BALUNGAN
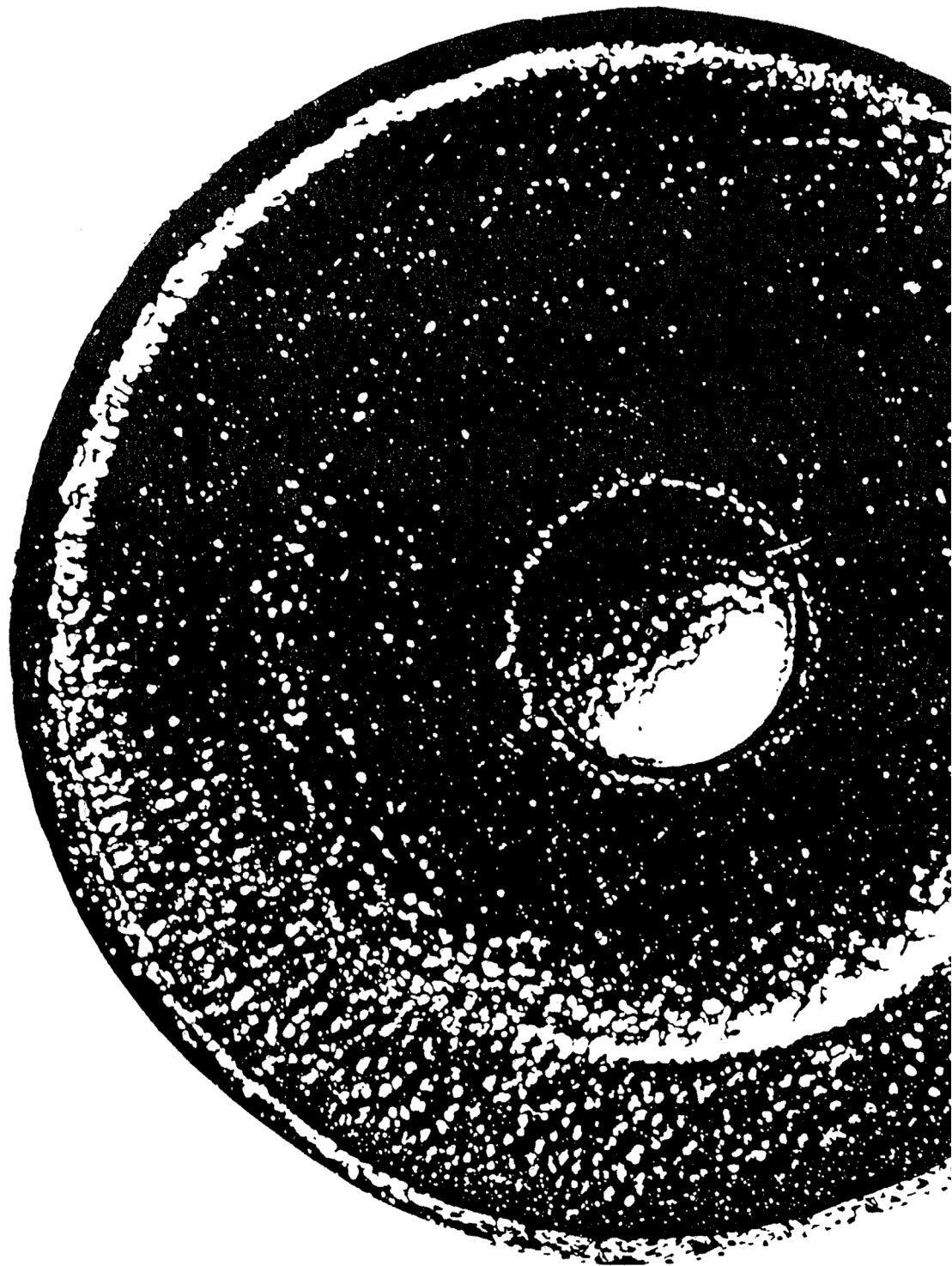
A Publication of the American Gamelan Institute

The American Gamelan Institute (AGI), founded in 1981, is an organization devoted to publishing, recording, distributing and making available information on all aspects of Indonesian performing arts and their international counterparts. The first issue of **BALUNGAN** was printed in 1984; this is the twentieth issue. Since Volume 9–10, 2004, the online edition has included additional media and text files. AGI also maintains an online library with fonts, scores, and writings that may be freely downloaded for educational use.

BALUNGAN is an international peer-reviewed journal presenting scholarly and artistic perspectives on Indonesian and international gamelan music and related performing arts. The goal of **BALUNGAN** is to encourage a dialogue between scholars and artists involved with this complex ensemble and its many associated traditions in Indonesia and elsewhere. The intention is to provide a deeper understanding of the work of the scholar and the artist, to the benefit of both.

Subscriptions
Institutional subscriptions are $100 per year. This includes a print copy of the current issue and an unlimted site license for the online edition. "Friends of AGI," with a $25 per year suggested donation, receive a print copy of the current issue, and subsidize the production of free issues distributed in Indonesia.

Submissions
BALUNGAN actively seeks new material that supports the editorial misson: to speak to and to be of value to both artists and scholars. Print or multi-media materials may be submitted for both the print and on line editions of BALUNGAN. Scores or writings that are not published can be entered into the AGI catalog, or made available in the AGI online library. Material in Indonesian is welcome.

The website of the American Gamelan Institute is
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All issues of *Balungan*, including video and audio files, are online at
http://www.gamelan.org/balungan

BALUNGAN is a publication of the American Gamelan Institute.

EDITORIAL

CONTENTS

I'm writing from the forest lodge in upstate New York where Bu Jody Diamond lives. My laptop is on a batik table-covering and I'm surrounded by back issues of *Balungan*, gamelan CDs, a gender, a rebab or three, and various manuscripts from diverse Indonesian artists and scholars.

In the past weeks, I joined the Rocky Mountain Balinese Gamelan Festival (RMBGF) in Denver, Colorado, and also attended performances of Gamelan Giri Kedaton in Montréal and Gamelan Galak Tika in Boston. Since moving to North America from Australia in 2020, I've been lapping up all the rich connections to gamelan and Indonesia. Despite being geographically much further away from Indonesia than in my home in Sydney, I feel stronger connections to Indonesia over here on the North American continent.

Despite these strong networks and vibrant on- and off-line activity, the place of a journal where dialogues about Indonesian music can be centralized and cemented in print still feels to be of high importance. At RMBGF, Elizabeth Clendinning and Indra Sadguna highlighted this as they presented a thorough statistical analysis of academic journal articles that revealed a disproportionate number of English-language articles by non-Indonesian scholars about Indonesian music. As I took on the role of guest editor, and as I'm learning the ropes of *Balungan's* style, I find myself reflecting on the ongoing purpose of a journal like *Balungan*. Who is *Balungan's* audience? How can *Balungan* be useful to more people?

Language seems to be perhaps the most important factor in answering these questions. As an initial step towards increasing the reach and accessibility of the material in this issue, we provide abstracts in both English and Indonesian for some of the articles here, and plan to expand translations in future issues.

While publishing translations of Indonesian writing has always been part of *Balungan's* scope, I encourage more artists and scholars to reach out and send us material in Indonesian. We are more committed than ever to developing a bilingual journal, one that may balance some of the issues that Clendinning and Sadguna critiqued in their presentation. We are experimenting with new formats and technologies that may eventually allow most content to be available in both languages.

Maintaining *Balungan's* distinctive mission, the articles published here present various scholarly and artistic dialogues about Indonesian music. A wide variety of authors, contexts, and writing styles continues to set *Balungan* apart from more traditional academic journals, making *Balungan* an excellent place for exploring non-traditional formats that may tackle issues of representation and accessibility.

Some articles have links to online media (video and a font file) at these gamelan.org links:
gamelan.org/balungan/issues/V15/media

For example, I am delighted to share Leslie Tilley's extensive article on pedagogy, where she dialogues with diverse voices to reflect on the evolution of her personal approach to teaching Balinese gamelan to the "unenculturated" student. She describes a hybrid teaching model intended to foster greater understanding and embodiment of "unspoken" aspects of Balinese gamelan, based on ideas and practices that may be especially useful for instructors of university ensembles outside Bali. While her article features many bibliographical elements typical of academic journal articles, Tilley's detailed dialogue is best suited to a journal with a dedicated focus on Indonesian gamelan music and its transmission, and is thus very much at home here.

Two of the articles focus on instrument building. Gamelan specialists regularly have to explain to initiates that "gamelan" does not map easily onto English terms; gamelan is not just a single instrument, nor it is it just an ensemble. Nevertheless, instruments are central to the music, and both of these articles explore the expansive contexts surrounding the development of contemporary instrumental ensembles.

Presenting extended quotations from personal interviews, Sean Hayward focuses on two artists in Surakarta who focus their creativity on the design of new gamelan instruments. Hayward constructs his descriptions by exploring the ideologies behind the instruments' creation, as well as other factors from political to environmental. Sulthoni draws on discarded materials, creating instruments and even puppets from recycled and reclaimed objects as varied as plastic tubs, glass, and toothbrushes; while Pamungkas's instruments experiment with *pamor*, a distinctive layered metalworking technique.

My own article provides details on the construction and tuning of the instruments that comprise Dewa Alit's Gamelan Salukat, along with some cultural background to Alit's ideologies. A discussion of the compositional potential of his new instruments is based on my own experiences composing for them. I hope the information will be useful for the many people I meet who ask detailed technical questions about Alit's instruments and music.

Ed Garcia and Een Herdiani's article provides a detailed timeline of different approaches to Sundanese kendang notation, problematises the various advantages and disadvantages of the existing methods, and then describes the new computer font that Garcia and Yosep Nurdjaman designed specifically to respond to the inadequacies of each previous notation strategy. We are glad to host the files for the newly-minted KendangFont Sunda in the online library at gamelan.org.

Saptono, a Javanese musician and composer who has spent much of his life in Japan, was moved to write a piece that expressed his desire for an end to the pandemic, and advice for what to do in pursuit of that. He wrote versions in two different pathet, allowing performers to choose for themselves. In the vocal text, Saptono drew

on Javanese beliefs by including the incantation "*singgah-singgah*" [Return to where you came from!], and appealed to Japanese ritual sensibilities by inventing a dragon to symbolize the burning of incense as prayer. The vocal text in Javanese was translated to Japanese for his local audience; into Indonesian for his national audience; to extend the reach of the composition even further, he asked Jody Diamond to write verses in English. The notes invite others to add additional languages, extending this music-as-prayer to gamelan groups of all nations.

Elizabeth Macy provides important documentation of the first Rocky Mountain Balinese Gamelan Festival and symposium in Denver (RMBGF). *Balungan's* documentation of the First International Gamelan Festival during Expo '86 in Vancouver (Chalmers 1986, Diamond 1987) has proven to be particularly valuable for people researching the Festival's impact. Perhaps in 40 years Macy's record of the 2022 gathering in Colorado may be equally useful.

In these diverse ways, we hope that *Balungan* responds to the current energies for considering new representational strategies. We will endeavour to continue such efforts with experimentation into bilingual options, and editorial openness to a wide range of materials and approaches. We'd like to add to the growing number of contributors, reviewers, translators, and proofreaders from our global community— please reach out if you wish to participate in the many tasks involved in producing each issue of *Balungan*. ◗

—Oscar Smith, guest editor

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Diamond, Jody. "Indonesian Group EXPO '86." *Balungan* Vol. III, No. 1, November 1987, pp. 21–29.

FUTURE FEATURES

Wayang Beber Metropolitan: Tradition as Inspiration
Marina Pretković and Tea Škrinjarić
Pangamelan: upcycling pans into collective music instruments
Marti Ruiz
Beyond Expo 1986: Gamelan Communities in Canada & **Directory of Gamelan in Canada**
Laurent Bellemare
Irwansyah Harahap and Suarasama
Rithaony Hutajulu
Langgam "Caping Gunung" by Gesang
notation by Steven Tanoto
"Kantaka" (for three rebab, kecapi, and slendro gender)
Wahyu Thoyyib Pambayun

ESSAY

The Gifts of the Pandemic

by Jody Diamond

When the pandemic hit, I was playing in a different gamelan group five days a week. Monday was Balinese gamelan at Bard College with Nyoman Suadin and Sue Pilla. Tuesday I took the train to New York City to play with Gamelan Son of Lion. Wednesday I taught at SUNY New Paltz with the instruments of Gamelan Si Betty. Thursday was gamelan degung across the river in Kingston with Dorcinda Knauth and the Catskill Mountain Gamelan. On Friday I went back to the city, joining Kusuma Laras at the Indonesian Consulate to play the classical music of Central Java. All of these came to a complete stop.

—Jody Diamond[1]

For people who love playing gamelan, the pandemic was a disaster. Canceled concerts, inaccessible instruments, no social gatherings. How would we survive? A gamelan group might be defined as "people sitting near each other in a closed room and playing instruments." When those activities are prohibited, how will this identity be transformed?

Life Online
Getting together online for lectures in the Nusantara Arts Gamelan Masters series[2] was a significant start to a new sense of membership in a global community. Participating in these online events expanded our identity beyond geography and created an international gathering of "gamelan lovers" (as Sapto Raharjo named us long ago) unified by a musical passion, although residing in disparate locations.

Desperate to continue sharing, gamelan teachers and artists invented new formats for the online world. Asnawa taught from his living room. Sekar Jaya hosted bilingual presentations. Wayang in Java changed dramatically, from Purbo Asmoro's solo wayang to the live streaming and permanent posting of performances by many dhalang .[3]

Collaboration Redefined
As people adjusted to interacting virtually, new ways of collaborating emerged. Gamelan Naga Mas of Scotland devised a way to compose together by simultaneously coding online.[4] Five Javanese friends, separated from each other, entered a singing contest by recording single lines that were later compiled into a whole verse.[5]

For the *Pekan Komponis* new music festival in Jakarta on November 6–7, 2021, I was honored to be invited to make a presentation with these two requirements: it had to be all new work, and the files were due in four weeks. Wait—what? We had been in pandemic lockdown for over a year. I had no access to musicians, and no compositions in progress. As a composer steeped in the collective compositional processes of gamelan music, I would need a group to stimulate my creativity.

Fortunately, the pandemic had shown me that there was another way to compose—collaboration via online interaction. I invited several Indonesians to record a one-minute song in their regional language. Eighteen singers responded, some of whom I had never met. My arrangement of these vocal gems became the video BAHASAS.[6] In addition, Wahyu Thoyyib Pambayun and I collaborated on a new composition by integrating elements we admired in each other's work with new material from each of us. I attended rehearsals on Zoom (at 5 am in my time zone!), and the final performance of "Asmarantaka" was recorded at ISI Surakarta.[7]

Neither of these pieces could have been conceived or created without the pandemic having normalized interaction on Zoom, making the online domain a place for artistic communication.

Mixing Modalities
Eventually, some group rehearsals were allowed, with strict social distancing protocols but no observers, and performances were re-imagined for an entirely virtual audience. Galuh Dewi Sinta Sari of Ndalem Sunartan Studio in Solo reconstructed older classical dances and interviewed elder dance masters.[8] The gamelan at Wesleyan University, guided by Sumarsam and I.M. Harjito, presented a concert series with a smaller ensemble. For these events, I and many others experienced the gift of witnessing performances we would not have been able to attend in person.

New formats for online festivals exploded the options of possible participants. The 25th Yogyakarta Gamelan Festival 2020 interspersed five live performances with fifteen videos from groups in New Zealand, the USA, France, and other parts of Indonesia.[9]

Daring vs. _Luring_
Increasing familiarity with Zoom laid the foundation for conversations between people previously living separate lives. I enjoyed sitting in on meetings with Gamelan Dadali in Moscow, the only gamelan in Russia.

Without the pandemic, and without the widespread practice of gathering online, this pleasure would have been unthinkable. But the day arrived when my newly discovered Moscow cohort told me I would not be able to attend any more sessions because they were returning to "offline" rehearsals. I was sad to see the end of our cross-continental camaraderie, and sadder yet to see more groups who stopped sharing their activities online upon being allowed to perform for a local audience.

Our experience of pandemic restrictions changed how we conceptualize and locate our activities. The vocabulary for the return to in-person performing strikes me as significant. Instead of referring to public performances as "live," this activity garnered the new nomenclature "offline," revealing the duality of our Internet-centric lives and the pervasiveness of online activity during the pandemic. In Indonesian, the term for online is *daring* (from *dalam jaringan*, inside the net), later juxtaposed with *luring* (from *luar jaringan*, outside the net). So even when a return to previous formats became possible, the pandemic affected our conception of public performances. We define new activities by what they are not, instead of what they had been before.

The Gifts of the Pandemic

Although the pandemic wreaked havoc on two seasons, it has left us with the the gifts of new contexts for our music. An international audience added to a local one. Performances permanently online in a domain not defined by time or space. An expanded community to admire and advance the arts that all of us—in every country, and every configuration of listeners and performers—care about so deeply.

Now that we have the technology and knowledge to make cyberspace a familiar neighborhood, I hope our newly-forged global connections will be maintained. To the new friends I discovered in this strange timeworld: I know you only because we co-inhabited cyberspace.

The most valuable legacy of the pandemic is the gift of ourselves to each other. Together, we can ensure that everyone in our new global family can always have a seat at the table. ◗

Endnotes

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3. Diamond, Jody, and Linda Hibbs. "Only the Shadows Know: the evolving performance of wayang in Java. *Balungan* Vol. 14 2020, pp. 41–43.

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6. Diamond, Jody, and Robin Richardson. "BAHASAS." https://youtu.be/Qv7pzPafpHA

7. Diamond, Jody, and Wahyu Thoyyib Pambayun. "Asmarantaka." https://youtu.be/qS2T0v1FHVo

8. Sari, Dewi Galuh Sinta Sari. "Our Identity and Our Heritage: the Preservation of Javanese Dance."*Balungan* Vol. 14 2020, pp. 36–37.

9. Wulu, Ari. "Gaung Gong, and the 25th Yogyakarta Gamelan Festival 2020." *Balungan* Vol. 14 2020, pp. 94–95.

Balungan *Volume 14 2020 covered* g*amelan and related arts during the COVID era. One hundred pages, 70 contributors, and one global community.*

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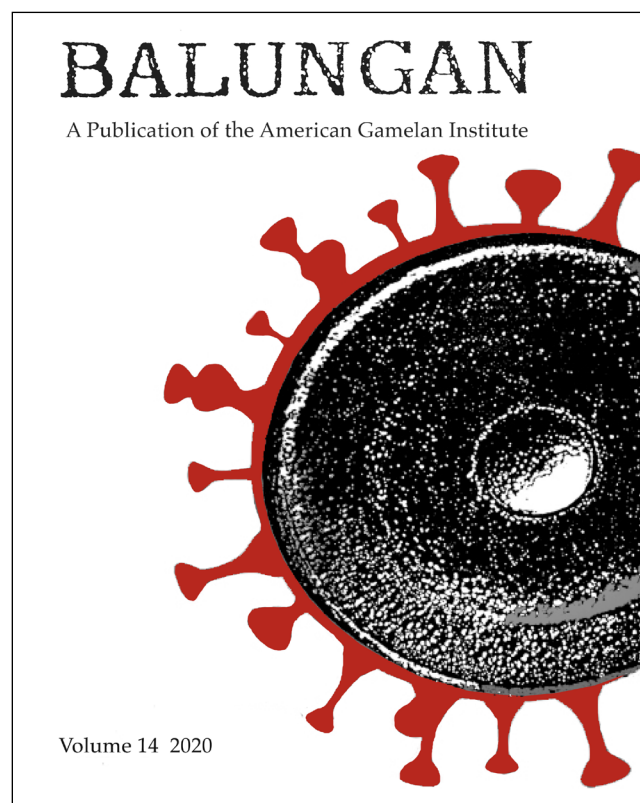
Dewa Alit and Gamelan Salukat

by Oscar Smith

Abstract. In this profile, I share information about Dewa Alit and Gamelan Salukat. First, I provide a description of his philosophies, ideas about culture, and strategic vision for the group. Then I analyse the organology of three out of the four incarnations of the Salukat instruments, detailing their tuning, key configuration, use of ombak, and frame design. I also discuss the compositional implications of his instrument designs, drawing on my experiences composing for the group.

Pada profil ini, saya membagikan informasi tentang Dewa Alit dan Gamelan Salukat. Pertama, saya memberikan

deskripsi filosofi dari Dewa Alit, pandangannya tentang budaya, dan visi strategisnya untuk kelompok gamelannya. Selanjutnya, saya melakukan kajian organologis pada tiga dari empat inkarnasi instrumen Salukat, merinci pada pelarasan nada-nadanya, susunan daun atau bilah instrumen, penggunaan sistem "ombak", serta kerangka bentuk instrumennya. Saya juga membincangkan bagaimana rancangan instrumen tersebut mempengaruhi pendekatan dan teknik-teknik komposisi, dimana hal itu berdasarkan pada pengalaman saya berkarya untuk Gamelan Salukat.

—Translation by I Putu Arya Deva Suryanegara

Saturday 21 July 2018. Pengosekan, Bali.
Rehearsal with the Çudamani Summer Institute finished for the day; we've been practicing a tabuh kreasi from the 1980s by the late Wayan Gandera. Since our final performance will take place in the next few days, Çudamani's gamelan semarandana has been moved from the sanggar to Dewa Berata's house compound, which is located at the end of a long winding driveway with walls covered in lush green vines. As I wander back down the driveway, I hear the sounds of another gamelan. I peer through an open gate and see a rehearsal in progress. There are a few other foreigners watching the rehearsal, so I assume it's okay to enter. I'm greeted by an unfamiliar scale, and finely coordinated glissandi; I take a short video on my phone. I thought I knew my Balinese modes pretty well, so I'm confused by what I hear: They don't seem to be from a semarandana or semar pegulingan, or any ensemble I know about. The intervals seem different, even accounting for normal tuning variations between gamelan.

This moment marked the beginning of a long encounter. Shortly after, I asked around and discovered that this ensemble was Gamelan Salukat, led by Balinese composer Dewa Alit, younger brother to Dewa Berata, whose house I was departing from on this occasion. They were rehearsing one of Alit's newest pieces at the time, "Ngejuk Memedi" (see Tenzer 2018). I was studying composition, and so I was excited to finally hear Balinese "new music," having primarily heard new pieces in the older kebyar style at the Bali Arts Festival (*Pesta Kesenian Bali*, or PKB). This was something quite different—not a "kebyar recycling" as Dewa Rai (another brother to Alit and Berata) called it. About a week later, I went to the Ganesha Bookstore in the centre of Ubud, where I found two CDs of Alit's compositions played by Gamelan Salukat. I listened avidly to these for several months in my car back home in Australia.

I was still confused about the instruments, though: What I heard on these two CDs—*Gamelan Evolusi* (2008) and *Genetic/Land is Talking* (2015)—didn't match what I'd heard in July 2018; I knew I could play some of the melodies of Genetik on semarandana instruments. I re-watched the phone video I'd made, and it was clear that the instruments bore little relation to those on the CDs. It captivated me so strongly that I was inspired to compose a piece for these instruments and their musicians; I knew I needed to return to Bali soon to learn everything I could about Salukat.

