

***‘Not the sort of thing you could photocopy’
— a short idea history of notation with suggestions
for reform in music education and research —***

*Article written in celebration of Simon Frith’s
contributions to music studies*

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Frith’s aphorism

In June 2002 I was writing up the theoretical background to work I’d been doing since the early eighties. One major issue was the epistemic standoff between the MUSIC IS MUSIC and EVERYTHING BUT THE MUSIC camps in popular music studies. With my musical background in institutions of formal education as well as in pubs and clubs, I was able to deconstruct the first of those two — *musical absolutism* and its *contextless texts* — but I needed help with the other of those two entrenched positions, with the notion that music could be studied as *musically textless contexts*. That’s why I, as a muso, asked trusted friends and colleagues with non-muso backgrounds to explain why so many popular music scholars had been so reluctant to engage with music as text.

Dave Laing and Bruce Johnson were two of those colleagues. Like me, they criticised the hopeless formalism of conventional music studies and its fixation on the euroclassical repertoire. But they also provided useful insights about the other side of the coin, about bodyism, scopocentrism, about an unawareness of what ethnomusicologists were doing,¹ about how ‘Adorno got in the way’, and about the complex history and ideologies of cultural studies. Simon Frith had similar things to say and all three mentioned notation as a barrier to the inclusion of musical

1. Ethnomusicology is important in the history of musical ideas because: [1] unfamiliar music studied by Western scholars was incomprehensible unless it was linked to the society and culture in which it occurred; [2] it drew attention to what could and what couldn’t be transcribed using Western notation; [3] it opened up aesthetic alternatives to the those of the euroclassical canon (Tagg, 2013: 133-136).

texts in the study of music. One part of Frith's explanation was that music '*wasn't the sort of thing you could photocopy*'. That aphorism provides a useful starting point for this article.

The most important word in Frith's comment is, I think, *photocopy*. Please remember that I asked the question in 2002 and that we were talking about why, in what was then the recent past —the late 1960s until the 1990s— non-muso scholars felt unable to engage with music as text. It's about a time when, in established institutions of learning, there was a tendency to consider knowledge valid only if it existed as a *literal* text, i.e. as signs stored graphically and reproducible in books, articles and, thanks to the photocopier, as the paper copies it spat out in the form of student handouts. This restrictive notion of legitimate knowledge, defined by its modes of representation, storage and reproduction, was of course exacerbated by the epistemic inertia of many music department staff members who at the time still saw notation as the only legitimate physical manifestation of a musical text or work. I even remember one colleague in an mid-1990s exam jury refusing to grade a student performance because it included an improvised item. 'How can I mark it if there's no music to follow?', he asked rhetorically. Of course, by the missing music he didn't mean the music as it actually sounded, what we'd all just heard as jury members. He meant the score, the *sheet* music, the sort of thing you *could* photocopy but which even then would have made sonic sense to about one in fourteen people living in the urban West.²

I'm talking here about a time in recent history, about one century after Edison's phonograph and around fifty years after the commercial breakthrough of electro-mechanical amplification and of optical sound. And yet, in the mid 1970s, not much more than a generation had passed since audio recording had definitively supplanted sheet

2. 1 in 14 \approx 7%. Depending on innumerable factors, online estimates of notational literacy vary between 2% to 10%. According to the Los Doggies Yo! website (Theme F2, 2009), the US notational literacy rate in 1970 was around 20% but had fallen to 5% by 2009. 'As many people can't read music as *can* read literature' (*MUSICAL LITERACY* entry at [losdoggies.com](https://www.losdoggies.com) [2013-03-21]). For more detail, see survey 'Can you read music?' at postyour.info/statistics/can-you-read-music.htm [2013-03-21].

music as music's main commodity form in the urban West. My 2002 question and Frith's aphoristic answer are in other words retrospective, referring to storage and reproduction technologies in a particular institutional context at a point in history when those technologies were changing dramatically. Today, after another few decades of radical social and technological change, including the advent of media carriers featuring real-time counters, and of audio- and audiovisual downloading, 'music' is even more rarely equated with its manifestation as notation. But that doesn't mean that the potential and limitations of the medium are any better understood by scholars of music, whatever their disciplinary background or repertoire expertise. That's why a large part of this contribution is devoted to a short idea history of musical notation.

Musical notation: its uses and limitations

Musical notation can be useful, even in the age of digital sound. If you need to add extra backing vocals to a recording, if neither you nor the other band members can produce the sound you're looking for, you might want to contact some professional vocalists. You could give those singers an audio file of the mix so far and indicate where in the track you want each of them to come in to sing roughly what at which sort of pitch using which kind of voice. But that would be a time-consuming task involving your recording, for demo purposes only, something neither you nor the others in your band can sing anyhow. It would also involve either extra rehearsal with the vocalists or the risk of them arriving in the studio and failing to sing what you had in mind. It would simply be more efficient to send the vocalists their parts written out in advance. It's quicker for them and it's both quicker and cheaper for you because of all the studio time and money you'd otherwise have to waste on retakes.

