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Message from

Associate Professor Khunying Wongchan Phinainitisatra

President of Princess Galyani Vadhana Institute of Music

The International Symposium "Music & Metamorphosis" was initiated in accordance with the three-part mission of the Princess Galyani Vadhana Institute of Music: to support young artists; to develop new knowledge through interdisciplinary research; and to promote a better understanding of music among the general public. These three goals reflect the vision of Her Royal Highness Princess Galyani Vadhana.

The 2018 Princess Galyani Vadhana Institute of Music's International Symposium was another exciting event. Over the course of three days, academics, artists and students engaged in discussions about topics that contribute to a re-shaping of classical music in this region and that enhance our understanding of music's ability to improve our lives.

The Institute is indebted to our 2018 keynote speakers, Professor Kenneth Hamilton, Professor Neal Peres da Costa, Professor Dieter Mack, Dr. Monika Hennemann, Dr. Enrico Bertelli and Professor Dr. Narongrit Dhamabutra. Likewise I would also like to thank all presenters of the 2018 Symposium whose work makes a meaningful contribution to our understanding of music.

While this book can only capture a glimpse of many ideas discussed during the symposium, we hope that the papers herein will be a source of information and inspiration for our ASEAN and international colleagues as they continue to work towards the development of a classical music culture that is uniquely ours.

Wongchan Phinainitisatra

Associate Professor Khunying Wongchan Phinainitisatra
President of Princess Galyani Vadhana Institute of Music

Committee of PGVIS Reviewers

Content

Music and Socio-cultural Developments of the ASEAN "MUSIC & METAMORPHOSIS"

Stumpf's Cylinders: On the Externalization of Musical Memory and the Future of Traditional Music

John T. Giordano

Assumption University, Thailand

Siamese Court Orchestra 1900[1]

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[1] Bildarchiv Presussischer Kulturbesitz, Berlin/Ethnologisches Museum

Abstract

In the year 1900, the German philosopher Carl Stumpf made one of the earliest phonograph recordings to document an example of traditional music. The ensemble he recorded was the Siamese Court Orchestra which was performing in Germany at that time. This led to the establishment of the Berlin Phonogramm-Archiv and the beginning of the extensive recording of world traditional music. While written scores have begun to break traditional music away from its dependence on initiation and apprenticeship, the recording of music has had an even more powerful impact on the role of memory in traditional music. No longer is one required to attend a performance; one can simply listen to a recording. Likewise, one can use recordings and videos to learn a piece without the presence of a teacher and can learn the music of another tradition. To consider the future of traditional music, the transformations created by the externalization of memory needs to be examined. This paper hopes to take a step in this direction. It will first consider the psychology of music developed by Stumpf himself. Especially the opposition between the phenomenological reception of music and it's tempering by the consciousness which allows for aesthetic experience. It will extend this by considering Alain Daniélou's reflections on the impact of writing and recording on musical creativity. The externalization of memory and the recording of traditional music leads to many benefits — we have historical records of beautiful musical performances and traditions, many of which have already been lost — but simultaneously this externalization of memory threatens the very essence of traditional and religious music. Finally, the paper will address these paradoxes by applying Jacques Derrida and Bernard Stiegler's idea of the *'pharmacon'*, and 'positive pharmacology' to understand how to navigate these contradictions which face this externalization of musical memory.

Memory

I must begin by speaking about a thread of continuity that passes through my life. I stand before you as an academic. And yet, I never completely adjusted to such an identity. It is merely something I accomplished, and at times, it seems like an accident. When I reflect back on my life, what gives it a real continuity is music. The music that I listened to as a child, the music that helped me through difficult times, the music that I played with friends and within the bands. Music is deeply interwoven with my memory. But music is itself the most primordial form of memory, as Emile Cioran wrote:

> All that is musical in us is memory. When we did not have a name, we must have heard everything. Music exists only as remembrance of paradise and the Fall.[2]

Music in this sense would be the memory of the history of humanity itself. It would be our connection back to the origins, or the core of all things, from whatever time or place we stand. Joscelyn Godwin, in her book *Harmonies of Heaven and Earth*, speaks of the mythical basis of this connection between memory and the role of art.

> Not without reason was Mnemosyne, Goddess of Memory, called the mother of the Nine Muses. The Memory of which Mnemosyne is patroness is not the everyday memory that recalls things from the past, but the power of recapturing our other modes of being: of remembering whence we came, who we really are, and where we are going.[3]

In the writings of such Perennial Philosophers as René Guénon, traditional knowledge is something that cannot be codified. It is based upon initiation and a

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[2] Emil Cioran, *Tears and Saints*, trans. Ilinca Zarifopol-Johnston (Chicago University of Chicago Press, 1995), 80

[3] Ibid, 72-73

Carl Stumpf (right) recording Tatar musicians in 1915[4]

controlled transmission. This can be seen clearly in the Thai tradition and the role of the *Wai Khru*. It is the maintenance of a living thread of continuity which passes back to the source of life, music, and dance. To be a traditional musician, one needs to cultivate a moral character, to be respectful of the source of your knowledge, to strive to be true to the piece of music. But if a student attempted to learn traditional Thai music merely from external media sources like recordings or videos, this would be considered improper, since the student was never properly initiated into this flow of cultural memory.

So this recording process, beginning with written transcriptions and extending to audio and video recordings of music in its various forms, would constitute an *externalization of memory*, that is, removing memory from the control of the individual. And we need to question what this process of externalization means for traditional music. To do this we can go back to the very beginnings of the recording of music. Here we find many resonances among psychology, philosophy, technology, culture and the Thai tradition itself.

Recordings

Carl Stumpf was a philosopher and psychologist working in Berlin in the late 19th and beginning of the 20th century. We must remember at this time the two disciplines were not really distinct. He was a student of the famous philosopher Franz Brentano as was the famous philosopher Edmund Husserl. All were members of the movement called Phenomenology.

This phenomenological approach departed from the earlier approaches to the study of sound by such researchers as Hermann von Helmholtz. Mark Yeary explains,

> Stumpf's concept of *Tonpsychologie* significantly shifts the focus of Helmholtz's theories. A student of the renowned Austrian philosopher Franz Brentano, Stumpf approached the study of acoustics on Brentano's model of emphasizing consciousness and the mental aspects of experience. Helmholtz dealt with the perception of tone, based in the physiology of hearing.

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4   Deutsches Rundfunkarchiv

Stumpf, by contrast, dealt with the apperception of tone, the mental acts of attending to and referring to the objects of tone.[5]

So music for Stumpf is not merely sensual, it is a combination of sensual phenomena and a culturally conditioned intellectual pattern recognition. Stumpf was here also influenced by such ancient Greek philosophers as Pythagoras, Plato, and Aristotle. While he was resistant to Aristotle's theory of forms, He was interested in the patterns and ratios implicit in sound, its "consonances." Stumpf pointed out in an essay entitled "The Pseudo-Aristotelian Problem of Music" from 1897:

> This mixture or fusion of simultaneous sounding is common to all consonance according to [almost all writers on music from antiquity], and characterizes its constitutive property in a psychological sense, while the frequency ratio does so in a physical sense.[6]

This implies a distinction between intellectual and sensual. Experience of consonance is intellectual while the raw material of musical sound is sensual and physical. Stumpf writes in a work *The Origins of Music* from 1911:

> Music is not the mere production of tones, however simple they may be. It is an absolutely essential feature of music in the human sense

that these arrangements can be recognized and reproduced independently of absolute pitch. A melody remains the same whether it is sung by a bass or soprano, whether in C or in E. As far as we know, we find this capacity to recognize and transpose melodies universally among primitive peoples.[7]

The idea of Fusion was developed in Strumpf's work of 1890 called *Psychology of Tone*. Trippet explains:

> … two tones are perceived as a single entity; their degree of consonance, by Stumpf's definition, depends on the integer ratios of their frequencies. In decending order, these intervals are: the octave (1:2), fifth (2:3), fourth (3:4), major third (4:5), and minor third (5:6), though it is only the first three, the so-called perfect consonances, with the simplest frequency ratios, that Stumpf looks for within his transcriptions of non-Western musics.[8]

This theory of intervals suggests how music can operate as a source of memory which connects us back to our origins. Trippet writes:

> At root, the theory links intervals to ideas of universality, where perfect consonances become, in effect, metaphors for fundamental truth about music and the human race.[9]

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[5] Yeary, Mark Jerome. "Einheitlichkeit: The Legacy of Carl Stumpf's Theory of Tonal Fusion" Music 251B March 19, 2003. http://citeseerx.ist.psu.edu/viewdocdownload;jsessionid=8E934B1D1FA3C8BF2CC7A 1410875CFF5doi=10.1.1.94.8602&rep=rep1&type=pdf. accessed 10 July 2019

[6] quoted in David Trippet, 24

[7] David Trippet. Carl Stumpf: A Reluctant Revolutionary. http://global.oup.com/booksites/content/9780199695737/ sample, 35

[8] Carl Stumpf, *The Origins of Music*, in David Trippet, 23

[9] David Trippet, 23

He was also interested in metre and the way listeners can hear different metrical groupings while listening to the same meter. The way we hear music is based upon the cultural way we recognize patterns. Within the psychology of vision, this is called "Gestalt." As Trippet observes, "his decisions about metre ultimately relate to pattern recognition as a prerequisite for the perception of a synoptic structure in indigenous musics."[10]

This interest in intervals and metre independent of the raw sound suggests something which distinguishes human from animals and gives them a history. It suggests that the intellect has many ways of processing the patterns of music. It allows for the cultural difference in composing and listening. And since Stumpf was influenced by the insights of Charles Darwin, it also allowed him to consider the history and evolution of music from its originary state.

For these reasons, he believed that Western notation cannot accurately transcribe the patterns as they are actually heard by people of a different culture. This is because the very act of listening and transcribing is subjectively conditioned. This is why he saw the potential in the early phonograph. The phonograph directly recording sound on wax cylinders was capable of objectively capturing the music for later analysis in a way that transcriptions and notation cannot.

Stumpf took the opportunity to make the first recordings of world music when a Siamese theatre troupe was visiting Berlin in September 1900. Mickey Hart (drummer for the American rock band The Greatful Dead) describes this in his book *Songcatchers*.

Stumpf – then head of the Psychological Institute he had founded at Berlin University – and his colleague Otto Abraham took a phonograph and recorded the Siamese musicians. Having analyzed written Siamese music, Stumpf suspected that the Siamese octave had seven steps of equal size, unlike the Western major and minor scales, with seven steps of unequal size. To a European like Stumpf the Siamese scale went against natural law and seemed therefore to have profound psychological implications. But Stumpf's recording foray would have results that ranged far beyond his own theories. The 24 wax cylinders Stumpf and Abraham made that day signaled the beginning of the most important collection of the world's music ever made: the Berlin Phonogramm-Archiv.[11]

These very first recordings of world music led Stumpf to further reflections on the recording process. Julia Kursell explains:

In 1901, Stumpf published a long article on these recordings a "Tonal system and music of the Siamese." As well as analyzing the recorded pieces, the article extensively discussed recording technology. Stumpf commented on the advantages of microphony and magetic recording - technologies still in their infancy at this time - and linked his reflections on technology to the key psychological questions he had been addressing so far. More specifically, Stumpf referred back to the two functions in music cognition that he had distinguished in his earlier work on tone psychology. Juxtaposing the two groups of musically trained and nonmusical subjects had served to demarcate the function of sensation from that of analysis. As phonographic

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[10]   Ibid, 21

[11]   Mickey Hart with K. M. Kostyal. *Songcatchers: In Search of the World's Music.* (Washington D.C.: National Geographic, 2003) 51-52

recording became available, a new situation emerged in the analysis of music. Stumpf no longer had to rely on his abilities to store the sensation for future analysis in his memory. Instead, the operations of perceiving and analyzing could be separated and reassigned to the technical operations of recording and notating music. The crucial new aspect of phonographic recording for Stumpf, therefore, was its ability to record and store music in an unanalyzed state.[12]

Since Stumpf was also interested in the evolution of musical consonance extending back to what he called the "originary conditions" of music, he was also concerned about the loss of these originary conditions with the "modernization of primitive peoples."[13] Musical consonance develops among different cultures and through history. David Trippet explains this in a way that anticipates our discussion of the *pharmacon*:

> The recording apparatus reified musical practices as never before, making performances scrutable by quite literally objectifying the moment in wax…. Ironically, the new technology only underscored the impermanence of life and art, becoming at once a means of storing time and a signifier of transience.[14]

We as scholars of music can easily recognize how momentous the establishment of such an archive was. It began to preserve, document and bring to life performances of music which would have been lost and forgotten. Artur Simon, the director of the Berlin Phonogramm-Archive explains:

Without the help of the phonograph, we are left standing in front of museum display cabinets in which instruments are stored in the dumb stillness of the grave, full of wonder and empty of understanding.[15]

The audio recording is therefore a record of something in danger of being lost. It is a preservation of the collective memory of the music of various cultures which gives us a glimpse into the very origins of humanity. Its importance cannot be underestimated.

