Constructs from Living Cultures: Creating and (Re)sourcing Composition on the Cloud

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Abstract

Composing entails sourcing and *re*sourcing the endless stream of creative ideas that provide us with a base. The modern day techno-icon for this process is the so-called "Cloud"—a place where we can now conveniently archive and retrieve sounds and ideas without limit. In Asia, while much of the discipline of composition is rooted in western music theory, local structures, specifically those arising out of local rural and urban living cultures, form a foundation for composers' conceptual and structural creations. Although composers benefit from hi-tech innovations like the Cloud, constructing from living cultures continues to involve the direct experience of belonging to and being rooted in living culture, as work arising out of living culture imbues us with a sense of creative fulfillment in having achieved something original and distinct. Connecting to one's living culture should thus be encouraged as a component of today's composition pedagogy. Revisiting this process of local sourcing and compositional application is key to motivating emerging composers to keenly observe their environments and think of ways to encode living culture into structural and aesthetic musical relationships. When composers strengthen their relationships to local culture in both thought and action, a cyclical flow occurs in which the act of collecting and composing in turn expands the composer's creative consciousness and results in expanded original contributions to living culture.

Keywords: archiving music composition; Cloud technology for music; local music theory; urban culture and music; Philippines composers; musical instrument inventions

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Introduction

In music composition, we acquire ideas to create our work, and so we need "sources." By adding the prefix "re" to the word "source," we come up with the term "resource"—an endless stream of creative ideas from which we cull concepts to aid in the creative process. The prefix "re" means to go back over a source, keeping it alive, enriched, and available, so that we and others can keep getting ideas from it.

With technological advances, the manner in which we store and access sources is changing. Today, the "Cloud" is fast becoming the place where we cache and retrieve ideas, audio and video files, and other digital materials. Apple's data storage platform iCloud resides alongside other vendors' storage sites like Google Drive and Microsoft Cloud. For composers, this type of tool is a resource of ever-increasing value. Once constrained by the data-storage capability of our computers, composers can now store virtually limitless quantities of data on the Cloud, allowing extensive recording, accessing, and sharing of music and other sounds and images of living cultures.

In Asia, as much as the discipline of composition is rooted in western music theories, local structures, specifically those arising out of rural and urban living cultures, form a foundation for composers' conceptual creations. But, beyond the idea of storage and retrieval that we experience using the iCloud or another remote storage site, constructing from living culture involves direct experience—belonging to and being rooted in living culture—which feeds into one's self a sense of creative fulfillment and distinctness. The nurturance of this kind of connection, and instruction in effective use of new data storage technologies to archive and share artifacts of living culture, represents a relevant component in today's pedagogy of composition.

1. The Techno-Icon

The Cloud, as a techno-icon, is an apt metaphor for (re)sourcing. It both gathers from the environment and feeds back into it. On it, we can set up archives to keep drafts, concepts, a journal of musical motives, and artifacts and observations of musical cultures. We can teach our students to develop a habit of using this tool and to incorporate the opportunities it presents into the serious discipline of composition. Composers have historically practiced archiving; this has been part of our lives, particularly among organized composers. However, precedent to archiving cultural artifacts has always been the development of our visceral awareness of the sounds in and around our environment.

What creates a context for archiving? One important aspect is attentiveness—developing a keen sense of awareness, where we listen well. In the act of listening, we detect a lot of things in our environment. We are able to observe, for instance, ecological changes.

A recent example of the relationships among awareness, archiving, and composition can be found in the University of the Philippines' Bakawan Project of 2015, which involved documentation and archiving of sounds, composing, and inviting the community to interact with the work physically (e.g., through dance/movement) and digitally (via sensors). The project demonstrates how the Cloud icon motivates us to think about context and process. We can connect with the icon of the Cloud as an "interface" that both receives and delivers knowledge. We can upload onto it, download from it, and track existing archives shared on it.

2. Interface Considerations

Composition students benefit by learning how to use the Cloud as a system for storage and retrieval of materials. It is a tool that is available to be used at any time. It has the advantage of mobility; when traveling, you can access materials wherever there is electricity and an Internet connection.

To make effective use of Cloud technology, issues concerning interface and access have to be addressed:

- What is the best format for exchange and interchange of files?
- What is the appropriate sound fidelity standard?
- Will the file be stored for personal access, for sharing with selected groups or individuals, or to be made universally available?
- What is the best menu design?
- What keywords will best accommodate searching?

