

## The Hammer is the Teacher: Taking World Music Instruction to a Higher Level as Experienced through Balinese Gamelan

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### **Abstract**

*World music has become a source of significant interest among music educators, as musics from non-Western cultures can be sources of powerful musical experiences in terms of performance, cultural knowledge, and reevaluation of musical perceptions based on Western models. The purpose of this paper was to describe my brief but intense experience with one particular non-Western musical genre: Balinese gamelan. Research questions were (a) what was the experience of a Western musician studying and performing Balinese gamelan music? and (b) how could Balinese gamelan and other world musics be taught effectively? The research was conducted during an institute that included the performance, history, and theory of the Balinese gamelan, performed on an authentic gamelan gong kebyar, and conducted at a conservatory in the northeastern United States. The study followed a qualitative case study design using reflexive ethnography, with data being collected in the form of researcher journals, field notes, and participant interviews. Findings indicated that (a) to make world music instruction as powerful as possible, authentic instruments and teaching practices should be used, (b) the teacher-student relationship and learning process are perceived differently by Balinese and Western musicians, and (c) music educators should pursue familiarity with both Western and non-Western pedagogies when teaching world musics.*

Music education has been pushed past the traditional boundaries of the Western canon for decades. “World music” has become commonplace in both journals, as evidenced by Volk’s 1993 review of 25 years’ writings, and conferences (Volk, 1993), such as the MENC Multicultural Symposium in 1990. The fact that we require knowledge of a broad scope of musical genres for both our students and our growth as musicians is generally accepted. However, it also behooves us to examine both the process in which we acquire this knowledge and the process by which we develop our students’ awareness.

We are aware that a vast body of music exists in our world. We have knowledge of the cultures in which the music originated, the musical instruments, and basic information on many of the musical genres and styles. It is time for us to dig deeper into these other musics. Numerous articles discuss world musics, but in many cases the articles address a number of musics in general (Bieber, 1999; Goodkin, 1994) rather than examining one particular music in depth. We need to be wary of what Campbell (2002) calls the “practice of musical tourism (the whirlwind tour of songs of many lands) [which] may breed more of an exposure than an educational outcome” (p. 31). For that reason I have chosen to study only one world music, Balinese gamelan, with the objective of pursuing deeper insight than that offered by single articles or chapters.

This paper is not a call for the inclusion of world music in American music

education as that topic has already been convincingly argued (Fung, 1995). Rather, this paper is an examination of the experience of learning one particular world music and how educators might go about building understanding of both their students and themselves.

### **What Is a Gamelan?**

A gamelan is not an individual instrument but a group of instruments. Shamrock and Wenten (2000) define “gamelan” as:

An ensemble or orchestra including sections of instruments comprised of 1) various sizes and models of barred percussion instruments, with heavy bars made of bronze; 2) heavy bronze pots resting, opening side down, on racks made from cords; 3) heavy bronze gongs of various sizes, from small to very large; and 4) miscellaneous others, including individual percussion, bowed and plucked strings, and flutes. (p. 186)

Gamelans can be found in several places in Indonesia but the most well known exist on the islands of Bali and Java. Gamelans have been established in a number of countries around the world, including 168 known gamelans present in the United States (American Gamelan Institute, n.d.).

Although the instruments are similar in Balinese and Javanese gamelans, the styles of music and performance practices differ (see Goldworthy, 1997 for a discussion of Javanese gamelan). One particular identifying feature of Balinese gamelan, which will be discussed several times in this paper, is the *kotekan*, the term for interlocking rhythmic and melodic patterns performed by multiple musicians both instrumentally and vocally.

### **Research Questions**

Research questions for this study were: (a) What was the experience of a Western musician studying and performing Balinese gamelan music? and (b) How could Balinese gamelan and other world musics be taught effectively?

### **Method and Data**

This study followed a qualitative case study design, using reflexive ethnography (Denzin & Lincoln, 2000) and informal conversational interviewing (Patton, 2002). Denzin and Lincoln (2000) define reflexive ethnography as research in which:

The researcher’s personal experience becomes important primarily in how it illuminates the culture under study. Reflexive ethnographies range along a continuum from starting research from one’s own experience to ethnographies where the researcher’s experience is actually studied along with other participants. (p. 740)

Data for this study was collected in three forms: researcher journal reflections, field notes taken during the institute, and interviews with other institute participants. The interviews were audio-recorded and coded by the researcher. The three data sets constitute methods triangulation (Patton, 2002).