Ironies

Yet immediately we see certain ironies. This very recording process which preserves, also poses a challenge to the traditional function of music. Traditional music, like traditional knowledge, relies on the continuity of the tradition. It relies not only on skill but also on an initiation into this continuity.

Alain Daniélou in his book *Sacred Music*, speaks of the displacement of the earlier oral traditions with the modern emphasis on writing and recording. He contends that the "psycho-physiological effect of the sound and their communicative value" is lost when stored by writing.[16] Writing replaces are traditional practices of memory, what he calls "mnemotechnic methods" through which traditional music is learned.

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[12] Julia Kursell. "Experimental Cylinders - Experiments in Musical Psychology around 1900." Journal of Sonic Studies 7/324248. https://www.researchcatalogue.net/view/32424, accessed 10 July 2019.

[13] David Trippet, 27

[14] Ibid, 27

[15] Artur Simon, Director, Berlin Phonogramm-Archiv, quoted in *Songcatchers*, 52

[16] Alain Daniélou, *Sacred Music: Its Origins, Powers, and Future* (Varnasi: Indica Books, 2002),127

In certain civilizations with an oral tradition, mnemotechnic means play a similar role to that of writing. Such is the case, for example, of the *bols*, the rhythmic formulas learned by heart in Indian music, or methods of chanted recitation of multiple formulas, which are employed to ensure the permanence of Vedic chant and are much more effective and accurate than writing. Children therefore do not learn musical works, but formulas, similar to the elements of vocabulary and grammar through which they become familiar with the subtleties of their mother tongue. Writing tends to eliminate these methods and music is then transmitted no longer as a system, as a musical language, but from the outside.[17]

While writing preserves a certain kind of memory, it also destroys the traditional forms of memory, the "mnemotechnic means" of the oral traditions. These observations concerning writing also apply to recording. The recording of music somehow conceals the process which calls it into being. Daniélou writes:

> For music belonging to the oral tradition, recording is unsuitable because it fixes a moment of musical creation, which musicians will do their best to imitate like a parrot down to the last detail, leading to a fixed form that is never renewed. Skillful imitators will thus be able to provide an illusion, but their so-called improvisation in actual fact becomes a "piece" that is always the same. For the creative musician however, recording provides a useful model that allows him to become familiar with the style, methods and skills of the great masters.[18]

So notice the ironies we face here. On the one hand our natural memory has imperfections due to the limits of the human mind and body contrasted to the external memory and the perfections of the technical recording process. On the other hand, this externalized memory is a danger to the natural memory of oral cultures.

To further understand these ironies, we can turn to the French philosopher Jacques Derrida. In his essay on Plato, Derrida discusses the role of writing. In Plato's dialogue, *Phaedrus*, Socrates calls writing a *Pharmakon*. The word suggests both a cure and a poison. Socrates relates the origin of writing. He tells the story of the Egyptian god of writing Thoth who offers the Egyptian king Thamus a "remedy" or *pharmakon* that can assist memory. Thamus refuses on the belief that it will create forgetfulness. So writing here can be considered both as a remedy, an external aid to memory, but also as a poison in the sense that it can erode one's power of memory. Writing is a *pharmakon*; both a remedy and poison.

> Socrates compares the written texts Phaedrus has brought along to a drug (*pharmakon*). This *pharmakon*, this "medicine", this *philter*, which acts as both remedy and poison, already introduces itself into the body of the discourse with all its ambivalence. This charm, this spellbinding virtue, this power of fascination, can be - alternately or simultaneously - beneficent or maleficent. The *pharmakon* would be a substance - with all that that word can connote in terms of matter with occult virtues, cryptic depths refusing to submit their ambivalence to analysis, already paving the way for alchemy - if we didn't have eventually to come to recognize

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[17] Ibid, 91

[18] Ibid, 92

it as antisubstance itself: that which resists any philosopheme, indefinitely exceeding its bounds as nonidentity, nonessence, nonsubstance; granting philosophy by that very fact the inexhaustible adversity of what funds it and the infinite absence of what founds it.[19]

Notice here there is an insight similar to Stumpf observation that the recording is valuable because it is neutral and not colored by cultural subjectivity. For Derrida, writing itself contains "occult virtues and cryptic depths," it always remains to be understood anew. Writing is both a substance and an antisubstance.

The contemporary French philosopher Bernard Stiegler, who was a student of Derrida, builds upon this in his philosophy which addresses the challenges of the information age. He points to the degeneration of attention and the loss of tertiary retention. Here we see echoes of Theodor Adorno's critique of the "culture industry."

> The development or becoming of the contemporary *pharmakon* has been placed at the service of the systematic, industrial exploitation of attention. The has occurred through the use of attention-capturing psycho-technologies, the advent of which has literally ruined the very possibility of any formation of attention whatsoever. This is a situation of unprecedented gravity, and it is global. And it may well be feared that it is the beginning of a process that we should not hesitate to refer to as decadent.[20]

Our technologies are extensions and supplements of our bodies. To rely on these external forms of memory is to weaken our own individual powers. To compound this misery, we are faced with a political and economic system which de-individuates people based on their individuation. We become individuals based upon a system outside of ourselves that creates who we are by manipulating our desires. It also erodes our connection with community and culture. What Stiegler calls the "pre-individual fund." In an article entitled "In Response to Bernard Stiegler: A Pharmacological Avant-Garde" the authors explain that,

> a hyper-consumerist economy erodes individuation as it dissipates what Stiegler calls the "pre-individual fund", the resource of accumulated experience of previous generations. Cultural consumerism, recuperation and speculation are symptoms, leading to a liquidation of desire and destruction of aesthetic experience.[21]

If we consider this from a Thai context, Stiegler would be acknowledging that the contemporary information age and consumer society disorients us by eroding our connection to tradition (what comes before the individual). So the pre-individual fund would be traditional culture itself.

> But this externalization of memory is not merely negative. Our externalized memories are very rich source of connection with our history and origins, because our bodily memory is limited. Stiegler writes:

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[19] Jacques Derrida. "Plato's Pharmacy" trans. Barbara Johnson in *Dissemination,* (Chicago: University of Chicago Press, 1981)

[20] Bernard Stiegler. *States of Shock: Stupidity and Knowledge in the 21st Century.* trans. Daniel Ross. Cambridge: Polity Press, 2015. p. 154

[21] Colm Desmond, Jeanette Doyle, Cathy O'Carroll, Elisabeth Matthews "In Response to Bernard Stiegler: A Pharmacological Avant-Garde." *InPrint* vol 3 issue 1 *The History of the Present,* 77. Stiegler speaks of this in his work *Technics and Time 2: Disorientation.*

But psychic memory is originally struck by retentional finitude (a phrase that comes from Derrida), because it is the memory of a body that is mortal and that is continuously dying (that is, getting old) from the first moments of life. And thus writing, if it is a threat to memory, is nevertheless also what makes it possible for psychic memory to fill in this default of origin, in relation to which writing is as such a supplement.[22]

So this externalization of memory is a *pharmacon*, both poison and remedy. Stiegler actually recognizes the positive aspect with regard to recorded music. In his essay "The Age of De-Proletarianisation," he writes:

> At the beginning of the 20th century, perception took a mechanical turn – making it possible, for example, to repeatedly listen to music without knowing how to make music. Bartók drew attention to this in relation to the radio, when he recommended only listening to music while following along visually with the musical score. Bartók might thus appear reactionary, but he was in reality ahead of his time – in a way anticipating what Glenn Gould said in 1965 about what became the high fidelity channel of the digital age, namely, that it will enable the listener to simultaneously read the score, and to control the parameters of the performance, that is, to become the performer again. Furthermore, Bartok maintained that Thomas Edison was the founder of musicology. Hence for example Bartok's work with gypsy tunes, which are so difficult to transcribe: he would first record this music onto the gramophone, and from this recording he made his transcription – by slowing down the turntable. Now, at exactly the same time, Charlie Parker taught himself music by listening to the performances of his teacher Lester Young on a phonograph, slowing down the turntable in order to learn to re-produce the sounds of Young's tenor saxophone, in this way transcribing them onto his own alto saxophone. The phonograph thereby became "his master's voice"[23]

To recognize this and to develop tactics to respond to these paradoxes would be the task of what he calls "positive pharmacology." Positive pharmacology would be a way of correcting the negative aspects of this externalization of memory and overcome the isolation and manipulation of the individual. Stiegler has his own idea of how "positive phenomenology" can redeem the contemporary individual. It relies on his understanding of the avant-garde.

> For Stiegler it is imperative that the term and concept 'avant-garde' be maintained because it is part of the circuit of trans-individuation. By trans-individuation Stiegler refers to a process of accessing collective or pre-individual 'funds' ranged across time to generate new non-market driven educational and cultural practices. Maintaining the term 'avant-garde' enables critical reflection upon our and preceding epochs.[24]

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[22] Stiegler, 160

[23] Bernard Stiegler, "The Age of De-Proletarianisation: Art and Teaching in Post-consumerist Culture," 15 Stiegler here seems to be unaware of the pioneering recordings of Stumpf and Abraham.

[24] Colm Desmond et. al., 81

Or as Stiegler describes it.

> In this way, then, that I understand the potential of creative territories: as the possibility of an area capable of inventing a new cultural, social, economic and political model, of offering prefigurations of alternative "lines of flight" to those of a consumerist society that has now reached exhaustion.[25]

This approach seems similar to the work of the French philosopher Guy Debord who emphasized the need for the individual to move beyond being a merely passive spectator in the face of the *Society of the Spectacle* and becoming an active and creative agent. Stiegler's own approach adds the importance of empowering a genuine aesthetic sense within the individual. He connects this with the word "amateur." The etymology of the word amateur is connected to love. It would suggest a creative process motivated by a passion and belief which breaks free of rigid social control and can lead to social change. Again from the essay "In Response to Bernard Stiegler," The authors explain that for Stiegler,

> The art amateur loves art and through this is individuated by the work. Any work of art, to be called a work of art, must engender belief in the viewer, "the work of art only works as art to the extent that one believes in it." This aesthetic judgement is a state of belief necessarily shared with a community or received independently as an idea which is always […] intrinsically doubtful and improbable, unprovable" and maintains the mystery vital to aesthetic experience. Such belief is motivating, giving rise to action and hence capable of instigating social change.[26]

He also calls this "mystagological perfomativity." It would be an initiation into the mystery and belief systems of the work of art in order to create social change.