3. Technology Shapes Process

The content and quality of a musical artifact may be influenced by how it is documented and retrieved. How is sound affected when collected for planned or spontaneous documentation? What does one listen for in this process? How is attentiveness to the sound itself balanced with considerations regarding how the documentation will fit into an archived body or how it will be shared? Will the process be selective, or will the sounds be archived for more ubiquitous distribution?

Composers expand our options for extending language by maintaining and accessing archives of sound. Having extensive data available helps us to deepen our language and syntax. But the primary means of assimilating living culture continues to be through direct involvement in culture.

4. Composing from Living Cultures

Composers create works from living cultures by applying both theory and praxis:

- Theory: structural and conceptual foundations of certain forms of actions (e.g., playing musical instruments)
- Praxis: application and embodiment of theory. Praxis involves communication and interaction and is experiential.

5. In the Philippines, Research on Local Theories and Composition Work Together

- A *tonal language* specific to the music is created when the composer selects specific timbres,time, pitch, and dynamics; some may refer to this as the composition's (and, often, composer's) *identity* or *voice*.
- *Creation* takes off from the basics—for instance, the innovation of a scale system or extension of traditional scales to include other types of tone combinations, e.g. from pentatonic to quasi- or extra-pentatonic.
- *Notation*, or the visual representation of sound, instructs performers on proper execution of his or her music; the composer creates symbols to control time and interpretation.
- By *experimentation* and *exploration*, a composer creates additional sounds in terms of timbre, time, intensity, and tone—for example, by using rhythmic/ arrhythmic groups of notes.
- *Expression of a concept*. Meaning is subjective; it does not have to be common for everyone. A listener makes his or her personal meaning of a work. Sometimes, music can be representational (programmatic); sometimes not.
- *Structuration of a musical language* may be drawn from systemic ideas, such as linguistics, music theory of cultures, even from philosophy. Some of my work for strings uses linguistic affixations: prefix, root, infix, and suffix. Groups of notes are organized in light of this affixation model—for example, with the word *Pag-[aral]-an*. My composition uses the syllabic structure of this word.

6. Composing from Indigenous Living Culture in the Philippines: Four Examples

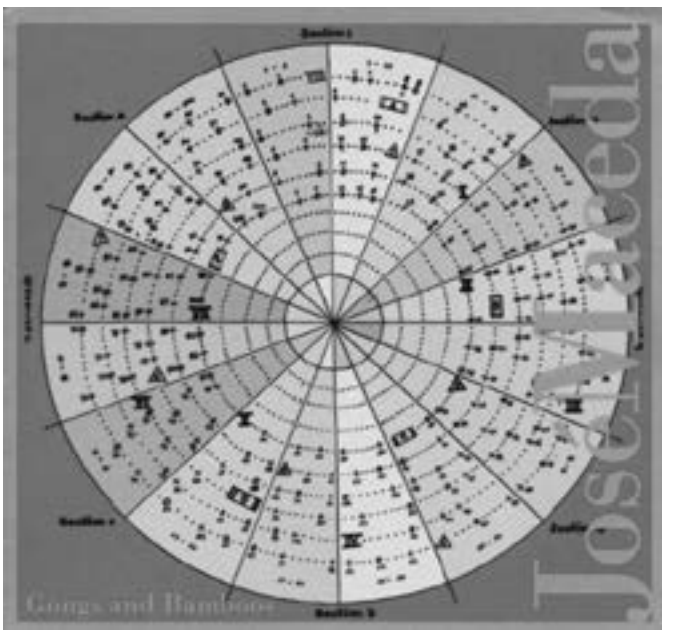
To exemplify the points made earlier about local theory and applied composition, examples of composers' works are given below, with brief explanations:

6.1. *Jose Maceda*

Maceda's compositions allow performers and audience to experience a sense of community, collectivity, and mass participation. He works on structural/functional/and ideological ordinates. This results in layered compositions that apply the theory of "Drone and Melody": the foundations of most Asian musics.

One example of Maceda's work, *Pagsamba* (*Worship*), is built on ritual music and played in a circular auditorium. A Catholic liturgy is sung in Tagalog by 100 mixed voices and 25 male voices, accompanied by a vast array of indigenous instruments: eight suspended *agung*; eight suspended *gandingan*; 100 *balingbing* (bamboo buzzers), 100 *palakpak* (bamboo clappers), 100 *bangibang* (yoke-shaped wooden bars played with beaters), and 100 *ongiyong* (whistle flutes).

Figure 1. Maceda's *Pagsamba* player arrangement.

