

WAYNE VITALE & BRIAN BAUMBUSCH

(b. 1956)

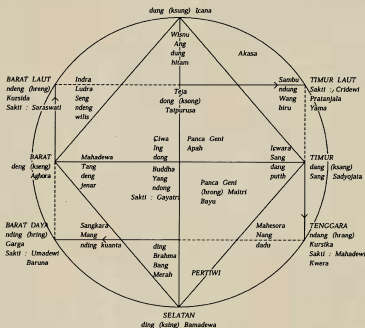
(b. 1987)

MIKROKOSMA

File Under: Classical/ Contemporary/
Vitale-Baumbusch

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| Mikrokosma (2014–15) | 51:55 | 8. | VIII. Gineman Out | 5:37 |
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| 6. VI. Pencon | 8:32 | | Santa Cruz Contemporary Gamelan,
Brian Baumbusch, musical director | |
| 7. VII. Tari | 3:28 | | | |

TT: 61:31



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THE LIGHTBULB ENSEMBLE



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The **Lightbulb Ensemble** strikes up, twelve strong, dressed neck-to-toe in cloud white, rapt before their individual consoles of wooden bars, steel slabs, and inverted bronze bowls. They could be a team of physicists doing paces on a hard acoustics problem. The music conjures crystals layering or fractal clockwork, its meticulous expression one with its enactment of math-in-motion. It's complex but there's an elusive, insistent groove; you're glued to it and to how they entrain and move to it. The work, the human cooperation, shines. Overlooking them from above, in front and behind, are wide rectangular screens with perimeters gently bent into arc shapes, on which are projected restless images—baths of color or landscape, some distorted renderings of the performers. But one might also flip the perspective in the extreme. The arc-screens would become mutated teleportations of carved Balinese temple gates, the musicians transformed into a village gamelan in the collective act of accompanying a ritual, all donning the cloud-colored garb of lord Shiva, creator and destroyer of worlds, as if playing in the sanctum sanctorum. The hand-forged instruments are tuned to shimmer in an acoustic plan inspired by systems Balinese use, and their timbre pulsates in the ear like a gamelan resounding over expanses of ricefields at night. The music echoes the polyphony of frogs and crickets in the paddies. The big gongs at the rear, tolling the governing patterns, convey permanence, an embedded ideology of circular time.

The players' concentration, the inexorable and unpredictable structures, and the gorgeous sound: With all the music's changes, one could listen for a very long time. At 52 minutes, there's nothing to spare in *Mikrokosma*, and no bottom.

Roots of a Lightbulb

The project documented on this CD animates a new kind of musical fusion in the (so far) ninety-year mutual fascination of Balinese and Western musicians. The roots are extensive and the following express history aims to situate this recording in a narrative of gradually merging forces. Take as an arbitrary starting point composer Colin McPhee's encounter with early recordings from Bali in 1928. This led to his decade of

residence on the island in the 1930s—still the Dutch colonial era and a time when Bali was seen in the West, if known at all, merely as an exotic idyll. But although McPhee and a handful of co-fieldworkers (including Margaret Mead) took Bali seriously, the social strictures of the era severely constrained interaction: In short, McPhee could not deign to play gamelan himself. His work led to a celebrated 1936 orchestral score, *Tabub-tabuban*, based on Balinese musical materials, plus other compositions and indispensable musicological writings. Around then Charlie Chaplin was among celebrities who visited Bali. His fame preceded him and his look and movements were imitated in new dance genres, *Stambul* and *Janger*!¹ And so even then, the exchange was two-way, but it was an exchange of perceptions, not participation.

