian (949–1022), and the anonymous 14th-century Middle English work The Cloud of Unknowing, in her analysis of the practice of centering prayer, Bourgeault describes an 'open, inclusive, paradox-tolerant thinking' that 'rests comfortably in ambiguity' (ibid, p. 44).

From a theological viewpoint, she locates this receptive state within a tradition of nonduality: a concept that notes a distinction between thinking that moves mechanically from subject to object (cataphatic), and an objectless or formless (apophatic) configuration of thought (ibid, p.138). Understood in the realm of contemplative practices as a radically open awareness that encounters no divisibility between subject and object, she ascribes this perceptive state to 'vibrational resonance rather than mental abstraction' (ibid, p.49).

In the context of Bourgeault's field of religious practices, the intention of an entrained, embodied, and undivided attention is to enable a soul to inhabit the tangible, reactive environments of the world, while dwelling in intimate 'human relationship with the divine' (Bourgeault 2009, p.23). In the context of stone lithography, aspects of these spiritual conversations have resonance. Methodologically interesting is a notion of paradox-tolerant attention that hovers in ambiguous environments and holds in mind seemingly incompatible truths; and analogously, freshly prepared limestone might be understood as resemblant to the formless configuration of this open mind: receptive to the slightest mark, its undrawn surface imposing no demand for the structure of a binary syntax, and making no distinction between intention and error. Lithographically, a porous matrix that enables the mutually repellent oil and water to be suspended in equanimity.

SILENT WITNESS

Not constrained by convention, a black and white catalogue reproduction of Birgit Skiold's 1970 lithograph Temple Garden bears witness to her innovative approach to printmaking (Bird, Kirkup, and Packer 1984, p.31). Revealed by raked light, two centrally opposed isosceles trapezoids are blind-embossed into the white sheet; around their crust-like forms, drawn lines travel and converge. The deeply pitted structures, as noted in the catalogue, visually reference the Kōgetsudai: a two-metre cone of white sand that is a feature of the Zen temple garden of Ginkaku-ji in Kyoto, visually suggested by the repeated lines and tactile forms within the white rectangular sheet, is meticulously raked gravel and precisely aligned rock forms. Symbolically represented by the linear patterns of a Zen garden are the rhythmic movements of water, analogously captured in the undulations of Skiold's drawn lines as the 'breathing flesh' of her scribing hand (Crawley 2013). The Zen garden and stone lithograph, perhaps material inscriptions in kind, in similarly contained, constructed, and contemplative environments, and languages born from the confluence of geological forces and the attentive labour of stone and hand.

As with the task of writing about sound, however, what cannot be conveyed either by a photographic reproduction, written description, or indeed the printed lithographs are the sensory dimensions of the environments of water and stone that shaped these works. For I suggest that communicating something of the perceptual experience of a stone lithographer calls for a means that falls outside the frame of conventional language (Voegelin 2016, p.66). And so, in my attempt

to speak of these sonorous exchanges between inscribing flesh and limestone, I reach for equivalence and analogy, finding in practices that likewise listen intimately to the palpable vibrations of a resonating cosmos, meanings encountered not as singular truths, but in the polyphonous interplay of disparate elements.

And while neither the lithograph nor photograph of Birgit Skiold herself can sound out their stories, a line in the colophon of the posthumous catalogue attributing the printing of Temple Garden to Richard Michell at the Print Workshop is a detail of note. It is a prompt acknowledging that Skiold's works were not born from the singular space of quiet contemplation, but the dialogue of collaboration: a space of conversation, difference, and disparity where attention and noise, I suggest, are equally present as indivisible aspects of a mode of perceptual awareness that listens intimately to the other, and nurtures in the dust, concrete, and grounded relations of workshop practices, the receptive mind of a paradox-tolerant attention.

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Serena Smith trained as a lithographer at the Curwen Studio and spent the formative years of her practice as Stanley Jones' assistant (1985-97). Her subsequent and ongoing work as printmaking technician and educator continues to be enriched by fellow artists in her role as studio technician and lithography mentor at Leicester Print Workshop. Alongside her technical and collaborative work in printmaking environments she studied at Central Saint Martins (MA) and the Institute of Education (PGDip) and is currently a research student supervised by Prof. Marsha Meskimmon and Dr. Deborah Harty at Loughborough University. Her work has been widely exhibited and her stone lithographs are held in a number of collections.

IMAGE GALLERY

Figure 1. Graining lithography stone. Serena Smith.

