

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

John T. Giordano
Assumption University of Thailand



Siamese Court Orchestra 1900¹

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 its tempering

¹ Bildarchiv Preussischer Kulturbesitz, Berlin/Ethnologisches Museum

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 '*pharmakon*', 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 when a child, the music that helped me through difficult times, the music that I played with friends and within 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 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

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

³ Ibid, 72-73

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 (right) recording Tatar musicians in 1915⁴

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.

⁴ Deutsches Rundfunkarchiv

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. 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 Stumpf'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 descending order, these intervals are: the octave (1:2), fifth (2:3), fourth (3:4), major third (4:5), and minor third (5:6),

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=8E934B1D1FA3C8BF2CC7A1410875CFF5doi=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

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

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 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 Grateful 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

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

⁹ David Trippet, 23

¹⁰ Ibid, 21

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 microphone and magnetic 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. Just as the two groups of musically trained and non-musical subjects had served to demarcate the function of sensation from that of analysis. As phonographic 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 *pharmakon*:

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:

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

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

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 traditional practices of memory, what he calls "mnemotechnic methods" through which traditional music is learned.

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 *bolis*, 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:

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

¹⁷ *Ibid*, 91

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 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.

The *Pharmacon*

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 it as antistuff 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

¹⁸ Ibid, 92

¹⁹ Jacques Derrida. “Plato’s Pharmacy” trans. Barbara Johnson in *Dissemination*, (Chicago: University of Chicago Press, 1981)

Notice here there is an insight similar to Stumpf's 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 ant substance.

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. This 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-individuals 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.

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 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:

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 *pharmakon*, 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 a "positive pharmacology." A 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

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 a 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 "mystagogical performativity." 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

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

²⁶ Colm Desmond et. al., 84

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 mystagogue 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.

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 *pharmakon*, 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 is caught between tradition and the contemporary information age. The soundscapes of Thai traditional music form 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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