I kept a journal throughout the institute, as well as making field notes during sessions. I conducted three interviews during the institute, one with each teacher (Chris and Wayan) and one with another workshop participant (Judith). I felt important to examine data from both a Balinese master teacher (Wayan) with lifelong gamelan experience and an American teacher (Chris) with several years’ experience performing and teaching

Balinese gamelan, as this would yield deeper insight into teaching practice and underlying philosophy. I also felt it important to gather data from a participant in the institute (Judith) who was a musician yet had no previous gamelan performance experience, as many current and preservice music educators will fit into this category.

### **Research Participants**

The participants in this study consisted of two instructors, another workshop participant, and myself. Other than the researcher, pseudonyms are used throughout to protect the identity of the participants.

#### *John (the researcher)*

Although my current study focuses on Balinese gamelan, my gamelan performance experience includes both Javanese and Balinese ensembles. I have played in gamelan for one and a half years, and I have not been to Indonesia. While such a brief time might at first seem to be a mark against my right to speak on the topic of gamelan in music education, I would argue that it puts me in a situation comparable with many educators. I have experienced gamelan performance, but I have not been playing for such a lengthy period of time that it would be difficult to relate to those new to Balinese gamelan.

My performing experience occurred while in graduate school for both my masters and doctoral degrees and augmented by workshops. I was fortunate to attend universities with gamelans and to have the opportunity to perform in them. Although the numbers are rising, many schools of music do not have gamelans, meaning that if a currently practicing educator did not perform in a gamelan during graduate or undergraduate school, their opportunities to learn gamelan will necessarily be limited to workshops and summer programs.

#### *Chris (American teacher)*

Chris had begun playing in gamelans at the age of ten, had been to Bali several times for a total of eight months, and had taught gamelan in a variety of settings in the United States, including university, youth, and community-based settings. In addition to Indonesian music, Chris was a conductor and vocalist. Chris had been teaching gamelan at the workshop's university since 1997.

#### *Wayan (Balinese master teacher)*

Wayan had begun his gamelan training at the age of seven at the Conservatory for the Performing Arts in Bali, after being inspired to study gamelan by the local gamelan of his native village. He had been teaching Balinese gamelan in the United States for 15 years, beginning at the Indonesian Consulate in a large city and expanding to include several universities. In addition to teaching, Wayan was also a composer, dancer, puppeteer, and choreographer.

#### *Judith (institute participant)*

The workshop was Judith's first encounter with gamelan performance. Although she made her living as a librarian, Judith had substantial Western musical experience, having played piano since childhood and also currently playing keyboard instruments in early music ensembles. I felt that Judith's observations would provide insight into the perspective of a Western musician experiencing Balinese gamelan for the first time, which would in turn be valuable for music educators who themselves have no prior gamelan performance experience.

### **Analysis**

Journal entries, field notes, and interview tapes were coded and categorized according to the research questions. Based

on the coding, I decided that the way to present the findings was in the form of participant profiles (Seidman, 1998). In describing participant profiles, Seidman (1998) stated that a participant profile “allows[ed] us to present the participant in context, to clarify his or her intentions, and to convey a sense of process and time, all central components of qualitative analysis” (p. 102).

As the data was coded, additional categories encountered were: (a) Balinese versus Western pedagogy, (b) perceived difficulties in the learning process, and (c) the physical experience of performing in the gamelan.

## **Findings**

### *Chris (American teacher)*

The principal topics that emerged in Chris’s interview were (a) teaching approaches in Bali versus teaching approaches in the United States, (b) experiences of American performers, and (c) recommendations for teacher and director education.

The approach to teaching gamelan teaching in Bali differed markedly from the approaches typically used with performers in the United States. In comparing the two, Chris made the following observation: “The system there [in Bali] is just really throw yourself in and catch up, so things are not broken down; things are not explained.” According to Chris, the name of this Balinese system was *maguru panggul*, which he translated as “the hammer is the teacher,” a reference to the fact that many of the gamelan instruments are played with a hammer. *Maguru panggul* had also been translated as “teaching with the mallet” (Bakan, 1994, 2003; Campbell, 2001), although the descriptions remained consistent. Conversely, Chris observed “Westerners expect all kinds of analysis, all kinds of breaking down things into little

pieces, repeating them over and over until they have them”.