Figure 2. Birgit Skiold. Photo credit: Ida Kar. Permission to reproduce for academic publication from the National Portrait Gallery.

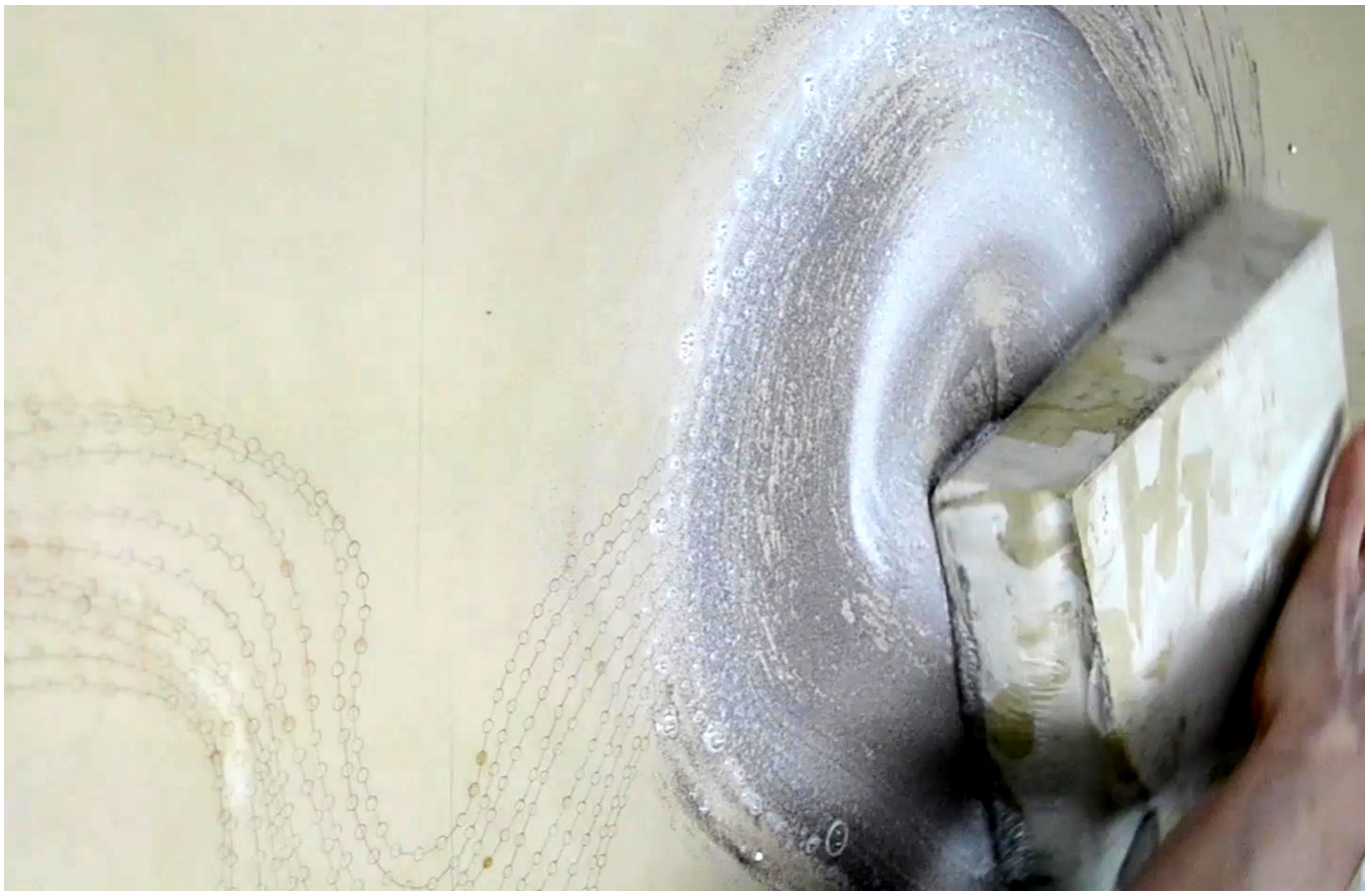

Figure 3. Graining lithography stone. Serena Smith.

Figure 4. The singing stones of Gobustan, Baku, Azerbaijan. Photo credit: M. Ragimov (2009)

Figure 5. Graining lithography stone. Serena Smith.

Figure 6. Stone chime set. Shandong Provincial Museum, Jinan. Photo credit: M. Gunther (2009).

Figure 7. Graining lithography stone. Serena Smith.