

Inhabiting Time: Towards A Heterophony of Temporalities and Traditions

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Résumé de l'article

Dans ce texte, l'auteur soutient que l'hétérophonie n'est pas seulement l'ombre négligée de la polyphonie. Au contraire, son « altérité » vaguement définie ouvre de nouvelles perspectives à la musique, surtout si l'on se demande comment concevoir la musique autrement que par la synchronie, le principe qui sous-tend des caractéristiques musicales essentielles telles que la consonance, l'harmonie, la pulsation et le groove. Le monde qui nous entoure n'est généralement pas créé à partir de la synchronie. En effet, les échelles de temps très variées qui nous traversent, de la physique des particules à la cosmologie, ne s'appuient pas sur une polyphonie synchronisée pour avoir un impact profond sur la vie future sur cette planète. Par conséquent, la musique en hétérophonie temporelle pourrait-elle nous offrir de nouvelles façons d'être et d'écouter - une sensibilité renouvelée pour les temporalités que nous habitons et sur lesquelles nous avons un impact ?

INHABITING TIME: TOWARDS A HETEROPHONY OF TEMPORALITIES AND TRADITIONS

Sandeep Bhagwati

PART I

It is indisputable that the world around us is neither monophonic nor static, and that to understand the world through sound we need to be able to intelligently perceive and track multiple sonic evolutions at once. In the aesthetics of musicking, two models of multiple-stream listening and making have been at the center of discourse so far: polyphony and heterophony.¹ Polyphony, especially when at its most pedantic in counterpoint and tonal harmony, is concerned with coordinating and integrating different voices into one common, internally differentiated flow, while the aesthetic purposes of heterophony seem, not surprisingly, to be rather diverse: designating something as “hetero- (Greek: other)” is not usually driven by a desire for precise taxonomy. In eurological² music circles, heterophony is indeed classified largely in relation to counterpoint: as its precursor—or as a less refined cousin. Not *punctus-contra-punctum* but *punctus-praeter-punctum*: heterophony as a beside-the-point.

This essay is interested in one specific aspect of heterophony: tempo variance. Most common understandings of heterophony do not involve tempo variance. Due to its derivative association with counterpoint’s heightened awareness of simultaneity, melodies in heterophonic music, too, are mostly expected to share a common time. It is this shared temporality that allows these melodies to occasionally meet meaningfully on a pitch or consonance—albeit less frequently or gratifyingly than counterpoint would. The meetings must just occur often enough to permit listeners to perceive a link, however tenuous, between these otherwise possibly independent melodic evolutions. Heterophony may

¹ In this text, the third widely used textural model, homophony, is understood to be a special, simplified case of polyphony.

² George E. Lewis coined this term in his 1996 text “Improvised Music after 1950.” In my writings, I have extended its function to describe music that, wherever and by whomever it is made, relies on the historical logic of European art music traditions such as the distinction between composition and performance, a written score, paid presentational performance, reference to European intellectual traditions, instruments/orchestras from European practice, (a)-tonal harmony, polyphony, etc.

be loosely knit but it must still be heard to be a knit. How else could one assume artistic intent?

Tacitly implied in all assumptions of heterophony are also limitations to its degree and kind of otherness. One simply assumes that melodies in heterophony move within a shared and limited pitch reservoir. That they are offsprings of the same tradition. Layering a variant of a melodic evolution sung by a dhruwad singer with one played by a Métis fiddler in a differently selected pitch set does not, in this understanding, technically constitute heterophony. Nor does the voice of a soprano singing next to a bird or a waterfall: the mutual alienness, while certainly “other-,” is too pronounced.³

Are these tacit assumptions essential characteristics of heterophonic practices in general—or are they specific to the eurological tradition? And do they continue to serve us conceptually—as musickers and thinkers considering the anthropological and even trans-human dimensions of organized sound-making?

PART II

The world we live in is traversed and defined by its multiple temporalities. Things do not happen at the same pace, nor do they follow similar temporal trajectories and variation. From astronomical, planetary, and geological processes to the timescales of atoms and particles, our lives are impacted by a wide variety of evolving phenomena. The world that impacts us moves at speeds that—from the quickest to the most ponderous—extend over 30 magnitudes of scale.