This utilitarian aspect of notation is important for two reasons. First, it questions the trend of excluding notation skills from the training of professional musicians and it contradicts widely held notions about notation's irrelevance to the study of popular music. Second, and more importantly, it illustrates that the prime function of musical no-

tation is to act as a set of *instructions about musical performance*, not as a storage medium for musical sound.

Many well-trained musicians can read a score and convert what's on the page into sounds inside their heads. This ability is no more magical than being able to imagine scenery when perusing a decent physical map. However, although no sign system is totally irreversible, the ability to make sense of any such system presupposes familiarity with its limitations, more specifically an intimate knowledge, usually non-verbalised, of what the system does *not* encode and of what needs to be supplied to interpret it usefully. For example, if the vocalists hired for your recording session are professionals and if the notation you sent them is adequate, they should be able to deduce from experience whatever else you want them to come up with in addition to the mere notes on the page. Just by looking at that notation, an experienced musician will understand what musical style it belongs to and, in the case of professional vocalists, will produce classical vibrato, gospel ornamentation, smooth crooning, rock yelling or whatever else you had taken for granted. They will know to apply a whole range of expressive devices relevant to their craft and to the style in question, making decisions about timbre, diction, dialect, pronunciation, breathing, phrasing, vocal register and so on that are nowhere to be seen on the paper or in the email attachment you sent them.

Western musical notation is in other words a useful *performance shorthand* for many kinds of music. It's a great aide-mémoire for musicians because it graphically encodes aspects of musical structure that are hard to memorise, especially sequences of pitch in terms of melodic line, chordal spacing and harmonic progression. Moreover, sheet music and lead sheets are easy to carry from one gig to another and much easier to consult than actual recordings that take time to cue up to a particular passage for verification purposes. Still, despite notation's ability to encode certain basic tonal and temporal aspects of music, it doesn't include the actual articulation of those elements. Components of timbre and aural staging hardly ever appear in notation and parameters of loudness, phrasing, accentuation and sound treatment are, if they appear at all on the page, limited to terse or imprecise instruc-

tions like *f*, *cresc.*, *leg.*, *con sord.*, *sotto voce*, *laissez vibrer*, *medium rock feel*, *brisk*, etc. These absences of such essential musical information are of course largely due to the inevitable limitations of notation as a post-Gutenberg, pre-Edison technology.

Another important limitation of Western notation is that it was developed to visualise some of the tonal and temporal parameters particular to a specific musical tradition. Just as the Roman alphabet was not conceived to deal with foreign phonemes like /θ/, /ð/ (TH), /tʃ/ (CH), or /ʒ/ (ZH), Western music notation was not designed to accommodate African, Arab, Indian, Indonesian or even some European tonal practices. Moreover, with the establishment, in the early eighteenth century, of the bar line in Western music notation, it's virtually impossible to graphically represent the cross rhythms of music from parts of Sub-Saharan Africa or Latin America where the notion of a downbeat often makes little sense. Even the frequent downbeat anticipations in basically monometric jazz, blues, gospel, funk and rock styles, so familiar to anyone living in the urban West, can only be clumsily represented on paper. Compare, for example, | ♪ ♪ ♪ | ♪. ♪ ♪ | — 'God save our gracious queen' — with | ♪ ♪. ♪ ♪ ♪ ♪. ♪ ♪ ♪ ♪ | — the guitar riff from *Satisfaction*. The second rhythm is no more difficult to remember or reproduce than the first but its graphic representation, with those tied notes (♪ ♪ ♪ and ♪ ♪ ♪), makes it look more complicated. In terse technical terms, Western notation was developed to graphically encode monometric music containing fixed pitches which conform to a division of the octave into twelve equal intervals.

Once aware of the restrictions just explained, it is of course possible to make good use of written music, not only as performance shorthand, as with the backing vocalists mentioned earlier, but also, if you have that kind of training, as a viable way of putting details of tonal and rhythmic parameters on to paper, provided of course that the music in question lends itself to such transcription. Indeed, the analysis of music and its meanings would be easier if scholars held such a pragmatic view. The problem is that these simple truths still have to be explained to those students and colleagues who hold the scopocentric belief that the score *is*, magically, *the* MUSICAL TEXT or the MUSIC ITSELF.

Given the hegemony of the written word in institutions of European knowledge — the sort of thing you *could* photocopy —, it would in one sense be odd if, before the advent of sound recording, music on the page, rather than just fleetingly in the air or as the momentary firing of neurons in the brain cells of members of a musical community, had not acquired a privileged institutional status. After all, notation, despite its obvious shortcomings, was for centuries music's only tangible medium of storage and distribution. The weight of this legacy should not be underestimated because it ties in with important historical developments in law, economy, technology and ideology.