Chris also discussed the roles played by the teacher and the student. In terms of expectations, “Westerners generally, I find in Bali, expect to be catered to. ... They expect to be taught in the way that they can learn, whereas there people are expected to learn in the way that is taught.” Furthermore Chris concluded, “here the burden is on the teacher to figure out the best way to teach people so that they will learn. There the burden is on the student to learn how to learn.” A clear picture emerged of teacher-learner relationships that were almost exact opposites.

The immediate question was if the Western learner was at such an impasse with the Balinese style of teaching, how did more than a selected few of Westerners learn gamelan performance? Chris observed that the Balinese teacher had been teaching in the United States for some time and had learned to modify his teaching depending on his audience. In discussing the two conflicting concepts, Chris stated, “I would say in teaching that’s been my biggest thing to try to negotiate between those two system.”

I asked Chris for his thoughts on the topic of gamelan teacher training. In his case he had become a gamelan instructor at the last minute when the graduate student assigned to the gamelan left unexpectedly. Although he had previous playing and listening experience, he still felt that his role as the teacher was most powerful when working with a guest native teacher. After reflection, he commented that “the best and easiest way to teach a teacher is the same way you’d teach a student,” suggesting that the teaching philosophy of the Balinese gamelan held true whether the objective was to perform or to teach performers how to teach.

*Wayan (Balinese master teacher)*

As Chris's interview and my own journal had begun to focus on teaching and learning, I focused Wayan's interview on the learning process. Wayan felt that the technical skills were the toughest challenge for Western learners, particularly when performing in different gamelans that called for different techniques. As an example, gamelans used the technique of dampening, such that when a player struck a note on the keyboard the player simultaneously dampened the note just played by pinching the metal bar so as to stop the previous note's sound. Some gamelans, Wayan related, required different styles of dampening and these transitions were difficult for Western learners.

A topic about which I wrote repeatedly in my journal and discussed in informal conversations over the course of the institute was the act of stopping for mistakes during rehearsals. During our rehearsals in the institute we rarely stopped even while learning new pieces. Wayan told me that stopping the music is rare in Bali. When I asked if teachers in Bali broke music down into smaller pieces for rehearsals, he stated, with a great deal of laughter, "no." He described breaking things into numbered parts as something that he tried to do when teaching in the United States.

*Judith (institute participant)*

I interviewed Judith towards the end of the workshop so that she would have had several days' experience in gamelan performance yet still be engaged in the process of the workshop rather than reflecting back on the experience. As opposed to Wayan's feeling that technique was the most difficult aspect for Westerners learning gamelan, Judith felt that her biggest struggle had been with memorization. Balinese gamelan music, like many of the world's musics, is an oral tradition. While

gamelan music had been published in conventional Western notation (Bakan, 1999; Gold, 2005; McPhee, 1976), it was generally in the form of excerpts or examples as opposed to the equivalent of a full orchestral score.

Particularly at the beginning, Judith had been trying to develop "markers" in the music for structural points. She described learning the music as a continuous process of learning a passage and then having that passage "overwritten" by the next passage, as in "the first four measures were overwritten by the next four." She observed that if she were going to give advice to gamelan rookies, she would advise them to work on their memorization skills.

**Researcher Journal**

My journal entries were coded into three categories: the physical experience of both playing and listening, performance difficulties, and reflections on the pedagogy in use.

Initially I wrote about the experience of playing in a Balinese gamelan, the instruments, sounds, and general atmosphere. There were many different types of gamelans. The gamelan used at the institute was a gamelan gong kebyar, whereas the Balinese gamelan I had previously played on was a gamelan angklung, the principal difference being the pitches used. After adjusting to the physical properties of the instruments, I analyzed the sounds themselves.

Gamelan tuning was a complex topic but in short, Balinese instruments were tuned so that the frequencies among keys and instruments varied, with the intent of producing beats in the sound. This was different from much of Western tuning, which strived to eliminate beats in the sound. The effect of the different tuning in the Balinese gamelan is what I referred to as a "wash" of sound, created by a combination

of the beating tones in multiple octaves and the sheer volume generated by a group of metallophones. The net result was an intense physical experience which I quickly concluded could only be produced with a true Balinese gamelan. I summarized my thoughts by writing "Gamelan is very atmospheric in a sense in that when you're in the middle of it I think there's a real sense of something other than music because there are so many sound waves, so many beats in different octaves hammering at a high dynamic."