As a psycho-acoustic phenomenon, however, music is only amenable to an extremely narrow temporal range. We lose any sense of flow when the speed of musical events drops below one event per around 8–10 seconds (6 bpm); moreover, our muscles cannot reliably make two events happen less than 200 milliseconds apart (300 bpm) and our ears cannot even distinguish between two distinct events that are less than 5 milliseconds apart (12000 bpm).⁴

Between 6 and 12000 lie three orders of magnitude: three zeroes versus the thirty of our *umwelt*.⁵ Such are the speed limits of the chemical reactions that drive the human neural system. In his 1957 essay, “...wie die Zeit vergeht...” (“...how time passes...”), Karlheinz Stockhausen proposed seeing pitch and

³ Widening the extent of otherness in “heterophony” to include waterfalls might lead some to use this term to denote textures in soundscapes. This leads to the question of whether terms such as “counterpoint” or “heterophony” are more useful in denoting artistic intent than in describing perceptual qualities. This author would tend to the first type of use. As soundscapes are by definition non-intentional sound events *perceived* with artistic intent, describing soundscapes as heterophonic would not offer us additional insights.

⁴ And these are all extreme values: the average human capacity would narrow the window of our temporal perception even more. Music, for one, does not normally use these extreme values – using them regularly would exclude many players and listeners from any sonic experience that one could sensibly qualify as “music”.

⁵ Even the slowest musical piece ever performed, John Cage’s *Organ²/ASLSP*, performed over 639 years from the year 2001 to 2640 at the Halberstadt Church in Germany, would add only 2 more orders of magnitude to this realm. As a performance, this event already extends far beyond human perception – it is a music no one can perceive in their own lifetime. <https://www.aslsp.org/das-projekt.html>

rhythm as just two different scales of time in music, one convertible into the other by simple up- or down-scaling. He thus added two more orders of magnitude in music perception.⁶

Five orders of magnitude: all musicking—like most other conscious human activity—is bound to this narrow temporal window. This would not be a problem if, over the last centuries, we as a species had not devised ways of projecting humanity's legacy far beyond our temporal window. The widely discussed notion of the Anthropocene as an appropriate name for our present geological era arose as scientists realized that human impact on the planet is affecting the geological record—and must thus extend into geological timescales.

For several centuries already, humans have started to affect the long “silent transformations”⁷ that condition our own habitat (Jullien 2009)—effects that we now begin to witness in the unusually dynamic changes to Earth's climatic conditions that threaten to forever alter the conditions for human life. Things we may do within in our temporal window without any consequence for our lifetime—using a plastic bag, flying short-distances, burning fossil fuels: the familiar catalogue of climate-harming acts we engage in daily—will nevertheless spill far into the future. Pollution has a temporal dimension that our feelings and aesthetics have not yet learned to fathom.

PART III

Can music as the art that establishes aesthetic orderings of time truly ignore such wider realities? Can music-making continue to focus solely on our human temporality? Or must musicking come to reflect the interconnectedness of planetary temporalities? One thing is evident: as we are limited beings, any such engagement with the timescales we inhabit cannot be unmediated. To fit within the confines of our perception, this temporal diversity and expanse must be scaled, symbolized, conceptualized—in other words, it must become aesthetically relevant.

When Stockhausen pointed out that what we call timbre and pitch are temporal effects—events occurring too fast for our consciousness to differentiate, but still perceptible as different sonic qualities—it became obvious that the only difference between the different parameters we use to analyze music (pitch, timbre, duration, phrase, formal divisions, etc.) is their different timescales, not any inherently different property. As musickers, we seem to perceive the difference between temporal scales not as an abstract numerical relation but rather as an aesthetically significant quality.

We are thus aware of the importance of temporalities for aesthetic perception. And yet this knowledge does not determine how we think as music theorists or as composers: musical time is still treated, felt, and conceived as if it were scaffolded by clock time. As if it always harked back to a metronome as its

⁶ For a good visual illustration of these see the graphic in Roads (2001, 5).