A next phase began in the early 1960s when ethnomusicology programs took hold at UCLA, Wesleyan University, and elsewhere, offering North Americans their first chance to play gamelan. Some Balinese musicians, funded by progressive philanthropies, had chances to teach them, see the world, and sometimes earn degrees themselves. Steve Reich, mouthpiece of his cosmopolitan new-music moment, read McPhee and studied gamelan in 1973 and 1974 with visiting Balinese teachers. He eschewed his forbear's approach of imitation, seeking instead “a music with one's own sound that is constructed in the light of one's knowledge,” that is, based on abstractions of structure.² But Balinese music was still, for him, unsupple and depersonalized, a collectivity making music on an unchanging grid of minimalist patterning. Meanwhile, the Balinese who taught him and many others abroad brought back to Indonesia new knowledge and conceptions of what it meant to be an artist, granting new recognition to the very idea of the professional composer oriented toward innovation for its own sake. New national music schools were rising in influence, mandating composition projects for every graduating student. The instrumental music genre of “new creation” (*kreasi baru*) matured between the 1970s and 1990s as musical ideas became richer, bolder, more extensive, and more self-aware. Along with a thriving tourist economy, Balinese musical culture flourished in its exposure to the wider world.

¹ Vickers, p. 73.

² Reich, p. 40.

Bay Area focus: Gamelan Sekar Jaya was founded in 1979 in Berkeley as a community ensemble; Wayne Vitale and I were part of it from the beginning. The impulse was to transplant Balinese orality and its intensive rehearsal and performance demands to new soil. But it wasn't just in California that people sat down to play. We, and many others around the world, soon learned and thought a great deal about traditional Balinese music. At first we were acolytes in thrall. But soon some of us felt emboldened to compose it ourselves—to increase our understanding, to elevate the dialogue, and to give back. Our music began to stretch Balinese heritage in ways its creators did not imagine for themselves; after all, we had different educations and affinities. Our Balinese teachers were encouraged to experiment in the compositions we asked them to make for us, and we in turn offered our music to village gamelan in Bali during periods of study there, where their novelty garnered attention and exerted stimulus. Our music was already known, though, from tours by Sekar Jaya and via local distribution on commercial cassettes.³

In Indonesia and indeed Southeast Asia writ large, a consciousness of new music arose. Composers in Bali, Jakarta, Manila, Tokyo, Bangkok, and more, mingled. A dedicated journal for gamelan old and new, *Balungan*, was published in the USA; international conferences and tours were held. Hundreds of community Balinese and Javanese gamelan ensembles worldwide, some devoted to new music. Many Indonesian musicians learned English and studied or taught abroad; many of us learned to speak Indonesian. “Their” and “our” music—viewed from either side—became a vanishing distinction. Around this time everyone got online, too—and the gamelan new-music scene, theretofore geographically dispersed, was no longer so on the web. We had a listserv, sites, and infrastructure for a virtual community. Ideas flowed through the expanding network. As consociate human beings born of different cultures and milieu, we were still different, but through music and discourse we grew closer.

³ Other New World releases featuring gamelan-based music by Vitale, myself, and Evan Ziporyn include *American Works for Balinese Gamelan* (80430), *Let Others Name You* 80697 (80697), and *Evan Ziporyn—Gamelan Galak Tika* (CD 80565).

A worldly young Balinese composer, Gdé Yudane, was fed up with the quotidian kowtowing to regressive concepts of tradition that conservative Indonesian institutions and music authorities touted. For an island-wide arts festival in 1995 he smashed musical icons in his piece *Lebur Seketi*, flipping every formal and contrapuntal norm on its head. All the cycles had asymmetrical counts, patterns didn't line up, dynamics changed at the wrong moments, the gongs sounded at the wrong times. Jaws dropped and there was no turning back: New music was infected, and other composers ran with his bizarre models. Yudane had caught a whiff of something electric in the air, too, because *Lebur Seketi's* insolence forecasted the audacity of Indonesia's imminent 1998 political revolution, which overturned 30+ years of dictatorship. In the 2000s Balinese musicians formed new social collectives, built experimental instrument sets, took their musical heritage apart and put it back together again, invented music their parents shook their heads at, and, most importantly, contested their visions of what tradition should be. It began to look like Western new music, in the Bali fishbowl.