Law, economy, technology, subjectivity

Well before the advent of music printing around 1500, notation was already linked to the sort of individual subjectivity that later became central to bourgeois ideology. Of relevance to this issue is a passage in the entry on notation (*Notschrift*) from the 1956 edition of *Musik in Geschichte und Gegenwart* (MGG).³ The article draws attention to the musical doodlings of an anonymous monk who should have been copying plainchant but whose own musical imagination seems to have spilled out on to the parchment. He was supposed to be using the late medieval technology of notation to perpetuate the immutable *musica humana* of Mother Church, not for recording ideas like 'what if I arrange the notes like this instead?' or 'what if I combine these two tunes?' or 'what if I change their rhythm to this?' Unsurprisingly, the abbot overseeing the duplication of liturgical music has crossed out the offending monk's notes. Not only had that insubordinate brother made a unholy mess in a holy book; he had also, by committing his own musical thoughts to the page, challenged ecclesiastical authority and the supposed transcendence of God's music in its worldly form. Preserving Mother Church's music for perpetuity was good; allowing the musical thoughts of a mere mortal to be stored for posterity was not.⁴ Today, nearly a millennium later, the democratic potential of music technologies like digital sequencing, recording and editing, not to

3. MGG is an authoritative German-language music encyclopædia.

4. Thanks to Jan Ling (Göteborg) for the MGG reference.

mention internet file sharing, is sometimes ignored or demonised by other authorities, elitist or commercial, whose interests, like those of the medieval abbot, lie in preserving hierarchical legacies of social, economic and cultural privilege, power and ownership.

At least two lessons can be learnt from this story of the wayward monk. One is that there is nothing intrinsically conservative about musical notation as such, even though its long-standing symbiosis with conservatory training and its conceptual opposition to graphically uncodified aspects of musical production (improvisation, etc.) can lead those who rarely make compositional use of the medium to believe that ‘notes on the page’ constitute an intrinsically restrictive type of musical practice. The anonymous monk’s doodlings and our studio vocalists’ notational literacy both suggest the opposite. It’s also worth remembering that, unlike European classical music, other traditions of ‘learned’ music rely rarely, if at all, on any form of notation to ensure their doctrinally correct reproduction over time.⁵

The second lesson is that the connection between notation and subjectivity has a long history whose development runs parallel with the emergence of bourgeois notions of the individual. Of particular interest is the process by which, in the wake of legislation about authorial ownership in literary works, creative musicians, no longer subjected to the anonymity of feudal patronage, were able to put their printed compositions on the ‘open’ market. In late eighteenth-century London, for example, the market was a growing throng of bourgeois consumers wanting to cultivate musical habits befitting the status to which they aspired. As Barron (2006:123) remarks:

‘The capacity to earn a living by selling one’s works in the market freed the artist of the burden of pleasing the patron; the only requirement now was to please the buying public.’

Notation was a key factor in this development. According to the judge in a 1774 court action brought by Johann Christian Bach against a London music publishing house:

5. For example, *Rig Veda* chants have been passed down *orally*, with great attention paid to detail, for the last 3000 years or so.

'Music is a science: it can be written; and the mode of conveying the idea is by signs and marks [on the page].'⁶

Thanks to these marketable 'signs and marks', composers became the legal owners of the ideas the sheet music was seen to convey. Composers became authors of not only a tangible commodity (sheet music) but also of financially quantifiable values derived from use of that commodity. They became central figures and principal public actors in the production and exchange of musical goods and services.

'As the buying public diversified its tastes, many [composers] cultivated greater self-expression and individuality (it was a way of being noticed). Under the sway of patronage,... [the composer] was expected to be self-effacing... Craft counted more than uniqueness... The rise of a wider, more varied and anonymous [public] encouraged [composers] to carve out distinctive niches for themselves. They were freer to experiment, because less commonly working to peer expectation or commission — instead producing in anticipation of demand, even to satisfy their own sense of Creative Truth and personal authority.'⁷

It was in this way that individuality and authenticity became hallmarks of the composer variant on the ARTIST-AS-HERO theme, giving him an almost transcendental status that fitted the metaphysics of musical absolutism, as expounded by German romantics like Tieck and Wackenroder.⁸ The magical symbiosis between composer was conceived in the following sort of terms.