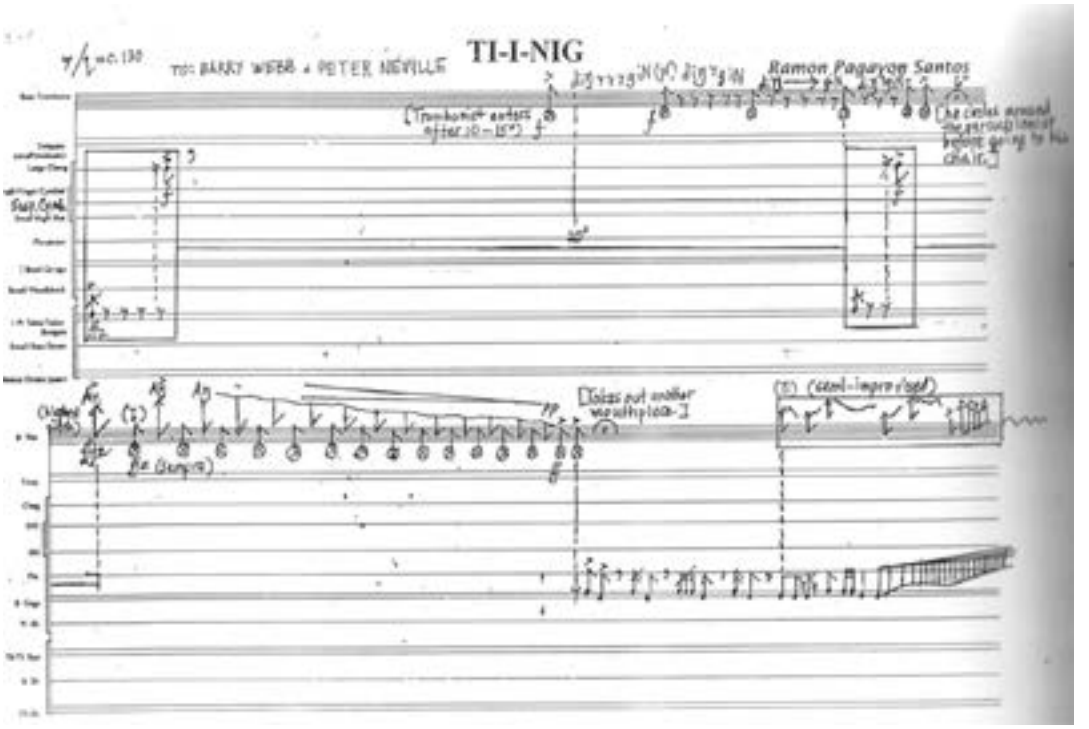


Source: http://www.amazon.com/Gongs-Bamboos-Jose-Maceda/dp/B00005LN54

6.2. *Ramon Santos*

In his *TI-I-NIG O da sa Di-Pagkakaisa* (*Vo-i-ce, Ode to Dis-Unity*) for trombone and percussion, Ramon Santos treats voice as a vehicle for social construction and deconstruction, unity and its opposite, disunity. Fluid vocals, like the drones and slides found in indigenous vocal expressions serve to extend oneself to others. Santos carries these aesthetics of voice over into musical instruments such as trombone and percussion.

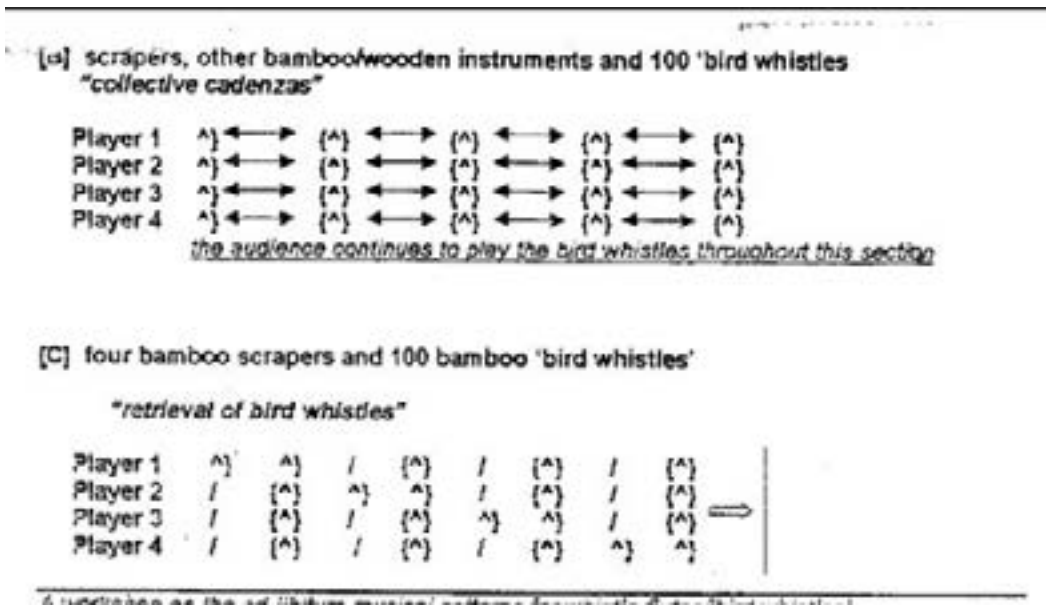
Figure 2. Santos' *Ti-i-nig*. Source: University of the Philippines Diliman Library