⁷ Jullien calls them silent because we are temporarily challenged and cannot perceive them through our senses—we need external records and calculations to understand their evolution. This correlation of silence with the incapability to perceive will come up later in this text.

anchor, its “temporal drone.” As if music derived its meaning in time mostly from the varying relationships of inner appraisals of the length of a phase on the one hand (the Bergsonian *durée*) and precise timing on the other.

Precision in music, however, is usually established not by metronome pulsations but by measuring musical durations or phases against a perceptual “quantum” of musical time. This quantum of musical time can be defined as the shortest aesthetically usable unit of time in the given context. While elementary for rhythmic perception, it nevertheless is variable: acoustics, biorhythm, emotionality, etc., will change duration with reference to “objective” time. The quanta of musical time are thus rather elastic. They might better be seen as Bergsonian units, wherein the temporal grid they impose on our senses will be variously distended or compressed with relation to “objective” time.

Music, as per the working premise, flows unidirectionally and sequentially through time, and while we may experience its inner *durée* as variously longer or shorter than the concomitant clock time, we still move around within the same temporality, the same order of magnitude. In most musical thinking, musical time is thus understood to be an ornamentation of clock time. It is neither counter-time nor other-time. Heterophony, too, is usually bound by this convention, as are many musical practices around the world.

PART IV

This may be a convenient convention, and it has certainly been central to the evolution of polyphony. One of the essential features of eurological polyphonic thinking is its staunch reliance on effects of synchronicity: whether it deals with the consonance and dissonance of intervals or the perception of harmony, whether it deals with flexible rubato or stable grooves, whether it waits for cadences or the joyous arrival at an emotional climax. Eurological polyphonic music relies on synchronicity to create meaning: just as dissonance can be expressive but must be resolved in consonance, non-synchronicity, too, can be very expressive⁸ but it, too, must eventually resolve in a moment of perceptible and aesthetically significant synchrony.

In ancient Greek philosophy, such moments of significant synchrony are called *Καιρός* (*kairòs*). In the *Septuaginta*, the same word indicates the God-given moment to do a holy task, and philosophers ever since have discussed the consequences of this concept: is it a moment of fulfilment, a moment “out of time” when normal laws do not apply? In *kairòs*, streams of time fortuitously come together, enhance or cancel out their respective behaviors, and thereby produce meaningful events: a sudden insight, or a stroke of luck, if the *kairòs* is felt to be positive; and a “perfect storm,” if it is experienced as negative. Both falling in love and a tsunami may be moments of *kairòs*, depending on one’s perspective.

⁸ Temporary anti-synchronous aesthetic devices abound in music, always in relation to a dominant temporality: tuplets, hemiolas, asymmetric phrase rhythms, ambiguous/poly-meters in Mbira music, temporal layers in Banda Linda polyphony, the extended temporal digressions in the *pallavi niraval* sections of a *Ragam Tanam Pallavi*, etc.

It might be argued that eurological music, with its relentless focus on the aesthetic importance of simultaneous sonic events, has a unique propensity to mass-produce effects of *kairòs*, of such apparently meaningful synchronicity: almost as if it had evolved to do precisely that, in never-ending flux and variety. Moments of *kairòs* do, of course, occur in the physical world but they appear to be relatively rare—which is probably why significance is attributed to them. Polyphonic music, with its constant stream of *kairòs*-moments of various sorts, thus offers its listeners an artificially enhanced, accelerated, intensified version of the world. As if moments of *kairòs* were a kind of sugar of the musical aesthetics, immensely attractive and gratifying to our sonic palate, and possibly equally pernicious if not used in moderation...

Could it be that this tendency of eurological musical life to privilege *kairòs*-moments leads us as listeners to not notice the silent transformations, the long imperceptible planetary processes that nevertheless profoundly affect our existence? We can, after all, only be in synchrony with those who share our present turn on this planet.

