

Global Notation: Swapping Freedoms

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GRANT Andrew Killick his critique of the Western staff's biases, but heed the old Churchillian anointment of democracy as the worst system except for all the rest. Killick's hortatory argument asks us to embrace his critique and summon the will to swap out the staff for a "global notation." He does not suggest retranscription of the Western canon or abandonment of the staff's quotidian uses; rather, the proposal is to reconceive the representation of musical sound for analysis and cross-cultural comparison. Within world music studies, imagining a sweepingly new system feels monumental, akin to implementing improvements to democracy, with all its flaws, in the world. Killick's detailed and historically informed argument is robust on the practical level. It also inevitably prompts reckoning that goes beyond the merely practical. To respond succinctly I reduce the core issues to three: the elegance of the new system, the features of the existing one, and the question of the swap-and-replace enterprise.

I

To testify to the first of these we can begin as Killick does, with the inspiration of cross-domain analogies: Labanotation and the International Phonetic Alphabet. If other fields have universal notations for analytic and documentary purposes, why shouldn't music? Invoked as a model for music notation in the 1970s by ethnomusicologist Mantle Hood, Labanotation's power is acknowledged. Its use is nevertheless quite specialized even within dance studies and other sciences of movement. But the IPA is widely accepted in linguistics, and has made it to the bookshelf of all dictionary owners. It is, in Killick's (2020, 237) words, "a purpose-made and comprehensive system that can represent examples from any culture on an equal basis and with any desired degree of precision." What a toolkit it takes: the 2020 version of the IPA comprises more than 75 consonants, 32 diacritics, 29 vowels, 24 speech tones and accents, and 41 additional symbols of various types (201 symbols in total), although no language uses more than a portion of these.¹

The nature of the music/language analogy strengthens Killick's case to music's advantage. Each IPA symbol or symbol-combination represents a timbre, plus a pitch level or glide in the case of tonal languages, and their infinite combinatorics enable notating the semiotically precise correlation of timbre to phonemic meaning. A global music notation can make do with a lot less complexity since in music analysis timbre is largely a statistical parameter taking a back seat to the syntactical parameters pitch and rhythm.² As most music

1. See the charts available at International Phonetic Association (2020).

2. The consideration of musical timbre as an analytical parameter has its history and has recently come to more prominence. An example is the ACTOR project (Analysis, Creation, and Teaching of Orchestration), funded in

uses restricted pitch-class collections and vocabularies of durations, a very small collection of symbols is enough to accomplish most of what is needed. Laid on the time axis of a grid, whose lines are spaced to map the intervals between the pitches (measured in cents), Killick uses a spare few triangles and lines, appropriately annotated, to represent just about any sound pattern. Adding squiggles or Praat graphs plus common-sense annotations to the grid is sufficient to accommodate sonic outlays of all kinds.

The middle of the article demonstrates what global notation could do to improve analyses I published in this journal in 2010 (and devised several years prior). Killick justifiably takes me to task for asserting that the (largely) unmodified staff notation I used was an adequate approach to analytical “neutrality” in the act of comparing three very different musics. I ask myself now with considerable hindsight if I would do the same today. Pondering this, I experience the tug of values between the communicability of what is familiar bundled with the distortions thus created on the one hand, and the potential to get steps closer to neutrality with a new system on the other. The degree to which a new system is really needed is valenced in that quest for neutrality.

It’s not as if Western notation couldn’t do the job in other ways too. With the gamelan piece I analyzed—for example, I could have dispensed with evenly spaced staff lines (easy to do by hand or with software) to capture the unequal scalar intervals, or excised key signatures, or re-beamed notes to better expose the end-oriented groups of Balinese melodic figures. I compensated for doing none of these things by providing text explanation. But it is crucial to the argument for a new system that clefs, staves, noteheads, stems, and more—all potent cultural symbols—be absent, their normative presence fully erased. Some may see the erasure and replacement (or omission) of those symbols as a mere game of surface traits, to others it may signify a meaningful reinvention. What is not in question is the capability of both systems.

Were I to do my analyses the same way today it would be for the same reason I used the staff system then: prioritizing ready access and musicological precedent in the exploration of a complex topic. Were I not to, it would be to prioritize a disciplinary future and an ostensibly less culturally laden representation of music, and to assert faith that others would join and momentum could accrue toward this end. Not surprisingly, therefore, the choice becomes ideological and ethical. In the spirit of comparative ethnomusicology, the less laden would presumably be the better choice. But is it a false choice?