6.3. *Jonas Baes*

Communality, or the concept of "Imagined Communities" (as inspired by Benedict Anderson) and ritual participation, find expression in the works of Jonas Baes, as in *IBOh-IBON* (*Birdwoman*), composed for a dancer wearing small bells, two large wind chimes to be passed around the audience, four animator-callers, and iron nail chimes played by the audience. Baes' work treats singing and playing of musical instruments as a social act, which is experienced in this piece.

Figure 3. Baes' *IBOh-IBON*.

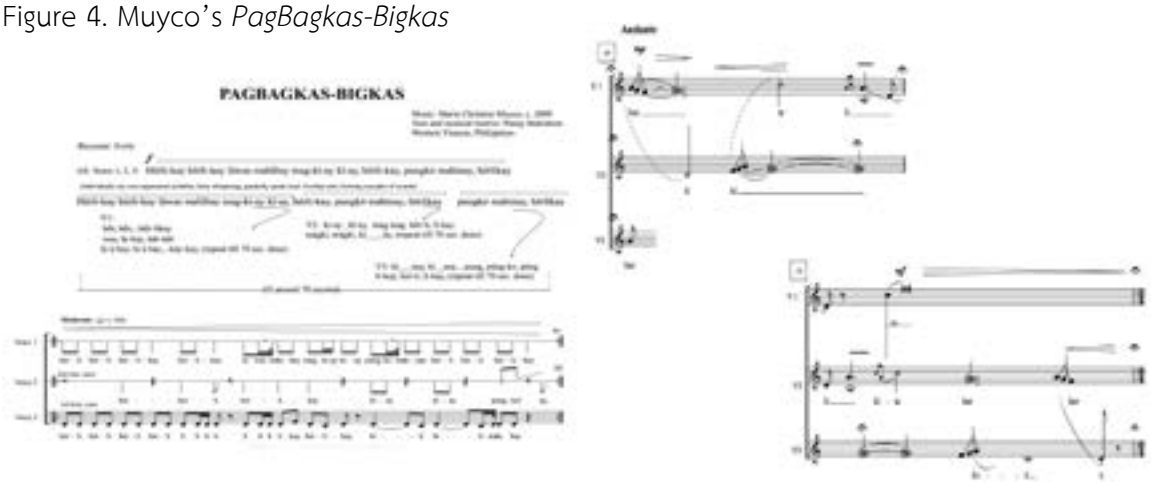


Source: University of the Philippines Diliman Library

6.4. *My own work with indigenous sounds and structures*

Like Maceda, Santos, and Baes, my compositions often build on indigenous sounds and structures; in particular I have drawn ideas from the music of the Panay Bukidnon highlanders. Based on my research, these people use vocables as means of heightening a music or dance event. Synchronizing the elements of music with social acts (dance in communal gatherings, playing music together) is part of their realization of *sibod*, a local ideology of achieving wholeness among common and differing elements of change. This ideology is process-oriented: from the use of linguistic structure to its animation by the performers' play on "words," a sense of flow is created through creative expression. Similarly, in *PagBagkas-Bigkas* (*Deconstruction-Construction*), I treat expression in performance (including movement) as a manifestation of thought.