In the meantime, Alit sent me recordings of the instruments I saw that day, which I used to gain a preliminary understanding of the scales. That was enough for me to write a piece for Salukat in the latter half of 2018, which I titled "Waringin." I then returned to Bali in December 2018 and spent many days in Alit's composition loft room chatting with him, learning about his instruments, and proposing to record my piece with his group. I became quite obsessed with his piece, "Genetik." I was preparing for an honours project in the September semester, and decided that exploring "Genetik" could be a way to get inside the mind of this fascinating composer. In early 2019, I corresponded with Aya, Alit's wife, to plan a budget and organise rehearsals and a recording session with Salukat. In June–August 2019, I returned to Pengosekan to record "Waringin" with Salukat, and to interview Alit to learn as much as possible about "Genetik."

Shortly after arriving, I made my way to Alit's outdoor *sanggar* [studio] and inspected the instruments. Before the first scheduled rehearsal, I wanted to check that what I knew about the instruments was correct. It turned out that the recordings of the instruments I'd been

The musicians of Gamelan Salukat in rehearsal in 2018. Musicians, left to right—Name (nickname)—front row: I Komang Resa Pradana (Resa), I Kadek Putra Agustina (Deknyat), I Dewa Gede Artayasa (Baduk); second row: I Wayan Eka Sutawan (Eka), I Wayan Sumerta (Nana), Cokorda Agung Sedana (Cok Gung), I Wayan Galung Marwanaya (Awan); third row: I Made Aristana (Made), I Putu Astianawan (Liong), I Kadek Janurangga (Otok), I Wayan Okto Saputra (Gabler). Photo: Oscar Smith.

sent weren't quite complete—I didn't think to ask for the jegogan as well as both calung because I assumed they'd have the same pitches, except with the normal relation of *pengumbang* (slightly lower) and *pengisep* (slightly higher) tunings. It turns out that Salukat's gamelan in its current form included four *pokok* [core melody] instruments, a jegogan and calung pair in one scale but with different, overlapping ranges, and a jegogan and calung in another scale, also with different ranges. To my surprise, none of these four comprised a pair with which to create ombak, the beating effect caused by pengumbang-pengisep tuning differences. I needed to quickly reconfigure some of the melodies I had written. I also tried to play the melodies from "Genetik" that I could sing from memory after obsessive listening over the previous year—to no avail. There was no combination of modal extractions that generated the same intervals as in Genetik and the other CD. It took some very close listening and many hours of interviews with Alit to make sense of this.

From my deep engagement with Alit's musical world as a composer-cum-ethnomusicologist, the sonic and instrumental features of his gamelan slowly became clear. I learned about technical aspects of his instruments as well as the motivations behind their design, which to my knowledge had not been previously studied in great detail. I was motivated to further understand the creative ideas behind this composer and his instruments.

WHO IS DEWA ALIT?

Biography
Dewa Ketut Alit (b. 1973), is known to many international gamelan enthusiasts as a composer, gamelan musician and teacher. In 1997, Alit co-founded Gamelan Çudamani in Pengosekan with his brother Dewa Putu Berata, and was senior composer and *ugal* [lead metallophone] player of the group for about a decade. Since then, Alit has taught overseas, primarily at the University of British Columbia and Massachusetts Institute of Technology (MIT), and also at a high school in Perth, Australia. He has composed for gamelan groups worldwide. Notably, and to a unique degree among Balinese composers, he has also composed for other ensembles of international stature, including Ensemble Modern in Germany and Talujon percussion ensemble in New York, to name a few. Alit left Çudamani in 2007 to pursue his ambitions as a composer first and foremost, and to that end he formed his own ensemble, Gamelan Salukat. Both the instruments and the music Alit writes for them are at the cutting edge of new gamelan music in Bali today.

Philosophies
Being "new" is a priority for Alit. And yet he is deeply and intimately connected with his musical and cultural heritage, with no wish to throw the baby out with the bath water. On the one hand, Alit is radical in his effort to disentangle music from religion, eschewing the widely-shared notion that Balinese gamelan music has sustained itself through its interconnection to Balinese Hinduism (Agama Tirtha Bali). On the other hand, he retains what he believes are essential aspects of traditional practice, most notably the oral pedagogical method of *maguru panggul* ["learning by the mallet"], by which all musical parts are learned orally, by memory and through repetition. Alit's notational tools are a hybrid of Balinese *aksara* [script] notation, some Western notation, and adapted aspects of cipher notation that suit his newer instruments. He hopes to keep Balinese music "the master of its own house" and also broaden the context for the appreciation of gamelan music through the presentation of "art music" concerts at venues such as Bentara Budaya Bali and through international touring. This is Alit's strategic vision:

eschewing tradition where he wants, and holding onto it when it suits him. He expresses this nuanced position in a short essay about his composition "Genetik."

> Bali is extremely lucky to have a form of traditional gamelan music of such depth and meaning. This cultural wealth begs to be well-cared for and is foundational to the future sustainability of traditional music. It is part of our cultural design that gives Bali its unique reputation. Cultural preservationists must be aware that this does not happen on its own. . . . If we as Balinese grow apathetic towards the core issues involved in the development of our own artistic forms, then should we just hope that non-Balinese will take care of that which we have forgotten? (Alit 2012, translated in Steele 2013)

Alit is acutely aware of the international community of people who play gamelan, and he strives for gamelan to become cross-cultural. As a composer, he listens widely and absorbs many cross-cultural influences (see Tenzer 2018 for a more detailed discussion). At the same time, there are elements of traditional practice that he values highly.

> Balinese gamelan music . . . needs to be ever-changing and without borders. This mission has motivated me to design and build Gamelan Salukat

Dewa Alit at the Salukat sanggar in his house compound in Pengosekan, Bali. Photo: Ryu Ageng.

> and form a sekehe [community club] to perform new music on these instruments. This strategy has enabled me to more freely realize new musical ideas in a strongly traditional environment. It is a situation analogous to contemporary Bali itself. This gives my work meaning not only because it retains a traditional identity. Much more importantly, it empowers and positions gamelan music to be the "master of its own house" until it can give birth to a musical lifestyle that is resilient against the increasingly pervasive onslaught of global capitalism. (ibid.)

The meaning of "Salukat" reveals more about his approach to tradition. The name is coined from the concatenation of *salu*, house, and *kat*, signifying regeneration and cycles of rebirth; together it means "a place for new creativities based on tradition." By conceiving of tradition in terms of rebirth, his new ideas are not stifled by the academically constructed notion of "living tradition," which emerged from earlier colonial ideologies and reify static concepts of culture rather than culture as change. Alit thinks the idea of a living tradition can still choke the development of new forms, because it has associations of "old,"which is inextricably intertwined with politics, religion and *adat* [traditional customary law]. By refashioning and re-imagining the music from the ground up, with new instruments and compositional methods, Alit doesn't feel hindered in the creation of new music by connections and associations with traditional elements.

Alit's goal to "realize new musical ideas in a strongly traditional environment" refers to the maintenance of oral learning, and thereby the deep embodiment of the musical material—indispensable aspects of his idea of Balineseness (see Tenzer 2018). Aside from that, freedom prevails: all musical elements are considered fair game to be changed, including the instruments themselves.

GAMELAN SALUKAT

Personnel
Alit first commissioned the forging of keys and pencon for his new ensemble in 2006. By 2007, he had recruited a full ensemble of musicians to fulfil his creative ambitions. While it began with many musicians from Çudamani, the current membership is young men aged mostly in their 20s from the nearby Ubud area, many of whom play in other local ensembles such as Semara Ratih, Nata Swara, and Gamelan Yuganada (the latter two also focus on new music). As in many Balinese ensembles, the personnel fluctuates as the musicians marry or work and can no longer commit to rehearsals. This is not a problem, however, as Alit has told me that he thinks that the ability to execute his radical musical ideas often depends on the flexibility of young minds and the vigor of young musicians excited to pioneer new musical ideas.

For example, Putu Septa and Kadek Janurangga are two young musicians in Salukat who have promising careers as composers; their membership in Alit's group is an important foundational experience for them. I have joined many a late-night drinking session where the musicians gather round, chatting and smoking, inspired by Alit's unconventional ideas about music, politics, or religion. They also have a cosmopolitan awareness having toured internationally, including a collaboration with Evan Ziporyn and Bang on a Can.

Key Layout, Tuning, and Ombak
As well as honing a distinctive compositional style, Alit has experimented with a number of different instrument designs.[1] In each version, Alit tweaked (1) the number of keys, (2) the tuning, and (3) the *ombak* [lit. wave] configurations.

As of 2022, there have been four versions of Salukat's instruments. Due to restrictions on travel during the pandemic, I am only able to provide details here for the first three versions. (See Cahyo 2022 for information on the fourth tuning.)

Tuning I: The same as a semarandana, with two extra keys, similar to the tuning used by Çudamani, with a four-part ombak.
Tuning II: The same as the first tuning, but with a narrower ombak range—just a "touch up."
Tuning III: An entirely new scale system, with a different ombak for each scale degree.
Tuning IV: The same as III, with an extra key at the bottom, and perhaps some interval adjustment.

The first and second instrument designs were relatively minor developments in terms of the general trends

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1. Experimenting with instrument design and tuning has become a fairly commonplace activity among Balinese composers. Wayan Beratha's semarandana (see McGraw 2000) could be seen as the beginning of this, followed by Wayan Sinti's Manikasanti and Siwa Nada. More recently, and likely inspired by Salukat, are Wayan Sudirana's Gamelan Yuganada, Wayan Arik Wirawan's Gamelan Pesel, and Putu Septa's Nata Swara, to name but a few. (See McGraw 2013: 147-150 for a brief discussion of the ideologies at play.) Empirical organological studies of these experiments are few and far between, something the present study aims to respond to.

Bali Aksara	॰	॰	॰	॰	॰	॰	॰
Vocalisation	ding	dong	deng	deung	dung	dang	daing
Abbreviation	i	o	e	eu	u	a	ai
Scale degree	1	2	3	4	5	6	7
Closest western pitch	D	E♭	F	G	A	B♭	C

Figure 1. Balinese solfege characters for the parent scale saih pitu (lit. "set of seven;" similar to Javanese pelog). The Western pitches are close to the first two versions of Salukat's tuning.

in Balinese gamelan design, which I will outline here for context. For most of the twentieth century, the ubiquitous five-tone gong kebyar ensemble dominated the island. Many courtly seven-tone semar pegulingan ensembles as well as older ensembles such as gong gede were melted down to form kebyar's popular five-tone instruments.

In the 1980s, composer Wayan Beratha developed the hybrid semarandana instruments (of which Çudamani is an example) which are like gong kebyar in their lower octave and like semar pegulingan in their upper octave (Fig. 2) and thus are able to play the ever-popular kebyar repertoire and older courtly styles being revived from the 1980s onwards. Beratha also saw these instruments as a compositional resource for exploring new ideas, specifically by opening up the possibility to explore ancient Balinese modes in new compositions. Thus, while the twentieth century saw a preference for five-tone tunings, since the 1980s, and with increasing intensity in the past two decades, there has been a return to seven-tone tunings—though with vastly altered interpretations and freedoms (Vitale 2002).

Alit saw Salukat as the next logical step in a trend towards the return of seven-tone tunings; he was frustrated by the limitations of the semarandana instruments more than a decade prior to Salukat's inception.

"I already had a plan to make a new gamelan—I was planning this when I was in college. Even around 1990, when I was in Semara Ratih I already had a plan. When I saw a gamelan semarandana—this is 7 (points to the upper octave) and this is 5 (the
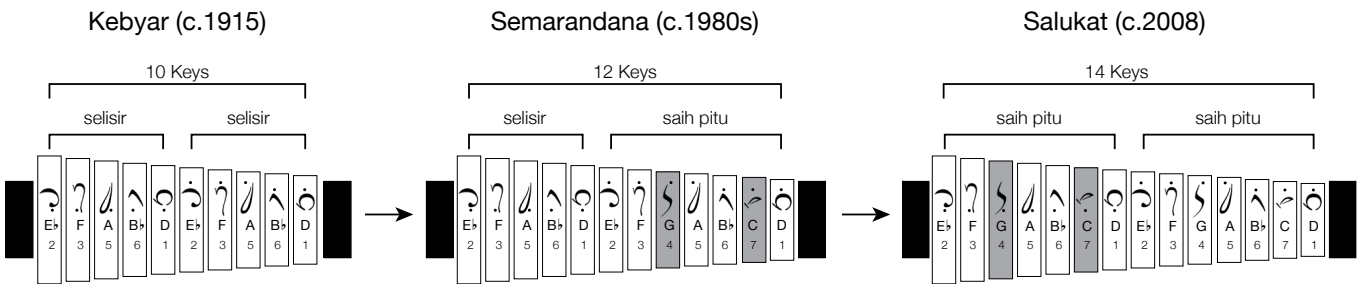
Figure 2. Range-pitch comparison of the gangsa *[metallophone instruments] in the Balinese gamelan ensembles that preceeded Salukat. Shading indicates keys added from previous instruments.*

lower octave). So, when I played it just struck me: why is [the lower octave] 5? I understand because Pak [Wayan] Beratha at that time, he wanted to combine kebyar and semar pegulingan so that when the students play sendratari [at festivals and competitions], one gamelan is enough, because usually there would be three types of gamelan! Kebyar, Gong gede and Semar pegulingan; with Semarandana you can just bring one … But to me, I'm thinking, okay, I want these bars here (gestures to extra keys in the lower octave). I was the first to add more notes in the low [register]; in Çudamani, I put lower notes on the reong. Because when I composed Pengastungkara, it was hard for me to find modes in the left hand of the lower player. When I composed Geregel also." Alit, p.c, Aug 2019.[2]

This precedent is what spurred him to create the first two iterations of Gamelan Salukat. The first tuning in 2006 was modelled on Çudamani's semarandana instruments in terms of absolute pitch height as well as relative intervallic content, the only new elements being the insertion of two extra keys in the lower octave (see Fig. 2) and a special ombak, described below. To convey the modal and scalar adjustments, I provide a chart (Fig. 1) for understanding the Balinese solfege symbols as I use them throughout this article and as they are conventionally used in Balinese notation. In keeping with the long tradition of cipher notation in Javanese and Balinese music, dots above and below are added to disambiguate octaves: a dot below indicates the lower octave, a dot above indicates the higher octave.

With the addition of the two extra keys in the lower octave, Alit could more easily compose melodies in modes apart from *selisir*, the mode associated strongly with kebyar, and to which the lower octave of semarandana gangsa are restricted. The melodic contours would be much less affected by the need to "fold over" (jump down or up an octave) when the melody exceeds the one octave range of *saih pitu* (essentially equivalent to Javanese pelog) on semarandana. On semarandana instruments, this is possible only to a limited extent in modes which share most pitches with selisir—for example *sunaren*, which has 4 out of 5 pitches in common with selisir. He could now compose in all seven modes with as much melodic freedom as composing in selisir on kebyar instruments. Figure 3 demonstrates these possibilities by showing the Balinese modes as named by Alit, with the scale degrees (and therefore ding-dong solfege) shifted appropriately. In Alit's notation, he indicates the mode at the start of a section, communicating which key in the parent scale has become

ding (scale degree 1), or where he wants to use all seven keys freely, he writes saih pitu, and uses the full seven-tone solfege, as indicated in the faded grey on the top instrument illustration below.

Alit's pitch range expansions, however, did not apply only to the gangsa. He also expanded the range of all keyed instruments, the reong, and even the gong—Alit's most dramatic alterations relative to other experiments in seven-tone instrumental design. Figure 4 shows the instrument configuration of the Salukat ensemble as used in the first two tunings (not showing suling, ceng-ceng or kentuk). There are seven gongs, which Alit puts to melodic effect. For example, in
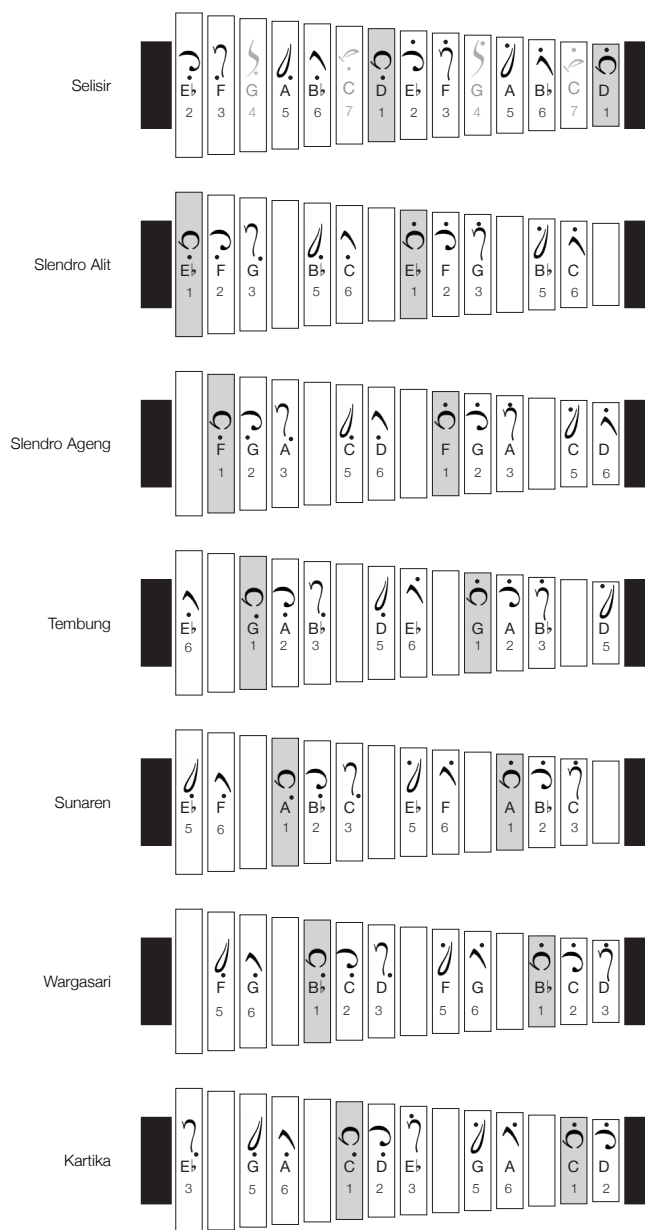

Fig. 3. Modes possible on Gamelan Salukat's 14-key instruments in the first two ensemble designs (2006–2016). Shaded keys show the different locations of ding *[scale degree 1 of each mode].*

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2. "Geregel" (1999) and "Pengastungkara" (2000) are two innovative seven-tone pieces Alit composed for Çudamani in the late '90s. They have been analyzed by Wayne Vitale (2002) and Andrew McGraw (2005) respectively.

Gamelan Salukat

Gong

B♭ ~53Hz	C ~62Hz	D ~75Hz	F ~83Hz	G ~96Hz	
6	7	1	3	4	

Kempur

A ~106Hz	B♭ ~113Hz
5	6

Reong

F	G	A	B♭	C	D	E♭	F	G	A	B♭	C	D	E♭	F	G	A
3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5

Jegogan x 2

D	E♭	F	G	A	B♭	C	D	E♭	F	G
1	2	3	4	5	6	7	1	2	3	4

Jublag x 2

A	B♭	C	D	E♭	F	G	A	B♭	C	D
5	6	7	1	2	3	4	5	6	7	1

Gangsa
Pemade x 4, Kantilan x 4

E♭	F	G	A	B♭	C	D	E♭	F	G	A	B♭	C	D
2	3	4	5	6	7	1	2	3	4	5	6	7	1

saih pitu   *saih pitu*

14 Keys

Kendang

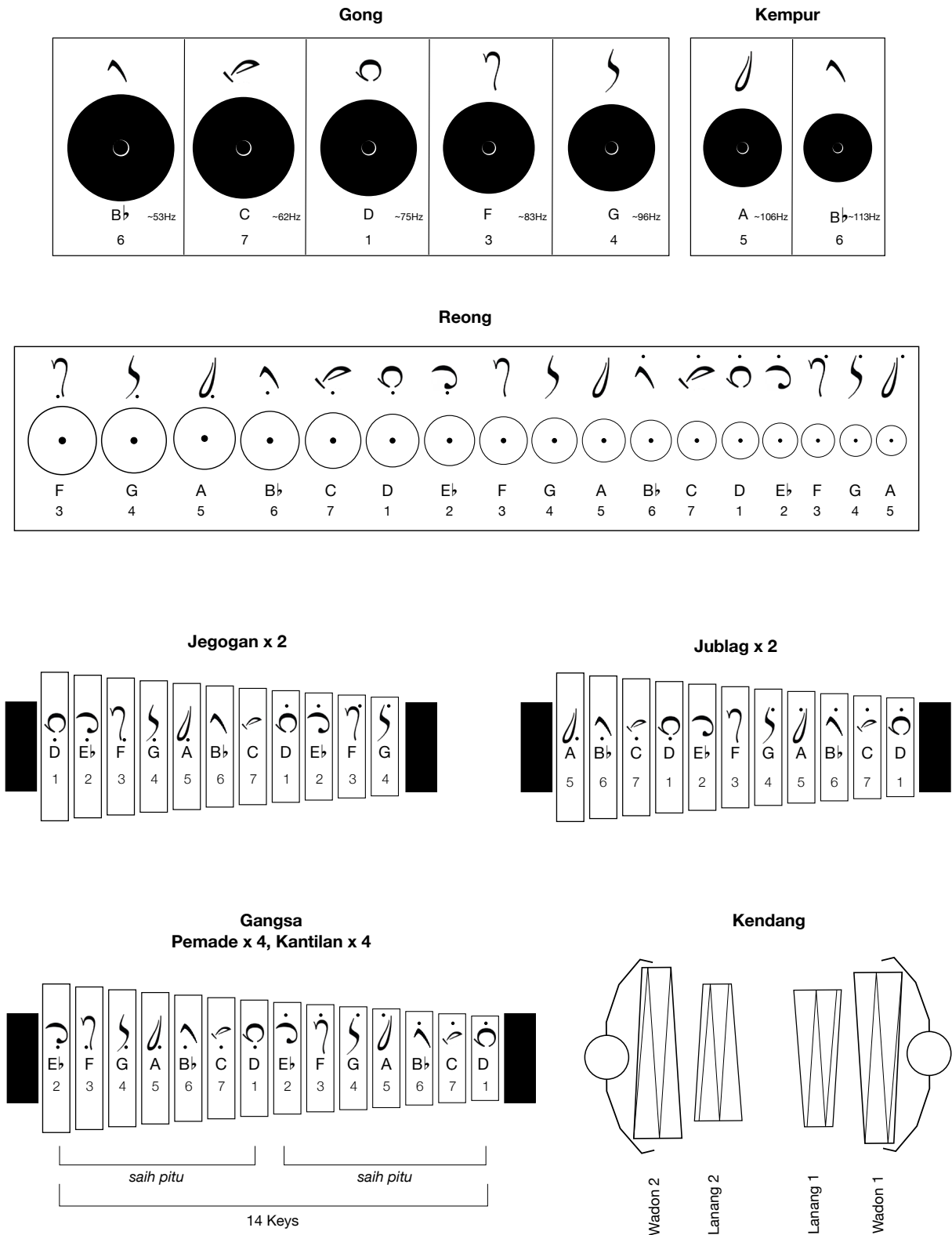Wadon 2   Lanang 2   Lanang 1   Wadon 1

Figure 4. The instruments of Gamelan Salukat in the first two tunings, with drumming configuration for "Genetik" (2012). Western pitches represent only approximate intervallic relationships, as precise Hertz measurements are difficult enough to measure from recordings with the beating effects of the paired tuning, and nearly impossible with Alit's four-part ombak system.