II

What about the features of Western notation? I have a guiding thought, namely, that if

2018 by SSHRC (Canada’s Social Science and Humanities Research Council) as a seven-year, international scholarly collaboration based at McGill University devoted to developing theories of musical timbre and timbre analysis. A future analysis project requiring representation of musical timbre at anything like an IPA level will necessitate new innovation in musical notation.

its hegemony is to be challenged we ought to come in with a generous conception of what Western notation is and can be. By putting key signatures and noteheads on trial, I think Killick has not avoided the trap of essentializing it. What is it, in 2020, if not omnivorous? It has few immutable features, especially in the age of software, and of course it is imagination that drives software. There are conventions, naturally, but all—including the clefs, staves, and noteheads just invoked—are actually dispensable. Global notation's potential to "specify only the information that is wanted" (Killick 2020, 244) is not its alone. The Western staff has always aspired to be apt to the music it was invented to represent and each era's evolving conception of the musically universal. Its practitioners have for a millennium continuously augmented the system's capacity to reflect new instrument technologies, techniques, and musical imagination. Twentieth-century composers were the main accelerators of this process (as well as some ethnomusicologists, when they cared to prioritize transcription). Over the centuries most innovations—mensural rhythm proportions, new clefs, half-sharp and half-flat symbols, stemless notes—were intended to solve for a dimension of sound the system had not previously confronted. It has been a bottom-up, collective feedback process responding to the appetites of Western music, which grew still more in response to each new notational coinage.

Killick takes the Abraham-Hornbostel transcription paradigm too much to heart, as if it still had authority. But it is a kluge-from-the-past, and I doubt that ethnomusicologists refer to it now—nor would they benefit if they did (here I agree with him). Another place to start (not that many ethnomusicologists do, but did their exposure as students attract their notice?) is with the practices of postwar composers, who, with each notational innovation, augment the system's reach. The scores of George Crumb, Witold Lutosławski, Pauline Oliveros, or John Zorn are examples of how to notate in whatever way works. The publications of music theorists use creative visuals inspired by composers, that analysts of world music can also produce. Like Western art music, staff notation has outgrown the identities associated with its common-practice-era styles. In the spirit of Abraham-Hornbostel, it shape-shifts to the point where none of its features are obligatory. And as for the uses to which it is put, the distinctions prescriptive/descriptive or aesthetic/poietic to which Killick appeals cannot be said to pose obstacles. One notates for a purpose and adapts to fit. Thus we are not so much interested in what staff notation conventionally does, but what it can be now, including by unzipping its own identity suit and putting on another. And the question becomes not whether we should swap out one system, but whether we think in terms of a consistent system at all, when what we already have is an eclectic non-system. Imagining that cat back in the bag is, rhetorically speaking, a straw man.

If that's too pie-in-the-sky, let hybrids be the way to go. In his assessment of staff notation's limitations, Ellingson (1992, 139–40) used Tibetan notation of the sliding pitch and unmeasured time of *dybang* to illustrate something supposedly uncapturable on a staff. Yet in his Figure 11b he does in fact capture it well enough, through modification and addition to the basic format—though he calls it a "pitch-time graph" and reserves the moniker "Western notation" for the clunky and unimaginative style of 11c (both are reproduced here as Figure 1).