'The [work], which results from an organic process comparable to Nature's creations and is invested with an aesthetic or originality, transcends the circumstantial materiality of the [score]... [I]t acquires an identity immediately referable to the subjectivity of its [composer].'⁹

The score (sheet music, printed notation) has in other words become

6. *Bach v Longman* (1774: 624), cited by Barron (2006:118). The judge was William Murray, first Earl of Mansfield (1705-1793), a recognised authority on mercantile law who strongly opposed notions of slavery's legality. Johann Christian (1735-1782) was the youngest son of Johann Sebastian Bach (1685-1750).
7. Roy Porter (1990: 248), cited by Barron (2006:123). I've replaced 'artist' or 'writer' in the Porter quote with '[composer]' on each occasion.
8. Musical absolutism: see Tagg (2013: 93-95), citing Tieck and Wackenroder (as well as Diderot and Hegel). See also Le Huray & Day (1988).

not just music's main commodity form: it is now also the legally valid proof of a composer's unique subjectivity and of the 'authenticity' of his Text/Work/*Oeuvre*.¹⁰ In short, musical notation in Europe around 1800 stands in the middle of a complex intersection between:

- the establishment of music as a marketable commodity;
- developments in the jurisprudence of intellectual property;
- the emergence of composers from the anonymity of feudal patronage and their appearance as public figures and principal actors in the exchange of musical goods and services;
- Romantic notions of genius and subjectivity.

Add to these four points the problem of MUSIC IS MUSIC (ABSOLUTE MUSIC or the CONTEXTLESS TEXT) and its institutionalisation, plus the fact that notation was the only viable form of musical storage and distribution for centuries in the West, and it should come as no surprise that many people in musical academe still adhere to the scopocentric belief that notation *is* THE MUSIC it encodes so incompletely. This belief is so entrenched in some muso circles that the word *music* still often denotes no more than 'signs and marks' on paper, as in statements like 'I left my music in the car'. The institutional magic of this equation should not be underestimated. For example, one research student told me his symphonic transcription of a Pink Floyd track was intended to 'give the music the status it deserves'; and I was once accused of trying to 'legitimise trash' because I'd included transcriptions in my analyses of the *Kojak* theme and Abba's *Fernando*.¹¹

Another important reason for the longevity of the equation MUSIC = SHEET MUSIC is of course that notation was, for at least a century and a half (roughly 1800-1950), *the most lucrative mass medium for the musical home entertainment industry*. In many bourgeois parlours, the piano was as focal a piece of furniture as the TV in latter-day living rooms. Before the mass spread of electro-magnetic recordings in the late

9. Roger Chartier (1994: 36-37), cited by Barron (2006:123). Chartier is in fact characterising 'the literary ontology subsequently advanced by such architects of German romanticism as Herder, Kant and Fichte'. I've changed 'book' to '[score]', 'author' to '[composer]', 'text' to 'work'.

10. See *The Musical Work. Reality or Invention* (Talbot, 2000).

11. Tagg (2000a, 2000b).

1920s, or even as late as the 1950s and the advent of vinyl records, sheet music was, like an audio file, encoded 'content' in need of software and hardware to decode and reproduce. The parlour piano was only one part of that hardware; the rest of it and all the necessary software resided in the varying ability of sheet music consumers to decode notes on the page into appropriate motoric activity at the piano, or on other instruments, or by using the voice. The sheet music medium on which consumers relied in order to realise an aesthetic use value, hopefully commensurate with the commodity's exchange value, demanded that they *contribute actively to the production* of the sounds from which any aesthetic use value might be derived. In this way consumer preoccupation with poietic aspects of musical communication was much greater than it was to become in the era of sound recording.¹² Poietic consumer involvement in musical home entertainment was also greater than that required for deriving use value, aesthetic or otherwise, from a newspaper or novel, especially after the introduction of compulsory education and its insistence on *verbal* literacy for all citizens. Notational literacy was never considered such a necessity, even in the heyday of sheet music publishing.¹³

The fact that those who regularly use Western notation today are mostly the formally trained musicians who make up just 7% of the population, not the general public, reinforces the dichotomy between knowledges of music, especially that between vernacular aesthetic competence (e.g. the ability to recognise a DETECTIVE or SPY CHORD) and the professional ability to denote it in poietic terms (e.g. 'an E minor major nine chord played on a Fender Stratocaster with tremolo and some reverb').¹⁴ What composers, arrangers or transcribers put on to the page is, as already noted, usually intended as something to be performed by trained musicians who, in order to make sense of the 'signs and marks', have to supply from their own experience at least

12. POIETIC, relating to the *poiesis*, i.e. to the *making* of music; opposite of AESTHETIC, relating to the *aesthesis*, i.e. to the *perception* of music.