But also notice that Stiegler is also somewhat limited since he approaches the idea of "belief" from a Western secular perspective. His example of a mystagogue is an avant-garde artist like Joseph Bueys, whose performance art was a modernist response to the Western loss of myth. So Stiegler is primarily looking forward, wishing to break from the past (the control of the culture industry and other repressive traditions) which is why he only understands redemptive belief through the avant-garde. But from a Thai perspective, there is still the persistence of older mythologies which stand shoulder to shoulder with more contemporary and secular belief systems. There is still a presence of traditional knowledge and traditional music. We might say that one form of the redemption that Stiegler seeks is already here, located within the disciplined cultural practices which are being eclipsed by the culture industry.

Stiegler's idea of the amateur and mystigogue also differs from the practitioner of traditional culture. The major difference involves initiation and discipline. The Western mystagogue artist is wholly dependent on the individual creativity which attracts a community. But the traditional artist is initiated into a community and a belief system which is much larger and mysterious than his individual beliefs. It would be that very thing that such Thai practices as the *Wai Khru* would be designed to maintain.

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25 Bernard Stiegler, "The Age of De-Proletarianisation: Art and Teaching in Post-consumerist Culture," 14

26 Colm Desmond et. al., 84

This also draws us back to a possible re-examination of Stumpf. We can ask if the intellect completely separate from sensation, or if the traditional initiation process and the instruction process is a way of uniting the two? If this unity is possible in traditional music it would suggest that we need to be initiated, or *trained to hear*, to unlock the deeper spiritual essence of the sounds themselves.

Based upon the above reflections concerning the *pharmacon*, the challenge for Thai society would be to balance elements of tradition with the global media and information age. This is quite tricky because it is a matter of balancing conflicting metaphysical traditions. The contemporary Thai musician and composer are caught between tradition and the contemporary information age. The soundscapes of Thai traditional music from their own consonances and dissonances with other traditions of Western classical music, experimental music, world music, and pop music, all of which have their own richness and legitimacy.

This is not an easy balance. And it is beyond the scope of this paper to suggest how such a balance can be achieved. Or whether it is proper to even call it a 'balance.' I am an outsider and it would be improper for me to go beyond the mere gesturing towards this problem. But in our relationships towards traditions, one tendency is to cling too closely, and the other to look too far outward and ignore the riches which lie buried under our feet. Creativity within a cultural tradition often is a conversation or even conflict across these gaps and paradoxes that can never be completely resolved.

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Intersection Beyond Time and Space:
Olivier Messiaen's *Quartet for the End of Time*

M. Hayne Kim

Princess Galyani Vadhana Institute of Music, Thailand

Abstract

In the music of Olivier Messiaen, one can find an intersection of several different influences that transcend time and space. In addition to his lineage as a French composer in the aftermath of the generation of Claude Debussy, Messiaen's wide scope of musical interests included Western sacred music, Greek meters and ancient Hindu rhythms. Combined with his love of birdsong and his own unique compositional techniques involving modes of limited transposition and non-retrogradable rhythms, Messiaen's synthesis of disparate elements —traditional and contemporary, Eastern and Western — is the ultimate example of musical metamorphosis.

This paper examines three movements from Messiaen's seminal work Quartet for the End of Time, making comparisons with works in the genres from which Messiaen drew inspiration:

1. Liturgy of Crystal, the first movement, makes use of Medieval European isorhythmic technique. The talea (repeating rhythm) and color (repeating melody) of the piano and cello part are analyzed, and the effect compared to that of a Medieval isorhythmic motet. Ensuing is a discussion of the theological correlation between the music of Medieval Europe and Messiaen's own expression of his religious beliefs.

2. Dance of Fury, for the Seven Trumpets, the sixth movement, borrows rhythmic organizational techniques from the traditional music of India. During his time at the Paris Conservatoire, Messiaen studied a 13th-century treatise on Indian music theory by Śārṅgadeva, and was inspired by the system of compiling small rhythmic units, or additive rhythms, to create irregular patterns. Messiaen preferred this approach to the Western tradition of divisive rhythm and regular meters; for him, freedom from the barline represented freedom from time —in other words, eternity.

3. Cluster of Rainbows, for the Angel who Announces the End of Time, the seventh movement, serves as a case study for examining some other aspects of Messiaen's theoretical language, such as his concept of form, chords with added notes (a technique borrowed from Debussy), and modes of limited transpositions.

In summary, this paper explores how Messiaen transformed various elements for his own means of expression, weaving ancient approaches into the fabric of avant-garde 20th century music.

Introduction

Olivier Messiaen (1908-1992, French) was one of the most influential composers of the 20th century. His diverse interests included ornithology, ancient Greek and Hindu rhythms, and the Catholic faith, all of which shaped his compositional approach. Messiaen composed his seminal chamber work *Quatuor pour la Fin du Temps* (Quartet for the End of Time) while captive in a German prison camp during the Second World War. The piece is remarkable for its genesis under the most unlikely circumstances. At the camp, Messiaen met three other musicians: clarinetist Henri Akoka, cellist Étienne Pasquier, and violinist Jean le Boulaire. Encouraged by his fellow prisoners to compose, Messiaen began to write a piece scored for clarinet, cello, and violin, later adding a piano part for himself to play. With the help of a kind-hearted German officer, Karl-Albert Brüll, who supplied manuscript paper and managed to find instruments for the musicians, a humble premiere of the work was given at the prison camp in January 1941 — a welcome diversion from the tedium of life at the camp, and a profound testament to the prevailing power of art during humanity's darkest moments.

Messiaen being a devout Catholic, he had a Bible among his few belongings at the camp. The *Quartet* is inspired by a passage from Revelation, the last book of the Bible, in which an angel of the apocalypse announces the end of time.[1] The "End of Time" in the title, however, refers not only to the apocalypse, but also time in relation to music.[2] Finding the regularity of beats, meters, and bar lines in Western Classical music to be restrictive, Messiaen favored an alternative rhythmic aesthetic, drawing inspiration from Greek poetic meters and the traditional music of India. This affinity for non-Western rhythms is particularly evident in the sixth movement of the *Quartet*, in which Messiaen uses these Greek- and Indian-inspired rhythmic patterns in combination with his own system of added values, augmentations, and diminutions; Messiaen intended the resulting irregular beats to create a sense of freedom from the inexhorability of time. Another special technique Messiaen uses to reinforce the idea of the End of Time is what he calls the "non-retrogradable rhythm" — a palindromic rhythmic pattern that reads the same both forwards and backwards, resulting in a beginning and ending that are identical. The "modes of limited transposition," which serve as a basis for much of Messiaen's tonal language, follow in the same vein: just as the non-retrogradable rhythms repeat the same pattern when read backwards, the modes repeat the same notes after a few transpositions. Messiaen was fascinated by these occurences and described their effect as possessing a "charm of impossibilities."[3] This phenomenon of an identical beginning and ending can be interpreted as a musical portrayal of endlessness, or eternity.

Eternity and immortality are concepts that are featured specifically in the fifth and eighth movements: solos for cello and violin, respectively, with piano. They are complementary paens to Jesus Christ; the first, to his everlasting divinity as the Word of God, and the second, to his conquering of death and ensuing immortality.

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[1] Book of Revelation, Chapter 10:1-2, 5-7

[2] Rebecca Rischin, *For the End of Time: The Story of the Messiaen Quartet* (Cornell University Press, 1993), 52

[3] Olivier Messiaen, *The Technique of my Musical Language,* trans. John Satterfield (Alfonse Leduc, 1944 and 1956), 21

Conventional notions of time are again challenged by the exceptionally slow tempi at which both movements are meant to be performed. The eighth movement concludes the work with ascending notes; Time and the sufferings of mortality (Death being humanity's ultimate measurement of Time) are no more, and as Messiaen writes in the Preface to the work, these final notes represent "the ascension of man toward his Lord... toward Paradise."[4]

Lofty ideas of eternity aside, Messiaen was also captivated by the fantastical, visceral imagery of the Book of Revelation, with its angels, demons, and mythological creatures. Messiaen spent his childhood giving toy theater performances of Shakespeare plays, using cellophane wrappers from candy boxes that he painted and decorated to create lighting effects similar to that of stained glass windows.[5] He was synaesthete and associated specific colors with certain chords. His love of colors is audible in his harmonic language: the second and seventh movements of the *Quartet*, both of which reference the rainbow that surrounds the Angel, make use of Messiaen's so-called "blue-orange" chords containing many added notes and dissonant appogiaturas, continuing the early-modern French heritage of coloristic non-functional harmonies championed by Claude Debussy, of whom Messiaen was a great admirer.

In addition to music, Messiaen had a passion for ornithology and loved spending time in nature listening to birds. Able to distinguish between many species, he went beyond mere generalized imitations and spent time meticulously transcribing birdsongs, transposing their rhythms and intervals into music playable by instruments by lowering octaves and slowing down the time but keeping the proportions intact.[6] Birds are present in the first and third movements of the *Quartet*. He begins the piece by portraying an early-morning dialogue between a blackbird and a nightingale, directing the listener's attention upwards towards the heavens. Birds return in the third movement for clarinet solo; representing freedom, joy, and light, they are an antithesis to the darkness, tedium, and captivity of Time.

Even without Time as its inspiration, however, the work itself is infused with a curious blend of old and new. Messiaen employed compositional techniques that were nonconventional and avant-garde at the time, but many of these techniques — such as his use of additive rhythms, isorhythms, and plainchant-like melodies — have roots in ancient musical traditions, specifically those of India, Greece, and medieval European church music; his harmonic language, also, reveals a strong influence from his direct predecessor and fellow Frenchman Debussy. Combined with his transcriptions of birdsong and colorful harmonies set in the modes of limited transposition, Messiaen crafted together all of these elements to create a unique compositional style. The following pages will examine the first, sixth, and seventh movements of the *Quartet*, addressing this intersection of various influences that Messiaen was able to weave into the fabric of 20th-century avant-garde music.

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[4]   Rischin, *For the End of Time*, 131

[5]   Ibid., 56

[6]   Ibid., 57-58

Figure 1: Machaut, *Quant en moy/Amour et biauté/Amare valde* mm. 1-12

Movement I: *Liturgie de cristal*

Messiaen's Quartet begins with a delicate movement entitled Liturgie de cristal (Crystal Liturgy) that makes use of birdsong to draw the imagination to the celestial realm. An early-morning conversation between a blackbird and a nightingale is played by the clarinet and violin, respectively, while the supporting piano and cello parts are supposed to create an effect that represents the "harmonious silence of heaven."[7] The organization of these latter parts is based on a technique common in Medieval European music known as isorhythm, in which a talea (repeating rhythm) and a color (repeating melody) are used to provide structure to the music.

Isorhythm can be often be found in the tenor parts of Medieval motets from the 14th-century Ars Nova period in the early history of Western Music. The tenor melody would often derive from Gregorian chant and move at a slower pace than the upper voices. Guillaume de Machaut's Quant en moy/Amour et biauté/Amare valde (Figure 1) is a typical example of an isorhythmic motet. The tenor part is organized with a talea of 5 measures (6 measures including the measure of rest). The melody of the tenor, textless but labeled Amare valde, is organized with a color of 30 pitches. Taken from a fragment of the Holy Saturday Responsory "Plange quasi virgo," Amare valde (Figure 2) refers to great bitterness and hardship on Judgment Day.