If we continue to think of musicking as a form of live art that should primarily exist for the consumption of our contemporaries—enacting or simulating passionate engagements that play out between phenomena (or people) which share a common temporality—we may fall prey to the fallacy of aesthetic presentism: a blindness to the effective co-existence of multiple temporalities in our *umwelt* that could distract us from the actual issues we as humans are facing. That musicking practised in this temporally parochial manner may just be the sonic equivalent of *maya*, a term in Indian philosophy denoting the illusion that makes us believe that the world of sensory phenomena is real.

PART V

In his book *La musique à venir*, Francois J. Bonnet, the current director of INA-GRM (Paris), recalls a passage from Marcel Proust's *In Search of Lost Time*:

I wondered whether music wasn't the sole example of what might have been a communion of souls—had it not been for the invention of language, the formation of words, the analysis of ideas.⁹

Bonnet himself calls his book

a manifesto for a particular conviction: that music remains to be discovered, that it is still hidden. That, nonetheless, it does sometimes appear, but most often incompletely and unevenly. And that what we have hitherto referred to as 'music' is in fact only a preliminary... That all musics produced up to now have been nothing but simulacra, rituals to call forth music (2020, 9).

Bonnet seems to echo German composer Ferruccio Busoni, who in his then much-discussed "Draft of a New Aesthetics of the Art of Sound" from 1906,

⁹ Marcel Proust, *À la recherche du temps perdu*, vol. 5, *La prisonnière*, <https://proust.page/371>; cited (with slightly different translation) in Bonnet (2020, 7).

had offered a similar perspective on eurological music—as a process in its very early stages:

The art of sound is a child that has learnt to walk – but must still be led. It is a virginal art that has not yet experienced or suffered anything. It is not yet aware of how it holds itself up, of what its assets are and of the potential abilities it has; on the other hand, it is a prodigy that can already produce much that is beautiful, that has already delighted many, and of which most think that its talents have fully matured. But music as art, the so-called music of the occident, is barely four hundred years old. It is still in evolution, maybe just in the very first stage of an unforeseeable evolution – and we dare speak of a classical canon and of holy traditions! (1906, 6)

The current widespread sense of aesthetic exhaustion and impending doom in various scenes of eurological musicking, from concert to electroacoustic music, from free improv to composition by artificial intelligence; the impression that it has been a while since any composition in “new music” may have actually fulfilled the promise of this term; the realization that the concepts of a “musical avantgarde” or “experimental music” have evolved into names for “holy traditions,” complete with their own proper canon—all these millenarian forebodings around a still institutionally thriving praxis may well be related to a feeling that the actual potential of musicking remains not only unrealized but also largely unaddressed.

The vague but virulent discontent Busoni and Bonnet articulate might well be related to the overuse of *kairòs* discussed above: an inkling that most polyphonic and harmonic practices of musicking, due to their temporal constraints and their assumption of a coordinated temporality, may be good and effective laboratory models that help us understand how temporalities work within a tightly controlled environment—but that for our listening to further mature, we need to leave their training grounds. That, as one art of time, polyphonic music-making may so far have helped us know how to control time—but not how to inhabit it.

PART VI

Are polyphony and pitch/harmony-based music in all their variety truly the most adequate aesthetic techniques for multi-temporal listening? It seems unlikely. Could one perhaps invert the habitual taxonomic hierarchy and let these synchrony-based techniques be limited, circumscribed cases of a wider conceptual realm which one might associate more with the diversity we so far have called “heterophony”?¹⁰

If we truly want to move towards inhabiting time, we probably will need to learn both emotionally and analytically to listen not only to multiple melodic lines in virtual lockstep but also to the looser temporal knitting of multiple temporalities. We need to hear them as parameters contributing to the

¹⁰ And for which we would probably need a newer, more differentiated name—or rather, multiple names.

aesthetic qualities of a music we hear. Can we wean the aesthetic perception of sound movements from its centuries-long addiction to synchrony?