13. See *The Musical Work. Reality or Invention* (Talbot, 2000).

14. The final chord at 1:40 in the James Bond Theme (Norman, 1962). See footnote 2 for explanation of the 7%.

as much of *what is not* as of *what is* on the page. It goes without saying that it would today be economic suicide to mass produce sheet music in the hope that Joe Public would derive any value from it. Despite this patent shift in principal commodity form during the twentieth century from sheet music to sound recording, musical scopocentrism is still going strong, not only in the musical academy but also in legal practice. In November 2003, for example, a California judge declined to award compensation to a jazz musician whose improvisation had been sampled on a Beastie Boys track. Grounds for that judgement were that the improvisation was part of a work whose score the plaintiff had deposited for copyright purposes but that the improvisation in question was not included in that copyrighted score.¹⁵

One final aspect of the dynamic between notation, subjectivity and the institutionalisation of musical knowledges deserves attention. It relates once again to the composer's star status in the euroclassical pantheon after 1800.

Back-tracking to the nineteenth-century bourgeois music market for the last time, composers became, as described earlier, the legal owners and recognised authors of ideas conveyed through the tangible commodity of sheet music. In this way they also became the most easily identifiable individuals involved in the production of music. The biggest names on popular sheet music covers were, in the heyday of notation, those of the composer and lyricist, while the optional *AS PERFORMED BY...* data, which only starts to appear regularly in the inter-war years after the commercial breakthrough of electro-magnetic recording, was given a much smaller font. In the euroclassical field, piano reductions and pocket scores virtually never include details of notable recordings of the work in question. Indeed, although nineteenth-century artists like Jenny Lind or Niccolò Paganini were treated like pop stars in their day, they never acquired the lasting high-art status of composers enshrined as Great Masters in the euroclassical hall of fame. Romantic notions of the individual, of music as a 'refuge of the higher arts'¹⁶ and of virtually watertight boundaries between

15. For more detail, see *Newton v Diamond* (2003).

subjective and objective contributed to this canonisation process. Among the continuing symptoms of this romanticised auteurcentrism is historical musicology's zeal for discovering musical *Urtexts* or for re-interpreting Beethoven's notebooks compared to its relative lack of concern for how such music was used and for what it meant to audiences, either then or more recently. In short, musicological textbooks still tend to deal more with composers, their subjectivity, their intentions and their works, the latter overwhelmingly equated with the poetically focused medium of notation, than with the effects, uses and meanings of that music from the viewpoint of the usually much greater number of individuals who make up the music's audiences.¹⁷

Musical text and timecode placement

Notation is of course eminently photocopyable. By saying that music wasn't the sort of thing you could photocopy, Frith was, I think, rightly implying that musical notation, unlike the written word, cannot constitute TEXT in the cultural theory sense of the word because the vast majority of people don't hear music in their heads when confronted with 'signs and marks' they can't READ from the page. A musical TEXT is in this sense not defined by the physical nature of the medium with its graphic signs —the blobs and squiggles of notation appearing on a page or screen— but as the physical representation of what *can be read*, i.e. as *sonic* signs that are *heard* and interpreted. Musical texts involve in other words actual sound and an audience, be it

16. Translation of *Asyle der höheren Künste*, epithet coined by Adolf Bernhard Marx (1795-1866) who, on Mendelssohn's recommendation, was appointed Director of Music at the University of Berlin in 1830. A.B. Marx was the first senior university appointment in music. Moreover, the instrumental works of Mozart and Beethoven, characterised as 'Romantic' by writers like E.T.A. Hoffmann (1776-1822) were by 1830 being labelled 'Classical' (Ling 1984, 1989; Rosen, 1976:19).

17. One exception to this rule might be the minuscule fan base for certain types of 'contemporary' euroclassical music. I've been to recitals of esoteric music where composers actually outnumber listeners. This strange milieu is linked to another symptom of auteurcentrism. I refer here to the often bizarre teaching of composition in the academy where Romantic subjectivity seems to run riot, one of its oddest traits being the innovation angst affecting young composers who feel obliged to conform to the originality edicts of tiny totem groups —Darmstadt, post-Darmstadt, modernism, serialism, postserialism, postmodernism, minimalism, avant-garde sensualism, aleatorics, acousmatics, etc. *ad inf.*

just one person singing in the shower, a live performance, listening to the radio or to an audio or audiovisual recording. Nevertheless, although there can be no real text without an audience, musical texts can also have a dormant mode of existence as a sound recording. Like these words typed into my computer and meaningless until they're actually read, a sound recording is also identifiable as an object that can be retrieved and read (heard and understood). Resuscitated from its dormant mode it becomes a real text *with* an audience: you can play 'that CD', find 'that audio file' on your smartphone, check out 'that tune' on line, etc.¹⁸