Figure 2: *Amara valde* fragment from *Plange quasi Virgo*

Meanwhile, the upper voices sing text from secular French love poetry; this interplay of the secular and the sacred with the music and text result in a metaphorical expression of the hardships of love. Susan Fast in her article *God, Desire, and Musical Narrative in the Isorhythmic Motet* makes a convincing argument that the tenor part of Machaut's motets can be thought of as a Divine presence, providing a solid, unchanging structural basis for the motet underneath the two wordly upper voices.[8] In this way, isorhythm serves not only as a compositional tool for organization, but adds layers of metaphor and symbolism — quintessential features of Medieval European art — to the work.

Similarly, the texture that Messiaen employs in *Liturgie de cristal* echoes the symbolism of this old music. The two upper voices, violin and clarinet, in imitating birdsong, represent creatures of the world. The cello and piano parts, meanwhile, move at a slower pace and repeat their own cycles of talea and color, hearkening back to the Divine presence of the tenor parts in the Medieval motets (see Figure 3). The cello part repeats 5 pitches: C, E, D, F-sharp and B-flat, three times over the course of 15 rhythmic durations. The piano part, designed into a much larger pattern, repeats 29 different chords and 17 durations; in fact the movement finishes before the chords and durations ever get to align again. The music, however, sounds very different to the Medieval motets, owing to elements of Messiaen's personal touch: his special study of birdsong, which he notated meticulously to capture the correct proportions of intervals and rhythmic durations; his use of harmonics on the cello to evoke an ethereal atmosphere; and the chords in the piano part displaying

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[7]   Rischin, *For the End of Time*, 130

[8]   Susan Fast (1997). *God, Desire, and Musical Narrative in the Isorhythmic Motet*. Canadian University Music Review, 18(1), 19–37. 21

Figure 3: *Liturgie de cristal* mm. 1-9

his unique sense of harmony and color, built from the modes of limited transposition, which will be discussed in the analysis of the seventh movement in chapter 3. Replacing Gregorian chant are birds, timbre, and the modes of limited transposition, all of which had spiritual significance for Messiaen.

An additional layer of meaning can be found in the organization within the talea that he used for the cello part (Figure 4). A and B denote two sets of "non-retrogradable rhythms," Messiaen's term for palindromic rhythms that read the same forwards and backwards, the outer durations sharing a common middle duration. The common middle duration in A is the dotted quarter, surrounded by a half note on each side, while the common middle duration in B is the set of four eighth notes, surrounded by a dotted quarter, two eighths, and a half note going outwards. This feature is worthy of mention because Messiaen was fascinated by the "charm of impossibilities"[9] of the non-retrogradable rhythm — the fact that it is impossible to retrograde the rhythm without having it reoccur. This reoccurence, giving the sense of a static, circular pattern rather than a linear development, can be thought of as defiance of time and a representation of eternity.

Movement VI: *Danse de la fureur, pour les sept trompettes*

Rhythm was a topic that was very important to Messiaen, a self-described "rhythmician."[10] According to Jean le Boulaire, the violinist of the original prison camp quartet, Messiaen was unhappy and annoyed to be a "prisoner of rhythm".[11] The sixth movement of the *Quartet* best exemplifies Messiaen's radical concept of rhythm, using asymmetrical rhythmic patterns and non-divisible beats foreign to conventional Western music. Symbolically, freedom from the bar line and an absence of a regular meter are supposed to "contribute to the effect of banishing the temporal,"[12] as Messiaen states in his Preface.

Messiaen's inspiration for an alternative rhythmic language draws from a variety of sources, one of them being ancient Greek poetry. Several Greek feet (poetic rhythmic patterns) can be found in the first measures of the *Danse*. Greek feet rely on combinations of short and long durations, which Messiaen realized as eighth notes and sixteenth notes, respectively (see Figures 5a and 5b).

Figure 4: *Liturgie de cristal* cello talea

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[9] Messiaen, *Technique*, 13, 21

[10] Rischin, *For the End of Time*, 52

[11] Ibid., 39

[12] Ibid., 129

Figure 5: Greek poetic feet used by Messiaen

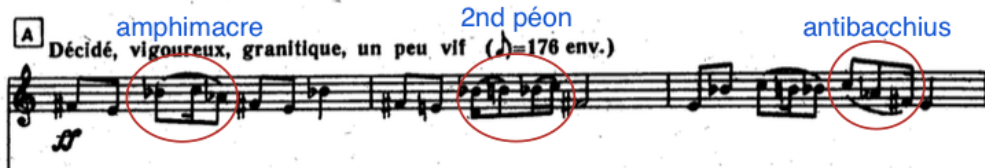| FOOT: TRISYLLABIC	DURATION
Amphimacer	long-short-long (5 sixteenths)
Antibacchius	long-long-short (5 sixtheenths)
FOOT: TETRAYSYLLABIC	
2nd Pæon	short-long-short-short (5 sixtheenths)
2nd Epitrite	long-short-long-long (7 sixteenths)

Figure 5a: Table of Greek poetic feet

Figure 5b: examples of Greek poetic feet in *Danse*, mm. 1-6

Figure 6: Added values (indicated by crosses), mm. 1-11

Much like his contemporaries Béla Bartók and Igor Stravinsky, Messiaen made use of additive rhythms, as opposed to standard Western divisive rhythms. The fundamental concept of additive rhythm is to use the smallest unit of rhythm to make different combinations of lengths, creating idiosyncratic patterns that will not fall into regular beats. Bartók and Stravinsky's use of additive rhythms drew upon Hungarian and Russian folk music traditions; Messiaen, having studied a 13th-century treatise on rhythm by the Indian musicologist Śārṅgadeva during his years at the Paris Conservatoire, took inspiration from South Indian classical music, or Carnatic music. The placement of "added" notes — in the form of an extra note or dot on a note— in the opening section of the *Danse* result in uneven groupings of notes and demonstrate the unpredictable effect of additive rhythm (Figure 6).

Making a recurring feature in this movement are Messiaen's beloved non-retrogradable rhythms, which it will now be mentioned are idiomatic to Carnatic music as well.[13] In a striking contrast to the energetic and visceral forte dynamics of the opening section, measure 28, marked "lointain" (distant), suddenly drops to pianissimo. The brief respite of calm, however, is still superbly rich with Messiaen's complex compositional technique. Not only does every measure between 28-41 contain a non-retrogradable rhythm, the section as a whole also happens to be isorhythmically organized. A talea of seven measures — seven sets of non-retrogradable rhythms — occurs twice; superimposed upon this is a color of 16 pitches (see Figures 7a and 7b; numbers in 7a indicate the number of sixteenth notes).

Figure 7a: Non-retrogradable rhythms and 7-measure talea, mm. 28-35

Figure 7b: 16-pitch color, repeated throughout mm. 28-41

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[13] Composer and music scholar Bruce Adolphe's lecture on Messiaen's *Quartet* features an explanation of two palindromic rhythmic patterns in South Indian classical dance music that take the shape of traditional percussion instruments, the *mridangam* (pattern 4 5 7 7 5 4) and the *damaru* (pattern 7 5 4 4 5 7). See "Inside Chamber Music with Bruce Adolphe: Messiaen Quartet for the End of Time" online video, YouTube, https://www.youtube.com/watch?v=NaNH6wuQmlM

Another technique Messiaen borrowed from Carnatic music is augmentation and diminution of rhythmic values. Measures 50-69 feature an antiphonal texture between two groups: clarinet-piano versus free combinations of the quartet. The clarinet-piano sections, all in unison, occur three times, each time featuring the augmentation or diminution of one basic rhythmic pattern: long-short-long — the same pattern as the Greek foot anti-macer; it also happens to be non-retrogradable. The first occurrence is in measure 53 with a half note, quarter note, and half note; in the next measure, a quarter of the value of each note is added to the note with a tie (Figure 8).

The second occurence is in measures 57-60 (Figure 9). The original motive has been diminished by a quarter of the value, then the new iteration has been augmented by a third of the value to its original duration, diminished by three-fourths of the value, then augmented by adding four times the value.

The third and final occurence is in measures 64-69 (Figure 10). The original motive is diminished by a quarter of the value, the new iteration is then diminished by a third of the value, augmented by a whole value, diminished by three-quarters of the value, augmented by adding twice the value, then finally augmented by adding a third of the value back to the original duration. The last two measures also feature changes in register, resulting in a highly dramatic effect.

Beginning with two, then four, then six measures, these three sections feature the concept of augmentation not only between each measure but between each successive section.

Briefly re-visiting an earlier part of the piece, it is noteworthy that the concept of augmentation was also present in the rhythmic organization of the piano part in the first movement. As can be seen in Figure 11, the seventeen durations that make up the talea

Figure 8: Augmentation by a quarter of the value, mm. 53-54 (clarinet part)

Figure 9: Augmentation and diminution, mm. 57-60 (clarinet part)

Figure 10: Augmentation and diminution, mm. 64-69 (clarinet part)

Figure 11: Carnatic rhythms in piano talea, *Liturgie de Cristal*

of the piano part are in fact three specific Carnatic rhythms that feature inexact augmentation, each with its own name.[14]

To express the cosmic and otherworldly images and sounds from Revelation that so inspired him, Messiaen used rhythmic techniques that were historically and geographically distant from his own time and culture; this joining of foreign and disparate elements results in a thrilling exploration of the possibilities for variation in rhythm.

Movement VII: *Fouillis d'arc-en-ciel, pour l'Ange qui announce la fin du Temps*

Although Messiaen placed much importance on rhythm, in his treatise he wrote that he considered melody to be supreme.[15] Depicting the rainbow surrounding the angel of the apocalypse, the seventh movement features two alternating themes, one melodic and the other rhythmic. This movement alludes to material from the second movement, both in the chant-like melodic first theme with pulsating chordal accompaniment as well as the syncopated rhythmic second theme.

A marriage of Eastern and Western aesthetics is apparent in the movement's form. Messiaen applies the concepts of development and variation, classic idioms from sonata-allegro form and theme and variations in Western music, to the two themes; but instead of following the usual trajectory of these forms, he repeats the themes in alternation throughout the movement (Figure 1). The developments and variations reinforce the Western notion of linear progression, while the repetition adheres to an Eastern notion of cyclical reoccurrence.

The melody of the first theme, played first by the cello, showcases the second of Messiaen's so-called "modes of limited transposition," the melodic counterpart to his non-retrogradable rhythms. In his treatise, Messiaen writes that both the former and the latter possess "the charm of impossibilities,"[16] meaning that the non-retrogradable rhythms are impossible to retrograde, and the modes of limited transposition are impossible to transpose into all twelve keys. Rhythms reoccur even when retrograded, modes return to the same notes after just a few transpositions; these phenomena reinforce the concept of the infinite and eternal.

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[14] Ragâvardhana: three eighths and three quarters (with an added value to the second eighth note); Messiaen often used it in retrograde so that it became a diminution. Candrakalâ: three eighths augmented into three dotted eighths, with an added value. Lackskimiça: one eighth and one dotted eighth followed by a quarter and a half note.

[15] Messiaen, *Technique,* 13

[16] Ibid., 13, 21

Rehearsal Letter	
A (mm. 1)	First theme (cello)
B (mm. 13)	Second theme
D (mm. 27)	First variation of first theme (violin)
E (mm. 39)	Development of second theme
G (mm. 55)	Second variation of first theme (clarinet)
H (mm. 61)	Commentary of second theme (complete, but in fragments)
K (mm. 82)	Final variation of first theme
L (mm. 94)	Short recall of second theme

Figure 1: Form of Movement VII

The second mode is also known as the octatonic scale, comprised of alternating whole tones and semitones. The whole tone-semitone pattern has only three distinct transpositions (starting on C, C-sharp, and D); any further attempts at transposition result in enharmonic reoccurrences of the same notes.