"Genetik" he creates slow moving melodies that seem to assume a contrapuntal function, often creating a stronger sense of anticipation toward the return of the deepest gong. The pokok instruments each have four keys more than their usual semarandana counterparts, and by starting the jublag on a note other than ding (as is usual for kebyar and semarandana jegogan and jublag), together these instruments encompass an entire extra octave. In *Genetik* (2012), Alit puts this extra range to use in creating two-part melodies that traverse the entire range of these instruments, as I have analysed elsewhere (Smith 2019).

Apart from the extended range of Salukat's early instruments, the other new feature is Alit's use of ombak. Ombak refers to the distinctively Balinese paired tuning system, in which unisons are comprised of two partners, the slightly higher pengisep and the slightly lower pengumbang, which produce interference beats when sounded together, typically at an average rate of about eight beats per second. This tuning system is ubiquitous in Bali, used for many ensembles: gender wayang, angklung, gong kebyar, semar pegulingan, semarandana and even bamboo instruments such as rindik and jegog. Ombak speeds, also called *geteran* (Indonesian and Balinese for "vibration," also used by Alit to mean frequency), usually range from 6–10Hz; factors such as repertoire, regional style, and personal taste determine the exact speed (see Vitale and Sethares 2020 and 2021 for comprehensive studies of ombak, and other tuning information).

Alit's innovative vision for his new set of instruments was particularly focused on ombak. He harnessed ombak as a creative element in two ways: (1) rather than using a singular geteran created by the pengumbang-pengisep pair, Alit's instruments generate three primary geteran—slow, medium, and fast—through a quartet of differently tuned gangsa, with the pengumbang designated as the lowest pitched instrument; (2) the total bandwidth exceeds the normative 6–10Hz range in both directions, with speeds ranging from 2 to 16Hz (see Fig. 5). Compositionally, Alit could pair off any two of these four, resulting in a large number of different available ombak speeds based on the various possible combinations, and when the quartet is played simultaneously a dense wash of different vibrations can be felt. The opening of Alit's 2008 composition "Salju" explores the different geteran speeds available using the above configuration of tunings.

The first tuning can be heard in the four compositions (including 'Salju') on Salukat's first album 'Gamelan Evolusi', released in 2010. Following this recording, Alit decided to retune the Salukat instruments. Newly forged bronze requires several tunings early in its life, as it approaches intonational stability; but Alit took the opportunity to tweak aspects of the paired tuning system's structure rather than just touch up or restore the existing tuning. In this second tuning, the interval sizes and scale remain the same as in Figure 6, but with reduced total geteran range for greater clarity in full ensemble textures.
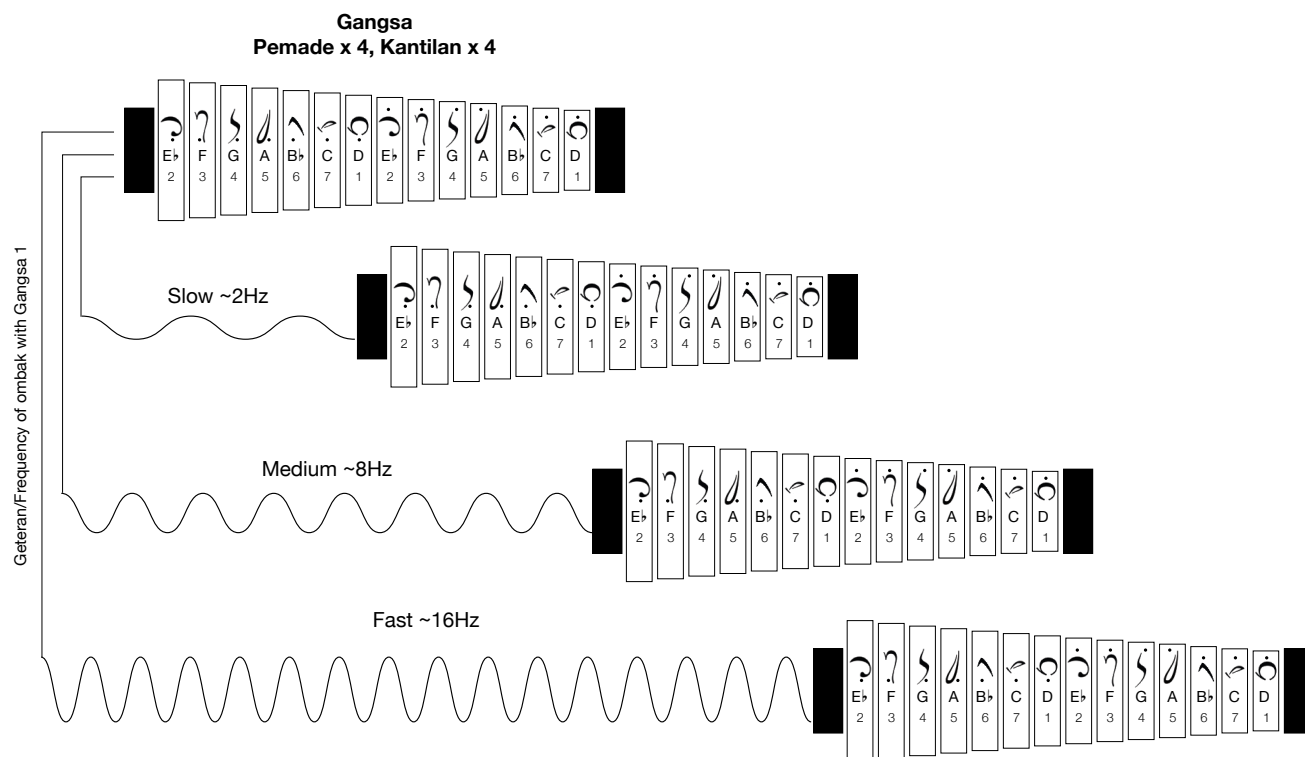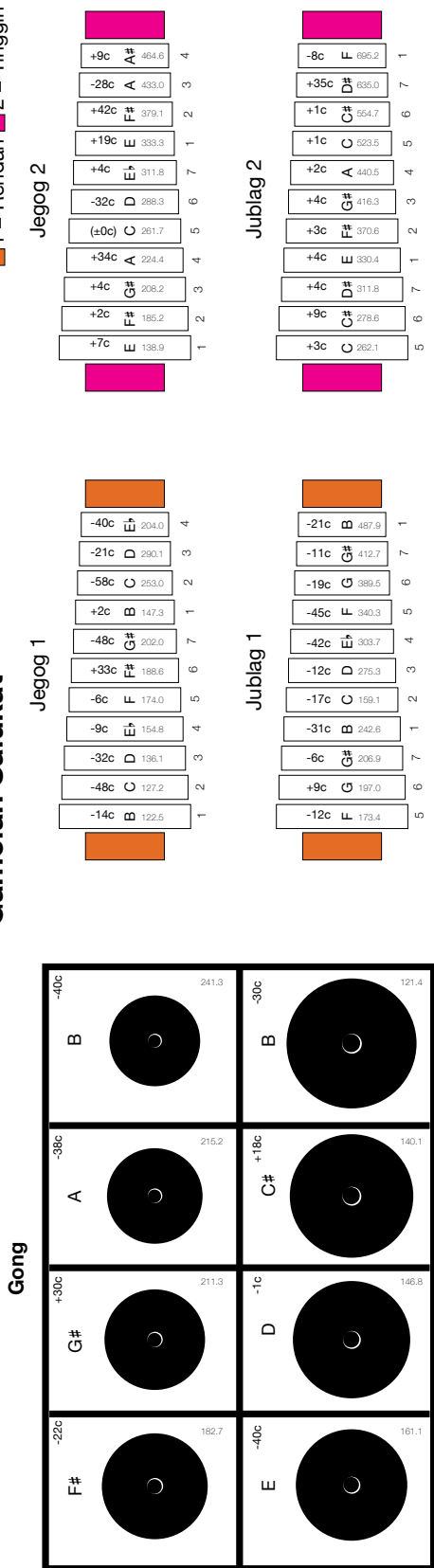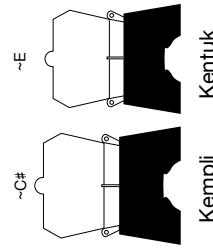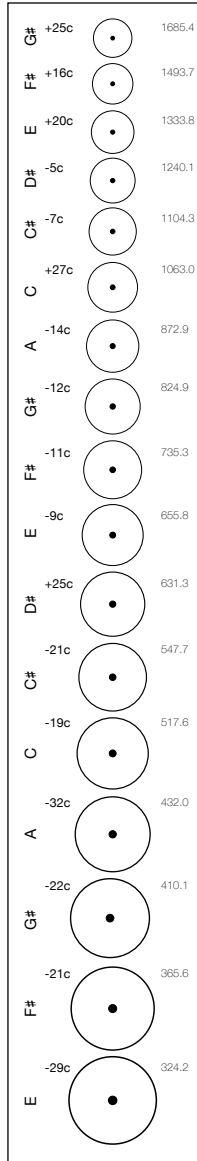

Figure 5. Four-part ombak (which generates 3 different geteran speeds) in the gangsa of Gamelan Salukat. Ombak speeds have been estimated based on spectral analysis of the CD recordings, which only allows for limited accuracy. As far as I know, Alit's instrument combinations always include gangsa 1.
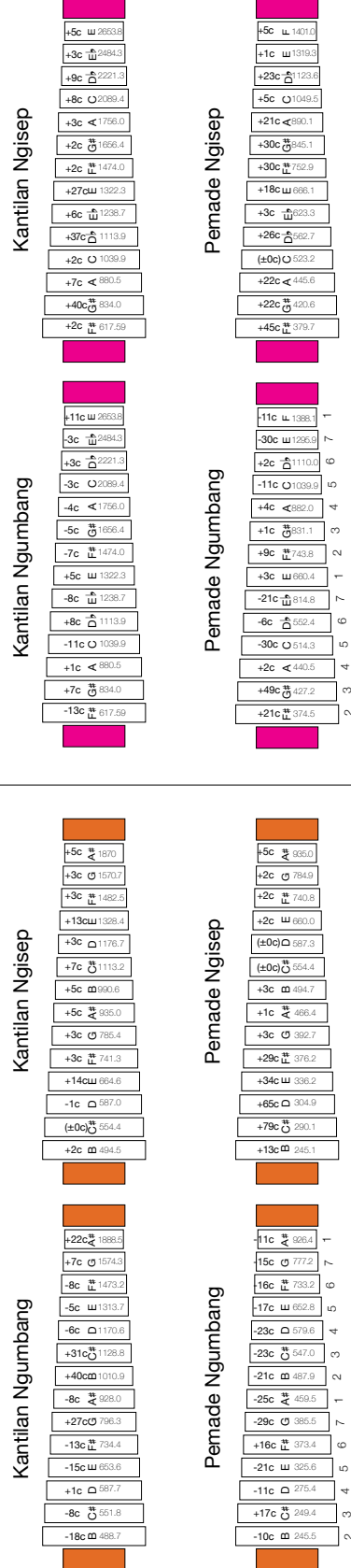
Gamelan Salukat

☐ 1 = Rendah ☐ 2 = Tinggih

Jegog 2

+9c	A♯	464.6		4
-28c	A	433.0		3
+42c	F♯	379.1		2
+19c	E♭	333.3		1
+4c	E♭	311.8		7
-32c	D	288.3		6
(±0c)	C	261.7		5
+34c	A	224.4		4
+4c	G♯	208.2		3
+2c	F♯	185.2		2
+7c	E	138.9		1

Jublag 2

-8c	F	695.2		1
+35c	A	635.0		7
+1c	C	554.7		6
+1c	C	523.5		5
+2c	A	440.5		4
+4c	G♯	416.3		3
+3c	F♯	370.6		2
+4c	E	330.4		1
+4c	D♯	311.8		7
+9c	C♯	278.6		6
+3c	C	262.1		5

~E ~C♯

Kentuk Kempli

Jegog 1

-40c	E♭	204.0		4
-21c	D	290.1		3
-58c	C	253.0		2
+2c	B	147.3		1
-48c	G♯	202.0		7
+33c	F♯	188.6		6
-6c	F	174.0		5
-9c	E♭	154.8		4
-32c	D	136.1		3
-48c	C	127.2		2
-14c	B	122.5		1

Jublag 1

-21c	B	487.9		1
-11c	G♯	412.7		7
-19c	G	389.5		6
-45c	F	340.3		5
-42c	E♭	303.7		4
-12c	D	275.3		3
-17c	C	159.1		2
-31c	B	242.6		1
-6c	G♯	206.9		7
+9c	G	197.0		6
-12c	F	173.4		5

Gong

-40c B	241.3	-30c B	121.4
-38c A	215.2	+18c C♯	140.1
+30c G♯	211.3	-1c D	146.8
-22c F♯	182.7	-40c E	161.1

Reong 2

G♯	+25c	1685.4
F♯	+16c	1493.7
E	+20c	1333.8
D♯	-5c	1240.1
C♯	-7c	1104.3
C	+27c	1063.0
A	-14c	872.9
G♯	-12c	824.9
F♯	-11c	735.3
E	-9c	655.8
D♯	+25c	631.3
C♯	-21c	547.7
C	-19c	517.6
A	-32c	432.0
G♯	-22c	410.1
F♯	-21c	365.6
E	-29c	324.2

Gangsa 2

Kantilan Ngisep

+5c	E	2653.8
+3c	D	2484.3
+9c	C	2221.3
+8c	C	2089.4
+3c	A	1756.0
+2c	G♯	1656.4
+2c	F♯	1474.0
+27c	E♭	1322.3
+6c	D	1238.7
+37c	C♯	1113.9
+2c	C	1039.9
+7c	A	880.5
+40c	G♯	834.0
+2c	E	617.59

Kantilan Ngumbang

+11c	E	2653.8	1
-3c	D	2484.3	7
+3c	C	2221.3	6
-3c	C	2089.4	5
-4c	A	1756.0	4
-5c	G♯	1656.4	3
-7c	F♯	1474.0	2
+5c	E♭	1322.3	1
-8c	D	1238.7	7
+8c	C♯	1113.9	6
-11c	C	1039.9	5
+1c	A	880.5	4
+7c	G♯	834.0	3
-13c	E	617.59	2

Pemade Ngisep

+5c	E	1401.0
+1c	E	1319.3
+23c	C♯	1123.6
+5c	C	1049.5
+3c	A	890.1
+30c	G♯	845.1
+30c	E	752.9
+18c	E	666.1
+3c	D♯	623.3
+26c	C♯	562.7
(±0c)	C	523.2
+22c	A	445.6
+22c	G♯	420.6
+45c	F♯	379.7

Pemade Ngumbang

-11c	E	1388.1	1
-30c	E	1296.9	7
+2c	D	1110.0	6
-11c	C	1039.9	5
+4c	A	882.0	4
+1c	G♯	831.1	3
+9c	F♯	743.8	2
+3c	E	660.4	1
-21c	D♯	614.8	7
-6c	C♯	562.4	6
-30c	C	514.3	5
+2c	A	440.5	4
+49c	G♯	427.2	3
+21c	F♯	374.5	2

Gangsa 1

Kantilan Ngisep

+5c	F♯	1870
+3c	G	1570.7
+3c	F♯	1482.5
+13c	E	1328.4
+3c	D	1176.7
+7c	C♯	1113.2
+5c	B	990.6
+5c	F♯	935.0
+3c	G	785.4
+3c	F♯	741.3
+14c	E	664.6
-1c	D	587.0
(±0c)	C♯	554.4
+2c	B	494.5

Kantilan Ngumbang

+22c	F♯	1888.5	1
+7c	G	1574.3	7
-8c	F♯	1473.2	6
-5c	E	1313.7	5
-6c	D	1170.6	4
+31c	C♯	1128.8	3
+40c	B	1010.9	2
-8c	F♯	928.0	1
+27c	G	796.3	7
-13c	F♯	734.4	6
-15c	E	653.6	5
+1c	D	587.7	4
-8c	C♯	551.8	3
-18c	B	488.7	2

Pemade Ngisep

+5c	A♯	935.0
+2c	G	784.9
+2c	F♯	740.8
+2c	E	660.0
(±0c)	D	587.3
(±0c)	C♯	554.4
+3c	B	494.7
+1c	A♯	466.4
+3c	G	392.7
+29c	F♯	376.2
+34c	E	336.2
+65c	D	304.9
+79c	C♯	290.1
+13c	B	245.1

Pemade Ngumbang

-11c	A♯	926.4	1
-15c	G	777.2	7
-16c	F♯	733.2	6
-17c	E	652.8	5
-23c	D	579.6	4
-23c	C♯	547.0	3
-21c	B	487.9	2
-25c	A♯	459.5	1
-29c	G	385.5	7
+16c	F♯	373.4	6
-21c	F♯	325.6	5
-11c	D	275.4	4
+17c	C♯	249.4	3
-10c	B	245.5	2

Figure 6. The third tuning of Gamelan Salukat. On the gangsa, the fifth key of the rendah scale matches the first key of the tinggih scale. (The second reong in the rendah tuning was in storage at the time I measured the instruments, so I was unable to check the precise tuning.) Colors match those in Tenzer 2018. Number above each key shows the cents deviation from the western pitch. Number below is the frequency in Hertz.

The second tuning can be heard on Salukat's second album "Genetic/Land is Talking", released on CD in 2015.

After this modest adjustment, Alit went a step further in 2016, melting down the keys and starting afresh. Tunings 1 and 2 derive their intervallic pattern from saih pitu. This third tuning is a much more radical 11-tone pitch collection, comprised of two 7-tone scales that share three pitches. The two scales are referred to as *rendah* [low] and *tinggih* [high] because scale 1 has a lower pitch range throughout the instruments than scale 2. These two 7-tone scales are no longer derivative of saih pitu and have interval patterns (see Tenzer 2018 for an audio excerpt and analysis) unlike anything else I have heard in Bali, except for the more recent design of Wayan Sudirana's Gamelan Yuganada, which is likely inspired by Alit and has yet to be studied. Alit told me that if Balinese scales might generally be described as *jejeg* [upright], then Salukat's scale is *miring* [slanted]. Alit actually refers to this scale as "*saih miring.*" One salient feature of these new scales is the presence of several linear intervals approximating a minor 3rd, as a result of which, to my ears, the rendah scale resembles harmonic minor, and some tetrachordal extractions of both scales resemble the Middle Eastern *Jins Hijaz* (akin to the upper tetrachord of harmonic minor).

In this 11-tone system, four of the gangsa are tuned to one of these scales, while the remaining four are tuned to the other scale. Additionally, there are two reong, each tuned to one of the two 7-tone scales, which, when required to be played simultaneously, have a special two-level *plawah* [instrument frame] that allows the players to access pitches from both scales. Further experimenting with ombak, Alit tuned the scale such that each note of the scales used a different geteran when played with the counterpart in its pair, rather than the usual consistent speed throughout the registers (a hypothetical example: pitch one has 5Hz ombak, pitch two has 8Hz). Figure 6 shows precise tuning measurement made in 2019. When I conducted these measurements, Alit admitted that the instruments required tuning as they had deviated slightly from their ideal due to

the rapid tuning change expected of freshly forged bronze; and while the scale was mostly clear, the most marked deviation was the geteran ombak inconsistencies between instruments, which were not how Alit intended them.

Alit retains the expanded range of the jegogan and jublag, both with eleven keys as in the previous iterations, now with the new tuning. However, these instruments no longer have exact pairs. Instead, to create ombak, the jegogan must play in unison with the matching jublag player in their scale (which has a different range), rather than the other jegogan, which is tuned to a different scale. This radical third tuning can be heard in Alit's pieces "Ngejuk Memedi" (2016; released on the 2020 album *when i OPEN MY DOOR*) and "Siklus" (2019), and also in my composition "Waringin" (2018).

In 2020, Alit reworked his tuning a fourth time. On May 6, 2020, he released an intriguing Facebook post mentioning a project called "Salukat reborn," accompanied by a photo of gamelan builder Pande Wayan Juniarta (Yande) retuning Salukat's keys. Owing to the pandemic, I was not able to visit and understand this next iteration, although from video excerpts I am fairly sure that this fourth tuning is an adjustment and refinement of the third tuning (Fig. 6), with the addition of an extra key at the bottom of the instruments (to make three scale degree 1s), requiring new plawah to accommodate the extra length. I am intrigued to hear how Alit uses this new tuning in his recent composition "Likad" (2021).

Compositional Implications

The scales of the third and fourth tunings are configured in such a way as to automatically generate vertical intervals. In kebyar and other genres, a common method of melodic embellishment is where the sangsih musicians play *ngempat*, literally meaning to play four scale/mode degrees higher than the core melodic note wherever possible given the range restrictions on kebyar or semaradana instruments. The intervals generated through this technique are known as *kempyung*. Salukat's gangsa design, however, is such

Figure 7. Kotekan section in my 2018 composition "Waringin" with kempyung in both gangsa parts simultaneously, generating extra "harmony." Red indicates polos parts, blue indicates sangsih parts. Numbers indicate scale degrees (see Fig. 8 for configuration of scales on Salukat's instruments; the lowest note is scale degree 2). Note that while the scale degrees are identical for rendah and tinggih, the actual pitches are different.

that if one plays the same key (e.g. both the lowest keys on gangsa rendah and gangsa tinggih), the scale configuration will automatically generate kempyung-like intervals without the need for the musicians to play four keys higher.

The vertical intervallic potential for this design becomes apparent when envisaging, for example, the sangsih musicians in each half of the ensemble also playing ngempat, which would generate four pitches, two sets of these kempyung intervals simultaneously. Rich combinatorial possibilities arise, without the need to create and teach unconventional figuration—the idiomatic kotekan patterns that the musicians already know can be used to produce fresh, new intervals. In this way, the instruments are central to Alit's compositional goals: by designing instruments with a range difference (a relatively minor change made by simply beginning on a different note), he opens up a world of possibilities for exploring new vertical combinations (contained within the tuning), but without sacrificing familiar elements of the Balinese kotekan idiom, which can be taught to the musicians easily by using the usual oral methods. For example, in my composition "Waringin" (2018), I used the common kotekan figuration style *kotekan empat*—the two parts rhythmically coincide on the note four keys higher in this section's mode (see Fig. 7). These parts were idiomatic for the musicians, and as I was teaching the polos part, the sangsih musicians figured out the complementary parts. The musicians playing instruments tuned to the other scale did not need additional instruction, and exiting new combinations were easily accomplished.