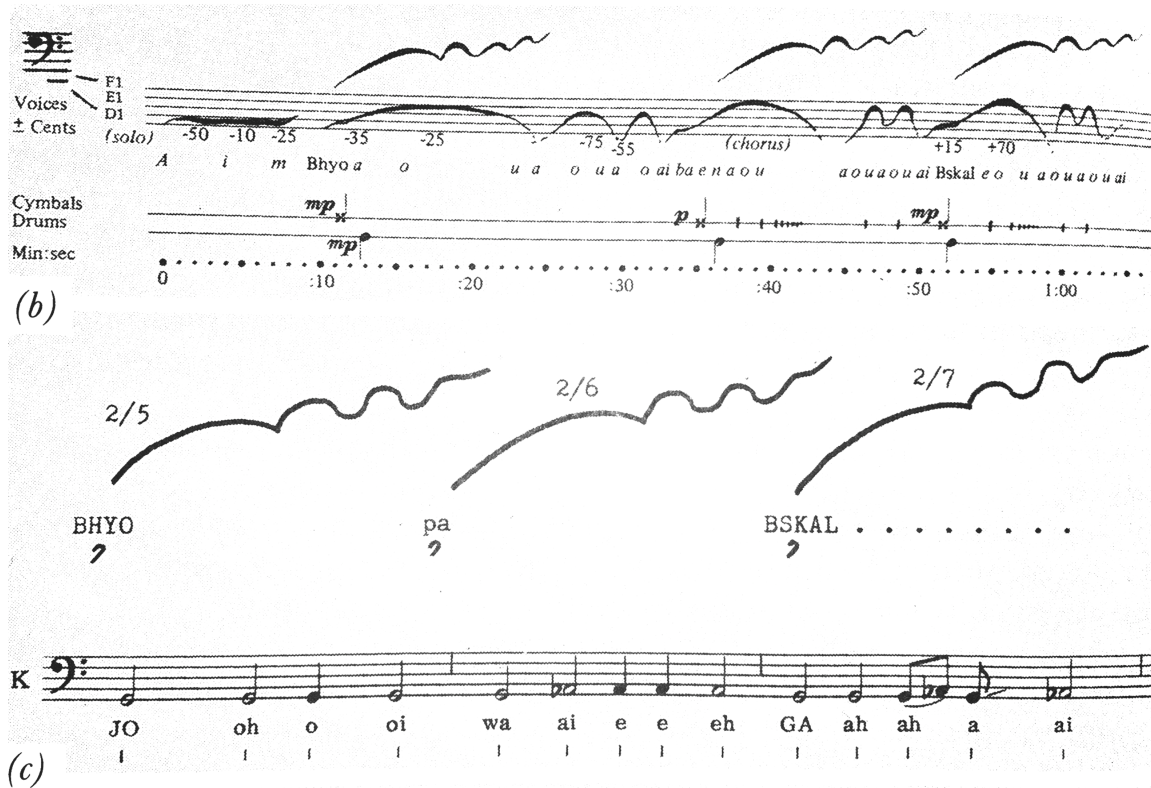


Figure 1. Two transcriptions of Tibetan *dybang* (Ellingson 1992, 140).

But 11b, by altering and combining both systems, yields something more than either does alone. While it may have been a little cumbersome to produce this graphic in 1992, that is no longer so. We are accustomed to proportional time notation using a variety of symbols, and there is no reason why a Praat contour cannot be overlaid on a staff (just as Killick [2020, 269] does in his own Figure 12) to achieve something much like Ellingson did but with even higher representational and aesthetic value.

Of course Western notation—except maybe at its most exploded—retains its ability to signify its tradition. And I wonder if the desire to suppress that semiosis, to dissociate from the colonial history and violence done to other musics in some representations, is more to the point of Killick’s project than the notation itself. The five-line staff, the clef, key and time signatures—all that invoke 12-tone equal temperament (12TET), harmonic rhythms linked to the measure unit, and functional tonality—are, in this perspective, tainted. But were I persuaded to disassociate myself from staff notation for these or any other reasons, I would dearly miss some features not compensated for in global notation:

- I prefer the 12TET system to remain as the background radiation overseeing my inquiries into different traditional musics—at least *sometimes*. Obviously arbitrary in its cultural construction, and Eurocentric, I am loath to renounce it because I crave a frame of reference. Adrift without such a frame, we may not know whether pitches apply only

to a particular piece, or a whole tradition, or indeed represent acceptable performance variants or unintentional vicissitudes (of course it depends what one wants one's analysis to explain, too). 12TET is just a specific calibration of the cents system, which Killick (2020, 244) condones for use as a "compromise worth making." Too, one is always free to re-specify the pitches signified on the Western staff, or to add or subtract staff lines. But the more salient features have to do with accidentals. 12TET on the five-line staff invokes the use of sharps and flats (and possibly key signatures), at the core of the Eurocentric bias. But hats off to their efficiency anyway—thanks to them we don't need 12 lines and spaces to show 12 tones. Indeed, the problem of how to show many pitch classes without the clutter and vertical spread of a separate line (or space) for each is not yet solved with global notation.

- I salute beams and stems (and the species of noteheads, but especially beams and stems) because they instantaneously convey so much information about levels of rhythm organization and metric weight.³ Global notation's brackets and gridlines do this correctly but without asserting visual prominence, and the eye holds a grudge. Stems in staff notation stand out by being perpendicular to everything else except measure lines, a gestalt condition impossible to un-perceive. They are gridlines of a sort, but beholden only to the specific rhythms at hand at each instant, hence irregular and often interrupted in layout as one reads them, unlike the static warp and weft of a grid. Stems can also change direction, and beams deftly dance on the diagonal. Both can dwell in the strange, useful abyss between staves—something absent in global notation. Together stems and beams allow the eye to align things above-and-below in a multipart score. In fact the absence of stems and beams may be the most consequential visual marker distinguishing global from staff notation. Were beams or an equivalent reinstated, global notation might come to look a lot more like staff notation, which might reinforce perception of deeper kinship and the superficiality of their outward differences.