In the second iteration of the first theme, the clarinet outlines this scale (in its first transposition) underneath the melody in the violin part, before becoming a countermelody. All parts — melody, countermelody, chordal accompaniment — take their notes from second mode (Figures 2a and 2b; note clarinet part is transposed in B-flat).

Figure 2a: Mode 2 (octatonic scale), first transposition

Figure 2b: Movement VII mm. 27

Messiaen's rhythmic practice of added values also has a tonal counterpart: the chord with added notes. This practice is revealing of the influence of his compatriot, Claude Debussy, who used unresolving appogiaturas to create non-functional, coloristic harmonies. The defiance of the linear, direction-oriented harmonic progressions of German Romanticism is a trademark of French modernism. Messiaen goes a step further with the added notes, however, adding appogiaturas to the appogiaturas, so to speak. In his treatise,[17] he demonstrates how his "chord on the dominant" with added notes (dominant ninth chord with the tonic in place of the leading tone and an added tenth and thirteenth — in other words, a chord containing all notes of the major scale) should resolve into a normal dominant ninth chord (Figure 3).

But in Messiaen's preferred method, the chord with the added notes itself is the resolution, preceded by spectacularly dissonant notes that function as an appogiatura and challenging listeners with a new standard for consonance and dissonance (Figure 4).
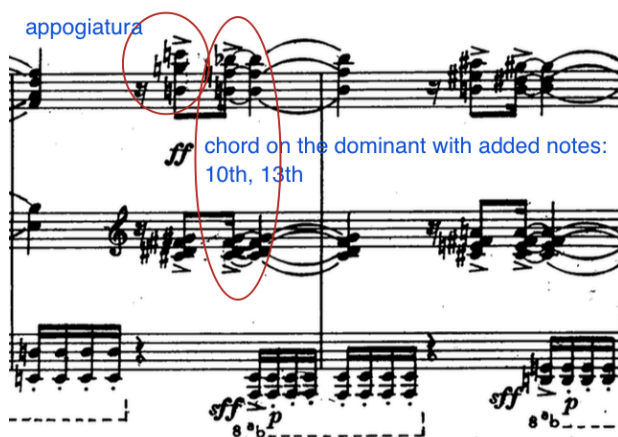
Figure 4: Movement VII, mm. 44-45 (piano part)

Figure 3: Resolution of the Chord on the Dominant

In his treatise, Messiaen goes on to explain that because dissonances are so bountiful in his musical language, it is necessary to "enlarge" them in order to keep their familiar old function intact.[18] Pedals, passing notes, and embellishments are no longer limited to single notes, but rather groups of notes, each containing an autonomous rhythm, harmony, and melody but being subject to analysis as a single unit.

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[17] Messiaen, *Technique*, 50

[18] Messiaen, *Technique*, 55

Figure 5: Movement VII, mm. 49-42

One example of this in the seventh movement can be found in measures 40-41, in which the piano plays a "pedal group" of eight chords over 5 beats while the other three instruments play ascending lines (Figure 5).

This hyper-enlargement of dissonance, as demonstrated by the above examples of the appogiatura and the pedal group, perhaps summarizes the essential dichotomy of Messiaen's style: expanding the musical language while keeping certain old traditions intact. It is fitting that someone who was inspired by the depiction of the Apocalypse in an ancient text would search for an artistic style that encompasses both the traditional and the visionary. The transformation of familiar idioms to create new sounds is an integral part of what makes Messiaen's music so relevant and fresh.

Conclusion: Epilogue

Messiaen was liberated from the prison camp shortly after the premiere of the *Quartet*, and he went on to resume his profession as a composer. He also began to teach at the Paris Conservatoire, and his pupils would eventually include the likes of Pierre Boulez, Karlheinz Stockhausen, Iannis Xenakis, György Kurtag, William Bolcom — prominent figures in the music of the latter part of the 20th century — as well as countless others. Yet for someone who was such a visionary, and so influential for contemporary Western music, it is important to remember that Messiaen was deeply rooted in ancient musical traditions. It is this factor that lends true meaning to the title of the piece, breaking the barriers of history and geography to create music for the "End of Time."

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Are our students really learning other culture?: Being a little musicologist through the backward design on world music

Na-Young Choi

Korea National University of Arts, South Korea

Abstract

The purpose of this study is to examine how learning of world music and multicultural education are implemented in the context of the national music curriculum in South Korea, then to uncover what they expect for students to accomplish in school by looking at the curriculum documents and learning goals in the textbook. Also, in order to improve the current curricular way of teaching other culture through the music of the world, this study will show the process within each stage of developing curriculum based on the backward design so-called Understanding by Design. Recent study of learning and curriculum development have more focused on experts' way of knowing and applied the strategy to teaching and learning. In the same way, this study accepts a performance task of being a musicologist as an experts' way of knowing, which follows musicologists' way of exploring music from other culture. According to the backward design by Wiggins & McTighe and the performance task above, this paper suggested a curricular case how teacher can make students pursue knowledge of other culture, after examining the national expectation on learning of other culture including music.

Keywords: curriculum development, backward design, world music, deep understanding, Korean national curriculum

Introduction

If students know or understand other culture in the school condition, what should it be? How do we teach them, and how do we guide teachers? When students can be aware of a few songs, cuisines, and traditional festivals or assets from other countries, curriculum or learning objectives often consider this as understanding. Although this is one way of knowing other cultures, it is not our ultimate expectation and final goals for understanding other culture. We as an educator, teacher, or scholar expect our students to understand other culture more deeply rather than to have superficial knowledge.

In learning other cultures and their music, we should consider not only musical sound as a product itself but also *around* the music. Think about popular music. We tend to closely read, observe, listen to it even minor and

peripheral actions or changes, and think it repeatedly in many ways, when we are in some music. Then, we can expand our understanding of music. Citing Merriam's saying music culture ultimately relies on the people themselves that is their ideas, their actions, and the sound they produce, Titon suggests four components of a music culture: ideas about music, activities involving music, repertories of music, and the material culture of music. The detail of his four parts as follows (Titon 2009, 1-34).

1. Ideas about music
    a. Music and the belief system
    b. Aesthetics of music
    c. Contexts for music
    d. History of music
2. Activities involving music
3. Repertories of music
    a. Style
    b. Genres
    c. Texts
    d. Composition
        e. Transmission
        f. Movement
4. Material culture of music

Additionally, whenever introducing four ways of approaching to other music culture, he poses critical questions to guide the exploration in each part. For instance, when delving into the history of music under the ideas about music, he asks the following questions.

- Why is music so different among the world's peoples?
- What happens to music over time and space?
- Does it stay the same or change, and why?
- What did the music of the past sound like?
- Should music be preserved?
- What will the music of the future be?

Titon and Merriam lead us not just to seeing music as a sound product but also to focus on and understanding *around* music. Both of them have interests in people who have made, preserved, or transformed, and people who enjoyed their own way. They also focus what makes them do so such as belief, world view, history, and physical environment of the culture. They emphasize what people are doing related to music and its meaning. Of course, they have looked at musical traits such as style, genre, transmission, and so on.

That is to say, learning and getting to know the music of a certain culture is to not merely read and sing a song. Beyond them, we should see the thoughts, history, and way of living of the culture embedded in music. Additionally, we should note the necessity of proper questions in order to delve into these things around music. However, this is not a matter of musicologists' or scholars' job. Although this is surely an expert's approach, this way of knowing is for all of us including students because it leads us to deep understanding of the music and the culture.

Recent learning theory examines how experts differ from novices and suggest how teaching and learning should be considering the result. New and updated results of the interdisciplinary study with the science of learning, brain science, psychology, and anthropology by authors show critical six principles of experts' way of knowing (Bransford et al. 1999, 31-50). Among them, experts tend to think in terms of 'core concepts' or 'big ideas.' On the other hand, novices are likely to approach problems by searching for completely correct formulas which fit the situation, rather than to organize necessary knowledge around big ideas and figure out problems. Thus, curricula that enable students to model how experts organize and explore information will be helpful, instead of emphasizing the breadth of knowledge which may not provide learning opportunity of the organization or enough time to understand anything deeply.

Then, we should ask ourselves: How do we teach music of other culture in school? What are the instructional objectives of the class, and what do we do during our classes? Are not we just letting students read foreign languages and sing a song using them, and leave them in the peripheral area of music and culture rather than bringing to deep understanding? Many of us might reflect our music textbooks or lesson plans and think a possible and desirable way of teaching. In this presentation, as a literature review, I will examine how the Korean national curriculum and textbooks guide to teach music of other culture, world music. Then, as a possible curricular way of teaching and learning music of other culture, I will show the process within each stage of the backward design by Wiggins & McTighe.

Understanding other music and culture in depth

Although it seems simple and clear to approach new and unfamiliar music or culture in the empirical and theoretical perspectives, it is not easy to apply to the school music setting because of the pedagogical tendency. That is, we as an educator are very vulnerable to teach music of other culture superficially as always. However, Banks warns not to skim the surface when we teach other culture. He requires deep and thorough understanding from the learning of other culture, and emphasizes to make students move toward social change, ultimately.

Banks classified the curricular approach about cultural contents into four categories (Banks 2008, 54-68). First, the 'contribution approach' is to insert cultural asset and heroes from other culture into the curriculum. The instruction includes holidays, food, dance, and music form each cultural area, which focuses on the external elements of culture, not the invisible elements such as perspectives and faith system. Second, the 'additive approach' is to add concepts, topics, and perspectives to the existing curriculum without changing the structure. Instead of restructuring the curriculum and

refining multicultural education goals, it takes the way of adding a specific resource such as the *Color Purple* as an auxiliary material. It is significant that this approach goes one step further by dealing with Other's perspectives. However, it still sticks to the conventional way of designing curriculum and viewpoints from the mainstream culture in that it just uses the innovative material as an additive. It causes distorted viewpoints when multicultural understanding is not based on the interaction of a variety of perspectives but the unilateral ones.

Third, the 'transformative approach' is to change the curricular structure in order to see concepts, topics, and issues in the aspect of various ethnicity, race, culture, and religion. When learning a historical event such as the American Revolution, students have various viewpoints from the imperialists, revolutionists, African Americans, and the indigenous people. In the learning of music, dance, and visual art of minorities, students learn how those arts have contributed to constructing the culture and history of the country. Fourth, in the 'social action approach', students decide what main social issues are and behave to solve the problem. Not just finishing by learning through texts, they explore what to need and to do for the democratic civil society by acting specifically.

Deep curricular implementation such as restructuring with decentralized various perspectives leads to fundamental change, whereas adding class activities and materials without change is superficial (Coburn 2003, 3-12). Based on this, the curricular implementation of other culture is classified into superficial and deep ones (Cho & Choi 2016). The superficial implementation is traditional perspectives such as assimilation, and contribution and additive approaches. It more emphasizes minority's adaptation to the main society and on learning of tangible cultural assets superficially such as learning cuisines and festivals. On the other hand, the deep implementation is toward criticism on the majority or multifaceted viewpoints, that is transformative and social action approaches by Banks.