In Javanese gamelan pedagogy and practice, it is common to instruct using key numbers and use notation. In Bali, the *ding-dong-deng-dung-dang* solfege system is the preferred communication strategy. Given the unconventional tuning, however, Alit said that using ding-dong solfege felt strange to the musicians, despite

the fact that it is a moveable system that can be used for different modes, different tunings, and different gamelan (e.g. gamelan gambang). For the musicians, this tuning apparently exceeded a threshold of familiarity, so Alit now notates his music for Salukat using numbers. Calling out key numbers was also the method I used to teach the musicians my piece, a process I discuss in more detail in a previous article (Smith 2020).

Frame Design

Alit's frequent experiments with tuning and instrument range/layout resulted in a set of entirely unadorned, boxy plawah with no carving or lacquer. (He built a new set of these purely functional plawah to accommodate the extra key of the fourth tuning.) However, when Salukat performs they use another set of plawah also designed by Alit. The two important aspects of these plawah are height and decoration. The height of the gangsa is noticeably shorter than a conventional kebyar or semarandana set. Alit says this design choice was a practical one: It makes the instruments easier to play sitting cross-legged, and more compact for transporting stacked on top of each other. They are also decidedly less ornate than the usual plawah designs with their elaborate gold-leaf, red paint, and carvings of auspicious symbols and characters like Bhoma (a fanged face who deters evil, also seen in temple architecture). Instead, they feature small square insets, which on close inspection are flowers (Fig. 8). I interpret their squareness (an unnatural shape for a flower) as being symbolic of Alit's decision to control aspects of the instrument tuning, transgressing traditional designs and reforming them in the ways discussed above. Additionally, each gangsa has a unique, modernist, asymmetrical, and
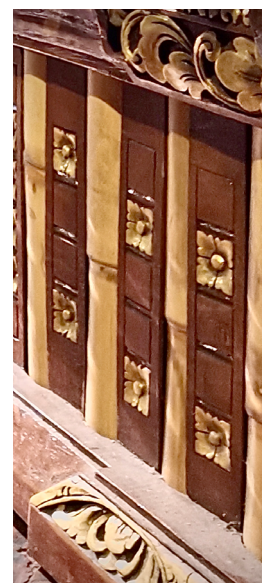
Figure 8. Salukat's gangsa section, showing the special plawah design for the gangsas. Note that the front of each instrument case has a different arrangement of squares and square flowers. Right: Detail of the square flowers on the plawah. Note the blank squares that act as spacers to maintain the equidistance of the squares. Photo: Oscar Smith.

intentionally unpredictable configuration of these flowers. This shows Alit's attention to detail in relation to every aspect of these instruments. Apparently, the plawah builder refused to do this because it was too much work, and so Alit, being capable, personally carved each and every flower and inset them into the frame as he desired.

Conclusion

Alit is a fascinating composer, dedicated to forging a new path for Balinese gamelan music using his skills, knowledge, and worldly imagination. He strategically adopts or rejects aspects of tradition in ways that—taken together—innovate without eschewing everything that is notionally "Balinese." He uses his new instruments to open up new sound worlds, while maintaining certain aspects of Balinese musicianship, most importantly oral learning.

There is a creative feedback loop between Alit's compositional ambitions and his instrument designs: his compositional ideas inform his instrument designs; simultaneously, his compositions are a product of his instrument designs, which in turn spawn new ideas and are central to the musical materials and processes he works with (see Smith 2019 for examples).

The various iterations of his instrument designs reflect the development of his goals as a composer: to seek sounds increasingly distant from prior Balinese tunings and melodies, the next step in a long tradition of near-constant change. Dewa Alit's ground-breaking approach to composition and instrument building has continually inspired many other composers, both Balinese and non-Balinese alike. Undoubtedly, he will continue to surprise us all. ◗

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Recordings

The website for Dewa Alit and Gamelan Salukat:
   https://www.dewaalitsalukat.com/
Listen to Alit's music, including all pieces mentioned here:
   https://dewaalit.bandcamp.com/

Videos

Wayne Vitale on "Geregel" (Alit 1999; semarandana).
Pete Steele on "Caru Wara" (Alit 2006; gong kebyar).
Oscar Smith on "Genetic" (Alit 2012; Salukat second tuning).
Michael Tenzer on "Ngejuk Memedi" (Alit 2016; Salukat third tuning).
"Waringin" by Oscar Smith (Smith 2018; Salukat third tuning).

PEDAGOGY

The Spoken and the Unspoken: A Pedagogical Perspective on Balinese Gamelan

by Leslie A. Tilley

Abstract (English and Indonesian)
This article considers the pedagogy of gamelan ensembles outside Indonesia, drawing on my experiences as both learner and teacher of Balinese gamelan as well as on the voices of my teachers, students, and colleagues across the transnational gamelan community. The article has two distinct halves, which are designed to complement and nuance one another but may also be read independently. Part I is more theoretical and big-picture, presenting some of the logistical and ethical decisions one might need to make when leading a gamelan ensemble outside Indonesia. I approach these questions through discussions of goal setting, repertoire choices, the concept of "tradition," the potential value of student composition, and the possible role of notation in gamelan pedagogy. Part II is a practical discussion of pedagogical technique. I first examine the traditional pedagogical approaches of my Balinese teachers, highlighting both their benefits and challenges to unenculturated gamelan learners. I then present in detail some of the ways I have modified these pedagogies in my own North American gamelan gong kebyar ensembles, techniques that aim to foster the gamelan-specific embodiment and understandings most of my students' musical enculturations lacked. I hope the article will serve as a catalyst for further discussion and idea-sharing among gamelan teachers and learners.

Artikel ini membahas metode pengajaran (pedagogi) gamelan di luar Indonesia, yang berdasarkan pengalaman saya sebagai murid dan juga guru gamelan Bali serta dengan melibatkan opini dari para guru, siswa, dan kolega saya di komunitas gamelan transnasional. Artikel ini memiliki dua bagian yang dirancang untuk saling melengkapi namun tetap bisa dibaca secara tersendiri. Bagian pertama memberikan gambaran umum yang lebih bersifat teoretis, menyajikan beberapa pertimbangan logistik dan etik yang perlu dilakukan oleh seseorang ketika memimpin ansambel gamelan di luar Indonesia. Saya mendekati persoalan tersebut melalui diskusi tentang penetapan tujuan, pilihan repertoar, konsep "tradisi", nilai serta potensi dari komposisi yang dibuat oleh siswa, serta peranan notasi dalam metode pembelajaran gamelan. Bagian kedua berisikan pembahasan mengenai teknik-teknik pedagogis. Pertama-tama saya menilik metode pedagogis tradisional dari guru-guru Bali saya, menyoroti manfaat dan tantangannya bagi pelajar gamelan yang tidak terenkulturasi. Saya kemudian menjelaskan secara detail beberapa metode pedagogis yang telah saya modifikasi dalam mengajarkan ansambel gamelan gong kebyar di Amerika Utara: teknik yang bertujuan untuk mendorong pemahaman secara khusus mengenai gamelan yang kurang dimiliki oleh sebagian besar siswa saya..Saya berharap tulisan ini dapat menjadi pemantik pembahasan lebih lanjut sekaligus berbagi gagasan dengan guru-guru gamelan dan segenap peserta didik.
—Translation by I Gde Made Indra Sadguna

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*"**This is the part I still don't understand**," I exclaimed suddenly, interrupting the flow of drumming and emphatically pointing at the* kendang *in my lap as though the gesture might somehow underscore the point. Pak Sidja stopped playing his own* kendang *a moment later, spat out his tobacco, and with an ever-patient smile said, "OK,* lagi." *Again. We didn't discuss the eight beats of drumming I was struggling with—we never did—nor did Pak Sidja seem easily able to isolate the excerpt in order to work on it with me, although he did try for a moment or two before giving up and simply starting from the beginning once more. I knew that two and a half minutes into the piece, I'd hit that same passage with no better idea of the combination of drum strokes that properly complemented Pak Sidja's pattern than I'd had the last four times we tried.*

Though very different from the talk-based, explicit learning styles of the Western music traditions I'd studied, I was by *no means unfamiliar with this approach by the time I met Pak Sidja in the summer of 2007.[1] In my now two decades of study, learning the intricate interlocking melodies and rhythms of Bali's gamelan traditions with master* seniman alam—*"natural artists"—like I Madé Sidja has almost invariably proceeded in this way: hours of repeating long passages of music learned by rote without comment or segmentation. The same was true in the Vancouver-based gamelan Gita Asmara, my home ensemble from 2000 to 2015, which I joined while pursuing graduate studies in ethnomusicology at the University of British Columbia (UBC). Sure, some of my younger Balinese teachers, through study at Bali's arts conservatories and years of working with non-Balinese students like me, had learned to break the music into smaller*

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1. See Brinner 1995 on these different styles of learning and the diverse forms of knowledge they create.

chunks or overtly discuss structural features.[2] *But for those 15 years, whether with Gita Asmara's Canadian-American director Michael Tenzer, with the various Balinese artists the ensemble hosted, or with my many teachers across all generations in Bali, gamelan was something to be learned by rote, with no discussion of the relationships between musical strands. It was something to be performed in* pakaian adat, *traditional clothing, something to be used for largely traditional and neo-traditional (*kreasi baru*) music, with truly modern, experimental, or fusion works (*musik kontemporer*) reserved for special projects. And it was something patently to be learned without notation in what I came affectionately to dub the "learn-forget-learn-forget-learn-remember" method. Frustrating though it could sometimes be, I'd come to accept that this was "the Balinese way."*

I was to call such learning experiences sharply to mind when I moved to Cambridge, Massachusetts, in 2015 and encountered Gamelan Galak Tika, the mixed student-and-community gamelan gong kebyar ensemble based at the Massachusetts Institute of Technology (MIT). Co-founded by Balinese master musicians and dancers I Nyoman Catra and Desak Madé Suarti Laksmi with American composer-performer Evan Ziporyn, but at that time led by two of its community members, Galak Tika was unlike any gamelan I knew, purposefully eschewing many commonly embraced practices. They wore non-traditional costumes and had a stated mission to be "at the forefront of innovative, cross-cultural music for Balinese gamelan,"[3] playing programs that emphasized modernist fusion works and new compositions by group members. They learned pieces aided by isolated parts recordings stored in a Dropbox and, most surprisingly for me, using both cipher and Western notation. One member even played the final concert that year reading her notation on a cell phone, held not quite covertly enough in her lap.

While this approach was all a bit unfamiliar, what was most notable to me was my immediate and vehement reaction against it. Where did that come from? My knee-jerk instinct was to argue what I had heard countless teachers, both Balinese and non-Balinese, say: "The Balinese just don't do it that way." But, as Ziporyn pointedly observes: "Who are these 'the Balinese' of whom you speak?" (interview 2017). Was it a measure of respect for my Balinese teachers to staunchly maintain these attitudes, or was I simply reifying a static notion of "tradition," reinforcing what Nigerian author Chimamanda Ngozi Adichie (2009) would call a "single story" of Balinese gamelan? In that complicated dichotomy, what are the roles and responsibilities of a

Photo 1. Playing kendang *with I Wayan Sudirana. Pengosekan, Bali, Indonesia, 2003. Photo: Nicole Walker. Used with permission.*

gamelan ensemble, like Gita Asmara or Galak Tika, which is peopled, taught, and operated outside of Indonesia? What can or should we aim for when teaching such ensembles? And what pedagogical approaches might we use to achieve these goals? When tasked with directing Galak Tika in the fall of 2017, I was forced head-on into this maelstrom of questions.

There is no cookie-cutter solution here. As Clendinning notes, "the aesthetics and ethics of gamelan practice can be interpreted in many ways, and notions of respect and creativity with regard to tradition and its transformation are highly personal" (2020:13). The choices we make as teachers and directors will necessarily be shaped by, among other things, our own experience levels and pedagogical lineages; available budgets, resources, and institutional support; time constraints and levels of student turnover; the educational expectations and make-up of our particular ensembles; and our own personal beliefs around representation, transmission, and transformation. We can approach these questions from several angles too, from labor concerns in how instructors are hired and ensembles supported, to representational questions about what such ensembles can or should mean to students, audiences, and institutions.[4] My focus here is on the practical pedagogical choices that shape our day-to-day interactions with students, and the aims of this article are twofold.

Part I examines some of the logistical and ethical decisions that go into teaching gamelan groups outside Indonesia. Drawing on my very contrasting experiences in Gita Asmara and Galak Tika, and centering the words of my teachers and co-performers as well as those of other so-called "world music ensemble" instructors, I think through goal setting, repertoire choices, the concept of "tradition," the potential value of student composition, and the possible

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2. Sudirana 2018, Susilo 2010, Sumarsam 2004, Bakan 1993, and Clendinning 2020 all address pedagogical adaptations by Indonesian musicians teaching transnationally. Each also touches on distinctions between traditional and conservatory-style gamelan teaching-and-learning, including the long-standing Western influences and priorities of conservatory teaching in Indonesia. Conversations with many Indonesian friends and teachers corroborate their observations and assessments.

3. www.galaktika.org/about.html. Accessed December 30, 2020.

4. See Vetter 2004, Harnish 2004, Susilo 2010, Sumarsam 2004 and 2016, and Clendinning 2020 on these and other concerns and challenges.

role(s) of notation in gamelan learning. Five voices in particular are featured throughout this section, all musicians who have fundamentally shaped my experience of gamelan pedagogy outside Bali: longtime Gita Asmara teachers and composer-ethnomusicologists I Wayan Sudirana and Michael Tenzer, Gita Asmara co-performer and composer-musician Colin MacDonald, Galak Tika director, composer, co-performer, and sometimes co-teacher Evan Ziporyn, and musician, teacher, and composer I Dewa Ketut Alit, who has worked extensively with both Gita Asmara and Galak Tika.

Part II zooms in for a practical discussion of pedagogical technique. I first examine how the four-step traditional approach to pedagogy described by Balinese musician and scholar I Wayan Sudirana (interview 2017, 2018) leads to a particular kind of musical enculturation for gamelan players in Bali. Then, through a discussion of techniques I developed teaching gamelan gong kebyar to the UBC student gamelan, MIT student gamelan, and Gamelan Galak Tika, I outline specific ways that instructors of gamelan groups outside Indonesia might thoughtfully alter traditional pedagogies to help students gain some of the enculturation they lack. Like many other transnational gamelan instructors' methods, mine is a conceptual hybrid between the traditional oral pedagogies of *seniman alam* like Pak Sidja and the analytical approaches that have helped me get inside the music. My aim is to help my students experience, embody, and know the music in new and hopefully meaningful ways by accelerating for them the musical understandings that eased my own learning and thus deepened my enjoyment of gamelan.

Of course, my pedagogical lineage—teachers who may be radical composers and thinkers but strongly favor traditional approaches to pedagogy—has given me a very particular lens through which to think through these issues, as has my training as an analytical ethnomusicologist, born and educated in Canada, who first encountered gamelan as an adult. I hope other transnational gamelan instructors, both Indonesian and non-Indonesian, will share their techniques, opinions, and experiences too. "As our understanding of best practices in world music education continues to evolve," Mellizo argues, "often, our most powerful learning opportunities come from each other" (2019:19). Through continued dialogue, we as a gamelan community can co-create a multidimensional guide to transnational gamelan pedagogies.

PART I: DECISIONS

Goals

It is a deceptively complex task to establish goals for a gamelan ensemble outside Indonesia. The university affiliation held by around 60% of U.S. gamelan ensembles[5] leads to an obvious equating of gamelan with other for-credit

5. Statistics from the American Gamelan Institute, http://www.gamelan.org/directories/directoryusa/ Accessed March 21, 2022.

ensembles, which prioritize high-level playing in semesterly concerts. Yet, while this may be a primary purpose our institutions imagine for our ensembles, it can also demand pedagogical compromises that bump up against what many ethnomusicologists believe: that "just getting people to sound right may be good music making," as Nettl notes, "but it's not any good -ology" (quoted in Lieberson 2017:219–220). Ethnomusicology is also about thoughtfully representing music cultures: amplifying different ways of thinking, learning, and knowing to facilitate musical experiences that are creative and edifying as well as satisfying. But how can we accomplish these larger goals in an ensemble bound to the academic calendar, expected to prepare a concert with students who may not even know how to hold their mallets on Day One, and knowing that our predominantly non-Indonesian audiences may see that concert "as a metonym for Balinese culture as a whole—a heavy burden to place on a beginning group" (Clendinning 2020:103)?

Among my teachers and collaborators, answering this question begins—always—with a firmly-held belief that "no teaching has absolutes" (MacDonald interview 2017). As Sudirana contends:

> *It depends on the situation as well. It depends on the student. It depends on a lot of things. You can't generalize the way you organize gamelan, the way you use methodology [. . .] Each university will have a different character. Each student has a different character. They are human. They have different needs. So, you know, although you will have the same model each time you teach, that model can only be like a raw model (interview 2017).*

Alit agrees, noting: "For me, I have to change myself. So where we are, where I am. So we are building that music there. So that actually is my purpose" (interview 2017).

Deciding on goals for a particular group, then, is a creative and flexible process. Recalling two and a half decades of Javanese gamelan teaching in the U.S., Roger Vetter (2004) reflects on how his goals have shifted over time. His early objectives, "held uncritically," he says, "throughout much of my career," emphasized playing proficiency, technical knowledge, aural learning, and an understanding of the music's social context (117). These goals will likely feel familiar to readers who have learned (or taught) gamelan outside Indonesia. Vetter's more recent goals, by contrast, are broader, prioritizing an ensemble experience that "prepar[es students] for life-long musical and social encounters," and stressing "the educational merit of going through the process of learning a second musical language, even if fluency in that second language cannot realistically be achieved" (119). Rather than being in tension, however, I believe these sets of goals can be mutually supporting. My own goals for teaching gamelan gong kebyar, developed in conversation with many gamelan teachers and co-performers over many years, contain

elements of both. A first trio more closely resembles Vetter's early career goals: 1) help students gain some technical proficiency on one or more gong kebyar instrument(s), playing gamelan repertoire of an appropriate difficulty level with fluency and confidence; 2) enable engagement with Balinese aural/oral pedagogies; and 3) give students some understanding of the breadth, variability, and complexity of Balinese gamelan. But, as Javanese musician Hardja Susilo contends:

> *Just as important as learning to do it is learning to think the way the Javanese [or Balinese] musicians think. [. . .] I can teach a total novice to play a piece in an hour. But learning to be reactive, proactive, flexible... that takes years. More than that, though, the students should learn to feel or think the way a native thinks when playing gamelan. I don't mean just emphasizing beat eight instead of beat one, but actually feeling that a gong signals the end of a phrase, rather than the beginning (Susilo et.al. 2004:57).*

In a similar vein, music education scholar Juliet Hess argues:

> *A liberal view of expanding the curriculum may allow students to know more than one music, but a radical music education teaches students there are multiple ways to think about music—that some musics require different epistemologies and that it is possible to consider the world from more than one orientation (2014:245).*

Sociologists and cultural anthropologists have shown that shared ways of thinking, such as those described by Susilo and Hess, are the result of *enculturation*: "the psychic structure of a societal group [that] is passed on through a cultural immersion process." When it comes to music, "a child develops an implicit understanding of the knowledge and values of a repertoire by nature of his or her membership and participation in [his or her] society" (Campbell 2018:92). Musical enculturation thus forms our musical *habitus*: tastes, expectations, attitudes, and dispositions about music that we acquire simply by belonging to particular cultures or social groups.[6] So my second trio of goals considers the contrasting enculturation and habitus of my Balinese teachers with those of my predominantly non-Indonesian students, and attempts to bridge the gap between them: 1) give students the tools to understand how what they play fits within the context of the music, and to hear *and feel* their part in relation to others; 2) enable an embodied experience of both music-making

and music-learning from a culture that may be unfamiliar; and 3) facilitate an environment of collaboration, where students listen to and play off one another and find joy in the communal act of music-making. With these two sets of goals in mind, I turn to questions of repertoire and tradition, student composition, and notation.

Repertoire, Fluidity, and "Tradition"
If a central goal of teaching gamelan outside Indonesia is to help students engage with the gamelan's musical systems and epistemologies, the instinct for many non-Indonesian teachers like myself is to prioritize traditional music, carefully replicating our teachers' styles. As Pond observes: "the combined logistical and ethical challenges of presuming to explain a tradition from a limited knowledge base comprise a common issue [… and] the default position is to favor preservation and reinforcement of tradition (and so, authenticity)" (2014:191,192). Even radical composer Colin MacDonald acknowledges a self-imposed restraint when working with gamelan music:

> *I have a great respect for this tradition and these instruments, and I can't just march in and fuck around and say "this is what I want you to do and… smash that gong, and bounce those balls off those things, and…" We certainly saw the Balinese guys doing crazy stuff like that, but […] that respect for it or that awareness of being an outsider sort of reined me in (interview 2017).*

Indeed, as Clendinning reports, of the 170 gamelan ensembles in the U.S. in 2015, "about 90 percent play traditional Indonesian repertoires as a core portion of their repertoires" (2016: paragraph 7). And Becker's observations of the 1983 American Javanese gamelan scene are as relevant today: for many ensembles, "imitation—as accurate an imitation of the Javanese model as possible—[is] the ideal" (84). I have always leaned this way too, as both performer and pedagogue. This is the music I love, learned with teachers I respect and admire from a culture outside my own; why wouldn't I replicate it as closely as possible? Yet Averill warns that such strict imitation may in fact constitute a kind of musical transvestitism: although "world music ensembles provide at best a pale simulacrum of 'the real thing'," he argues, "the implicit goal is still to maximize 'authenticity' by performing near exact replicas of musical models from other cultures" (2004:100).[7] And as Weiss contends, categorizing words like "authenticity" or "tradition" "suggest an immutability that may not be evident in the performed practice of the style or genre [and] such appellations articulate boundaries, imagined or real"

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6. As Bourdieu and Wacquant describe, "[w]hen habitus encounters a social world of which it is the product, it is like a 'fish in water': it does not feel the weight of the water and it takes the world about itself for granted" (1992:127–28).

7. Similar arguments are made about ensembles of largely non-Indonesian musicians wearing traditional costumes, which Averill terms "ethno-drag." But on dressing as embodiment in American university Javanese gamelan settings, see Strohschein 2018:140–146.

(2014:510). When our students will only "glimpse the tip of the iceberg" of another culture (Becker 1983:84), these categories can be essentializing. They risk a conflation of the paired concepts Pond (2014) dubs tradition (without scare quotes) and "tradition": a shifting and dynamic set of musical norms and expectations mistaken for a fixed, ahistorical musical form.