One reason Balinese composers tried new instruments, tunings, and ensemble combinations is that they had seen it happen abroad. So into this cross-cultural tale we now mix the American story of instrument-building and experiments in intonation that unfolded during the same decades. A source figure is Henry Cowell—friend and mentor to McPhee—whose 1930 book *New Music Resources* was a goldmine of speculations on how to compose in new ways, many based on synesthetic analogues between structures of pitch and rhythm. Lineages of microtonal or just-intonational instrument-inventors coming in on Cowell's coattails famously include Harry Partch,⁴ Ben Johnston, builder of the very first homemade gamelan Dennis Murphy, and gamelan champ Lou Harrison. Harrison joyously built and tuned his own Javanese-style instruments, wrote music for them, and was a pundit for the whole movement at Mills College and San Jose State University from the '70s on. “American gamelan” became a new tradition perched on the Indonesian mothership.

⁴ Gilmore, p. 84.

Lightbulb and Mikrokosma

Enter Brian Baumbusch (b. 1987), a composer with an abiding interest in intonation and scale. He first played gamelan at Bard College, and later joined Gamelan Dharma Swara in New York City. This led to composing works like *Bali Alloy*; a 2012 collaboration performed in Bali with the gamelan of Singapadu village and the estimable JACK string quartet. In 2011, stimulated by the influential book *Tuning, Timbre, Spectrum, Scale* (Sethares, 2005), he was able to design steel bars to his own tuning and dimensional specifications in the Twisp, Washington studio of sculptor Bernie Hosey. These became the Lightbulb Ensemble's. Settling in California for an MA at Mills (in the shadow of Harrison) in 2013, he joined Gamelan Sekar Jaya and approached Wayne Vitale to be his gamelan mentor and compositional collaborator. They lured players and launched the band.

Vitale (b. 1956), a continuing member of Gamelan Sekar Jaya, is the only non-Balinese dedicated to the art of tuning gamelan, having apprenticed in Bali for extended periods since the 1980s. His craft is in demand worldwide. A composer of long experience, his music reflects sustained effort to master the imposing musical forms and materials of the classical repertoires of Balinese music, and to innovate in his compositions from a standpoint of this mastery.

Vitale and Baumbusch composed *Mikrokosma* aspiring to unify conceptual, acoustic, and structural elements. As for the conceptual, *Mikrokosma* is modeled on the Balinese *pangider buwana*, a representation of the cosmos found in pre-twentieth-century court palm-leaf manuscripts (*lontar*). In a circular graphic it shows the eleven sacred directions: north, south, east, and west, the four in-between, up, down, and center, and associates each with a color, an integer, a deity, a musical tone, a sacred Sanskrit syllable. It's a manifestation of a hoary wisdom, vesting power in symbols and belief in the logic and orderliness of the universe. The schema is suggestive of an interpretation in musical terms: The symmetry of the spatial domain it describes, the asymmetric rhythmic possibilities offered by the number eleven, and the pairing of specific pitches and spatial positions, could spark any imaginative composer.

To this, overlay the acoustic dimension, namely the tuning of the Lightbulb instruments. Pairs of otherwise identical Balinese gamelan instruments are conventionally tuned apart in an ingenious system such that, while their corresponding keys are understood to be “unisons,” they beat and shimmer at a constant rate throughout a multi-octave range. Baumbusch, inspired in part by related ideas of contemporary Balinese composer Dewa Ketut Alit, built the keys of the Lightbulb instruments to have systematically *different* beating rates, some organized in palindromic sequences. For the keys on a pair of instruments in the alto range, for example, the five-tone scale is laid out in two octaves as follows:

Beating rate/sec. between										
corresponding keys	9	7	5	3	1	1	3	5	7	9
Scale degree	I	II	III	IV	V	i	ii	iii	iv	v

In tenor and soprano instruments the layout is also systematic, but different, creating recognizable “beating clusters” for every scale degree when played by the full ensemble throughout the ensemble's 29-tone (5.8 octave) range. Alit and Baumbusch have different aesthetics, though: Baumbusch is obsessed with intonation; Alit wants to annihilate scale and bask in pure timbre and rhythm (www.dewaualitlukat.com). It is ironic that as of this project, the Americans (Vitale as well, see below) are less radical than some of their Balinese peers.