Polytemporality, after some earlier isolated instances in polychorality and opera, became a more frequently used aesthetic device in eurological music roughly during the beginning of the twentieth century when Busoni wrote his draft of a new aesthetic, in which he proposed micro-tonality and new technologies of sound generation as the most promising aesthetic path forward.¹¹ Unknown to Busoni and his Berlin scene, Charles Ives wrote music to be played at different speeds by different groups of musicians. Crucially, wanting the different streams to be perceptually differentiated by a listener, Ives also characterized them by different stylistic material.¹² Staying within one type of musical intonation would have reinforced the dominant temporality;¹³ instead, his layering of stylistic othernesses convinced the ear that all streams must be heard in an emancipated manner. Traditions such as *dhrupad* or, to a lesser extent *khayal*, in which polytemporalities play decisive structural roles, take great care to sonically separate the different temporal streams by assigning each to a completely different sound source—a melodic soloist who realizes their tempo in pitch sequences and a percussionist whose sonic focus lies on timbre sequences.¹⁴ A listener can therefore indeed follow the two temporal streams with comparative ease.

It is not clear at this particular juncture whether the need for such stylistic or sonic markings of different streams will always be aesthetically necessary but as an intermediate, evolutionary stage they seem unavoidable.

PART VII

Berlin, Martin-Gropius-Bau, Mid-August 2020, *in tempore pandemiae*. As composer and music director of a trans-traditional ensemble, I had been asked by this large exhibition hall to create a sonic event in an expansive, high, light, and airy museum space. Installed each on separate locations throughout three large halls, eleven musicians coming from eleven different musical traditions,¹⁵

¹¹ Maybe in error, as most micro-tonal techniques and new technologies, when put to use in the eurological musical community, have so far tended to stay within the aesthetic bounds of conventional dramaturgy and social context, being used as sonic add-ons rather than as game changers. They have, however, led to the emergence of new forms and communities of sonic art which Busoni could not foresee.

¹² I still remember the joyous shock I felt when as a teenager I first listened to a stereo recording of his fourth symphony—the feeling of utter aliveness that this music exuded ...

¹³ This “perceptual normalization” of tempo when different streams evolve within the same sonic language has been a persistent problem for later instances of polytemporal composition, for example, those of Conlon Nancarrow and later György Ligeti. In this regard, even the perceptual suspension of temporal flow via massive polytemporality in Ligeti’s mid-career works (*Atmosphères*, *Lux Aeterna* etc) seems like a timid, backward-looking solution to a correctly diagnosed problem. Obliterating difference does not really count as *inhabiting* difference.

¹⁴ This type of audio stream segregation, as well as other perceptual phenomena that might help to better understand heterophonic textures is defined and examined in depth in Bregman (1994).

¹⁵ Then called *Ensemble Extrakte*, since 2022 renamed *Ensemble Śabdagaṭitāra*, I have directed this ensemble since 2013. It comprises musicians from many diverse traditions: Chinese and Korean court music, Free Jazz, Bulgarian vocal folk music, Syrian Oud, North Indian tabla, Berlin

over three full days, from 10 a.m. to 7 p.m., performed musical rituals with each other, reciting poetic texts about their instruments, and exploring how they could play with each other not only at a physical distance but also in different tempi. Each of them had to realize their *comprovisation*¹⁶ score in individual as well as continually changing metronome settings (given to them on cards that visitors could put on their music stand at any moment), entering and leaving the ritual at different times.

Thus, in a temporal sense, they were never “together.” At most they could occasionally find each other in moments of unforeseeable harmony (or *kairòs*). Roland Barthes once coined the term “*idiorrhythmie*” for this kind of hetero-temporal behaviour, which he observed in the communal life of certain monasteries (2002). Thus, if I were asked to choose a formal term to describe the resulting musical texture, I would have to call it “idiorrhythmic heterophony.”

The title of the performance, “...how to inhabit these different temporalities...”,¹⁷ reflects Barthes’ concept. However, far from any How-To indicating a pedagogical demo, this performance was an experiment with an open question: each temporality and each stylistic ecology that the musicians bring with them has its own perceptual and technical constraints, much as it gives rise to particular opportunities and affordances. But, if we want to change the format of how we go through time, how must we change the sonic matter that we present—and un-present?