The concept of "tradition" is particularly complex in Bali. During Dutch colonial rule, "the so-called 'Ethical Policy' was combined with the vision of Balinese culture held by the Orientalist tradition" (Picard 1990:39). Twentieth-century colonial rulers carefully curated Balinese cultural traditions through a policy of *Baliseering*, "Balinization," preserving and amplifying only those aspects of Balinese society seen as both favorable and marketable.[8] As McGraw observes: "the Dutch portrayed themselves as benevolently protecting the colony from the harsh modern world while [. . .]encouraging the aestheticization and homogenization of local culture, an attitude later adopted by both the Old and New Order" (2013:50).[9] The rhetoric of tradition looms large in Bali still today, further strengthened in the wake of the 2002 and 2005 Bali bombings and subsequent rise of *Ajeg Bali*, the "stand strong for Bali" movement.[10] This stance inescapably affects attitudes toward gamelan performance, composition, and innovation. As longtime arts conservatory instructor Ketut Gde Asnawa asserts: "If you make music without a sense of, or background in, tradition your creations will be malnourished and die. If you make something new, don't forget the traditional music. If you cut the roots the tree will die" (quoted in McGraw 2013:120). Yet, while these words may be good guiding principles for teachers of gamelan ensembles outside Indonesia, when teaching only the iceberg's tip, they may also work to uphold a fixed definition of "tradition." So how do we respect, value, and advocate for the traditions of our teachers while also honoring the changeability and resulting richness of their living practices?[11]

When teaching gamelan ensembles outside Indonesia, even my most radical Balinese composer friends believe it's essential to begin with traditional repertoire. Sudirana asserts: "gamelan groups outside of Bali should learn all the basics first. This means learning traditional pieces" (interview 2017). Alit agrees, noting:

Most of [the people in Galak Tika], they don't really understand how the gamelan works, how it's working together. [. . .] I want the musicians to understand feeling, right feeling. That's hard for them. So it's good if they can learn traditional pieces [. . .] Also, it's good if you know where the music you learn has come from. That's knowledge, and that makes your appreciation about what you're doing more deep [. . .] stronger. And that's good knowledge (interview 2017).

Yet these musicians also point to ways we might nuance our presentation of traditional repertoires to keep from reifying "tradition." Experienced gamelan musicians will know that gamelan genres are fluid in a number of ways. First, many of these practices use improvisation, as in the flexible idioms of the Balinese *ugal* and *reyong*, Javanese *gender* and *rebab,* and *kendang* practices on both islands, to name a few.[12] Yet while such idioms are commonly considered essential to good gamelan performance, they are often not prioritized in ensembles outside Indonesia, particularly those with high student turnover. Ensemble instructors under time constraints will often settle instead on single "versions" of improvisable melodies and rhythms, teaching them as fixed entities without reference to the existence of improvisation. Susilo recalls, tellingly: "when I gave [students] parts that were different from my earlier lesson they were not happy. So I learned not to alter the part" (Susilo et.al. 2004:57).[13] But while teaching fixed parts may at times be a necessary compromise, some ethnomusicologists are finding new ways to enable improvisation, even in beginner-level ensembles. Teaching BaAka music, for instance, Kisliuk and Gross have prioritized "not *imitation* but *interpretation*" (2004:253). Rather than focusing on the specific notes BaAka musicians sing in a given performance, they emphasize instead the *ways* these musicians work creatively within their idioms. Students' acts of musical reinterpretation, though the resulting music may be quite different from a BaAka singer's, comprise for these scholars a more authentic performance. This reckoning demands a total redefinition of the concept of "authenticity," away from product and toward process. And while the tight interlocking idioms of gamelan practices like gong kebyar may preclude this level of student freedom on some instruments, I find the conceptual reorientation compelling. My own suggestions for teaching one of the gong kebyar's improvisational idioms are discussed in Part II.

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8. See Vickers 1989.

9. See Seebass 1996 on the emergence of gamelan gong kebyar in this rhetorical landscape.

10. On *Ajeg Bali*, see Karuni and Suardana 2018; Picard 2009. On *Ajeg Bali* as transformed *Baliseering,* see Pageh, Arta, and Pardi 2020.

11. Here I'm inspired by Juliet Hess who, borrowing from Bakhtin, observes: "as humans we understand Others through the categories we construct, which are in fact closed and unfinalizable." Our "tendency to understand Others through our own frameworks," Hess argues, makes it more difficult for us to "both hono[r] unfinalizability and allo[w] for Others to also live as self-in-process" (2018:34–35).

12. See Tilley 2019 on improvisation in both *reyong* and paired *kendang* practices in Bali. See Sadguna (2022) on *kendang* improvisation in gamelan gong kebyar.

13. In later years, Susilo found a different compromise: teaching students several formulaic versions to mix and match. I also sometimes take this approach for improvising idioms.

Gamelan music's flexibility can also be seen in the varying regional styles and approaches to classic pieces—as in the distinct versions of Legong from Saba, Peliatan, Binoh, and ISI Denpasar—as well as in the alterations that individual musicians may make to a composition over time: "You know, I change a little bit," Alit laughs. "You know in Bali, we play and then get bored. […] Even if it's playing [the iconic dance piece] *Teruna Jaya*, [it's] not exactly the same" (interview 2017). For David Harnish, conveying this aspect of fluidity to his American gamelan students requires a personalization of the knowledge being passed on: "I try to avoid saying 'The Balinese do this' or 'They believe that,'" he explains, "because these objectify a group and make them abstract, romantic, and monolithic; instead I say 'I saw this' or 'My teacher said this' to explain music and culture, conveying personal experiences whenever possible." Though non-Balinese instructors may not have our Balinese teachers' depth of knowledge or fluency, we can still choose different versions of canonic pieces in different semesters, talking to our students about how they differ, playing recordings of alternate versions, sharing stories and advice from our teachers, and asking students to write program notes or give spoken concert introductions that contextualize this variability. Even these small changes will discourage the reification of tradition as a static object.

Many of my Balinese teachers furthermore see value in teaching neo-traditional and even contemporary compositions as vital parts of a gamelan tradition, and this inclination reflects a final, larger-scale aspect of fluidity in gamelan repertoire: the emergence of new styles over time (gong kebyar itself is little over a century old) and the vibrant communities of Indonesian composers working in both classic and contemporary forms. On the one hand, as Ziporyn argues, new-music gamelan works can still help our students embody traditional structures and techniques. When studying Lou Harrison's gamelan compositions, he recalls, it was imperative that students first learn traditional Javanese idioms (interview 2017). On the other hand, teaching new works can "evoke diversity by providing students with a multifaceted view of Indonesian culture" (Clendinning 2020:101). Composer Wayan Yudane's response to Asnawa's quote on the roots of tradition, cited above, is powerful: "I will make new trees with a strange fruit. One tree cannot contain us" (quoted in McGraw 2013:121). For Yudane, then, the authentic sonic picture of Bali encompasses its cutting edge alongside its classics. And while I agree that starting with traditional works gives students the best foundation for understanding gamelan music systems, this view encourages broad repertoire choices in ensembles outside Indonesia too. As Alit muses: "I think . . . I need both. You need both. [. . . To me they're] both good, because [. . .] it gives us inspiration. So a traditional thing is good because it has strong roots. But new is good because it gives you the future. So that should be balanced" (interview 2017).

What About Composing?

How far do we take Alit's call for balance between traditional and new in gamelan ensembles outside Indonesia? Patricia Shehan Campbell, who in the early 2000s popularized the concept of an informed World Music Pedagogy (2004, 2016), suggests that after learning about a genre through progressively more interactive listening exercises, students will benefit from what she calls Creating World Music: composing or improvising on learned musical models.[14] The goal here becomes not just encountering other musical systems and ways of thinking, but engaging with those systems personally and creatively.

When considering the broad musical education of my students, I strongly agree with Michael Tenzer that "higher doses of aural/oral learning, improvisation, and creative music making of all kinds are emphatically called for in [Western-based] music curricula" (2017a:169). But does this mean that I can or should enable my gamelan students to compose using their newly learned "vocabular[ies] of sonorous possibilities" (Campbell 2018:6)?[15] Or is such a practice, as Deborah Wong warns, an extension of ethnomusicology's colonial history, using "other cultures as if they're some sort of low hanging fruit […] That often implies that the West can access and use these cultural riches around the world for their purposes," Wong opines. "Such celebratory statements ignore the power relationships" (quoted in Chávez and Skelchy 2019:130).[16] I've generally been hesitant to compose for gamelan, or to encourage my students to do so, for these reasons. But, though my personal beliefs leave me more likely to agree with Wong than Campbell, working with a group like Galak Tika, where the performance of member compositions has a long history, has pushed me to revisit and unpack those hesitations. The arguments that Alit, Sudirana, and others make concerning repertoire might resonate here as well: that a composer should have some understanding of traditional gamelan idioms, and some embodiment in the specific practice from which they draw inspiration, before borrowing from or composing for those instruments.[17]

14. This is the fourth in a series of suggested steps. Steps 1–3 are addressed further on.

15. The tension in this question reflects opposing camps of world music pedagogues that Campbell (2004) dubs "expressionists" and "conservationists."

16. A growing body of research around decolonization and anti-racism has garnered increased attention in ethnomusicology since Danielle Brown's 2020 "Open Letter on Racism in Music Studies." While outside the scope of this article, these topics must be part of the larger conversation on gamelan pedagogy outside Indonesia.

17. Diamond 1998 makes these same distinctions in a review essay of 26 transnational gamelan albums, all of which include new works by group members. Of course many composers have created compelling gamelan-inspired works with limited knowledge (see Tilley 2020), but here I am concerned with the ethics of such encounters.

That said, as long as it's carefully framed, composition could enable for some students a deeper engagement with gamelan. As Sudirana describes:

> When I learn something, I feel I'm eating something. Eat eat eat eat eat. So before I'm able to digest it, I don't want to use that. Because before you are able to digest it, it will just come out the same thing. So I'm digesting it, and then bring it out after that. So it's a completely different thing but based on like something that I've learned [. . .] something that I've experienced. I think the word that is good to use is "internalizing." Internalizing and then applying (interview 2017).

Reflecting on his experience teaching gamelan almost exclusively to non-Balinese students, Balinese musician I Made Lasmawan expresses a familiar sentiment:

> That's fine! Because the concept of gamelan is universal, is not only for [the] Balinese, you know? Not only for [the] Javanese. It is good, you know? A good gamelan player can be from another country […] because to study gamelan is just like to study other things, if you learn seriously, you get it. I'm ok with that (quoted in Clendinning 2020:99).

Many of my Balinese teachers and friends, of all generations, apply this same logic to non-Indonesian composers wanting to work with gamelan instruments and idioms. I remember how excited the young musicians of Sudirana's Ubud-based gamelan Cenik Wayah were when learning new compositions by Colin MacDonald and, a few years later, American ethnomusicologist-composers Pete Steele and Paddy Sandino. Because all three were longtime gamelan players and avid gamelan listeners as well as experimental composers, the Balinese musicians could see how each stretched familiar idioms in fresh ways, and were elated by it. It was the composers' familiarity with gamelan norms and expectations that made their reinterpretations of them so stimulating. Ziporyn tellingly recalls the moment he was given a kind of permission to compose for gamelan: after traveling to Bali on a Fulbright and studying the full repertoire of the famed composer I Wayan Loceng, the day came when Loceng said, "OK, you're free to do with this what you want now." Loceng knew that the tradition had finally *masuk*, entered him (interview 2017). Of his own process, Tenzer recounts:

> I went from being against composing for gamelan, because I didn't want to interfere in the tradition, to finally finding that I was generating compositional ideas against my own will. Like I was just starting to hear gamelan music. So then I just finally accepted that that's what I wanted to do (interview 2017b).

Tenzer recalls the first time the American gamelan ensemble Sekar Jaya presented one of his compositions to an audience in Bali:

> The Balinese thought [it] was cool. They wanted to learn it. And during our tour, [master musician and teacher I Wayan] Tembres and his cohort, they all came over and said "you've gotta teach us that pattern!" and we were so excited; I was so excited that they wanted to learn it (ibid.).

Australian composer-ethnomusicologist Oscar Smith likewise describes the rich exchanges that arose when composing and teaching a new work to the Balinese experimental ensemble Gamelan Salukat, led by Alit. "[T]his hybridized context," Smith observes, "revealed interesting features of the Balinese conception of rhythm, including new strategies for learning and counting unfamiliar music" (2020:66). More crucially, the experience "enable[d] a reciprocal exchange [. . . that was] not only for the benefit of the scholar and their career, but rather, create[d] a dialogic feedback loop of value to both parties" (ibid.:65).

When non-Indonesians compose new works for gamelan, Alit argues, "that makes gamelan still alive. Because it's more knowledge of the gamelan. It's more possibility. […] And I think more people learn, more people play, more people care. And I believe in that" (interview 2017). Each of the compositional experiences just described is rich because it represents a meeting-in-the-middle, a true sharing of musical space and time in a living musical practice. Through simple pedagogical shifts, like the ones proposed in Part II, we can help students more quickly develop the internalization that enables such exchanges. Those who return semester after semester, who want to engage through composition, can then be empowered to create music that feels respectful while being innovative: music that is authentic not to the static definition of "tradition" but to the dialogue of the encounter.[18]

Notation or Not?

Can we also apply the concept of a dialogic encounter to the gamelan learning process? As many of this journal's readers will know, Pak Sidja's approach to gamelan pedagogy, described in this article's scene-setting opening, is the norm in Bali: as I discuss further on, learning gamelan generally involves imitating a teacher's sounds and movements, while talk is kept to a minimum. Young Balinese children often begin their enculturation through passive listening. They hear the music at local temple ceremonies or open rehearsals in the village's central *balé banjar* pavilion, and are free to experiment with the instruments when they're not in use. Children of musicians will often attend long gamelan rehearsals, even late into the night. Alit recalls

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18. See Hughes 2004:278–280 for suggestions of graduated compositional activities.

Video 1: *When rehearsal time doubles as nap time: Learning* ken-dang *for Oleg Tumulilingan with I Wayan Sudirana and Gamelan Gita Asmara. Vancouver, Canada, 2011. Video: Jack Adams. Used with permission.*

sitting in his father's lap as a young boy, resting his small hands upon his father's as he drummed, and falling asleep there to the sound of the gamelan (personal communication, 2002). I saw the same process repeating itself in Vancouver when Sudirana's sons were young (adorably captured by cell phone camera in Video 1).

When a Balinese musician begins to learn more formally, the process is equally embodied. Teachers may occasionally use notation as a memory aid, particularly for newly composed works, but it is generally not shared with students. And while Bali's arts conservatories have recently adopted notation in some teaching contexts, gamelan in the villages is still learned by rote.[19]

If a central goal of my gamelan ensembles is to give students embodied music-learning and music-making experiences, there are many practical arguments for rote teaching. As Tenzer maintains: "for me, the deepest value of doing gamelan without notation—which is basically my bottom line; I will *never* use notation—is because of its value for being an embodied musician." In many traditional university music programs, he observes, "they don't groove, they don't move, they don't sing, they don't use their bodies. And I think that is so important, and so life-giving in music. […] I feel like so much information is carried inside of that practice. I feel just the very experience of learning the music and embodying it to some degree is carrying the seed of all that they'll ever need to know" (interview 2017b). MacDonald, himself a professional saxophonist who has seen memorization in various Western genres go in and out of fashion, agrees:

> *The traditional way that we learn by rote was really valuable, and it actually was a real musical challenge to me, but also a very rewarding challenge [. . .] There's truth in it that it requires a deeper*

commitment or deeper understanding of the music itself. So it does contribute to stronger performances that way. And [. . .] once you've memorized this music, you can come back to it months or years later, and it's sort of still in your DNA somewhere. Your body plays it without you even thinking about it. So there's this deep connection to the music that doesn't happen when you're just reading the notes off the page and not really plugging in telepathically to everyone around you (interview 2017).

Sudirana, likewise, contends that notation will "put up boundaries for [gamelan students] to be connected with the other players. How can you play interlocking if you just look at the notes?," he reasons. "So, then you are not able to interlock really well, especially when the tempo changes. How can your brain think about tempo changes when you're reading the score? You can't" (interview 2017). To these musicians, notation is a barrier to both the embodiment and the communal music-making experiences I've prioritized for my students.[20]

Of course many instructors of gamelan ensembles outside Bali do use notation, whether for expediency within time constraints or a desire for the students to have something familiar to grasp in an otherwise unfamiliar musical landscape. As Clendinning argues: "To teach an entire pokok [core melody] orally with but one teacher as a visual aid can be time-consuming [… And] after several unfamiliar melodies are added to the students' repertoires, it can be difficult for them to remember them or distinguish between them" (2020:96). Clendinning's teacher Lasmawan, who often works with ensembles just once a week, will provide cipher notation with structural gong strokes indicated for slower-moving core melodies, though he "prefers to use oral transmission for more rhythmically dense parts" (ibid:96). David Harnish likewise notates core melodies for his students, but then works to "wea[n] them off relying on notation" (2004:131–132). Many Galak Tika members swear by notation too. Some beginning members cling to cipher notation as the only way they feel they can absorb or remember a long core melody; some advanced members see Western notation as a way to quickly and independently learn complex elaborating melodies and drum parts.

Yet do these preferences simply reflect what Hess sees as "Western students' tendency to place (colonize?) world music into an epistemological framework that they understand" (2013:84)? It's notable that among my gamelan teachers of all generations, Balinese and North American, radical and traditionalist, conservatory-trained

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19. See Downing 2019, Ch. 2 on embodiment in Balinese gamelan pedagogy.

20. Here a distinction should be made between Balinese and Javanese practices. Notation has a long history in Java and is commonly used and accepted by Javanese gamelan instructors, though its roots are Western. Many Javanese teachers nevertheless value rote learning for similar reasons. See Sumarsam 2004.

and *seniman alam*, there is an almost universal opposition to notation in Balinese gamelan pedagogy. As Sudirana insists: "In Bali, you already know, everything is based on our cultural background. Which is oral tradition. I should keep that one. And I don't want to change that" (interview 2017). Alit likewise opines, "it's better without notation. Because that's how a piece works. That's how the piece should be presented for people" (interview 2017). In semesters when he teaches Galak Tika, Alit grudgingly allows the most insistent students to use notation, but privately complains that this hinders their learning. Ziporyn, though he does sometimes use notation when teaching Galak Tika, also recognizes the value of rote learning in gamelan. This is true even for new compositions he argues: when non-Balinese composers consider "memorization-al-ability," the "internal logic" of the resulting work "seems more Balinese" (interview 2017).

What's more, as Susilo observes, "what is written [in gamelan notation] is incomplete information. It does not tell you when and how to accelerate, to stop, to get soft, to get loud, to drop off, to make transitions, etc. Secondly, it hinders your playing; it makes you less sensitive to interrelationship, less perceptive to signals, oblivious to concurrent events." (Susilo et.al. 2004:62). Using notation to learn gamelan, particularly for students versed in other notated practices, may thus engender what Andrea diSessa calls *phenomenological primitives*: "conceptual difficulties that learners might have when trying to apply prior knowledge to new constructs" (Strand and Rinehimer 2018:633). Such cognitive structures can "ad[d] up to incorrect explanatory reasoning about the music." Because of the students' own musical enculturations, Strand and Rinehimer maintain, "reliance on notation cause[s] more problems than it may […] solv[e]" (ibid.:633–634).

The act of transcription can be invaluable. I regularly make mnemonic transcriptions and cipher notations, both for my own research and when learning new pieces from recordings for my students. For me, the process is an active engagement with the music: a slowed down kind of listening that allows the transcriber to take in each note, see its relationships to others, and, as MacDonald describes, "teas[e] apart some of the complexities of the music" (interview 2017). So I'm happy if students want to transcribe their parts to better visualize or understand them, or to enhance practice with recordings outside of class time. But in semesters where Galak Tika students were given notation or otherwise encouraged to use it during rehearsal, though they initially seemed to learn more quickly, I consistently observed more confusion about a piece's structure, less awareness of musical relationships between instruments, more frustration and lack of focus, and less careful listening to co-performers.[21] What's more, many members would still not have a grasp of the pieces by semester's end, despite

using a tool that was putatively helping them. And with half the ensemble staring at iPads or "cheat sheets" in their laps during rehearsal, there was far less of the communal pleasure in music-making I saw in other semesters. Thus, while reading notation may be an expedient way to learn for some, as MacDonald argues:

> *Relying on the notes on the page is part of what's holding us back. It's the non-verbal communication that the true Balinese ensembles have that we lack. [. . .] You can hear it in the way North American ensembles play compared to the Balinese ensembles. It's that tightness and that fine precision alignment in the music that comes from playing with your ears and with your body, and with your eyes on the other performers, rather than having your head down in the music (interview 2017).*

"Everyone in Bali whom I asked about the teaching and learning process," Sonja Downing reports, "stressed the importance of learning through physical movement, and most talked about the need to understand the 'feeling' of the music" (2019:120). Though many teachers of gamelan ensembles outside Indonesia, including Balinese musicians like Lasmawan, do use notation, I find the prevalence of this stance persuasive. It's clear that, while compromises are an inescapable part of such ensembles, for both Downing's teachers and mine, rote learning is a central pillar in the pedagogical approach that fosters that "feeling." So where do we compromise?

PART II: PEDAGOGICAL APPROACHES

Traditional Gamelan Pedagogies: Hand, Mallet, and Ears Before Feeling

The Balinese rote-learning approach is one of total embodiment: musicians learn physically, visually, aurally, and as feeling. The first step, Sudirana explains, is a kinesthetic process called *meguru lima*: "learning from the

Photo 2: Learning through meguru panggul *with I Dewa Ketut Alit. Vancouver, Canada, 2001. Photographer unknown.*

hand" (interview 2017). In this physical approach, the teacher holds the student's hand on the mallet, moving it across the instrument so the student feels the proper motion. Perhaps most commonly cited in the literature on gamelan pedagogy is the second step: *meguru panggul*, learning from the mallet. In this visual technique, seen in Photo 2, the student watches and imitates as the teacher plays back-to-front with musicians across the ensemble.[22]

But the trouble with most non-Balinese gamelan groups, Sudirana contends, is that we then skip the third step and prematurely attempt step four: *meguru rasa*, learning from the feeling. Balinese teachers often speak of "feeling." "You have to feel it," they'll say, when we struggle with a subtle tempo shift. "It comes from my feeling," they'll say, when asked how they improvise elaborating melodies. Unfortunately for non-enculturated gamelan students, the reality of *rasa* is as elusive as it is essential. When asked what "feeling" is, our Balinese teachers often struggle to find the words. Alit explains:

> *I remember a student asked me "Alit, what do you mean feeling?" And at that time I remember I said "dynamics." Actually, for me, what I'm feeling, it's here [he points to his heart]. So, the word is feeling. But what is that? It's… uh… feeling [he laughs]. At that time, I understand, "oh they're not Balinese. So even if they know the notes…" Like for me, when I play [the classic style] lelambatan, here in my head is like a temple. I just feel the temple. I don't know. Like, even when I play in Boston, it's just, ok, this is a temple here. I think that's kind of feeling also. It's not just about dynamics. [… But] how can people imagine […] because some of them have never been to Bali, they don't know how's the temple, how people play in the temple. So I just try to explain about dynamics, here slowing down, getting faster, like that (interview 2017).*

Thus, while *rasa* has technical aspects, much of it has to do with a common enculturated understanding of the music. And while growing up in Bali may be necessary, Sudirana claims that what's really inhibiting a mastery of *rasa* in non-Balinese gamelan ensembles is the lack of step three: *meguru kuping*, learning from the ear.