Some, myself included, often use Western notation too uncreatively. Those who see a necessity and are motivated, however, can wield it and transform it as they please, as composers, transcribers, and analysts have already done ingeniously.

III

Swap-and-replace is a heavy lift, as Killick knows. Using the IPA as an analogue was persuasive because it is now a standard analytical tool. But the IPA neither attains nor aspires to the *expressive* potential of a music notation, which is more like a language of its own that has to be capable of rendering music's temporal nature and aesthetic value as the notator perceives it. It is rather a cut-and-dried process to write words in IPA, whereas notating music is always creative and inherently analytical. Notation is a technology for conveying the

3. I would argue that they are culturally agnostic, too. Killick's (2020, 257) sole mention of beams comes in reference to his Figure 8c.

expressive power of musical thought. Therefore another analogue for global notation ought to be Esperanto, the language conceived in 1887 by the universalist Ludwig Zamanhof, as a tool for cross-cultural communication and brotherhood. It is no coincidence that Esperanto was born at the same fecund historical moment as both comparative musicology and the IPA.⁴ Zamanhof's grandiose ambitions were doomed, but Esperanto has weathered the passages of the twentieth century and is still enthusiastically proclaimed and declaimed worldwide by an international ring of small, passionate organizations. But its potentials are now understood differently, and universalist hopes are tempered. One of the frustrations of Esperantists is that they are utopian zealots who believe they have the solution, while peoples of the world don't even recognize that there is a problem. After all, has not English gone a very long way toward being a global tongue? And at the same time, shouldn't we preserve language diversity? Hubert Tonkin, a former head of the Universal Esperanto Association, speaks with Killick when he says that

we need to inform people, through outreach, clearly. But we also need to strategize how to be effective within institutions . . . so we start by spreading [awareness of] the problem. The problem isn't English. The problem is that *language is an institution of power*. (Schor 2016, 124; italics in the original)

Thus it is with music notation. But the analogy between global notation and Esperanto is flawed, too (like all analogies). Esperanto and English, like any two languages and despite a profusion of common root words and structures, are deeply mutually exclusive. One cannot write text in such a way as to combine them, or to obscure or soften their differences. Whereas, as I've tried to show, global and staff notations differ largely on the graphic surface and therefore one *can* imagine a fusion of the two. Fusions are a good idea, but they are usually unequal. And in this case, staff notation has the upper hand, because, following Tonkin, it has the institutional power and consequentially the omnivorous flexibility to be whatever it wishes.

This doesn't mean Killick is wrong, but he's a David punching upward. And he has to deal with one more daunting problem: human nature. In a review of the Schor book just cited, Michael Wex recounts

an old Yiddish joke about an Esperanto convention where participants were given license to "crocodile"—speak their native languages—during a break in the proceedings. After a long day of speaking Esperanto, listening to speeches in Esperanto, singing songs and reading signs in Esperanto, they were relieved to be able to stop reaching for words. As they streamed out of the hall, one Esperantist after the other turned to his or her

4. Alexander Ellis, influential author of "On the Musical Scales of Various Nations" (1885), one of the first major works of comparative musicology, was an associate of Helmholtz as well as connected to both the invention of the IPA and the invention of the cents system. The latter was designed specifically to facilitate the research for his 1885 article.

fellows and exclaimed with a sigh, “A mekhaye shoyrn, redn a yidish vort”—“It’s such a pleasure to be able to speak Yiddish already.” (Wex 2016)

For me, crocodiling masks rich feelings. There may be relief mixed with shame in having been candid about resistance to radical change, just as Killick expected, and self-questioning at capitulation to the hegemonic. There could be self-admonishment for not being courageous enough to break out. Yet there is compensatory reverence for the accumulated wisdom and power of Western notation which, after all, has been designed all along in waves of both individual and collective creativity, in a mindset of idealism, by musicians who are all our fellow travelers. There is security in knowing that this tradition is wiser than any of us, and empowerment available in that it is always ready to be adapted and improved. But not abandoned.

And if our future analyses do not all conform to the same visual style? We have to live with it, just as we live with and celebrate cultural multiplicity elsewhere.

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