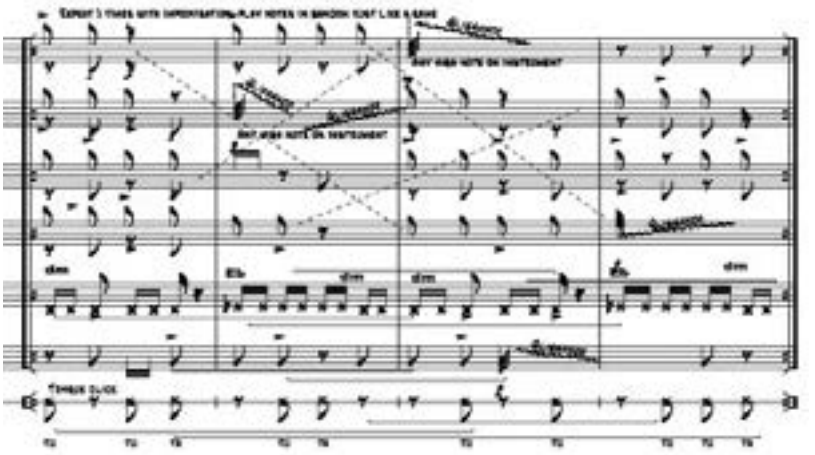
Figure 4. Muyco's *PagBagkas-Bigkas*



In another composition, *Pagpipiko* (*Game-Play*), I take the alternation and interlock of rhythms from the theory of Philippine Northern music—for instance, in their flat gong instruments, called *gangsa*. The playing of these gongs uses rhythmic interlock and alternation that results in melodic patterns. I incorporate these elements into the rondalla, an ensemble of

string instruments that are played using a plectrum. The piece also provides for improvisation, a practice that is part of tradition among the natives (Cordilleran people) in Northern Philippines. Thus, in this piece, musicians have the freedom to choose their patterns.

Figure 5. Muyco's *Pagpipiko*

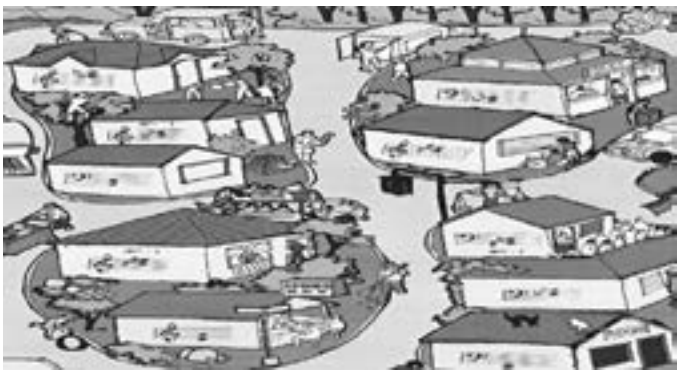


The above examples of music are digitally stored and can be accessed or sourced through Cloud technologies. These serve as resources for understanding Philippine composers' works, performances, and, to a certain extent, theoretical analyses. In the succeeding paragraphs, I explain other types of re-sourcing, using my works to illustrate various concepts discussed earlier.

7. An Example of Composing from Philippines Urban Living Culture

In addition to working with indigenous traditions, my compositions of living culture also derive sounds from urban life, as in my piece *Jeepney sa Kalye* (Jeep on the Road), based on sounds and images of the jeepney, the public vehicle of the Philippine metropolis. The work incorporates city traffic and the nuances of a jeepney's routes. This piano piece uses additive meter, with the score serving as a map the pianist follows to explore road traffic and sounds.

Figure 6. In Muyco's living composition, *Jeepney sa Kalye*, the score maps jeepney routes and ambient urban sounds.



It is interesting to draw ideas from the environment, particularly the sound characteristics of public jeeps. In recent years, I have been listening to city sounds and the ways they connect with public jeeps that ply busy streets. Along with jeeps running, there are the concaves of sound/noise—all of the ambient expressions of urban space. When composing, I form musical structures from these combinations, as in the case of the *Ikot and Toki* jeepneys on our campus at University of the Philippines Diliman. As the jeep labeled IKOT (clockwise) goes around, the TOKI (counter clockwise) goes in the opposite direction. The piece follows this formal structure, capturing the many aspects of these observations in an orchestral piece. I also employ instruments made of jeepney body parts and incorporate spoken poetry into the piece.