"Once you master the first two," he explains, "then you start not using your visual as much, but you are using your ear to learn the part. […] By listening to the teacher play it, then you can just right away play it on the gamelan. It's a more advanced level" (interview 2017. See also Sudirana 2018). In traditional gamelan performance practices, where many instruments' parts can be formulaically derived from other parts, *meguru kuping* results in a level of enculturated structural understanding

that expedites the learning of any new piece. As Balinese musician Nyoman Suadin describes, the music is already "in their head, the system, and they just have to learn the song" (quoted in Brashier 2017:3). Many Balinese genres use a technique, often called *kotekan*, where a melody is seamlessly shared between pairs of musicians.[23] Enculturation here means understanding one's part in the context of the whole. On teaching a new *kotekan* to the Balinese musicians of Cenik Wayah, MacDonald recalls: "When one half had learned their part, the other half was already trying to figure out his part to go with it, before I'd even shown it to them." This is something most gamelan players outside Bali cannot do. He continues:

> *And when I had shown it to them, they were looking back and forth, and already working out how it fits together as a composite. […] We never were that proactive in trying to figure out our parts. It was always just a case of "OK, show me what's the next note. Am I playing this right? What's the next note?" Like looking to the teacher for guidance, rather than just saying "OK, how is this supposed to sound together? Can we play it right together? Can we figure it out on our own?" […] Working it out on that level as a partnership within the ensemble was key to making it work and to holding it together in their own minds, I think. Like, making sense of it right at the moment of learning, rather than trying to hear it after you've learned your individual line (interview 2017).*

Listening thus becomes an active learning strategy: by understanding and embodying how their parts connect to their neighbors' parts, Balinese musicians become independent learners, able to teach themselves new pieces, recognize when they've made mistakes, and correct themselves.

In advocating World Music Pedagogy in the general music classroom, Campbell (2004, 2016) likewise prioritizes listening as a learning tool. She outlines five steps for the successful transmission of musics from other cultures, the first three of which are progressively more interactive listening exercises. In Attentive Listening, students are given activities for directed listening: focusing on specific elements, such as musical structure, while they listen. This leads to Engaged Listening, where students do a physical activity as they listen: singing a melody, moving to the beat, tapping a rhythm, and so on. Finally, in Enactive Listening, students re-create the music they've heard as accurately as possible through intense listening during performance. By the time they reach this stage, they

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22. See Sudirana 2018, Clendinning 2020:95–99, Stuparitz 2020, and Bakan 1993.

23. While "*kotekan*" is generally the preferred term among non-Balinese musicians, Alit insists this generic term is not always appropriate. He prefers to call each technique by its specific name (personal communication, April 2017).

have already begun to embody the music, understanding it both cognitively and viscerally.

It's here that gamelan outside Indonesia often falls short. MacDonald muses: "I'm sure there's a lot of people who played in the gamelan who went through the same experience as us, just learning the pieces and playing the pieces, and were like 'yeah, I like this music. It's fun. I have *no* idea what's going on, still'" (interview 2017). Without understanding "what's going on," many non-Balinese musicians never achieve the kind of *meguru kuping* that eases the learning process. Of course, if I need to put on a concert in twelve or thirteen weeks, with just 2–4 hours of contact time each week, it's hard to dedicate significant class time to listening. Alit admits that, even in Bali, modernization has made such deep immersion challenging: "I think it's getting harder here. Because gamelan, you need more time. You need to sit down. […] You need to play, and think about what you play, talk about what you play, you know?" (interview 2017). Reflecting on his own gamelan learning, MacDonald reaches an important insight:

> *You have to do the ear training practice to hear those two or three things happening at the same time before that really makes sense. Otherwise you're trying to play your part and listen for something that you don't really understand. And it's almost too much information then, at that spot. But if you can take the time and do it really slowly, then I think you'll hit that Eureka point (interview 2017).*

Adapting Gamelan Pedagogies

When gamelan musicians like those in Cenik Wayah derive melodies and rhythms relatively effortlessly from their co-performers, it is thanks to their musical habitus. Like skilled musicians in any practice, they've developed through enculturation internal understandings about the structural relationships between musical strands, and thus have informed expectations about how different parts might fit together in any new work they encounter. Years of playing and research have given me similar skills, though I'm less proficient and the practice still takes mental effort.[24] Like many of my friends who began learning gamelan as adults, developing these understandings and expectations demanded active research, analysis, and discussion alongside performance. So when we teach our beginner gamelan students by rote, with no context for how each part relates musically to the others, though on the surface it looks very much like a traditional Balinese learning environment, *we're actually asking them to do something very different*. Something much more difficult. We're asking them to learn hundreds or thousands of notes without the fundamental, culturally-specific understanding that many of them are based in simple formulas, and that if they get lost, they can listen

to a partner to find their way again. Without the necessary enculturative knowledge, what we're asking of them is needlessly abstract. As Alit observes of his non-Balinese students: "they have to understand how the gamelan works together to make music. But they don't" (interview 2017). Susilo recalls his early American teaching experiences:

> *People memorized their parts, then we put them together and boom, we had a Javanese ensemble! It was incredible, but it sounded stiff. Furthermore, it would only sound acceptable as long as nobody missed a note, or added notes, which would cause them to go out of synch with the rest of the ensemble. The problem was that when they got out of synch, they didn't know how to return to the ensemble, because they only knew their parts and not their relationship with the other instruments (Susilo et.al. 2004:56).*

Four decades of teaching in the U.S. showed Susilo that he must overtly "emphasize [those] relationships" for his students (ibid.:57). As inexperienced musicians, Diamond explains, "we need to build a gamelan inside us": to learn how to *know* what the other musicians are doing, and *recognize* how that relates to what we are doing. "What my [Javanese] teacher didn't understand," she asserts, is that when it comes to gamelan, "we're empty inside" (2017).

So how do we give our students that understanding, that gamelan inside them? As Lasmawan observes, the tripartite Balinese concepts of *desa*, *kala*, *patra* (place, time, situation) point to an inherent flexibility in gamelan teaching and playing, suggesting that what's appropriate will change with each new context.[25] And though we must be both aware and transparent "on whose terms such hybridization takes place" (Avis 2019:42), there are many possible ways to adapt gamelan pedagogies to suit non-Indonesian places, times, and contexts. We might thus view gamelan pedagogy outside Indonesia as "an ongoing dialectic with compromise" (Harnish 2004:132). For Vetter, such compromise is about overtly articulating abstracted musical principles, from the rhythmic building blocks of different instruments' idioms to the underlying structures of a piece. These strategies, he says "seem to provide for my students some cognitive bearings as I attempt to introduce to them simultaneously the Javanese music system, its repertoire, and its requisite instrumental and vocal skills and vocabularies" (2004:120). Adaptation for Susilo means giving students who lack the necessary enculturation to improvise on instruments like *gender* several "different options so as not to sound stale" (Susilo et.al. 2004:57). Harnish, meanwhile, prefers to "stop and discuss ways to hear musical relationships between parts and explain how melodies fall within gong cycles." He continues: "sometimes I have students clap out interlocking parts; other times I ask them to sing melodies" (2004:132).

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24. See Barsalou et.al. 2003 on some of the cognitive elements of social embodiment.

25. See Macy 2017 and Clendinning 2020.

With thoughtful alterations to traditional pedagogies, each of these teachers has designed a personalized path to gamelan learning. My own adaptations, discussed in detail in the following sections, are customized to my stated pedagogical goals. Maintaining the aural, embodied approach my teachers prize, but supplementing through active instruction the enculturated knowledge my students lack, I aim to approximate the Balinese learning experience Sudirana describes, enabling those "Eureka moments" that a lifetime of *meguru kuping* allows. The specific techniques explored here were developed in open university-level gong kebyar classes and mixed student-and-community gamelan groups. They came into being collaboratively and experientially, emerging through shared frustrations and successes in North American ensembles, countless "what-if" conversations with gamelan friends, and valuable feedback from many students. While precise strategies will necessarily differ for each gamelan genre and playing environment, I envision similar techniques being used across these spectra.

An Explicit Enculturation into Gamelan Gong Kebyar

The Basics
A brief introduction to some of gong kebyar's salient musical features will contextualize my pedagogical approach. As in many gamelan genres, gong kebyar music is generally built around a cyclic core melody, or *pokok*, often moving every two beats. Instruments play at different rhythmic densities, aligning with the *pokok* tones in a stratified heterophonic polyphony. Many instruments' idioms are pre-composed rather than improvised, though even these more fixed parts will vary by village style, specific composition, and sometimes individual preference. In the genre's most basic and idiomatically consistent melodic elaboration style, often called *norot*, fast-moving *gangsa* metallophones play a formulaic melody that tracks the *pokok* at eight times its density.[26] The most common *norot* idiom sees *gangsa* players alternate between the current core melody tone and its upper neighbor in the genre's five-tone scale. New *pokok* tones are anticipated by a three-note "pick-up" gesture that comprises the new tone twice and its scalar upper neighbor once; each two-beat segment ends with *gangsas* landing on the beat together with the *pokok*.

Figure 1 shows several examples of *norot* figuration. In this and other transcriptions, the Balinese solfège syllables *ding-dong-deng-dung-dang* are abbreviated i-o-e-u-a, with upper case letters denoting lower-octave tones in multi-octave instruments like *gangsa*. The ciphers 1-2-3-5-6 and Western tones C#-D-E-G#-A approximate the gong kebyar's *selisir* mode. To denote end-weighted meter, cyclic melodies are notated with the first tone, which actually belongs to the previous cycle, in parentheses. This gong tone is shown again at melody's end.

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26. I have also heard *gangsa norot* called *noltol, notal,* and (in written sources like Vitale 1990) *nyok cok.*

Figure 1. Examples of gangsa norot

Photo 3. (left) Playing kempli *as students figure out their* gangsa *parts. Cambridge, Massachusetts, 2016. Photo 4. (right) Holding up numbers for* pokok *tones as students derive* norot. *Cambridge, Massachusetts, 2016. Photos: John Sachs. Used with permission.*

Teaching Elaborating Idioms

When my students encounter a new melodic elaboration technique for the first time, I usually begin by teaching its fundamentals isolated from the piece we're working on. I want them to understand that its idioms are extractable, and that knowledge gained for one composition will often transfer to others. When teaching *norot*, I first briefly explain the principles of the technique, much as I've done here. Then, using numbers to identify notes, and playing the *pokok* myself on the lead metallophone *ugal*, I ask my students to derive *norot* figurations for isolated pairs of core melody tones (as in Figure 1).[27]

My goal in this exercise is for them not only to understand the technique in their minds, but, as quickly as possible, to actively hear it in relation to the *pokok* tones I'm playing, see the notes and contours on their instruments, and begin to embody them. This is certainly not a technique I've seen used in Bali, and it might seem a somewhat artificial process to some of my teachers there, but it provides my students with bite-sized chunks of music to grapple with as they learn a technique that's new to them. We try many different note pairs. I break them down slowly to start, first explaining and demonstrating the *norot* each time before we play, then asking different students to do so, but spoon-feed them less as they grow more confident. The beat-keeping *kempli* plays here too, even in these isolated exercises. I want my students to hear the figuration right away in the context of the beat, understanding and embodying its end-weightedness: the pick-up gesture beginning just after a beat and ending with the following one. This active awareness of the pattern's metric placement, even if they don't yet feel it as end-weighted, keeps students

from getting lost if they fumble. Photos 3 and 4 show some of these techniques.[28]

Adding another layer of complexity, *gangsas* are normally divided into pairs, the "simple" or "direct" *polos* part differing from the "complementary" or "following" *sangsih*. Regardless of which elaboration technique is used (*norot* or something else), these strands generally relate in one of two ways. In so-called parallel figuration, the *polos* players perform all the notes of the basic pattern, as in the *norot* patterns just described. Their *sangsih* partners mirror that basic melody three scale tones up, coming into unison with *polos* on the instrument's top three tones, as on the *dung* (tone 5, G#) near the end of Figure 2 (overleaf).

Once students are relatively comfortable with the basic *norot* idiom, then, and depending on their experience with *sangsih* in other contexts, we may slowly break down some *norot* contours for *sangsih*'s parallel figuration as a group. Or I may immediately split the *gangsas* into their *polos* and *sangsih* pairs to try some isolated *norot* exercises together. I will continue to play *pokok* tones on the *ugal* through these exercises and, importantly, will have the *sangsih* players sing the *polos* part as they work on their own (I'll sing too). Having already embodied the *norot* idiom, these steps enable most *sangsih* players to figure out their parts with limited help from me, even in the difficult high range where melodic contours differ.

Melodic elaborations in gong kebyar can also be played using Bali's famous interlocking techniques, melodies shared between *polos* and *sangsih* rather than being played in parallel figuration. Interlocking *norot* on *gangsa* is utterly formulaic. *Polos* players strike their instruments largely on the beat, playing only

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27. Though most Balinese gamelan players identify notes with solfège, I find numbers easier for unencultured students. Notably, I've seen Balinese teachers of both Western and Balinese beginner ensembles hold up numbers on their fingers to help *pokok* players.

28. Note that these photos were taken in a smaller academic class I teach at MIT, called "Music of Indonesia." Though the end goal in this course is not performance, I use similar pedagogical techniques when teaching theory and composition to these students.

Figure 2. Parallel norot figuration ("Jaya Semara," pengecet).

Figure 3. Interlocking gangsa norot ("Jaya Semara," pengecet).

pitches from the core melody, as in the stems-down strand in Figure 3. In an identical rhythm, offset by one subdivision, the *sangsih* (stems up) play the *norot*'s upper neighbor tones as well as the three notes of the pick-up gesture. Together these interlocking strands sound the full composite melody.

When non-Balinese musicians are taught interlocking parts simply by rote, more often than not the *polos* players are shown their strand in isolation, then the *sangsih*. They may be told that they "interlock," but there's generally no discussion of what that actually means. *Sangsih* players, desperately hanging onto their seemingly isolated offbeats, will often try to block out their *polos* partners so as not to fall into rhythmic unison. I remember one semester a professional percussionist joined the UBC student gamelan. He could confidently play off-beats with absolute precision and was thus almost always asked to play *sangsih*. But when things got really fast, or when we began incorporating the music's subtle tempo shifts, even he couldn't hold onto his conceptually isolated parts. This mental separation of *polos* and *sangsih* makes it a constant struggle in non-Indonesian gong kebyar ensembles to keep the *gangsas* from "swinging." Susilo observes:

sometimes I am amazed how one can learn a sangsih *[…] alone, without having any idea how the* polos *[…] part sounds. To me it is like reading a book every other word. You might make some kind of sense out of it, but it's probably not the sense that the writer intends. You have to hear both parts even if you only play half of a pattern (Susilo et.al. 2004:58).*

Interlocking Balinese drum patterns are almost always taught as composites, the parts vocalized and learned from the start as inseparable. Balinese teachers often sing interlocking melodies in their composite forms too, but unenculturated students who learn their parts in isolation are frequently unable to hear those parts within the composite whole; they don't know how to "read the book as the writer intends." So when teaching a new interlocking technique, like *norot*, I explicitly articulate those connections with my students. I first explain and demonstrate how each part is derived from the whole, incorporating embodiment exercises specific to interlocking, like clapping the component rhythms while singing the composite melody. On our instruments again, we begin with isolated pairs of *pokok* tones to practice the technique.

I will often start by playing the composite *norot* melody on the *ugal* while everyone plays first the *polos* and then the *sangsih* strand in isolation. I ask everyone to sing the composite as they play, so they can begin to hear and embody each part within the whole. Then, when we play the interlocking exercises together, I will alternate between playing the composite melody and playing the *pokok* while singing the composite, helping my students hear (and learn to listen for) these various musical connections. Finally, when I teach a *norot* melody for a specific piece, even if it will be played exclusively interlocking in performance, I insist that students first learn to both sing and play the composite melody while I play the *pokok*. I then have them continue to sing that composite as they decipher their component parts. This less traditional approach helps students hear their parts as they're meant to be heard: not as independent syncopated melodies but as puzzle pieces that, together with other pieces, make a picture. Now, instead of trying to ignore one another when things get fast, they will help each other.

Importantly, I ask all members of the ensemble to participate in these various learning exercises, either on their own instruments or back-to-front with a *gangsa* player. A *pokok* player might hope to play *gangsa* in the future, and this exposure offers a lower-stakes introduction to its more technically challenging idioms. Perhaps more significantly, it encourages musicians to listen more widely across the ensemble. Outside Bali, slower-moving core melody instruments are frequently assigned to beginner-level students, who often see faster melodies as intimidating, impenetrable, and not obviously related to their own. Even brief practice playing elaborating parts like *norot*, though they may not yet have the technical proficiency to perform them well, facilitates for newer players an embodied familiarity with these idioms. It helps them to hear *norot* and other *gangsa* techniques as simple elaborations and anticipations of their own melodies, and to use them as

aural markers if they get lost in performance. Thus, active engagement with their co-performers' idioms can help prevent the chaos that occurs when, as Susilo describes, students accidentally add or skip a note in performance. They now have the tools to hear themselves in relation to their co-performers, recognize when they have gotten out-of-sync, and find a way back. Conversely, the process ensures that more advanced players are independently able to help newer members learn, regardless of their instrument. An active knowledge of musical relationships can thus enable the kinds of collaborative teaching environments so common in Bali, engendering a sense of both musical and social connectedness.

Teaching Improvising Idioms

Norot is yet more complicated on the *reyong* gong-chime, because each of the four musicians sharing this instrument controls only a subset of the gong kebyar's five tones (see Figure 4, below, and Photo 5, on the following pages).

What's more, idiomatic *reyong norot* is not a fixed practice like *gangsa norot*, but rather an art of formulaic improvisation.[29] In most gamelan ensembles outside Indonesia, particularly those working in the time crunch of a semester system, teachers must make compromises with improvising idioms. Vetter explains of Javanese improvisation: "typically it takes more than a semester of study to gain a functional command of the technique for these instruments and to internalize the vocabulary of motivic modules that are used to generate the parts performed on them" (2004:123). Because of this, Benjamin Brinner notes, while some Javanese instructors "attempt to impart process and stylistic choices" for improvising instruments, others "simply make a recording to be emulated" (2016: para. 30). Quoting Marc Benamou, he adds: "[t]his has the distinct advantage of preventing us from doing some very unstylistic

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29. See Tilley 2019, Ch. 2–3
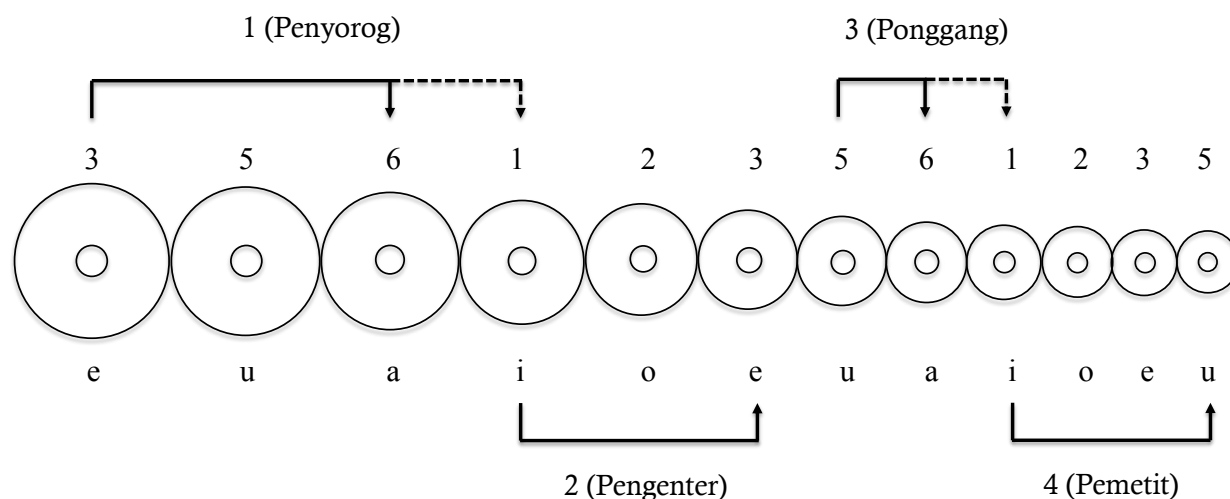
Figure 4. Norot *ranges for the four* reyong *players. The extended arrows on positions 1 and 3 indicate that those players may use* ding *(tone 1) only when their partners don't need it. This generally occurs when the* pokok *tone is* dong *(tone 2).*

. *Demo of improvised* reyong norot *for Teruna Jaya by musicians of Sanggar Çudamani. Pengosekan, Bali, Indonesia, 2016. Video: Aaron Pettigrew. Used with permission.*

. *Galak Tika* reyong *players improvise* norot *based on learned models. Cambridge, Massachusetts, 2017. Video: MIT Music and Theater Arts video team. Used with permission.*

things, but it means that the *process we use in making music is very different from what an experienced Javanese musician uses"* (ibid: para. 29, emphasis added). For gong kebyar ensembles outside Indonesia, this "different process" generally involves learning single "versions" of improvising idioms like *reyong norot* as fixed elaboration, with no understanding that these parts are derived from flexible practices.

Though a seemingly logical compromise, this approach can often cause frustration. Teachers accustomed to improvising *reyong norot* frequently find it hard to remember which version they've taught; students needing a refresher may be shown a different part and wind up more confused. What's more, even a fixed *reyong norot* part will likely be a twisting, syncopated, and seemingly abstract melody, difficult to learn and memorize. On each subdivision, depending on their respective ranges, a *reyong* player will choose between the main *norot* tone, a rest, or one of two alternate tones falling three scale tones above or below the main tone (known interchangeably as *kempyung* or *ngempat*). All this before adding any advanced improvising idioms! The permutations of these options create complex, varied, and unpredictable contours, particularly for the third position *ponggang* player who often has control over just two tones. To illustrate, Figure 5 (next page) juxtaposes the basic *gangsa norot* figuration for a melody from the dance piece *Teruna Jaya* with a single improvised realization by *reyong* players from Sanggar Çudamani in Pengosekan village. Video 2 shows the longer improvised *reyong norot* demo from which this transcription was made.

As abstract musical lines, it's hard for students just to learn and memorize *reyong* melodies like these, much less understand and embody them. But again, I have found that explicitly laying out the fundamentals of the idiom can facilitate that deeper experience. When I begin teaching *norot* to a group for the first time, practicing with isolated pairs of *pokok* tones, the *reyong* joins the *gangsas*. But rather than playing the full *norot* in these exercises, each musician only plays the notes that fall in their range, learning to see and hear how melodic contours are shared across the instrument. When I introduce parallel figuration to the *gangsas*, I ask the *reyong* to begin finding the *sangsih* tones

in their ranges too. Eventually I explain that *reyong* players can also rest for a single subdivision or use the alternate *kempyung* three scale tones below *polos* (they can also think of it as two scale tones above). We then do yet more practice with isolated note pairs, players incorporating *kempyung* above and below as well as rests, and me providing further explanations and demos as needed.