Thanks to developments in audio technology, musical texts have been available in dormant mode since the late 1920s and widely audiocopyable since the spread of home taping in the 1970s. With digital sound technology, especially since the advent of MP3 and other popular audio file types in the mid 1990s, music has become even more audiocopyable than notation and the written word have been photocopyable since the 1960s.¹⁹ This radical change of technology in the storage and diffusion of sound doesn't just mean that virtually anyone can now access an infinite number of musical texts at any time. It also means, thanks to the inclusion of timecode in digital recordings, that anyone can pinpoint any musical event anywhere inside any of those recorded texts. And that means that almost anyone, with or without formal musical training, can unequivocally identify any sound in any piece of music by simply hitting the pause button when the sound is heard and by noting its timecode at that point in the recording. It's in this way that 'the spy chord at 1:40' becomes just as rigorous a designation of musical structure as 'the E minor major nine chord on Fender Stra-

18. Of course, the fact that you can sing 'that song' again in the shower, or go to another performance of 'that same piece' by the same musicians means that musical texts don't need to have a dormant mode of reproducible existence outside the human brain. That's the main way musical memory worked until the advent of sound recording and how it still works today. There's no room here to discuss these cardinal issues of musical text and human memory.

19. An important aspect of this increased copyability is the fact that so much music is now universally accessible on line. Copyright issues relating to these developments cannot be dealt with here ( tagg.org/infowhy.html#CopyrightTexts) [130405].

toaster in bar 71', as long as clear reference is given to details of the recording in which it occurs.²⁰

Between 1993 and 2009 I must have instructed hundreds of non-muso students working on popular music or film music analysis assignments to use timecode placement when designating musical sound.²¹ Those students were able to bypass the poietic jargon of music theory and gain analytical access to the sonic text as an essential pole in their study of music as a social, cultural and historical phenomenon. However, despite such concrete evidence of non-musos correctly and repeatedly referencing musical sound without difficulty, I have yet to see much trace of this demonstrable emancipation from muso jargon in work published by popular music studies colleagues. I'm not suggesting that every serious examination of popular music need include reference to music as sound, but it would be epistemically encouraging if the procedures just described were occasionally used, if only to show a willingness to help bridge the gap between music's metatextual and metacontextual discourses.²² It is after all obvious to the point of tautology that the *sound* of music is a *sine quā non* for its existence, its identity, uses, functions and meanings. Put another way, although music as sound may strike some colleagues as a 'troublesome appendage to popular music studies' it's absurd to treat it as an optional add-on to the 'proxemic and kinesic codes, business practices, etc.' that *also* help define a musical genre.²³

Reluctance to exploit timecode placement is in no way exclusive to the behaviour of scholars on the non-muso side of the epistemic divide in (popular) music studies. In fact I'm aware of only one other musicologist who regularly uses the procedure when referring to particularities of musical structure in popular song and dance music.²⁴ If

20. The final chord at 1:40 in the James Bond Theme (Norman, 1962). For more on timecode placement and paramusical synchrony see Tagg (2013: 256-260).

21. See, for example, work by non-muso students Émilie Côté (2004) and Héléne Laurin (2003, 2007), accessible at tagg.org/studtxts.html [2013-04-23].

22. For explanation of 'musical knowledges' — poietic, aesthetic, metatextual and metacontextual — see Tagg (2013: 115-120).

23. See Fabbri (1999: 8-9) and Tagg (2013: 266-268). The 'troublesome appendage' epithet appeared in an email I received from Fabbri in 1995 (1995-06-23).

formally trained music scholars made more use of timecode placement when referring to sound, we could give those for whom notation and terms like ‘minor major nine’ are gobbledygook some idea of what we’re talking about. Demonstrations of epistemic good faith are necessary from our side, too. It simply does not bode well for the future of (popular) music studies, if neither muso nor non-muso scholars cotton on to structural designation by timecode reference. It’s from this perspective that I find it difficult to see the old standoff between the CONTEXTLESS TEXT and TEXTLESS CONTEXT camps of (popular) music studies as much more than an outdated anomaly, an incongruous academic sideshow.

The bigger picture

Using timecode placement in the designation of musical structure is of course no panacea for problems of institutionally inherited epistemic inertia on either side of the divide. It’s just one small practical ingredient in a much larger set of comprehensive reforms essential to the modernisation and democratisation of music education and research. There’s no room here to do more than give a rough hint of two inter-related areas of concern: [1] a much wider reform of *structural designation* and [2] a basic *epistemology of music*.

Structural designation

Timecode reference to sonic texts (recordings) rather than bar number reference to blobs and squiggles in a score is, as just suggested, only a small part of the solution to the *structural designation* problem. A more difficult nut to crack is the paucity and imprecision of conventional music theory’s terms relating to unnotated parameters of expression, particularly to timbre and aural staging.²⁵ One possible strategy for improvement on this front involves recognising the importance and validity of vernacular musical competence intrinsic to the popular *perception of music*. Let me explain, using vocal persona as a case in point.

24. See for example chapter 4 in Sue Miller’s PhD (2010) and forthcoming book (2013). Timecode reference in work about film music is less uncommon.