Figure 7. Muyco's composition *Ikot and Toki* follows the patterns of the jeepneys' routes on her campus: Ikot travels clockwise and Toki travels counterclockwise

7.1. *Origins of the Jeepney Orchestra Project*

During my master's study at the University of British Columbia (MMus, Composition), I met R. Murray Schafer during the launching of his work SOUNDSCAPE, which features Vancouver's environmental sounds. After corresponding for some time, he introduced me to his colleague and fellow composer Barry Truax. Truax teaches acoustic technology and maintains a sound laboratory at Simon Fraser University, which is also in Vancouver. Their initiatives have inspired my project, which involves documenting sounds around the campus, composing, as well as involving other individuals in the objective of creating awareness and concern for those that produce life in our sonic world. My focus was on the producers of sounds, their particular soundings/audiations, not just the capture of a general environmental sound as found in most soundscapes. Thus, I see the concept of "audiation" as an interesting framing of sound producers, rather than the more generalized macrocosmic representation of soundscape.

7.2. *Materials*

In 2013, I received a grant from the University of the Philippines' Office of the Vice-President for Academic Affairs (UP-OVPAA) to realize my vision of a composition using musical instruments made from jeepney parts. Collected from junkyards around Quezon City, I assigned these scraps to instrument makers. Brake drums and scraps were fashioned into flutes, drums, and other musical instruments. Specific names were given to the instruments, such as the *paihip* (flute), *tambudoy* (side-blown flute), *tatot* (trumpet), and *bakagong* (tongue metal drum); the *tubophones* (tube xylophone); *tatsulok* (triangle percussion). These instruments took the range of jeepney-associated sounds into new territory, even for the makers and the composer.

Figure 8. Jeepney parts were fashioned into instruments for Muyco's jeepney project.

I also incorporated string instruments made from metal scraps by Lirio Salvador with Jonjie Ayson III.

Figure 9. Examples of string instruments made of metal scraps.

Another inventor, Cris Garcimo, created the *jeepnilamella*, a kalimba-like instrument, out of jeepney plates.

Figure 10. Inventor Cris Carcimo with his *jeepnilamella*.

7.3. *Environmental sounds*

As the jeeps are the highlights of this concert, there were actual jeeps en route around the circular venue of performance, the amphitheater of the campus, during the event.

In addition to mechanical and man-made sounds, the concert featured natural sounds recorded around the UP campus through campus-wide sound installations. Frog-songs, bird-songs, insect noises, wind sounds, speech, and other sounds were woven into the musical fabric of compositions introduced by student composers. It was a collaborative effort as I involved the College of Fine Arts, the College of Arts and Letters, Biology students, and the College of Science. As such, the project featured sounds collected from the campus that became the source for student compositions.

7.4. *Archiving the project on the Cloud*

After the performance of the Jeepney Orchestra, a follow-on work involved the making the sound files available online for download as ringtones, elements that can be used in other musical pieces, and other reworked sounds. With the aid of Cloud storage technology, it has

thus become possible for audience members, especially those with a close affiliation with our university, to better understand and experience the campus environment and its soundings. While modifying the elements for greatest use and meaning, they may now connect them more deeply with their personal daily lives.

8. Composing Living History

The Community creates value in the sounds it makes. The sense of loss I feel when a living cultural icon is relegated to history gets worked out in my composition and music making. Last year, upon learning of my university administration's plan to eradicate our local IKOT and TOKI jeepneys and replace them with a monorail train, I composed the orchestra piece to pay tribute to these icons and the sounds they have contributed to the campus experience.

Figure 11. Photo on the left is a jeepney, which may be replaced by a monorail, as shown in the photo on the right.

I grieved what may be eventually lost in the everyday humdrum of our lives. Recalling Chinary Ung's sentiment on young composers' needing spiritual depth in their works (personal conversation, April 15, 2011), I too am concerned about composers who lack sensitivity to sounds in their environment and the impact of these sounds. I therefore created this project, whereby young composers could contribute recorded and archived sounds from around campus for their own and others' compositions.

Conclusion

Revisiting the process of sourcing and resourcing for composing is key to educating composers, motivating students to engage fully with and keenly observe their environment and think of ways to encode the structural and aesthetic relationships that exist between themselves and their world while becoming involved in certain ways of thought or, extensively, in action.

Inasmuch as we still enjoy the established theoretical canons of the classics, we also are in a quest for the ones yet unexplored. In Asian countries, there is a wealth of information that we can discover, know, and creatively bring into our creation of new works. Our ability to do this has been greatly enhanced by Cloud technology. It is challenging in these times to bring fresh theories from living cultures into music composition. Thus, let us teach and use all available means to share with composition students all we know—including what we have created and performed—through a fully integrated pedagogy.

In the iconic Cloud, we see the cyclical flow of archiving into composing and back into archiving. Through this process, we allow our creative consciousness to grow and become increasingly connected to our world.

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