To escape the trap of presentism, the otherwise white museum walls are adorned with large score sheets, from which the visitors can understand what the musicians (and they themselves) need to do in order to navigate this performance. Next to the score pages, one can read transcribed statements made to me by the musicians themselves, in which they narrate the time scales folded into their sonic performance: the hours and years of daily practice; the instruments they play, which in some case were newly invented for the occasion, in others were older than the musician who played them. The double bass’s wooden body, for instance, had come from a tree felled two centuries ago, when it was at least a century old, and had matured all this time in an Alpine shed before the instrument was made from it 70 years ago. Other instruments’ components harked back even further: we are told that one Chinese instrument’s metal body is traditionally made of brass recycled from broken temple bells—its molecules may well have been mined in the Bronze Age.

Three days of nearly constant sound-making (the musicians did it in relay, of course) are already almost one timescale longer than a normal piece of music. And when this piece will be installed elsewhere in the near future, the sounds

techno and electronica, contemporary eurological “new music,” Armenian duduk, Blues harmonica, operatic soprano, Iranian tar, etc.

¹⁶ *Comprovisation* is a portmanteau word from “composition” and “improvisation.” I have used it over the last twenty years to denote ensemble musicking that relies on the aesthetically relevant entanglement, layering and interaction of both creative techniques that define two poles of a gradual spectrum. See Bhagwati (2013).

¹⁷ This installation performance was part of the exhibition “Down To Earth” at the Martin Gropius Bau Berlin, curated by Tino Sehgal, Thomas Oberender and Anja Predeck, and has been part of the Berliner Festspiele’s ongoing “Immersion” series since 2016.

and instructions will have lived within the musicians for another timescale, and presumably will re-emerge with significant changes.

Of course, this layering of perceptual modes to understand time is what was described above as symbolizing and conceptualizing the plurality of timescales that traverse us, with the goal to widen our sensory perception of time. But what did all of this really do to the visitor's temporal perception of music? Most of them had not expressly come for a music performance: they wanted to see one of the first new exhibitions to open after the first 2020 lockdown, they came to consider its roster of Anthropocene-related practices in the visual arts, little expecting that they would encounter an installed concert as one of the largest exhibits.

One thing we noticed was a sudden slowdown whenever someone entered the room—from a comfortable stroll through the previous exhibits, most visitors first stopped at the entrance portal, trying to take in what was going on. Soon, though, many started moving around, listening to the different instruments individually as they would on a street corner, reading the texts, taking a metronome card, placing it before one of the musicians, and then waiting to hear the tempo change. Some finally settled on their favourite spot and sat down on the floor, sometimes for 30–40 minutes. Some came back after they had gone through the other exhibits. Children sometimes spoke or sang to the musicians, to which they responded (part of their “score” asked them to react directly to the visitors’ speaking and sound).

We did not hand out a questionnaire to those leaving the room, partly for hygienic reasons but also because this was not a research project. Informal, oral feedback, however, some of it from professional musicians themselves, indicated that, for the very first time, many had thought about the different temporalities we live and make music in, and also commented on how easy and not at all troubling it was to listen to these many musicians play in different tempi amidst one another. Several of them reported a constant shifting of focus, an awareness of and even enjoyment in how the different musicians drifted in and out of togetherness.

At the time of writing,¹⁸ I am also finalizing a new score for a performance next month. The title of the performance will be “Anti-Kairos for 12 percussionists, live-generated scores and live electronics”: the percussionists will play exactly the same collection of a few dozen musical phrases/loops. These phrases will be shuffled in individual ways and must be played in a constantly reconfiguring variety of metronomic tempi that a software randomly generates on each of their (non-synched) tablet computers. Each musician also has been asked to source three found instruments—i.e., ordinary objects, on which they play—to ensure that each of their layers will have its distinct sonic character. And the live electronics will variously speed up or slow down sound extracted from the players’ performance, creating several temporal scales.