Next, my writing turned to the difficulties that I was encountering. I had previous experience with the dampening technique described above and did not encounter difficulties with technique. My main problem was similar to what Judith described: memorization. I found the term "intensity" coming up in my thoughts frequently and in my journal, "I think the intensity came largely from memorization, even more than the musical demands, which were certainly substantial." As I mentioned, gamelan music was not written down and even when it was transcribed into Western notation it was still somehow incomplete. I had studied other oral traditional musics and had at times written out passages approximated in my Western notation. This however, seemed different. I wrote "In the case of the Balinese gamelan, however, that's more complicated because each part depends so much on the other parts. The interlocking rhythms are extremely dependent, such that writing one rhythm down by itself theoretically works but, I believe, actually makes it harder to learn."

Chris had observed that it was critical in gamelan to build awareness of all of the parts rather than creating a tunnel vision for one's own part. Taking his advice, I attempted to open my ears to the other parts. I was not trying to isolate them completely but to simply build an awareness

of the gamelan as a whole. Chris told me that he played enough Balinese gamelan music to usually predict the next part of a song even if he had never played the song before. In that manner, he often learned the music on the first try. As the institute progressed and I learned my parts better, I began to feel that I could "anticipate" the new sections and passages without either counting or what I would call memorization in the Western sense.

Finally, I considered the processes of teaching the music, Western classical-based tradition versus Balinese. My main observation was the comparison between the times when we played continuously for twenty minutes and the times when we stopped and checked parts frequently. I wondered if both approaches were used in Bali. In the Western tradition, the latter was certainly in use but the former less so. I wondered which of the two was most common in Bali and if, as I hypothesized, the former was more common, how did both Chris and Wayan switch back and forth between approaches? As I discovered in my interviews, the approaches were used intentionally, sometimes the Balinese way and sometimes the Western way. Both teachers had to make adjustments.

This investigation made me wonder how I would be able to gain additional insight into the pedagogical process for world music. In this case, I had specialists in Balinese gamelan, including a native Balinese master teacher. If I did not have the opportunity to work with a Balinese teacher or other specialist performer, however, how could I fill in this critical component for world music education? My answer was that I simply would need to find an expert on the music in question and the source of such specialized knowledge would likely come from outside the field of music education: the ethnomusicologist.

### **Rationale for Relationships with Ethnomusicologists**

Ethnomusicologists and music educators benefit greatly by collaboration. Before continuing further, however, a brief definition of ethnomusicology by Miller (1999), in this case in comparison to the study of world musics, would be helpful.

I wish to make a distinction between “world musics” and “ethnomusicology.” Survey type courses are primarily descriptive of non-Western, non-classical traditions, rarely raising epistemological and methodological issues; this I call “world musics.” Ethnomusicology ... is a research discipline concerned with the philosophical, methodological, and technical issues of designing research projects, doing fieldwork, and communicating the results. (p. 2)

School music educators and teacher educators do not usually teach world music survey courses as part of their primary music education classes. Still, as what we teach is often described as “world music,” the distinction here is appropriate for our purposes.

My institute experience led me to conclude that for my gamelan expertise to develop more deeply, I needed to step beyond the familiar confines of my survey materials. Initially, all I had was the feeling that something further was needed. I concluded that for my gamelan experience to reach a higher level, two areas needed to be addressed: instructors and equipment. I was not implying that Western-made instruments, for example Orff metallophones, had no value for the study of gamelan. Rather, after five days of playing authentic gamelan instruments in an authentic configuration, I concluded that the experience of playing in a true Balinese

gamelan was substantially more powerful. Furthermore, I was not implying that no one in the music education profession was qualified to deliver valid gamelan experiences. However, for the experience to include a depth of knowledge beyond techniques and songs, the expertise of a specialist in Balinese culture and tradition was an essential component.

That specialized knowledge was seldom the realm of the music educator, who must be versed in numerous musics; it was to be provided by one who has devoted considerable time to developing it, namely the ethnomusicologist. While a trip to study in Bali would be a wonderful experience, I could provide students with much richer learning experiences by collaborating with those with a more intimate knowledge of the culture and, by extension, at least an acquaintance with music education traditions in that culture. The same might be true for any form of world music that I chose to actively pursue. In today’s educational world, a deeper, more thorough knowledge is needed to teach world music than that previously provided by a chapter in a world music survey text.

Additionally, it is likely that ethnomusicologists have greater performance experience in world musics than music educators. In my university experience, the gamelans were maintained and directed by the ethnomusicology department with few students or faculty from the music education department even having seen the gamelan (in both cases the gamelans were housed in the deepest, darkest reaches of the school of music).