Many gamelan instructors require that students interested in more difficult instrument idioms make time outside of class for additional study (Sumarsam 2004:83). I often provide the more intensive instruction necessary for *reyong norot* in sectionals or small break-out groups during rehearsal, and *reyong* players wishing to learn more advanced idioms will ask for private lessons. However, as with *gangsa norot*, I do like to introduce the basics of *reyong norot* to the full ensemble, asking students to experiment on their respective instruments. *Reyong* is commonly the hardest melodic instrument to populate in a gong kebyar ensemble; its two-hand playing technique is unique in the ensemble and, while core melody players can work their way up to *gangsa*, the move to *reyong* is a bigger leap. Group learning gives non-*reyong* players a chance to try out its idioms, making the transition less intimidating for interested students.

Of course, *reyong norot* is difficult, and teaching it with a method aimed at independent discovery is initially time consuming. New *reyong* players generally need several sessions to start thinking comfortably in this way. Some will feel liberated by the approach as they begin to notice recurring patterns; for others, it will remain intimidating. All will likely need more guidance than their co-performers on other instruments, though this is true when using fixed melodies too.

I'll generally demonstrate and break down more specific improvisational possibilities when teaching *norot* in the context of a piece. As Susilo does, I may eventually teach fixed "versions" to students who are struggling, but I'll always explicitly show how the parts are constructed, center the *concept* of improvisation even if the *practice* needs to be a work-in-progress, and offer alternatives as students progress. Through this multi-step, non-traditional approach, many *reyong* players in my ensembles have gained the confidence to increasingly and idiomatically vary their

Gangsa norot

Reyong norot

Figure 5. Gangsa norot *vs.* reyong norot *(Teruna Jaya). The* reyong norot *shown here was transcribed from a section of Video* 2.

playing over time. And even those sticking to fixed versions learn to hear their parts in musical context, so if they get lost, they're more often able to find their way again. Video 3 (prev. page) shows the results of this approach: an excerpt of my Galak Tika students improvising *reyong norot* for the gong kebyar piece *Gesuri*, after only one semester of working in its idioms and with two first-time *reyong* players.

Putting It All Together: Teaching a Piece

When teaching a piece to a gong kebyar ensemble outside Indonesia, Balinese and non-Balinese teachers alike most often begin with the eight *gangsa* players, first teaching their melodic elaborations while the other musicians wait. The six core melody instruments are usually added next, two *calung* playing the basic *pokok*, two *penyacah* playing a denser version, two *jegogan* outlining a sparser abstraction. It's usually only at this point that the cycle-marking gongs, more technically simple than the other parts, are introduced to the mix. Most instructors will save the difficult *reyong* and *kendang* (drum) parts, as well as the percussive *ceng-ceng* cymbals and improvising instruments like the lead metallophone *ugal*, for last.

Beginning with *gangsa* is a logical choice. It's the ensemble's largest section, and starting here gives those students extra time to solidify their more technically challenging parts while sparser strands are learned. But considering how gong kebyar music is constructed, and prioritizing musical relationships and *meguru kuping*, I prefer a different approach. When introducing new material, I begin by teaching the *pokok* to the full

ensemble. No matter their instrument, everyone learns the *calung*'s core melody first. Sometimes we sing it, using numbers for the gamelan's tones; at other times, I have students anticipate each tone with their gaze as they play, visualizing the *pokok*'s trajectory; or I may ask them to close their eyes, focusing their listening and developing a physical awareness of the melody's contour. I will overtly point out the gong strokes as important structural markers in this early phase. And if the melody is long, we may discuss the overall melodic structure in terms of its various phrases, noting their different starting notes, relative melodic motion, and contours. I find that such discussions help students think about and hear these melodies as longer musical ideas, easing memorization and retention. The *jegogan*, who generally play every other *calung* tone, will then be asked to derive their own part, with more advanced players helping as needed, as the rest of the group continues to play the *calung*'s melody. I may teach the denser *penyacah* melody at this time too, but will often work with *gangsa* and *reyong* first, giving the *penyacah* players more time with the basic *pokok*. (If all my core melody players are inexperienced or struggling, I may forgo a different *penyacah* melody altogether, keeping more players on the *calung* part. As a newer addition to the ensemble, the *penyacah* strand is frequently considered optional). I do add the gong structure in this early phase though, often asking students to articulate its vital relationship to the *pokok* through verbal description, physical gestures (like pointing at gongs while singing the *pokok* or head-nodding while playing), and vocalizing

the gong part as they play: important early steps to embodiment in this cyclic practice.

Only when these elements feel solid do I add melodic elaborations like *norot* (along with the *ceng-ceng* cymbals to articulate rhythmic subdivisions). If the elaborating technique is new to the group, after doing the isolated exercises described in the previous sections, we'll work out the first few beats slowly together to ensure that everyone understands the process of translating core melody into melodic elaboration on their instruments. If the group is already familiar with the technique, I'll simply ask *gangsa* and *reyong* players to begin deriving their parts over the cycling core melody, singing the *pokok* as they play and always beginning with the basic *polos* contour before breaking into parallel or interlocking figurations. As individual students become confident in their parts, I may play a few cycles of the complementary part back-to-front on their instrument—or encourage them to do so with a partner—so that they can not only hear but really see and embody the connections between their two strands. Some students will certainly still need individual instruction; but because they understand the idiom, many are able to find their own parts and, even better, to independently help co-performers who are struggling. This is a far cry from the non-Indonesian gamelan MacDonald describes, where musicians wait to be taught their part, not imagining its connection to what others are learning. Rather than the all-too-common scene of the unenculturated *reyong* players looking bored for the first 30 minutes of rehearsal as they wait for the *gangsas*, then scrambling to learn their own difficult parts in a rush, everyone is working toward fluency from the outset. They have the skills to discover their parts on their own.

I use the same approach for other elaborating idioms like *telu* (see Video 4), whose repeating three-note gestures that ascend and descend with the core

Photo 5. Playing reyong *in Gamelan Gita Asmara with guest artist I Dewa Made Suparta and co-performers Jonathan Adams and Meris Goodman (right to left). Vancouver, Canada, 2012. Photo: Diane Smithers. Used with permission.*

melody are also rooted in teachable formulae.[30] More complex or variable styles, however, often require more direct teaching. *Empat*, for instance, could be composed in many different ways for a given core melody and thus cannot be simply derived; I will likely need to show students their *empat* parts for every piece. But I still want them to both hear and understand the musical relationships behind those parts. I want them to know that *empat*—which means "four"—is built using four adjacent scale tones on the *gangsa* or *reyong*. I want them to hear how its contours track the core melody, dancing around its tones with ascending and descending three-note gestures shared between interlocking partners. Finally, I want them to hear that the highest-pitched note functions exclusively as a sort of harmony tone to the lowest, creating syncopated accents within the texture, per Figure 6.

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30. See Tenzer 2000:220–231 and Vitale 1990 for details on this and other elaborating and interlocking idioms.
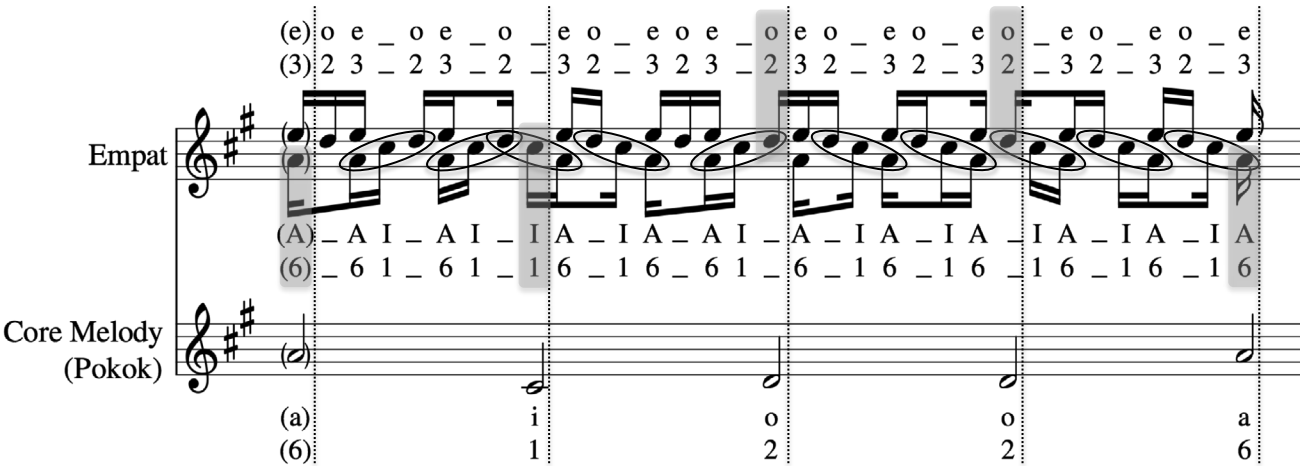
Figure 6. Interlocking empat *figuration*

Video 4. *Galak Tika* gangsa *players perform a* kotekan telu *melody from Liar Samas, which they derived from the* pokok *themselves. Cambridge, Massachusetts, 2017. Video: MIT Music and Theater Arts video team. Used with permission.*

Even if they can't derive their own parts, given explicit descriptions and demonstrations, students can still understand and hear these musical characteristics. So when learning a piece that uses interlocking *empat*, once everyone has learned the core melody, I teach the *polos* first. Before teaching the *sangsih*, I explain its relationship to the *polos* and have the students watch while I play *sangsih* with just one *polos* player, both on the same instrument. And I watch the lightbulbs come on as they actually *see* how the parts connect. I might also have them sing the *pokok* as they watch and listen, helping them hear that connection between *empat* and core melody even if they can't derive it themselves. Now, because they know what to listen for, and what their parts should sound like in combination with others, they can actually begin noticing when they make mistakes: a sure sign that they understand what they're meant to be playing even if their hands don't have it yet. And maybe, slowly, they can begin trying to fix those mistakes in collaboration with their partners, as experienced Balinese musicians do. At the very least, if they get lost in performance, they have more strategies to find their way again.

With each piece we learn, I want my students to understand and embody as much as possible the way their parts are composed. This is certainly more time-consuming up front than simply showing them the notes—or the notation—and might mean I teach one fewer piece over the course of a semester. But it gives my students agency in their own learning experience, and an ability—like the Balinese musicians I've worked with—to learn actively, to look around themselves and find out where they need to go without always waiting for a teacher to come help them. The music has now *masuk*, entered them.

Of course, as Susilo observes, gamelan music is much more than just its notes. It's about group interconnectedness, manifested in subtle waves of tempo and dynamics or perfectly executed structural shifts cued by drummers and dancers. It's about communal feeling, *rasa*, in music-making. And while *rasa* is something that cannot be taught, giving students the tools to hear and understand their parts *as relationships* encourages group

sensitivity and cohesion. When drummers and dancers incorporate those sometimes-unpredictable shifts that bring gamelan music to life, students are already primed to listen actively and take cues from others, feeling the music as collective creation.

Concluding Thoughts

Teaching gamelan ensembles outside Indonesia demands myriad decisions on pedagogical approach. And each choice brings with it more questions. The pedagogical alterations I've described here aim to help unenculturated students hear, feel, understand, and embody gamelan gong kebyar music. But by making these changes, am I truly enabling the Balinese learning experience Sudirana describes? Or am I simply, as Hess (2013) cautions, further imposing a Western epistemological framework onto a Balinese practice? As Sudirana observes, "the attitude in Bali is like more playing than talking. Because you wanna copy, you wanna hear, you wanna feel it. So if you just talk, then when will you do that?" (interview 2017). But here I hearken back to Ziporyn's incisive question: "Who are these 'the Balinese' of whom you speak?" Because while such techniques may not be traditional, many Balinese musicians are indeed innovating in these ways. I remember the day my friend Komin (I Gusti Nyoman Darta) told me he had taught himself to play *kendang* left-handed in order to consciously observe his own learning process and thus articulate to his non-Balinese students what he knew but couldn't express about drum technique. Though their particular musical enculturation means my Balinese teachers and friends don't need to talk about musical concepts as I do, their ability to compose new works in traditional idioms, to recognize and correct mistakes, and to teach these practices, left-handed or otherwise, reveals their knowledge of these musical structures and relationships. And as Susilo argues, the way a gamelan musician thinks about the music matters: "you couldn't hear these different thoughts in the mind of the players during a concert," he says, "except when they get out of synch. It's at that time when you hear the result of the wrong thoughts. Learning a culture, in this case a music culture, is not just learning how the natives physically do it, but also how they think about it" (Susilo et.al. 2004:58). A non-traditional approach, such as the one I've outlined in this article, can help our students get there.

Yet even if we accept the ethical complications of the methods I've described, there are practical shortcomings. Though already a compromise between systems, these techniques may still alienate students who struggle with (or even actively resist) rote learning. And the expectation of independently deriving parts in an unfamiliar musical system may always be overwhelming for some. What's more, the steeper learning curve at the front end of the process may outweigh any longer-term benefits in ensembles with high student turnover and semesterly concert expectations. For some students, these techniques may never lead to the insights, or the feeling, I'm aiming

for. But for others, the experience is transformative. Several weeks into my first semester teaching gamelan, a UBC student told me: "I really love the way we're learning now. I used to feel like I was trying to ride a horse, but I just couldn't stay on. So I'm hanging onto the reins and being dragged behind the horse, trying not to let go. Now I feel like I'm actually on the horse." Years later in Cambridge, a post-concert email from a relatively new Galak Tika member read: "I am very thankful for everything you taught us. I finally feel like I understand what is happening when we play." And after an intense session learning a melody with the elaboration style *telu* for the first time, a student who'd been playing gamelan for several years when I began teaching the group approached me with an enormous grin. "That was the coolest thing we've ever done!," he exclaimed. "Yeah, *telu* is a really satisfying kind of *kotekan*," I responded. "No," he clarified, "I mean finally *hearing* how I *fit*!" Video 4 (previous page) shows an excerpt of this *telu* melody in concert.

For these students, being given enculturated tools through non-traditional means does result in something closer to Sudirana's Balinese learning experience. They're suddenly approaching *meguru kuping* and even reaching toward *meguru rasa*: listening to each other in order to learn, and developing group awareness and feeling. Paradoxically, providing students with an analytical lens in fact allows them to get out of their heads, to listen more broadly, to necessarily interact with their partners, ensemble leaders, and dancers, to *feel* their musical strands in relation to their co-performers', to experience the music collectively. This, to me, suggests an exciting meeting ground of ideas, insights, and perspectives for gamelan learning. As Ziporyn argues, "if you're really going to try to do something that's about the encounter, then you have to not shy away from the things that make the encounter complex" (interview 2017). And as we move forward in playful exploration of our pedagogies, I hope we can collectively work through these complexities to new approaches and understandings for gamelan teaching and learning. ◗

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Notating Sundanese Kendang: Historical Approaches and a New Font

by Ed Garcia and Een Herdiani

Abstract

This article surveys the history and current practices of Sundanese kendang notation, and introduces KendangFont Sunda—a continuation of its notational predecessors. First, we will examine the history of different approaches to kendang notation developed in West Java, considering the inspiration and intended purpose of each system. We analyze notation trends and symbol functions of the past five decades to explore salient characteristics for developing further applied research tools. We then introduce KendangFont Sunda, a new font based on our findings, and discuss computer input methods, legibility, and ease of use. With this new tool for notating Sundanese kendang—and this overview of musical concepts, people, and notation ideas—we hope to increase awareness, develop interest, and further wider comprehension of Sundanese kendang performance.

Artikel ini meninjau sejarah dan praktik notasi kendang Sunda saat ini, dan memperkenalkan KendangFont Sunda – lanjutan dari notasi sebelumnya. Pertama, kami mengkaji sejarah dari berbagai pendekatan notasi kendang yang berkembang di Jawa Barat, dengan mempertimbangkan inspirasi dan tujuan dari masing-masing sistem. Kami menganalisis tren notasi dan fungsi simbol dari lima dekade terakhir untuk mengeksplorasi karakteristik yang menonjol untuk mengembangkan alat penelitian terapan yang lebih lanjut. Kemudian kami perkenalkan KendangFont Sunda, font baru yang kami temukan, dan mendiskusikan metode cara memasukan pada komputer, keterbacaan, dan kemudahan penggunaan. Dengan alat baru untuk notasi kendang Sunda ini, dan juga gambaran umum tentang konsep musik, orang, dan ide notasi – kami mengharapkan dapat meningkatkan kesadaran, mengembangkan minat, dan pemahaman yang lebih luas tentang pertunjukan kendang Sunda. —translation by Ed Garcia

Introduction

Sundanese kendang are a set of double-headed barrel drums originating in West Java, and often associated with Sundanese traditional music and culture. Like many traditional instruments throughout Indonesia, Sundanese kendang playing is not typically taught or performed using written notation. Instead, students learn and perform from memory, often aided by vocal mnemonics that mimic kendang drumming sounds. These mnemonic syllables are also practiced in traditional Sundanese dance pedagogy, where there is a close relationship between dance movements and their accompanying kendang drumming patterns.

Notation, however, is used in West Java as a tool for institutional pedagogy, scholarly analysis, and preservation projects. Sundanese scholars and musicians over time have developed several approaches to notating Sundanese kendang music. Each approach was shaped by the technology available at the time to represent the elements of the notation, influencing its musical scope and functionality.

Kendang Mnemonics

The vocalization of kendang sounds and drumming phrases is prevalent in West Java. Mnemonic syllables are widely used amongst kendang players and non-kendang players (e.g., dancers or other gamelan musicians), especially because the syllables can be spoken as in conversation and do not require the technical prowess of producing sounds on the actual instrument. This vocal system constitutes a powerful tool and makes group rehearsals more time-efficient, inclusive, and collaborative. It allows any member of the ensemble to communicate effectively and with expedience about the music and the complex relationships between kendang, dance movements, and other instruments.

Traditional dance performers and teachers often vocalize kendang sounds due to the close relationship between kendang and dance. As almost every dance movement, stance, or gesture is accompanied by particular kendang drumming patterns, the kendang-dance relationship can be described as *membungkus* (Indonesian for "wrapped or entwined"). Though they may not be drummers themselves, Sundanese dancers must be well-versed in kendang vocables in order to interact with drumming phrases.

Verbalized drum sounds are integral in traditional dance pedagogy. For example, if the dance student is learning *cindek* (a feet-flat stance with toes pointed outward, knees bent, and various other upper body movements),

the teacher coaches the student by rhythmically speaking the kendang sounds "pak tung dong" (PTD). The student is taught to automatically react to these syllables with the appropriate coinciding cindek dance movements. Additionally, Sundanese dance sometimes utilizes drastic tempo changes, and these temporal shifts are directed musically by the kendang player. Therefore, dance teachers often coach students about these elements by singing the corresponding kendang phrases at the appropriate speeds.

The greatest kendang players are able to fully memorize the dance choreography, and follow any improvisations or variations from the dancer. During rehearsals, dancers and kendang players often use kendang vocalizations to resolve any discrepancies in their coordination of movements and sound. For example, if the kendang part does not align correctly with the dance movements, the dancer could facilitate corrections using mnemonic syllables. The dancer could recite while simultaneously dancing, or explain the issue via dialogue only, e.g., "when I dance this movement, I should hear ___" (a particular kendang sound).

One written version of kendang mnemonics, as taught by master musician Undang Sumarna[1], is shown in Figure 1. These vocal recitations are a principal aspect of Sumarna's pedagogy, and often taught in tandem with playing kendang. Similar methods were used by other teachers encountered during our research in West Java,

1. Undang Sumarna comes from a lineage of Sundanese dance drummers. He began teaching Sundanese gamelan at UC Santa Cruz in 1975.

albeit with slight variations.[2] Figure 1 includes syllables that represent sounds produced by a single drum strike, such as "pak," "tung," "pong," and "dong." Vocalizations like "terpak," "dlong," "bang," "kling," "pang," and "blang"

2. For further analysis on the connection between vowel / consonant pairing and kendang mnemonic syllables, and for speculations on the origins of this vocal practice, see Spiller 2016: 18–23, 26–28.

```
[ glong · pak glong glong · pak glong ]
· bang bang  bang  pak  dong

pak pak pak pak pak  tung ting tung ting
pak ting pong ting pak bang tung ting
dong blang pak ting pong
tung  tung  dong
· pak bang  pak bang pak  dong  tung  tung  dong
tung  tung  tung  tung  tung  tung

· pak tung ting b-lang
↑↑↑ ting ting ting pak kling tung pak
· tung pak tung pak dong tung tung blang
↑↑↑ ting · tung pak tung b-lang
↑↑↑ ting pak dong tung pak
pang tung pang tung ·
bang pak tung · tung pak
bang pak tung · tung pak  ·  ·
pang tung pang tung ·
```

Figure 1. Kendang mnemonics from the "Anjasmara" dance. Transcribed by Ed Garcia from kendang lessons with Undang Sumarna at UCSC in 2005.

Figure 2. Sundanese kendang drum types, drumhead names, common instrument arrangement; measurements given are of this set.

are combinations of single sounds that are produced on the kendang by striking two heads at once or in quick succession, similar to grace notes. The combination of multiple kendang sounds into singular syllables ensures there are no rhythmic hindrances during vocal reproduction. Dots and spacing provide some rhythmic context, and circled syllables denote a cadential gong strike.