¹⁸ January 2023. The piece has since been successfully premiered in February 2023 at the Montréal Nouvelles Festival as well as, in a version without digital scores, at the University of Toronto in November 2023. A video documentation of this second performance can be seen here: <https://bit.ly/AntiKairosIIIIToronto2023>

Far from the temporal grand sweep of “How to inhabit...,” “Anti-Kairos” will rather narrowly focus on the question of how linear the flow of time in music needs to be for us to understand what is going on in different layers. Can we deal with a temporal and sonic situation in which the same rhythms occur at different speeds and in a different order in different layers? Can it expand our sensory and aesthetic horizon *en route* to a richer awareness of the ubiquitous heterophony of temporalities and traditions?

BIBLIOGRAPHY

- Barthes, Roland. 2002. *Comment vivre ensemble: simulations romanesques de quelques espaces quotidiens*. Editions du Seuil/IMEC.
- Bhagwati, Sandeep. 2013. “Notational perspective and comprovisation.” In *Sound & score: Essays on sound, score and notation*, edited by P. de Assis, W. Brooks, and K. Coessens. Leuven University Press.
- Bonnet, François J., 2020. *The Music to Come*. Les presses du réel.
- Bregman, Albert S. 1994. *Auditory Scene Analysis*. MIT Press.
- Jullien, François. 2009. *Les Transformations silencieuses*. Paris.
- Lewis, George E. 1996. “Improvised Music after 1950: Afrological and Eurological Perspectives.” *Black Music Research Journal* 16 (1): 91–122.
- Roads, Curtis. 2001. *Microsound*. MIT Press.
- Stockhausen, Karlheinz. 1957. “...wie die Zeit vergeht...” *Die Reihe* 3: 13–42.

ABSTRACT

In this text, the author argues that heterophony is not just the unkempt shadow of polyphony. On the contrary: its vaguely defined “otherness” opens up new potentials for musicking—especially if we ask how we could conceive of music other than through synchrony, the principle that underpins central musical features such as consonance, harmony, beat, and groove. The world around us is not usually wrought from synchrony. Rather, the vast range of timescales from particle physics to cosmology that traverse us do not rely on synchronized polyphony to deeply impact future life on this planet. Therefore, might musicking in temporal heterophony offer us new ways of being and of listening—a renewed sensibility for the temporalities we inhabit and impact?

Keywords: temporal heterophony, synchronicity, kairos, comprovisation, timescales

RÉSUMÉ

Dans ce texte, l’auteur soutient que l’hétérophonie n’est pas seulement l’ombre négligée de la polyphonie. Au contraire, son « altérité » vaguement définie ouvre de nouvelles perspectives à la musique, surtout si l’on se demande comment concevoir la musique autrement que par la synchronie, le principe qui sous-tend des caractéristiques musicales essentielles telles que la consonance, l’harmonie, la pulsation et le groove. Le monde qui nous entoure n’est généralement pas créé à partir de la synchronie. En effet, les échelles de temps très variées qui nous traversent, de la physique des particules à la cosmologie, ne s’appuient pas sur une polyphonie synchronisée pour avoir un impact profond sur

la vie future sur cette planète. Par conséquent, la musique en hétérophonie temporelle pourrait-elle nous offrir de nouvelles façons d'être et d'écouter - une sensibilité renouvelée pour les temporalités que nous habitons et sur lesquelles nous avons un impact ?

Mots-clés: hétérophonie temporelle, synchronicité, kairos, improvisation, échelles de temps

BIOGRAPHY

Sandeep Bhagwati is a composer, theatre maker, and researcher (studies in Salzburg, Munich & Paris). His compositions/comprovisations are performed worldwide. He has curated festivals and trans-traditional projects. As Canada Research Chair for Inter-X Art at Concordia University Montréal since 2006, he founded **matralab**, a research/creation node for live arts. Since 2013, he leads trans-traditional ensembles in Berlin & Pune. He has directed TENOR, an international network for notation technologies and co-edits *TURBA - The Journal for Global Practices in Live Arts Curation*. His work was the focus of a "Homage Season" 2023/24 initiated by the Quebec New Music Society (SMCQ) matralab.hexagram.ca.