In the field of education, specifically the curriculum development, Wiggins & McTighe also emphasize deep and enduring understanding not superficial one in their curricular design theory, the backward design namely Understanding by Design (Wiggins & McTighe 2005). In their curriculum design, it is significant to select big ideas and core tasks more than trivial knowledge among numerous curriculum contents (fig. 1).
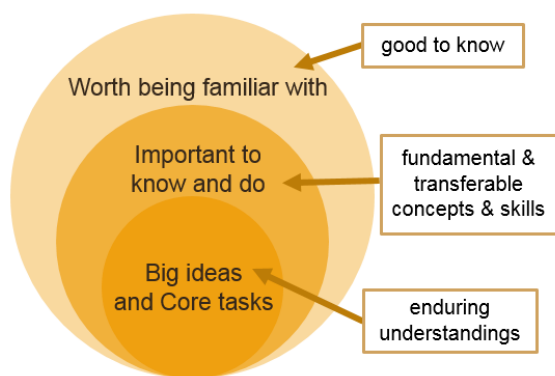

Figure 1. Priority of curriculum contents

They require to find the hierarchical order in the structure of knowledge as Bruner did, in which principles and generalizations are deeper than the factual knowledge and discrete skills. Thus, curriculum development should primarily focus on the deepest, or learning is superficial because of the coverage of trivial knowledge and skills (Erickson 2002, 4-8; Wiggins & McTighe 2005, 70-73). The problem is that this kind of coverage claimed by Wiggins & McTighe and the superficial curriculum implementation of other culture posed by Banks and Cho & Choi are reflected in school music in Korea.

**Context: Music of other culture
in the Korean national curriculum**

In South Korea, music subject is taught from grades 3 to 12 under the national curriculum. Publishers develop a music textbook before the minister of education or superintendents of local offices of

education accredits the textbook based on the criteria of textbook development and evaluation guided by the government. It means there are generally 3~6 types of textbook in the primary grade and around 15 types of textbook in the secondary grade among which each school selects a proper textbook. J. Park analyzed the music of other culture in these six music textbooks of grades 3-4 and examined whether and how these textbooks help students recognize and deeply understand cultural diversity (Park 2015, 1-53). According to his finding, grade 3 and 4 students in South Korea learn generally four songs of other culture in each year. Among these songs, the regional portion is as follows: Europe 41.00%, Asia songs 29.17%, America 13.17%, Africa 9.08%, and Oceania 2.08%. Also, his result showed learning objectives and activities are primarily focused on singing. Similarly, H. Ham analyzed ways of organizing a unit of music from other worlds by closely reading music textbook of grades 3-6 in South Korea (Ham 2015, 255-276). She categorized the objectives and activities of a unit into three types: music-centered activity, traditional culture-centered activity, and others. Based on her findings, music-centered activity including singing occupies a significant portion in each unit. However, compared to the dominant using of singing activity, a few textbooks cover traditional culture-centered activity such as searching cultural traits, identifying lifestyle or comparing the cultural difference.

H. Park examined 17 middle school music textbooks in South Korea according to Banks' four approaches to the multicultural education mentioned in the previous chapter (Park 2013, 75-99). She reported that on the average 61% of music from other worlds in middle school music textbooks can be categorized 61% as the contribution approach and 34% as the additive approach. The transformative approach and the social action approach in the middle school music textbooks take 1% and 5%, respectively.

Similar to H. Park, N. Choi et al. compared elementary social studies and moral education curricula of Washington State in the U.S. and South Korea, focusing on Bennett's goals of a multicultural curriculum: (1) developing multiple historical perspectives, (2) strengthening cultural consciousness, (3) combating racism, sexism, and all forms of prejudice and discrimination, (4) increasing awareness of the state of the planet and global dynamics, (5) building social action skills (Choi et al. 2014, 193-220). According to their findings, the total percent of grade-level expectations of the Washington State Curriculum related to the goals of a multicultural curriculum was higher than that of achievement standards of Korean curricula: Washington State 39.0% vs. South Korea 15.8%. Also, they reported that the national social studies curriculum of South Korea relatively less focused on multiple perspectives and less carefully dealt other culture's historical contribution, value, or belief system compared to the way of Washington State which regards various cultures such as ethnicity, class, gender, and nationality as precious assets not just object. Lastly, whereas Washington State tried to deeply understand Others by covering intangible cultural assets, Korean curriculum tended to superficially focus on tangible culture such as food, clothing, housing, festival, and holiday. This national curricular tendency, which is similar to the Banks' contribution and additive approaches, causes superficial understanding or misunderstanding other culture and regards the national curriculum on other culture as a mere 'tourist curriculum' not as a true medium for extending our understanding Others.

Diagnoses on the Korean national curricula of social studies and moral are the same as the music curriculum, which does not seem optimistic. This is why we should reconsider Titon and Merriam's emphasis on seeing cultural components, Banks' four curricular approaches about cultural contents and the balance among them, and learning and curricular theories toward deep and authentic understanding by Bransford et al. and Wiggins

& McTighe, when teaching music of other culture. It can lead us how to guide students to true and deep understanding of other culture, not the superficial one.

Process of the backward design

The backward design was alternatively suggested by Wiggins and McTighe under the skepticism of the No Child Left Behind which tended to decline higher-order thinking. Although they originally named it Understanding by Design (UbD), backward design as a nickname has also been commonly used. This is because the assessment of big ideas and core tasks lead the curriculum design, compared to the traditional approach. The UbD brings us to three sequential stages in order to design a curriculum. In this presentation, I will use both terms, the backward design and the UbD. Also, I will trace how I organized knowledge and skills and reached each stage rather than merely show three stages of the backward design itself as a curricular result.

In the first stage of the UbD, developers should select established goals among existing standards, considering what enduring understandings are desired. Also, they should decide essential questions which are worth pursuing to guide students' enduring understanding. Additionally, they should consider specific knowledge and skills targeted in this unit.

In the second stage, developers should consider six facets of understanding in order to obtain ideas of performance tasks: explanation, interpret, apply, perspective, empathy, and self-knowledge. Then, they plan a performance task for students to reach desired results decided in the previous stage. This means that performance tasks or projects should include big ideas, enduring understandings, and important knowledge and skills not just trivial knowledge. Accordingly, assessment methods should be complex, open-ended, and authentic. On the contrary, other evidences include familiar knowledge, and its assessment methods are
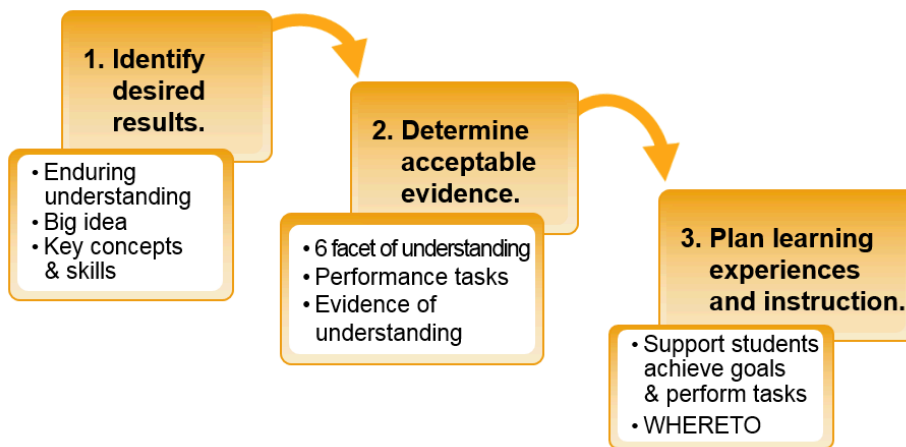
Figure 2. Stages of backward design

traditional paper-and-pencil quizzes or selected-response. As curriculum developers plan a scenario of the performance task, they should consider GRASPS: goal, role, audience, situation, product, and standards or criteria for success. Additionally, they should create rubrics to assess students' understanding through performance tasks and other evidences.

In the third stage, developers should plan for learning activities to mainly support students' performance tasks. Learning activities should reflect the six facets of understanding equally as in the previous stage. When planning the third stage, developers should consider WHERETO elements. They should reflect how to hook students' interest (H), where to go (W), how to equip students for expected performance (E), and how to organize learning (O). Also, they should consider how to tailor learning to students' varied needs (T), how students self-evaluate and reflect their learning (E), and how students rethink and revise the learning (R).

Using the backward design: Getting to know other culture through world music by becoming a little musicologist

Stage 1

For the first stage, I expected students to understand how music and its culture have been shaped, changed, transformed during the past century by relating to migration from the learning of world music. This is more focused on the exploration *around* music not just playing musical pieces, as Titon addresses four components of culture. Thus I set *migration* and *change* as big ideas under a unit goal; exploration and understanding of natural and human factors influencing culture.[1] Then, in order to select the most critical curricular contents, enduring understandings, as shown the fig.1 by unpacking the goal, Wiggins & McTighe suggest using the structure of knowledge by Bruner. Even though we use *know* and *understand* interchangeably, as educators and scholars we should distinguish two terms and actually did in our research. According to Wiggins & McTighe, *know* and *understand* can be differentiated as in the fig. 3 (Wiggins & McTighe 2005, 38).

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[1]   The proper unit goal should be selected from standards of the curriculum.

Knowledge	Understanding
• The Facts • A body of coherent facts • Verifiable claims • Right or Wrong • I know something to be true • I respond on cue with what I know	• The meaning of the facts • The "theory" that provides coherence and meaning to those facts • Fallible, in-process theories • A matter of degree or sophistication • I understand why it is, what makes it knowledge • I judge when to and when not to use what I know

Figure 3. Knowledge vs. Understanding

This classification reminds us about the experts' way of knowing mentioned above in that both focus on core concepts and exploration of "why," "how," or "when to use or apply" not just receiving factual knowledge and correct formula. Surely, "knowing" of Newton's Law and "understanding" why it happens and how to apply it are not same. In the same way, there are clear distinctions between knowing the music of other culture by singing it and understanding how and why it was shaped, transmitted and changed.

Also, the dissimilarity of both terms above is related to the structure of knowledge suggested by Bruner, half-century ago. Wiggins & McTighe suggest using the structure of knowledge, in order to select the most critical curricular contents, enduring understandings as shown in the fig. 1.. I applied the learning music of other culture related to migration and change to the structure of knowledge as in the fig. 4.

Factual Knowledge
• musical elements
• name of instruments
• natural/human environment of countries

Discrete Skills
• reading score
• finding musical traits from aural/visual sources
• reading map

Transferable Concepts
• migration
• cultural change

Complex Process
• organizing/combining musical & geographical data

Enduring Understandings
• Cultural collision and exchange modify music.
• Music shapes and reinforces individual and collective identities.
• Music reflects environment, custom, aesthetic thoughts from individuals & society, beliefs, and value system

Figure 4. Structure of Knowledge – World Music

We should teach students not to stay the factual knowledge or discrete skills but to reach transferable concepts or processes and enduring understandings. This is the very first key step to the stage 1 of the UbD. Also, I prepared essential questions to guide students to enduring understandings, as Titon suggested questions for studying world music. As seen, following essential exploring questions encourage to explore "why" or "how" not just to check the right or wrong.

- Why does region have a unique musical style?
- How does local culture shape?
- What do geographical and historical factors influence local and national music?
- How do multiple aspects of culture such as socio-economy, belief system, and religion influence music?
- How do heterogeneous cultural thoughts and values, and musical styles mingle and create a new style?
- How can music represent a specific community and culture?

Stage 2

The main task of the second stage is to create a performance task which is a process of collecting assessment evidence of students' understanding. In learning something, educators should instruct students can equip experts' way of knowing. Considering this, I planned a performance task, 'To be a little musicologist' in which students explore and research music and culture of other countries by themselves as if musicologists examine certain music and its culture.

Then, what is the 'understanding music of other culture' like and to be, specifically? Before making the performance task, the backward design suggests to consider six facets of understanding in order to obtain ideas of performance tasks: explanation, interpret, apply, perspective, empathy, and self-knowledge. Thus, I imagined vignettes of students' understanding of other culture and music, what kind of evidence or performance I could collect according to these facets. As seen, the scene of understanding music from other culture is beyond singing or playing.