Furthermore, ethnomusicologists frequently perform field study among musical cultures, often for extended periods of time. Although not an ethnomusicologist, Chris observed that the most powerful experiences in his gamelan education had

taken place in Bali, indicating that there is no substitute for going to the source.

Moreover, the specialized knowledge includes pedagogical as well as performance practice. As an example, Balinese gamelan generally cycles through the same patterns numerous times, giving the performers multiple opportunities to correct errors without stopping. In the Western tradition, if a performer misses a note in a passage in a symphony he will not get a chance to correct it until the next performance. If there is an error in a Western piece, the conductor stops to fix it. If there is an error in Balinese music, the performance continues and the performer corrects it the next time the passage occurs. It is this insight into pedagogical processes that is needed in our studies of world music.

Relationships between ethnomusicologists and music educators have been proposed before (Stock, 2003). Henderson (1993) summarizes recommendations made in 1988 by a special committee of the Society of Ethnomusicology, including the following: (a) Summer workshops for teachers; (b) The use of ethnomusicologists who would visit methods classes for music education majors and offer in-service workshops for music teachers; (c) Workshops at state, regional, and national conferences of MENC and the professional organizations of college music faculty members; and (d) Development of teaching materials such as textbooks, recordings, filmstrips, and videotapes to further the study of world cultures in the classroom. Those recommendations must be assessed as to their implementation. If they have not been implemented, they must be revisited.

### **Recommendations for University and P-12 School-Level Learning Environments**

To make world music education as powerful as possible requires authentic

instruments and, where possible, pedagogical practices. There is simply no substitute. African music can be reproduced on plastic congas and gamelan music can be reproduced on Orff instruments, but crucial components are missing in several respects. A plastic drumhead is strikingly different from a true goatskin head in terms of both timbre and feel of the material. Even the strongest bars on Western orchestral metallophones or Orff classroom instruments cannot come close the metal keys on Balinese gamelan instruments. Upon playing the first note with a Balinese hammer on a Balinese instrument, a student crosses into a musical world which cannot be experienced any other way.

An additional component is the tuning of the instruments, as I discussed briefly above. The cumulative effect of the “beats” in the sound through several octaves simultaneously at the high dynamic created by the gamelan is significant. The all-encompassing sonic “wash” leaves an impression just as strong as the simple act of playing the instrument itself. As Western metallophones are tuned precisely to avoid beats in the sound, this effect cannot be obtained elsewhere. In this case, the precise tuning of classroom instruments is actually a detriment to a musical experience. To illustrate this specific scenario, Palmer (1991) writes:

The very essence of gamelan is the special sound of its bronze instruments—for which no wood can substitute—and their special tunings, so different from Western scales. ... This immediacy of the object must be held sacred if we wish to bring alive the richness of each experience. (p. 10)

For gamelan music to leave a lasting impression, then, it must be experienced on authentic instruments. Music education

majors must have these experiences during their teacher preparation programs. Outside of the university it will be a rare school that possesses its own gamelan. As the number of gamelans in the United States grows, however, so does the opportunity for teachers to arrange authentic experiences for their students, as does options for teachers' own professional development.

Additionally, the music education faculty at our colleges and universities must develop and maintain relationships with those in the field of ethnomusicology. We not only need the experience of authentic instruments, we need to learn as much as possible about the authentic culture and pedagogical traditions of the music being studied. That is not to say that once we have learned how music is studied in Bali we should restrict ourselves to that approach and cease to use Western approaches at all. However, knowledge of authentic pedagogy from cultural experts makes us more well informed and qualified as music educators and can be combined with our own musicianship and educational expertise to create the best possible learning environment for world music. Just as I may teach music in sections or stop for group mistakes, I will also give my students the experience of learning in the Balinese way

in which the music continues regardless of errors or missed transitions.

### **Conclusions**

My institute experience was very powerful in terms of both my performance experience and my reflections. I gained an understanding of a specific music but more importantly I reflected on the teaching and learning of that music. I was caught between wanting to be absolutely focused in the moment while I was playing, and wanting to reflect and make observations during the rehearsals. After the final performance, I felt that I had received a substantial educational experience, both in terms of performance and pedagogy.

World music is unquestionably important, but it is also important to consider the pedagogy as much as the repertoire. We must be aware of not only how to play but also how to teach the music. While there is the Western approach, there is also the Balinese philosophy that "the hammer is the teacher." Music educators need knowledge and proficiency with both. We must push our understanding as teachers and musicians in order to leave a lasting impact on our students' understanding of world music and guide them into powerful new musical experiences.

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