25. Aural staging: see Tagg (2013: 299-303).

In my teaching experience, non-muso students have tended to be less inhibited than musos when describing voice. Instead of struggling with the poëtic, physical or acoustic aspects of phonation, they go straight for the *perceived* effects of voice in terms of archetypal persona, offering aesthetic structural descriptors like ‘the bitch voice’, ‘the suicidal student’, ‘the gospel princess’, ‘the hiccuping teenager’, ‘the death-metal hound of hell’, ‘the Celtic folk virgin’, etc. Together with timecode placement details, these vocal persona labels are semantically and structurally specific. However, even though they make sense to cultural communities larger than the analysis class in which they’re mentioned, they cannot be expected to work in contexts where different patterns of vocal archotyping are in operation.²⁶ Still, vernacular aesthetic designation is, I think, a useful starting point for considering a terminology of structure bearing on music’s unnotated parameters of expression, especially if comparative, cross-cultural studies of aesthetic description are conducted as part of the project. Such research should involve collaboration between musos and non-musos. It could examine, for example, patterns in the labelling and description of library music pieces, of sound effects templates in audio software applications, as well as of instrumental timbre, vocal persona, etc.²⁷

Another important strategy in the overhaul of structural designation involves terms used by conventional music theory on its home turf of tonality and form.²⁸ Despite the urgent need for reform on this front, I’ll restrict this section to just three simple but critical examples of the conceptual chaos that music scholars need to clean up.

[1] While no self-respecting linguist would classify languages like Russian or Mandarin as pre-, post- or a-grammatical just because, unlike most languages in Western Europe, they use no definite or indefinite articles, most music theorists in our part of the world still blithely

26. For example the problem of ‘wet echo’ v. ‘eco della Madonna’ (Tagg, 2013: 216).

27. For timbre see Lacasse & Traube (2005: *passim*). See also Tagg (2013) on timbre (pp. 277-280, 305-313), vocal persona (pp. 343-381, esp. 350-364), signal treatment (pp. 309-315), and library music (pp. 223-227).

28. Conventional music theory’s concepts of beat, tempo, rhythm and metre are also in a sad state. For problems with ‘polyrhythm’, ‘polymetricity’, ‘cross rhythm’, ‘metre’ and ‘syncopation’ see Tagg (2013: 291-304, 456-463).

refer to music in any other tonal tradition than the euroclassical as 'pretonal', 'posttonal', or as 'atonal' or 'modal'. There's no room here to critique the absurdities of 'pre-' and 'post-tonal' but it is worth noting, if only to grasp the extent of terminological confusion in conventional music theory, that 'atonal' (= without tones) is used to qualify music jam-packed with tones —twelve-tone music— and that modes are by definition configurations of *tonal* vocabulary.²⁹

[2] What conventional music theorists call 'interrupted' and 'imperfect' cadences are in many types of non-euroclassical tonality just as likely to be uninterrupted or final ('perfect'). Similarly, 'dominant' chords don't have to 'dominate', if they're present at all, while 'leading notes' don't necessarily relate to a tonal centre (tonic) or 'lead' as they do in euroclassical music. These and other misnomers exemplify the same ethnocentrism that pervades the models of tonal 'deep structure' taught to thousands of music analysis students, even though those models are inapplicable to much music heard by those same students on a daily basis.³⁰

[3] Like 'tonality', FORM is also used in a restrictive sense preventing, or at best clouding, our understanding of structure and meaning in non-euroclassical music. That's because conventional music analysis normally considers only the *diachronic* aspect of form, its DIATAXIS, i.e. the way in which episodes or sections are organised chronologically.³¹

29. The false dichotomy tonality/modality is particularly insidious. The assumption is that only one type of tonality (the euroclassical) can be tonal, and that all other types must consequently be labelled as if they were not. Conversely, if euroclassical tonality is 'tonal as opposed to modal', it is impossible to explain how (and why) the ionian mode came to oust almost all other available modes during a crucial period of political and ideological change in European history. For more on these critical issues, see *Trouble with Tonal Terminology* (Tagg, 2013b).

30. I'm referring to euroclassical analysis gurus like Schenker and Riemann. Their tonal models assume, for example, that harmonic directionality goes *anticlockwise* round the circle of fifths, even though chord changes in rock are more likely to proceed *clockwise*, as in tracks like *Hey Joe* (Hendrix, 1966), *Twentieth-Century Man* (Kinks 1971) or *Sweet Home Alabama* (Lynyrd Skynyrd 1975). Circumstantial evidence of the ideological nature of these 'deep structure' models are found in vulgar statements of elitism, like Riemann's dismissal of popular music as pandering to 'the lowest musical instincts of the masses addicted to arsehole art' (Riemann, 1901: 313). Thanks to Peter Wicke for this reference (see Tagg, 2013: 99).