• **Explanation**	Explain the musical features of regions by using musical terms. Explain the cause and effect of cultural formation and change by using examples.
• **Interpret**	Interpret geographical and historical data about migration (e.g. migration routes, cause and effect of migration, related historical events, cultural change).
• **Apply**	Introduce cultural features and music representing specific region or nation.
• **Perspective**	Criticize music in the aspect of the indigenous and the settler, and the conqueror and the conquered, and contemporary perspectives.
• **Empathy**	Empathize change of the community music caused by the cultural collision and exchange by becoming forced migrants and the conquered.
• **Self-Knowledge**	Identify and reflect cultural stereotypes I have assumed.

After considering the evidence of understanding including six facets above and other evidences such as discussion, quizzes, and analysis, I planned a performance task. Of course, the performance task should include big ideas, enduring understanding, and important knowledge and skills in the previous stage. The characteristic of the assessment should be complex, open-ended, and authentic. The performance task of the second stage was a kind of project which made students give a talk concert to introduce the music of other culture for a virtual young people's research conference. Students should use a poster which must include natural/human environments, historical and social context, geographical and statistical information as well as a simple performance or playing clips. And other students as an audience should assess presenters' accuracy, interdisciplinary comprehension, level appropriateness, conciseness, and presentation skills according to the provided rubric.

Stage 3

In the third stage, I designed a lesson plan to realize enduring understandings and the assessment task with an elementary teacher. For the first session of the instruction, a teacher gives a lecture mainly about Latin American music and traditional and modernized Indian music. Dealing with Piazzolla's *Libertango*, Labi Shankar's music, *Kathak* dance, musical instruments of the music, and so on, I focused on how diachronic and relatively synchronic migration shape, mobilize, preserve, transform, and change those music and musical culture. Also, students analyze traits of music and dance, and based on their analysis and contents from my lecture, they discuss on given essential questions: how music has been mobilized, what elements are changed after migration, whether transformed traditional music can be called traditional one.

For the second session of the lesson, I let each group discuss what kind of information and which keywords are needed, and let them plan ahead how to collect, analyze, construct, and display them before they do so and give a lecture concert about a certain musical culture. Of course, those groups should decide each member's role in advance. Considering the grade,[2] I provided a pool of world music and its keyword hints as a sort of scaffolding. In short, the whole process of the second sessions is as follows:

   a. Plan to collect data
   b. Collect proper data using various media and methods
   c. Treat and construct the data and specify way of displaying and presenting
   d. Create and install the lecture concert board
   e. Give, appreciate, and evaluate the lecture concert

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[2] This curriculum was designed for the gifted of grade 5-6.

Discussion

This paper aimed to examine how learning of world music and its education are implemented in the context of the national music curriculum in South Korea, and to uncover what they expect for students to accomplish in school. This paper also ultimately showed the process of developing curriculum based on the backward design. Specifically, it dealt with what we should consider every stage of the backward design: the structure of knowledge, essential questions, enduring understandings as its byproduct, and six facets of understanding.

In fact, many researchers and educators have reported how the curriculum design according to the Understanding by Design (UbD) is difficult. Teachers, especially generalists like elementary teachers cannot help but struggle for the design because the UbD requires the advanced and thorough professional knowledge of the topic. In this paper, however, I would like to pose another issue which can occur when we design music curriculum using this backward design; Can this curricular design be a music instruction? Does not it include singing or playing world music?

Of courses, my curriculum design is more of an integrated curriculum rather than the classic music instruction. It contains more sophisticated generalization statements as enduring understandings and experts' way of knowing, the research method of social science, and music appreciation rather than singing or playing. However, results of the Korean curriculum contents analysis also reminded us the level of understanding, knowing, when excessively focusing on singing or playing. This educational tendency is at a higher risk for staying superficial understanding and novice's way of learning.

Now music education is free from the custom of singing and playing instrument-centered school music, which is skill-centered music education. In order to make a difference in school music, we should change a goal and its question; what do we expect our students to understand ultimately through singing and playing activities? We can applaud when they sing a foreign song with its local language after 40-50 minute-class. However, we cannot guarantee that our students would understand other culture in depth.

As this paper introduces, we can let them follow musicologists and equip their way of knowing as a curricular design. By developing curriculum and reconstructing the national curriculum with this tool, students can embody one way of understanding other culture and its music based on the research method of humanities and social sciences with big ideas. Through this curricular method, students acquire more generalized and transferable knowledg

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Exploration and Development of an Innovative Practice for Wind Band Rehearsal in Thailand's Higher Education

Natsarun Tissadikun[1]
Pongpitthaya Sapaso[2]

Faculty of Fine and Applied Arts, Khon Kaen University, Thailand

Nipat Kanchanahuta[3]

Faculty of Humanities, Kasetsart University, Thailand

Abstract

The objective of this study was to explore innovation, creation, and development in the practice of wind band rehearsal. These innovative practices were analyzed and arranged according to the Performance Assessment Rubric, which was separated into 4 sections in order to be used as a music performance assessment. The researcher studied innovations for the practice of wind band rehearsal in Thailand's higher education, which were used as samples for the qualitative research project, "Creating the Principles and Practice of Wind Band Rehearsal in Thailand's Higher Education." After gaining the necessary data, the researcher created and developed the innovations for the practice of wind band rehearsal in Thailand's higher education. The study showed evidence of innovative practices in the samples that were used for the study. The researcher then successfully analyzed and arranged those innovative practices to create and develop the practices for wind band rehearsal, which were organized into 4 sections: "In Tone" practices (4 lessons), "In Time" practices (4 lessons), "In Tune" practices (2 lessons), "In Touch" practices (2 lessons) and songs for performance assessment with the Performance Assessment Rubric.

Keywords : innovative practice creation and development, wind band in higher education, quality creation for music performance, performance assessment rubric

Introduction

This article presents the exploration and the development of an innovative music practice for sound quality development in performances. This qualitative research is a part of a mixed-methods research project, aimed at developing performance skills of 5 internationally-notable wind bands in Thailand higher education, who had participated in international performances and won various awards. The practice was further developed into an innovative practice with the Performance Assessment Rubric analysis method. It was separated into minor parts, In Tone, In Time, In Tune and In Touch. The example practices shown are 4 lessons of In Time, 2 lessons of In Tune and 2 lessons of In Touch.

From the mentioned minor lessons, especially the 2 In Touch lessons, which are the summary practices from the previous 3 parts, are song practices. One of the two

Exercise 1 In Tone: It is the basic practice for air control.

To create desired tone quality, it is essential to think of breathing, embouchure, tone quality, tone character, sound concept, and posture. Bars 1-6 of the In Touch song practice is the first part of the song relating to the idea of In Tone.

The importance of Tone and Intonation is highly highlighted in the practice, including how to arrange ones' body and lips for playing wind instruments. Hill, Gary W. in Miller, Donald[4] also share the trace, emphasizing on the tone and intonation. However, the conductor cannot control the fundamental skills of how to arrange ones' body and lips for playing wind instruments for every member of the band. The only thing he/she can do is to help guide the overall tone and intonation and guide the band members to accurately control their bodies in general.

Figure 1. Bars 1-6 (Introduction): "In Touch 1"

Figure 2. Bars 7-13: "In Touch 1"

Bars 7-13: In Tone for Long tone and Ear training Practice with Harmony. As seen above, Bar 5-13 is a practice aiming at ear training and sound-producing to detect intonation, leading to the idea of the sound model. Consequently, it is aimed at practicing mouthpiece for brass-wind instruments, and long tone for examining embouchure according to the sound model. The conductor has developed these exercises from clarinet practices, with the addition of some procedures to best suit the ensemble rehearsal.

This is the practice focusing on listening to the sound model in chord harmony, which is the sound mixture of various musical instruments. The sound then moves on to the addition of notes in the chord starting from the fifth interval and harmony to the third interval. After that, the chord is changed in the circle of fifth. Here, the performer is required to analyze the keys that occurred according to the circle of fifth.

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4   Gary W. Hill, *Rehearsing The Band* (Meredith Music Publications, 2015), 25

Bars 14–21: In Tone for Chromatic Practice aims at practicing air control, using long-phrase practices. It is an innovation beneficial for air control, replacing the old technique like practicing playing a long tone. This new practice also helps with other performing skills such as a chromatic scale, fingering, air control and dynamic.

Figure 3. Bars 14-21: from "In Touch 1"

Bars 22-28: In Time is a practice for mastering the expertise while playing, which includes scales, different tempos, and articulation, to play according to the marked signals. Scale practice aims at changing the sounds and notes based on various scales on the circle of fifth, playing the scale and analyzing Western music theory. The practice also covers the topics of articulation, phrasing, and groups of notes with different tempos as shown below.

Figure 4. Bars 22-28: from "In Touch 1"

As a result, for the "In Touch" song, the practices for "In Time" are also found in 4 minor practices, which are the scale practices derived from the chromatic practices with an addition of articulation on practicing the techniques, and the scale practices focusing on the phrasing and groups of notes with different rhythmic patterns.

In Tune Practice is consisted of various practices such as Harmony Practice which aim at practicing phrasing with different melodies and articulation, including the harmony of internal notes on the chord.

Bars 36-41: from "In Touch Song"

Bars 40-41: In Tune for Harmony Practice aims at listening to the harmony from various chords, applying Western music theory for chord analysis based on scales on the circle of fifth and practicing changing pitch. It also helps with listening to various types of notes to seamlessly connect the music theories both practically and theoretically, further analyzing to possess the perfect intonation, balance and blend while changing the sounds in the performance.

From Bars 40-41, it is the practice for playing the dominant seventh chord. The performer is required to analyze the chord structure while playing and change the chords according to the scale on the circle of fifth.

Thus, for the "In Touch" song, the practices for "In Tune" are also found in 2 minor practices, which are the creation of Dominant Seventh chord and Triad chord in some parts of the song. This is to practice listening and noticing different chords.

As for the last part, "In Touch," various parts contributing to phrasing are constantly found. Phrasing in the song can be divided into 2 parts: the beginning with slower rhythm and the later with a faster rhythm. The difference between the two would provide different feelings of the song, perfectly matching with the theory of Patricia D. Hughes, Golden Arris A., and Pasquale, John D.[5] They mentioned that there are many elements regarding pulse to consider, which are subdivided pulse, metered inhalation, metered exhalation, playing the notes with precision and accuracy, duration of notes, changing notes and starting the note with accuracy, etc.

Conclusion

To summarize, it is the fourth part of the song that helps practice "In Touch" in general, including the feelings and messages generated from the song. When ones manage to play the song, they will notice their development in playing according to 4 elements, In Tone, In Time, In Tune and In Touch, with the use of Performance Assessment Rubric as the realistic assessment. According to the theory of Sakchai Hirunrux[6], the use of 3-5 rubric levels would definitely show the performance development of the player in 4 factors. However, these 4 factors can be used to assess wind band performances in many ways. It is, therefore, necessary to have clear objectives of the performances. A decent music player needs to play harmoniously with other decent players in the band, and as for the conductor, he/she needs to control the band to achieve the harmony in performing together, which can be described in 4 factors based on the theory of Corporon, Eugene in Neigid, Kenneth L.[7] as follows.

1. **The quality of the sound (In Tone):**
   When selecting the performer, it is highly recommended that the criteria in selecting should be regarded as the most important factor. It is essential to select based on the quality of the performance, which will lead to the perfect performance later on.

2. **Techniques (In Time):**
   This means the fluent use of fingers in changing the sound levels and controlling for the perfect sound.

3. **Sound Accuracy (In Tune):**
   This means the use of sound levels for an accurate tone. Playing while performing would help adapt the tune (Play in Tune) for the perfect harmony.

4. **Feelings and Messages of the piece (In Touch):**
   This refers to the feelings, messages and the imagination of the performers generating from the piece of music, which truly comes from the bottom of their hearts while performing.