The tuning plus the *pangider buwana* inspiration generated a compositional plan (figure 1). *Mikrokosma* has a palindromic arch form with one movement for each of the eleven Balinese directions. Movements mirrored with respect to the palindrome— numbers 1 and 11, 2 and 10, 3 and 9, 4 and 8, and 5 and 7—each have a different focal pitch (or, in the case of 1 and 11, only rhythms of musicians' gently stamping feet). Movements 7 to 10 are reworkings of material in 2-5—Baumbusch of Vitale's, and vice versa, as the initials next to the movement titles show.

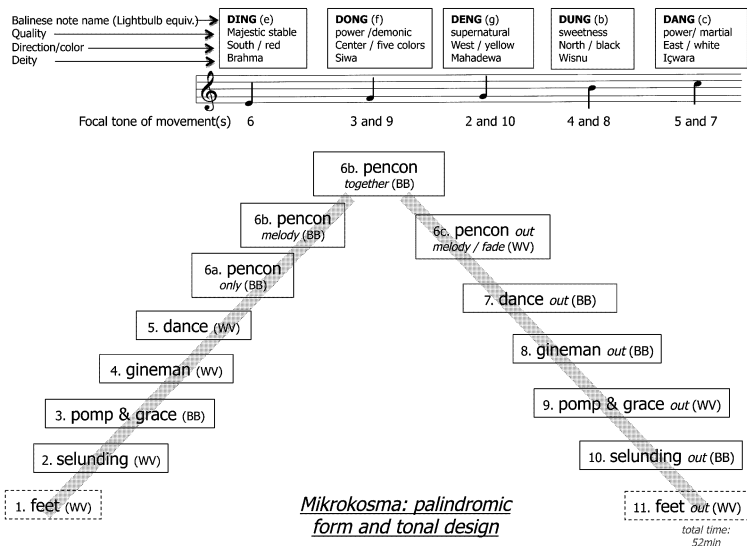


FIGURE 1.

There are enriching contrasts in the composers' approaches. Vitale's *Selunding*, for example, makes idiomatic Balinese melody the thread. Selunding is a kind of gamelan associated with older villages. It has its own melodic style and sectional forms, which Vitale uses, though complexified his own way. At the beginning, and again at 1:00 and 1:57, we hear a solo instrument call the full ensemble to join in for the placid opening tune. In the first repeat a melodic canon and new percussion

layers are added; in the second the melody is extended, the wood instruments enter, and the tempo increases. Seamlessly (as in actual selunding) the second section of the form sneaks in at 3:06. It repeats at 3:37, and at 4:07 transformed repetitions begin which incorporate thrice-repeated rhythm cadences in changing alignment vis-à-vis the pulse, Indian classical music-style.

Baumbusch's *Pencon* (a Javanese word for bossed gong) is the longest movement, perched at the center of the palindrome. It is itself in three parts, A for pencon only; B, of exactly the same length, for the keyed instruments (from 2:33); and, after a brief link, C (from 5:20) comprising A and B superimposed—a Cowellism for sure. A faint echo of a coda follows (8:01). In each part, three prime number rhythm cycles run simultaneously—of 31, 5, and 3 pulses, generating a macroperiod of 465 pulses after which gears realign for the next part. Difficult to track, the conceit guarantees rich asymmetry and layered complexity. (But one *can* follow the 31s as they are struck on a resonant tenor-voiced gong—count it using the fast pulses sounded from the very beginning on a muted small gong). Listen for the series of surface polyrhythms that launch part A, each played thrice: 5 over 4, 5 over 6, 5 over 3, 4 over 3; still more ensue. Part B comes as if from another world. Then A atop B in the ecstatic part C is pure fantasy for the inquiring ear.