This kind of form is central to the dynamic of euroclassical music and constitutes the structural basis of what Chester (1970) called an *extensional* aesthetic, as opposed the more *intensional* aesthetic of rock music. This aesthetic, central not only to rock, relies on SYNCRISIS (synchronic or intensional form) to produce a dynamic whose structurality can be theoretically reduced to durations containable within the extended present and which, when repeated, create grooves.³² Conventional music theory pays scant attention to this aspect of musical organisation to which it rarely refers, even as ‘texture’ (as if it had no other traits), let alone as *form*. Creating and perceiving structural elements as a composite Gestalt of ‘now sound’ is by definition a matter of shape and form in much the same way as ‘form’ and ‘composition’ are used in painting, sculpture or photography. In fact diataxis, the diachronic or extensional aspect of form, could not exist without syncrasis, its synchronic or intensional counterpart.³³

Failure to consider syncrasis as form isn’t just illogical. It’s also conceptually destructive because it prevents us from understanding music in terms of *ongoing dynamic states to be in*, as worthwhile ‘places to stay’, rather than as an exclusively narrative process, however important that may also be.³⁴ Discarding syncrasis as an essential aspect of form also makes it difficult to grasp how melody and harmony can, in many types of popular music, have two tonal centres at the same time without causing any tonal confusion.³⁵ It also prevents us from understanding the principles of ongoing composite metre in Sub-Saharan musics and of constant upbeat-downbeat punning in some types of Latin-American dance music.³⁶ Finally, theories of groove —Gestalts

31. I had to invent the terms DIATAXIS and SYNCRISIS to equitably denote two equally essential aspects of musical form. See Tagg (2013: 19-20) for a short explanation.
32. The extended present is also falsely qualified as ‘specious’. It’s a neurological reality and key concept in the epistemology of music but rarely included in music theory courses. For more on this important issue see Tagg (2013: 272-3). For more about groove, see Tagg (2013: 296-298).
33. Diataxis is dealt with in chapter 11 and syncrasis in chapter 12 of Tagg (2013).
34. Essentialising narrative process in euroclassical tonality is what the ‘deep structure’ models mentioned earlier are all about (see footnote 17).
35. For example, Vega (1944: 160), writing about criollo song, remarks ‘No hay melodias en mayor y melodias en menor: hay simplemente melodias bimodales’.

relating to energy, movement and space in the ongoing present— are out of the question if syncretism is not treated as an essential aspect of musical form.

A no-nonsense epistemology of music

The second main area for reform, and the last topic covered in this article, involves the *demystification of music*. Now, music's power to move body, mind and soul in wondrous ways will never wane, but that's only one half the story. The other half is about music's non-verbal powers persuading us to adopt a certain attitude, or assume a certain state of mind, or apply certain values in relation to certain words, actions, individuals, populations, ideas or scenes (in songs, adverts, films, games, etc.). Of course, there's nothing wrong with that in itself: it's simply something that music does particularly well. But that very fact, together with music's virtual omnipresence in contemporary media, plus the possibility that it may not always be in the listener's best interests to react as the music suggests, all point to the necessity of understanding how music communicates what to whom with what effect. Such understanding not only requires a rudimentary knowledge of music semiotics; it also involves abandoning the metaphysical magic of notions like 'absolute music', 'music as a universal language', 'music as expression of the artist's feelings' or of just 'the emotions', or just 'the body' and of little or nothing else. Students have the right to progress beyond such mystical platitudes. They also need to understand the cultural relativity of music, both as a concept (how different cultures refer to what we call 'music') and as sonic structure (how the same sound means different things to different audiences). It's also useful to understand the basic cognitive neuroscience of music, as well as music's role in both human evolution and individual development. Finally, there's a need to distinguish between musical instinct and intuition, as well as between emotion, affect and feeling, and to grasp the socially objective character of musical intersubjectivity.³⁷

This article's focus on the history and uses of notation was intended to

36. See footnote 28.

37. These and other 'basics' are examined in Tagg (2013: 35-194).

put some meat on the bone of just one small part of the conceptual basics just enumerated. No specialist skills are needed to grasp any of these rudiments which could, if formulated appropriately, become an integral part of media studies in public education. Preparing a non-sense epistemology of music for a wider readership would be an ideal task for cooperation between scholars from both sides of the epistemic divide. I'm willing to contribute to a project like that, as well as to the cross-cultural study of aesthetic descriptors mentioned earlier.³⁸ Until such projects materialise, I will continue to relentlessly combat the terminological chaos of conservative music theory preventing 'my' side of the old divide from joining the modern world.







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Legend: ☐ = verbal text; 📄 = online file; 🎧 = phonogram

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39. Norman's authorship has been legally upheld several times but it's possible that the *007 Theme* may be as much the work of John Barry and Don Black.