These 4 elements are therefore regarded as the guideline in developing wind band performance. The innovation leading to the creation of the song "In Touch" is based on qualitative research, which is adapted to be a practice song used in rehearsal. Furthermore, with the use of the Performance Assessment Rubric as the assessment method, the development of the band is distinctively apparent.

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A New Approach to Arrange Three Royal's Compositions: Alexandra, Smiles and Still on My Mind

Nattapon Fuangaugsorn

College of Music, Bansomdejchaopraya Rajabhat University, Thailand

Abstract

Each of the three Royal's Compositions, Alexandra, Smile and Still on My Mind, written by His Majesty late King Bhumibol Adulyadej, has its unique charm and ability to create a range of emotions. His Majesty's soulful tunes have always left audience members and listeners deeply impressed by such an exceptional display of musical talent. The purpose of these arrangements is to pay tribute to H.M. late King Bhumibol Adulyadej and to create something new and different to illustrate the three royal's compositions as an archetypal character, and to draw attention to the huge impact that his work hard on Jazz. The concept of the arrangement is to augment a jazz quartet, quintet and sextet with a string section featuring a vocalist. The scores integrate three seemingly disparate elements: three jazz ensembles, which are the jazz quartet (sax, piano, double bass and drums), the jazz quintet (sax, trumpet, piano, double bass and drums), the jazz sextet (sax, trumpet, guitar, piano, double bass and drums), a string quartet (2 violins, viola and cello) and a vocalist. Four steps are taken, which are: the study of the original

work and other versions, both by Thai and foreigner arrangers, the study of other songs sharing similar genre and musical characteristics, the combination of Jazz and Classical music, and the designation of vocal style and medium and the actual arranging process. As a result, the new arrangements of three Royal's Compositions are a part of KITA MAHARACHAN's album by the College of Music, Bansomdejchaopraya Rajabhat University (BSRU), a creative homage to the royal's compositions of H.M. late King Bhumibol Adulyadej. In this new arrangement, Thai, European, and American musical art form materials are applied such as the traditional melody of "No Moon", the use of the pizzicato technique for string quartet, the rhythm of jazz style "Second Line", blues scale, along with Western compositional techniques and harmony of the contemporary jazz music, jazz knowledge and advanced techniques in all musical instruments with a balanced but slightly assertive style that is a prime example of fluency and inventiveness.

Introduction

The three Royal's Compositions—Alexandra, Smiles and Still on My Mind—were written by His Majesty Late King Bhumibol Adulyadej (King Rama IX). As a result, the new arrangements of these songs are a part of KITA MAHARACHAN's album by the College of Music, Bansomdejchaopraya Rajabhat University (BSRU), a creative homage to the royal's compositions of H.M. Late King Rama IX. Unlike many tribute albums, KITA MAHARACHAN's album does not try to emulate the sound of the original musical styles, back in the days where the music came from, such as the Dixieland music of New Orleans. Instead, I attempted to do something new and different to illustrate the representative character of H.M. Late King Bhumibol Adulyadej, and to draw attention to the huge impact that his works have on the Jazz scene.

According to the article "His Majesty King Bhumibol Adulyadej and His Passion for Music" from The Thai Embassy web site on December 22, 2016, each of the King's compositions has its unique charm and ability to create a range of emotions. His Majesty's soulful tunes have always left audience members and listeners deeply impressed by such an exceptional display of musical talent. Additionally, Melalin Mahavongtrakul wrote the following in Bangkok Post' article on November 24, 2016:

> His Majesty's favorite instrument was an alto saxophone although, as a true virtuoso, he was also able to play clarinet, trumpet, piano, guitar and drum. The King was really into old-school jazz, like the New Orleans jazz or swing. He liked melodies that didn't move too fast." New Orleans jazz, according to Pathorn, is set apart from other kinds of jazz with its collective improvisation. "It's like solo improvisation, but with a lot of people at the same time," he said. "You need good listening skills, and you need to interact with one another as everything happens

in real time. You can't really plan it. That was one of His Majesty's skills, and one that he passed on to me. He taught that, as in a band, everyone must perform their duty well in society. We're all gears and wheels in a machine and, regardless of size, we matter equally -- whether you're a king, taxi driver, barber, soldier or businessman. Everyone has a duty, as if everyone performs their duty well, the country will move forward. That is what the King taught via music, via New Orleans jazz."

The main concept of the arrangement is to augment a jazz sextet of saxophone, trumpet, guitar, piano, bass, and drum set with a string quartet.

Four steps are taken including the study of the original works and other versions, the study of other songs sharing similar genre and musical characteristics, the combination of jazz and Classical music and the designation of musical instruments and medium and the actual arranging process.

In an article from All About Jazz (July 1, 2013, p.1), Nenad Georgievski wrote that with this new approach, Thai, Western, and an American musical art form materials are applied, such as the traditional melody of "No Moon", the pizzicato technique for string quartet, the rhythm of jazz style "Second Line", blues scale, along with Western compositional techniques and harmony of the contemporary jazz music, jazz knowledge and technique in all musical instruments with a balanced but slightly assertive style that is a prime example of fluency and inventiveness.

To do this, rather than create yet another rehashing of King's tunes in an original setting, I created a musical play that, with the limitations of a single album context, follows the concept of contemporary jazz music. Musically, in this project, I have worked with a group

of musicians who have been some of the most prescient and forward-looking musicians on the Bangkok jazz scene today. This project goes against the standard of the "tribute" genre to present the musical work that is a musical play about His Majesty Late King Rama IX, the transcendence of his work and his talent.

The three Royal's Compositions still appear in the original melodies and chord progressions.

Wikipedia's "The History of Royal's Compositions" states that "Alexandra" (No. 34) was composed in 1959. M.R. Seni Pramoj composed English lyrics and Thai lyrics was written later to the sweet tune by Thanpuying Maniratana Bunnag under the title of "Phaendin Khong Rao", in other words; "Our Motherland" were marked by patriotic fervor and pride for the motherland in 1973.

> This welcome song was written and performed in honor of H.R.H. Princess Alexandra of Kent on the occasion of her 1959 visit to Thailand. M.L. Usni Pramoj remarked, "On the day of the banquet, His Majesty arrived at Sala Phaka Phirom shortly before Princess Alexandra's scheduled arrival and handed my father (M.R. Seni Pramoj) a score sheet. It was a gentle melody of short duration. My father duly scribbled down some English lyrics for the music. And, as quickly and smoothly as the whole affair seemed to move along, after dinner His Majesty played the tune on the piano, with Mr. Manrat Srikaranonda singing." The Thai lyrics written later to the sweet tune by Thanpuying Maniratana Bunnag under the title of "Phaendin Khong Rao" ("Our Motherland") were marked by patriotic fervor and pride for the motherland. The composition

was made at the request of Her Majesty the Queen who felt that more music for patriotism wouldn't hurt anyone; she saw it fitting to have this sweet tune do a few extra notes for the country. To Her Majesty, a gentle patriotic tune would do a better job of persuasion than a hard-boiled march. Thanpuying Maniratana said, "While His Majesty, at Her Majesty's request, was playing 'Alexandra' on the piano, adding the middle and end movements and filling up the entire 32 bars, I listened and made up the lyrics right then and there."[1]

The medley opens with "Alexandra" in the original triple meter. The idea of an introduction is based on the introduction of "Vartha's song" written by American trumpet player Ambrose Akinmusire from his album "The Imagined Savior is Far Easier to Paint" on Blue Note records back in 2014.

According to the Wikipedia article on the musician, Ambrose Akinmusire was born and raised in Oakland, California. He was a member of the Berkeley High School Jazz Ensemble, where he caught the attention of saxophonist Steve Coleman who was visiting the school to give a workshop. Coleman hired him as a member of his Five Elements band for a European tour. Akinmusire was also a member of the Monterey Jazz Festival's Next Generation Jazz Orchestra. Akinmusire studied at the Manhattan School of Music before returning to the West Coast to take a master's degree at the University of Southern California and attend the Thelonious Monk Institute of Jazz in Los Angeles. In 2007, Akinmusire was the winner of both the Thelonious Monk International Jazz Competition and the Carmine Caruso International Jazz Trumpet Solo Competition.

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[1] "Alexandra, Royal's Compositions," Wordexpress.com, accessed November 8, 2013.

The Alexandra arrangement begins with a mellow vamp for tenor saxophone and trumpet, where the rising crescendo builds up to demolish the groove. These two horns are shining representatives of patriotism coming out of the lyrics. The spotlight is also on the string section and the essential player in the sextet who pushes the envelope throughout the song. There are two parts of solos and the transition.

First, the trading 8 bars, 4 bars, 2 bars and collective of tenor saxophone and trumpet offers the conversations of calls and responses soloing on one chord based on the interpretation of economic, political and social issues in Thailand.

Next, a piano's solo in 4/4 on four-chords progression represents the solution to the issues, before moving to the next song.

My musical inspiration for the next two songs came from one of my favorite jazz albums called "Estrella De Mar" by Mario Castro, a saxophonist and composer from Puerto Rico. His style combines influences as varied as Claude Debussy, Dexter Gordon, Latin rhythms and more to achieve an abstract combination. With this project, Mario Castro became the forefront of artists willing to take chances to push the music forward. Smallville.com provides more information on Castro:

> Mario Castro is an up and coming saxophonist and composer. Born in Los Angeles, California in 1988 and raised in Humacao, Puerto Rico. Castro currently resides in New York City. Still in the early years of his career, Castro has led his group, The Mario Castro Quintet, to many legendary stages including The Newport Jazz Festival, The Montreal jazz Festival, The Toronto Jazz Festival and The Martha's Vineyard jazz Festival, among others. He also held a residency at Wally's Jazz Club in Boston, the historical landmark frequented by many great musicians. Castro began his musical studies at the age of 12 in the famed Escuela Libre de Música in Humacao, PR. In 2003 Mario was awarded a full scholarship to attend the five-week summer program at

Berklee College of Music. Following his time at Berklee's summer program, Castro went to study at Berklee earning his undergraduate degree in Jazz Performance.

"The History of Royal's Compositions" from Wikipedia states that His Majesty the Late King Rama IX composed "Smiles" (No. 16) in 1952. His Royal Highness Prince Chakkapan Pensiri composed the Thai lyrics, and English lyrics was completed the year later. Melalin Mahavongtrakul from Bangkok Post added that:

> "Music, at the time, was the King's stratagem in ruling. He used it to instill the love of our nation into people's hearts. He also gave encouragement and motivation through his music, like Yim Su (Smiles), a song he composed for the blind."

The song begins with a wonderful melodic function as an original introduction played by the sextet and the string section, though there are rooms for the trumpeter and guitarist to offer splashes of spatial soloing. This section also highlights the energetic drums set, especially the syncopating passages.

H.M. the Late King Rama IX composed "Still on My Mind" (No. 37) in 1965. This was the first song for which His Majesty wrote his own English lyrics. His Majesty granted permission for Prof. Dr. Prasert Na Nakorn to write Thai lyrics for the song.

The medley ends with the appropriate "Still on My Mind," an easy-going farewell that is performed in just the simple way. The song begins with the strings quartet continuing to set the mood on the opening segment to the balladic introduction. Then tenor saxophone and trumpet come in with the simple melodies and soon the band is back to business with one of the most memorable songs on this medley.

The tenor saxophone and trumpet blend into a wonderfully singular voice, as joyous cross-rhythms collectively lead to an extended and suitably fiery trumpet solo, with the string section and soaring vocals transporting through a meditation on the majestic lyricism of "Still on My Mind" before the saxophone and trumpet fermata at the end of the medley dedicated to our father "H.M. King Rama IX. The range of feeling and intensity encompassed by his music is remarkable.

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