Complementing *Mikrokosma* is Baumbusch's *Ellipses* for an actual Balinese gamelan. Its repeating cycles (here based on rhythms of 31 and 21) are so mathematically distant as to never coincide within the piece's time, and instead provide a canvas of floating periodicities. Bass-register gongs arrive belatedly, sharpening the un-synched cycles' profiles.

For the Lightbulb Ensemble, smooth and tranced-out minimalist rhythms à la early Steve Reich are a foundation but a distant memory, as is the time when Bali and the West were as if strangers. A Yūdane-style mash-up of groove and irregularity, alive to cosmopolitan currents, is the world's imperative of the moment. It's so not just in the lineages described above but all over, in abundant fusions at various levels of appeal, audience, and traditional-modern mix. Witness fan obsession with math metal bands like

Meshuggah, impossible Latin jazz riffs per Israeli bassist Avishai Cohen, the USA's Punch Brothers' meter-mixing bluegrass, CDs like Alarm Will Sound's *Arhythmia*, or the Bahian big band *Rumpilezz* morphing African timelines into meters of 7 or 9. We're primed to feel musical motion served up polymetrically, always twitching to change the alignments, coaxing our musical bodies into new kinds of coordination, and integrating combinatorial consciousness into our grooving selves as if it were the most natural thing.

—Michael Tenzer

Michael Tenzer was co-founder of Gamelan Sekar Jaya (1979), and is author of Gamelan Gong Kebyar: The Art of Twentieth Century Balinese Music (2000, University of Chicago Press), plus other books and articles. His compositions are featured on 2009's Let Others Name You (New World). Based in Vancouver, he is Professor of Music at the University of British Columbia.

Brian Baumbusch (b. 1987) is a composer/performer based in Northern California working at the nexus between contemporary American and contemporary Indonesian music. He has given performances at such venues as the Bali Arts Festival in Denpasar, The Smithsonian Institution in Washington, The Clarice Smith Center of Maryland, Kresge Hall at MIT, and The Yerba Buena Center of San Francisco, among others, and has collaborated with such musicians as the JACK Quartet, the Friction Quartet, I Made Subandi, Pauline Oliveros, David Behrman, Wayne Vitale, and Larry Polansky. He has performed with many Balinese gamelan groups across the U.S., including Sekar Jaya of the Bay Area, Dharma Swara of New York, and Galak Tikka of Boston, among others. He is currently the director of the U.C. Santa Cruz Balinese Gamelan ensemble, the Santa Clara University Balinese Gamelan ensemble, and the Oakland-based Lightbulb Ensemble, a twelve-player percussion ensemble which Baumbusch founded in 2013, performing on steel and wooden-keyed instruments he built and designed. Baumbusch has been the recipient of numerous awards and commissions, producing projects and compositions for a diverse array of instrumentations within the U.S. and in Bali. His compositions often focus on cyclical and irregular relationships of time and rhythm, and he occasionally uses computer-generated time

curves to create multiple non-ratiometric tempo relationships throughout an ensemble. Baumbusch received his undergraduate degree from Bard College, where he studied microtonal composition with Kyle Gann, and received his M.A. in composition from Mills College, where he studied under composers including Chris Brown, Fred Frith, Roscoe Mitchell, and Zeena Parkins. Baumbusch has lectured on composition and world music at Stanford University, the University of Maryland, The Smithsonian Institution, CalArts, Union College, Holy Cross, Bard College, Mills College, and U.N. Reno. He has additionally presented electronic music performances at UCSD, UCSB, CalArts, UNR, and Mills College.

Wayne Vitale (b. 1956) is a composer and educator who has long been inspired by the music of Bali, Indonesia. He has studied and collaborated with many of Bali's finest musicians and ensembles, extensively documenting their work, and leading myriad projects, bringing them together with diverse artists and audiences. His particular interests focus on the intersection of the two cultural streams that have shaped his life as a composer—Balinese music (in its multitude forms) and new music created in the U.S., especially music that has a direct or indirect historical relationship with gamelan. His response has been expressed in works spanning a stylistic range from traditional to experimental/multimedia. Several have been performed by noted gamelan orchestras in Bali, including the renowned village ensemble Abdi Budaya (“Servants of Culture”) in Banjar Anyar, Peraan. He is a founding member and composer in the Lightbulb Ensemble, a group of twelve percussionists working at the interface of Balinese and Western music traditions and innovations. He is also a founding member and past director (1992 –2009) of Gamelan Sekar Jaya, an ensemble of sixty musicians and dancers with an unparalleled international reputation for its cross-cultural programs. His recording label, Vital Records, releases high-quality recordings of new and traditional Balinese music. He has also devoted himself to the metallic art of gamelan tuning and restoration, grinding and filing his way throughout the U.S. and Europe to restore Balinese instruments. His work has been supported by the Center for Cultural Innovation, the Creative Work Fund (a program of the Walter and Elise Haas Fund), the

Fund for U.S. Artists at International Festivals, the Gerbode-Hewlett Music Commissioning Award (for *Mikrokosma*), the National Endowment for the Arts, and other funders. More info at <http://waynevital.com>.

The Lightbulb Ensemble (LBE) is a new-music percussion ensemble that champions experimental music, instrument building, and contemporary gamelan. They have performed to critical acclaim at venues from the Yerba Buena Center in San Francisco to the Smithsonian Institution in Washington, and collaborate with groups across the map of new music ranging from the Paul Drescher Ensemble to the JACK Quartet. LBE performs on steel metallophones, wooden xylophones, and other instruments created by Brian Baumbusch, LBE founder and director. These instruments draw inspiration not only from the world of Indonesian gamelan music, but also from American mavericks such as Harry Partch, Henry Cowell, and Lou Harrison. The instruments were built with the help of long-time American gamelan composer and instrument builder Daniel Schmidt, and metal sculptor Bernard Hosey. Performing only new repertoire, the group presents in-house compositions and commissions from composers from Western contemporary music communities and gamelan communities to create diverse and compelling programs.

www.lightbulbensemble.com

The Lightbulb Ensemble: Maurissa Dorn, Dave Douglas, Carla Fabrizio, Lucas Helland, James Iwamasa, Sarang Kim, Lydia Martin, Keenan Pepper, Scott Siler, Wayne Vitale, Sarah Willner; Brian Baumbusch, musical director

Building upon the legacy of California-based music mavericks of the 20th century who have contributed to the field of contemporary percussion and gamelan music (Lou Harrison, Harry Partch, Paul Drescher, and Wayne Vitale, among others) the **Santa Cruz Contemporary Gamelan** is dedicated to championing and premiering new works for gamelan.

Santa Cruz Contemporary Gamelan: Jay Arms, Melina Clark, Austin DeRubira, Yunxiang Gao, David Hernandez, James Iwamasa, Louie Johnson, David Evan Jones, Sarang Kim, Colin Lawrence, Randy Miller, Ike Minton, Alec Nunes, Emerson Sebastia; Brian Baumbusch, musical director

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Wayne Vitale

Makrokosma Bali. Vital Records VR 460.

Returning Minimalism. Vital Records VR 440.

American Works for Balinese Gamelan Orchestra. Gamelan Sekar Jaya. New World Records 80430.

Other related titles on New World:

Evan Ziporyn. *Amok!, Tire Fire*. New World Records 80565.

Michael Tenzer. *Let Others Name You*. New World Records 80697.

Barbara Benary. *Sun on Snow*. New World Records 80646.

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Mikrokosma

Recorded on May 27–28, 2016 at UC Santa Cruz

Recording Engineer: Robin Whitehouse

Mixed by: Brett Siler

Ellipses

Recorded on March 13, 2015 at UC Santa Cruz. Semar Pegulingan instruments "Dharma Kanti" made available courtesy of Linda Burman-Hall.

Recording Engineer: Bill Coulter

Mixed by: Brett Siler

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Ellipses is published by the composer (ASCAP).

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Francis Goelet (1926–1998), *In Memoriam*

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