Comparing Approaches

Table I provides an overview of kendang mnemonic syllables, descriptions of kendang stroke sounds and the ways to produce them, and the different symbols proposed by various notation systems. The information in Table I is compiled from Sundanese publications (Upandi, 1979; Soepandi and Suaman, 1980-81; Suparli,

Table I. Various Approaches to Sundanese Kendang Notation

Drumhead (Sound Source)	Sound and Technique Description	Kendang Mnemonic Syllable	NOTATION SYMBOLS						
				PASUNANDA			LILI SUPARLI		
			PTD	Pandi Upandi (1979)	Maman Suaman (1980)	Tutun Hatta (1996-97)	Lili Suparli (2010)	Sunarto (2017)	Yosep Nurdjaman / Ed Garcia (2019-20)
Keplak / Kutiplak	a bright, sharp, closed slapping sound produced by striking the head with 4 fingers (or 3, excluding the forefinger), and not allowing the striking fingers to rebound from the drumhead.	Plak	P				ϱ̈	ϱ̂	ϱ̂
	a bright, sharp, open slapping sound produced by striking the head with 4 fingers (or 3, excluding the forefinger), and allowing the striking fingers to rebound from the drumhead.	Pak		a̶	ä	¨ / ı̇	ϱ̂	ϱ̈	ϱ̈
	a resonant, warm tone usually produced by striking the head with 1 finger.	Peung		a	á	ı́	ϱ́	ϱ́	ϱ́
	a multiple-bounce stroke that ends with a pak stroke. Strokes prior to the pak can be struck with the finger (like peung) or with a padded stick.	Prak							...ϱ̈
Congo / Kemprang / Kumpyang	a bright, sharp slapping sound usually produced by striking the head with 4 fingers.	Phak		⊖(Plak)	⊄ (Pak)	⨍	ϱ̸	ϱ̸ (Pap)	ϱ̸
	a bright yet resonant sound usually produced by striking the head with 4 fingers.	Pang		o	a	⸼	P(Phang)	P	P
	a resonant, warm tone usually produced by striking the head with 1 or more fingers	Ping		∅	a−	ı̄	P̲	P̄	P̄
	a hollow, overtone sound produced by striking the edge of the head with 3 fingers (excluding the forefinger).	Pong		ȯ	a+	⁺ı̇	P̄	Ṗ⁺	Ṗ⁺
	a sustained, high-pitched sound produced through the friction of rubbing a finger across the head.	Nguk		∅̇					X
Gedug	a resonant bass tone produced by striking the head with 4 fingers.	Dong	D	U	U	↓	D	D	D
	a raised-pitch bass sound produced by placing the foot heel against the head and then striking the head with 4 fingers	Det		U̶(Deng)	ᶌ		D̸	D̸	D̸ (basic) / Ḋ̸ (higher)
	a series of ascending/descending pitches (sometimes arhythmic) produced by multiple strokes on the head with 4 fingers.	Deded		U̶... (Dedede.........d)			D̸...	D̸...	D̸... (basic) / D̸́... (ascending) / D̸̀... (descending)
	a sustained bass sound produced by striking the head and then pushing the heel of the hand across the head.	Du......t		U̶					
	a muffled, upper harmonic sound usually produced by striking the middle of the head with 4 fingers.	Ting		ᶌ	U̇		T	T	T
	description has not yet been found.	Tek			ᶌ̇				
	description has not yet been found.	Teng			Ü̇				
Kentrung / Katipung	a resonant, warm tone usually produced by striking the head with 1 or more fingers	Tung	T	u	U̲	↓̲	t	t	t (primary) / t́ (secondary)
	a series of tung sounds, sometimes arhythmic	Turuntung						t...	t...

2010; Sunarto, 2017), consultations and interviews (Yosep, 2019; Suparli, 2020), and corroborated in lessons with kendang teachers at UCSC (Undang Sumarna) and in Bandung (Mamat Rahmat, Dana, Sunarto, Wahyu Roche, and others). Most of Sumarna's syllables align with the other examples in Table I, although some have functions unique to Sumarna's pedagogy and performance style, e.g. Sumarna's "ting" sound typically aligns with the sound described as "peung." Because kendang mnemonics are often individualized, those in Table I should not be considered exhaustive nor universally employed. Instead, this data references the most commonly used kendang mnemonics across all sources, each paired with their corresponding sound / technique description and notation symbol. If one of the published sources used a syllable other than the one listed in the Kendang Mnemonic Syllable column, then that sound name is parenthesized next to the appropriate symbol (e.g., Upandi referred to his "Phak" sound as "Plak").

When vocalized, kendang syllables flow together with poetic ease and cadence, and demonstrate clear distinctions between drum sounds. For written purposes, however, the lack of rhythmic clarity is a major weakness. Figure 1, for example, shows a clear chronological order of kendang sounds, but rhythmic information is only vaguely alluded to through spacing and dots marking musical rests of undefined length. Since written shorthand was developed in West Java to accompany precise rhythms that were difficult to notate accurately, kendang mnemonics became fundamental to the functionality of these approaches.

The "PTD" Approach

According to Sundanese kendang master Mamat Rahmat, the Central Javanese-based PTD system (from the drum sounds "Pak-Tung-Dong") was likely the first written kendang notation system to be adapted for Sundanese gamelan. It was already a known shorthand documentation of classical gamelan degung drumming when Rahmat began learning music in the 1960s (M. Rahmat, personal communication, September 20, 2019). Traditionally speaking, classical gamelan degung music did not use any drum sounds outside of "pak," "tung," and "dong," making the PTD system ideal for classical degung drumming notation.

One application of the PTD approach is shown in Figure 3. Sundanese cipher notation is used for pitch reference for the Jengglong instrument line, and the letters "P," "T," and "D" correlate with drum sound symbols in the Kendang instrument line. Dots represent singular musical rests, brackets indicate repetition of a section, and the equal spacing between each character helps delineate rhythm. GOONG signifies the gong stroke at the end of the phrase.

Despite its intuitively named notation syllables, the PTD system was not equipped for referencing kendang sounds that accompany traditional Sundanese dance. In order to convey the numerous drum sounds heard in 20th-century presentational dance styles like *tari keurseus*, *tari klasik*, *tari jaipong*, and others, Sundanese theorists began developing more complex approaches to notation.

THE "PASUNANDA" SYSTEMS

Responding to pedagogical needs, Sundanese scholars produced notation models for Sundanese dance drumming in the 1970s and '80s. These models were largely advanced through essays written by Pandi Upandi, Maman Suaman, Nandang Barmaya, and Atik Soepandi. These four musicians and scholars worked in Bandung at SMKN 10 (*Sekolah Menengah Karawitan Negeri*, Vocational Performing Arts High School #10), and they shared their ideas and concepts for how to craft a legible and logical pedagogical kendang notation system (L. Suparli, personal communication, February 7, 2020). Their mutual ideas and collaboration led some scholars to reference their notation approaches under the collective label of "Pasunanda" (Pa-Su-Nand-A), an initial syllable blend of Pandi, Suaman, Nandang, and Atik (Sunarto 2001: 29).

Pandi Upandi's Approach

In his 1979 pedagogical guidebook, Upandi furthered the interconnectedness between kendang drumheads and written notation symbols. Upandi used four distinct glyphs (a, o, u, U) based on three alphabetic letters (a, o, u). Each glyph represented one of the four widely-used kendang drumheads: "a" for keplak, "o" for congo, "u" for kentrung, and "U" for gedug (L. Suparli, personal communication, February 7, 2020.). Figure 2 provides a pictorial guide to the names and locations of each kendang drumhead.

Each drumhead glyph (a, o, u, U) served as a base for further diacritic treatment. Diacritics represented specific sound performance techniques played on a given drumhead. Refer to Table 1 for a complete listing of kendang symbols in all notation approaches discussed here. Upandi utilized a two-row system to organize his kendang sounds. Base glyphs "u" and "U" were notated

Figure 3. Example of PTD kendang notation from the classic gamelan degung piece "Jipang Lontang." (Structural jengglong tones are displayed in the Sundanese pelog degung scale using Sundanese cipher notation, which represents pitches from low to high as 5 4 3 2 1.) Transcription: Burhan Sukarma.

in the bottom row, and "a" and "o" were notated in the top row. The separation of drum tones into two rows allowed simultaneous notes to be vertically aligned to display precise rhythm. This organization also logically separated the drum sounds according to which hand produced the sound: the "u" and "U" bottom row contained sounds produced with one hand, and the "a" and "o" top row contained sounds produced with the other hand.[3]

Maman Suaman's Approach

Many of the notation ideas expressed in Upandi's publication made their way into Maman Suaman's subsequent revised system, as published in Soepandi and Suaman (1980). The goal of this practical guide was to take inventory of all available Sundanese kendang terminology and notation models and create a sophisticated system for preserving and developing kendang documentation. Soepandi and Suaman were both university teachers at ASTI (*Akademi Seni Tari Indonesia,* Indonesian Dance Academy). They hoped that their research would be helpful for high school and university students in Bandung, as well as interested artists outside of these institutions (Soepandi and Suaman 1980: 5). Their revised method became the main representation of the Pasunanda-era notation concepts, and became the de facto kendang notation system in Sundanese scholarship for the next few decades.

Soepandi and Suaman's research was informed through interviews and consultations with prominent music scholars and kendang players in the Bandung area. Many of them gathered together for a meeting on August 21, 1980, to expand upon terminology, notation concepts, and issues presented in previous publications by Pandi

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3. Many of the diacritics used partially obscured the base glyph: a strikethrough typically represented a slapping technique; a forward slash "/" was prescribed for warm middle tones; and a right parenthesis ")" was used for sustained friction sounds. Ellipses "..." placed to the right of the base glyph indicated a series of repeated sounds, and the absence of diacritics demarcated an open tone.

Upandi and Maman Suaman (Soepandi and Suaman 1980: 29, 46). Some of the scholars and artists consulted were: music theorist/author A.S. Pradjakusumah; dancer/choreographer Nugraha Sudiredja; and musicians/kendang players Nandang Barmaya, Otong Rasta, Dase Suherman, Entjar Tjarmedi, Tosin Mochtar, and Mamat Rahmat (Soepandi and Suaman *ibid*: 133). Many of these people were teaching at ASTI and SMKN at the time, and thus were invested in the potential pedagogical advancements stemming from this research.

Although this revised notation model appeared in Soepandi and Suaman's joint publication, it is generally referred to as Suaman's system by Sundanese scholars (Sunarto 2017, 12; L. Suparli, personal communication, February 7, 2020). The most notable improvements upon Upandi's system were Suaman's exterior placement of diacritics. For example, in Upandi's system, many of the diacritics partially obscured the base glyph (such as "ø"). Suaman eliminated most of these diacritic types, instead preferring diacritics placed above, below, or next to the base glyph (such as "a–"). Note how the adjacently-placed diacritic "–" widens the horizontal space typically reserved for the base glyph "a." If applied to a kendang phrase with too many "a–" in a row, then it would potentially create vertical alignment issues with gamelan pillar tones or other written kendang sounds.

Even though Suaman utilized more legible base glyphs than Upandi, he decreased the functional importance of base glyphs. Like Upandi, Suaman maintained a two-row staff system. However, where Upandi used one base glyph per drumhead (four base glyphs total), Suaman used one base glyph per hand (only "a" and "U"). Suaman likely made this decision because the kendang is conventionally played so that each hand is responsible for striking two drumheads each. Therefore, diacritics not only delineated which hand technique to use, but also which drumhead to strike. Because hand usage was also differentiated by using the top and bottom staff rows, it made the role of base glyphs redundant. It also put

	NG		P	N	P	N		P	PN	P	NG
Gamelan Pillar Pitches	2		5̣	1	3	4		5̣	1	3	2
KENDANG MNEMONICS:	dung ping ping		dungpingping	dungpingping	dungpingping	dungpingping		dungpingping	dungpingping	dungpingping	dungpingping
PTD:	DPP		DPP	DPP	DPP	DPP		DPP	DPP	DPP	DPP
PANDI UPANDI: Kemprang	•øø		•øø	•øø	•øø	•øø		•øø	•øø	•øø	•øø
Gedug	U		U	U	U	U		U	U	U	U
MAMAN SUAMAN: Kemprang	•a–a–		•a–a–	•a–a–	•a–a–	•a–a–		•a–a–	•a–a–	•a–a–	•a–a–
Gedug	U		U	U	U	U		U	U	U	U

Figure 4. "Topeng Klana" dance excerpt (opening of piece), transcribed by Ed Garcia from kendang lessons with Mamat Rahmat in Bandung, Indonesia, 2019. Gamelan pitches are in Sundanese cipher notation; a dot beneath indicates a higher octave.

an overwhelming emphasis on small diacritics to be the primary indicator of drumhead and technique rather than the larger-sized base glyphs.

These comparisons can readily be seen in Figure 4. An excerpt of a common kendang phrase used to accompany traditional dance, Figure 4 displays renditions of kendang notation approaches discussed thus far. Each system is vertically aligned to specified structural events (NG = gong, P = kempul, N = kenong) and pillar pitches (numerals). Note that the PTD example lacks the symbol depth necessary to express specific sounds or performance techniques found outside classical degung, and the Kendang Mnemonics example lacks rhythmic clarity.

The "Cilok" Approach
Further experiments into Sundanese kendang notation include Tutun Hatta's "Cilok" approach (L. Suparli, personal communication, February 7, 2020). Hatta introduced new notational ideas for kendang as a teacher at ASTI in 1996-97. His scheme was inspired by the Pasunanda diacritics but also resembled certain traits found in European staff notation and was named after a favorite Sundanese delicacy.[4]

Like the PTD system, Hatta's system set notation in a single row. Borrowing from European staff notation, Hatta connected horizontal beams denoting rhythm to blackened circular noteheads representing specific drumheads with a vertical stem. Noteheads attached to the top of the stem represented the keplak and congo drumheads (both played with the same hand), and bottom noteheads represented the kentrung and gedug drumheads (both played with the opposite hand). Diacritics borrowed from the Pasunanda systems showed specific performance technique.

Hatta's system (Fig. 5) incorporated the compactness of PTD's single-row system by allowing the usage of simultaneous sounds into a single notation row. His system also capitalized on the familiarities of the Pasunanda diacritics and the structure of European staff notation. Despite the similarities to established notation systems, Hatta's system never became widely used. Hatta taught this system for only two semesters, and students had a difficult time transitioning from the Pasunanda concepts. It was likely viewed as too radical of a change compared

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4. Cilok is a tapioca-based West Javanese street food, shaped into a ball and often eaten with a toothpick, that bears a resemblance to the stem and notehead design of Hatta's notation system.
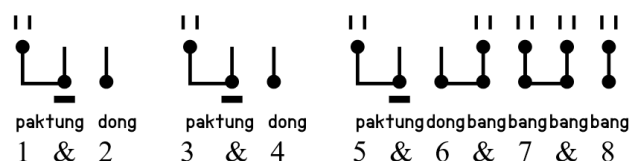
to Pasunanda's vowel-based glyphs, which were more similar to the commonly used kendang sound-syllables. Furthermore, Hatta's system would have been difficult to reproduce using a typewriter/computer, making it challenging for students and scholars wishing to include notation in their typed essays and publications.

Lili Suparli's Approach
In the 2000s, Dr. Lili Suparli, a professor at ISBI Bandung (*Institut Seni Budaya Indonesia*, a national arts institute) compiled a new notation system that refined preexisting notation styles (Suparli 2010, 61). In general, Suparli's system retained Suaman's diacritics, but reverted back to Upandi's philosophy of using four base glyphs (one per drumhead). Furthermore, Suparli used the simplicity of the older PTD system to inform the letters for his base glyphs: "p" (from the sounds "pak" and "peung" produced on the keplak drumhead), "P" (from the sounds "phak," "pang," "pong," and "ping" on the congo drumhead), "t" (from "tung" on the kentrung drumhead), and "D" (from "dong" and "det" on the gedug drumhead). Logically, Suparli used lowercase alphabet letters ("p" and "t") to represent sounds produced on the two small kendang kulanter, and uppercase alphabet letters ("P" and "D") for sounds produced on the large kendang indung (see Fig. 2).

Suparli further merged legibility and theoretical cohesion in a number of ways. In his system, drum sounds providing similar musical functions were represented by variants of the same alphabet letter. For example, the keplak and congo drumheads are functionally used for treble-ranged tones and slap sounds. Due to this, Suparli notated those two drumheads with the same alphabetic base glyph, but with different case treatment: "p" and "P." The uppercase "T" represented the "ting" sound from the gedug drumhead, which serves to remind the reader that this sound comes from the large kendang indung (not the kentrung drumhead from the smaller kendang kulanter, which used the lowercase "t"). The "T" symbol was chosen instead of "D" because it was the only gedug sound that did not onomatopoetically begin with the letter D (Sunarto 2017: 13-18).

Although Suaman's system is still preferred by some, Suparli's system has become popular due to a combination of concepts: logical references to widely accepted kendang mnemonic syllables, the base glyph simplicity of PTD, Upandi's usage of four base glyphs, and Suaman's externally-placed diacritics. After consulting with

Figure 5. Example of Tutun Hatta's "Cilok" kendang notation with beat count.
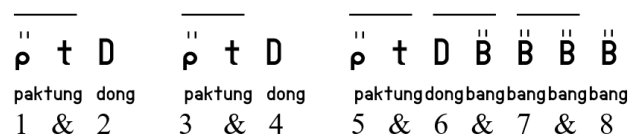
Figure 6. Example of Lili Suparli's single-row kendang notation with beat count.

Suparli, kendang player/ISBI teacher Sunarto included minor adjustments to Suparli's diacritics for his 2017 book *Kendang Sunda*, likely to increase legibility for readers who were accustomed to Suaman's system. The symbol revisions found in Sunarto's book are presented in Table 1.

Suparli also contributed an alternative single-row notation concept, similar to the PTD and Cilok systems, but also referring to common kendang mnemonic syllables. In this theoretical system (i.e., the system was only described in theory, and not actively practiced), simultaneous sounds are notated in a single row by merging diacritics and base glyphs in previously unconventional ways. For example, if the sounds "tung" and "peung" occur simultaneously (written independently as "t" and "ρ"), then the two sounds combine to form "teung" (written as "t"). Suparli also added the base glyph "B" to represent combined sounds between the gedug drumhead and keplak/congo drumheads, like "bang," "bap," "blong," etc. (Sunarto 2017, 16-18). Figure 6 is a rendition of the drum phrase found in Figure 5, but it instead applies Suparli's single-row notation concept. Between his two systems, Suparli's single-row system takes up less written space and has merit for readers who are familiar with kendang vocalizations. However, his two-row system is conceivably more legible since it partitions notation symbols according to which hand performs the sounded attack.

Other Important Notational Features

It is important to note that Sundanese publications typically omit or gloss over certain stylistic or improvisatory elements, such as dynamics, striking implements (hands or, sometimes, a padded stick), repeated sounds and pitch-bending practices. Their absence in notations should not be taken to indicate their relative importance to performance, however. In Sundanese dance drumming the execution of some of these elements often relies on cues from the dancer; Sundanese notators purposefully omit these in published renditions to allow for individualized interpretations and collaborations between drummer and dancer.

The dance drumming pattern for the characteristic dance movement *doyong*—a sideways lean of the body with knees slightly bent—can be represented in three of the aforementioned kendang notation systems (Figure 7). In the doyong movement, dancers gradually lean their body to one side, which the drummer often accompanies by playing a tremolo of repeating, ascending pitch slides on the gedug drumhead. This series of sounds is achieved by pressing the heel of the foot into the gedug drumhead while simultaneously striking the head with the hand. This frequently used technique may be executed in various ways in terms of the number of drum strokes, rhythmic density, and pitch arc. Multiple factors inform these parameters: the character portrayed by the dancer, and the resulting tempo of the music; the volume and pitch of the actual drums, and how this complements the dance and music; and any idiosyncrasies of the drummer's personal performance style.

Gamelan Pillar Pitches	NG 1	P .	.	.	N 1
LILI SUPARLI: Kutiplak	ρ	ρ ρ ρ		ρ	ρ
Gedug	· D	D D ⌀...		·	· D
MAMAN SUAMAN: Kutiplak	a	a a a		a	a
Gedug	· U	U U ⋃⋃⋃⋃⋃⋃⋃⋃·			U
PANDI UPANDI: Kutiplak	a	a a a		a	a
Gedug	· U	U U ⋃.................		·	U
Approximate pitch trajectory					

Figure 7. Doyong excerpt from the Sulintang dance. Transcribed by Ed Garcia from kendang lessons with Dana in Bandung, Indonesia, 2019. Gamelan pillar pitches are displayed in Sundanese cipher notation.

Notation for this type of drumming pattern has varied, and the most common methods use ellipses ("…") to represent the series of repeated strikes on the gedug drumhead. In Lili Suparli's approach, it is implied that the sound "det" (marked as "⌀") will repeat an unspecified number of times, ceasing at some point prior to the struck notes at pillar pitch 1. In contrast, Upandi's ellipses dictated the exact length of the "det" tremolo ("U"), thus making the pillar pitch 1 a fixed stopping point. It is notable that Suaman's system did not specify any shorthand for this pattern, instead employing a fully-notated 16th-note metered approach.

Of the examples in Figure 7, Suparli's system offers the most flexibility since it acknowledges that kendang players do not always play repeated sounds until the next pillar pitch, nor do they always play something metered. None of the displayed systems provide pitch-bending instructions despite its iconic presence in Sundanese drumming. The pitch-trajectory arrow in Figure 7 indicates that the gedug passage continually ascends in pitch throughout the length of the tremolo. The absence of a representation of pitch trajectories in all previous notation approaches was likely based on the assumption that experienced drummers would already know this technique without needing explanation of that detail.

Font Development and Technology

Sundanese kendang notation has an intimate connection with the technologies that enabled its development. The typewriter mechanics of the Pasunanda-era systems allowed input of symbols to be manually placed and overlayed with ease, such as typing a forward-slash over a letter (like "a̸") and typing quotation marks above a letter (like "ä"). The replacement of typewriters with word processing software that does not accommodate such overlaying presents a significant challenge to the future of these notation systems. Many ISBI teachers and students

use a hybrid solution by supplementing standard word processing fonts with precisely pasted images of diacritics and/or beams (Y. Nurdjaman, personal communication, 2019). Others prefer to handwrite nonstandard symbols, which typically must be done post-printing. These methods can be tedious and time consuming to produce even basic notations. A specialized computer input method for Sundanese kendang symbols could resolve the need for these workarounds.

At the heart of all Sundanese kendang notation approaches are mnemonic syllables—the primary mode of verbal communication with dancers—and PTD remains the simplest written method. However, symbols for mnemonic words are not ideal for notating rhythm, and PTD was not designed for the multitude of performance practices found in Sundanese dance drumming. In order to accommodate the wider range of drumming sounds and techniques, Sundanese scholars like Upandi, Suaman, Hatta, and Suparli each improved upon the notation methods of their predecessors in regards to glyphs, diacritics, and number of notation staffs.

Introducing "KendangFont Sunda"[5]
Building on our research into the history of these notation systems and in consultation with musicians in Bandung, we developed a new Sundanese kendang font based on Suparli's notation system. The font, named KendangFont Sunda, was constructed using the internet tool FontStruct with supporting consultation and research from kendang player and ISBI teacher Yosep Nurdjaman. In order to construct a font that was both user-friendly and theoretically accurate, we prioritized alignment maintenance, input efficiency, keyboard layout, and diacritic development. Technical inspiration—especially in regards to cipher, metric, and colotomic organization—was garnered from the Central Javanese-based fonts Kepatihan, designed by Carter Scholz, and KepatihanPro, developed by Raymond Weisling and Matthew Arciniega.

KendangFont Sunda is an attempt to synthesize many aspects from these notation approaches into a word-processing font, making it a readily applicable notation tool for Sundanese kendang drumming. The primary glyphs are each assigned to one of the four kendang drumheads (as in Upandi's approach), and are further based on the mnemonics associated with each drumhead (as in Suparli's approach). The diacritic treatment used in the font matches Suparli's approach, which evolved from Suaman's earlier approach. As is the case with most of the notational approaches that we examined, the font is best used in a two-staff notation system, where each staff represents the drum strokes produced from a single hand.

While some stylistic and improvisatory elements, like pitch bending and tremolo, were purposefully omitted from earlier Sundanese notation methods, KendangFont Sunda includes multiple options for these symbol types so that users can notate them according to their preference (see Appendix 1 for a full list of symbols and some input examples). Consolidated input methods for beams and rhythmic alignment– as well as keyboard grouping of kendang keystrokes – are chief elements that make KendangFont Sunda a premiere tool for Sundanese kendang notation.

The font is effective for prescriptive purposes like music pedagogy and composition, and is appropriate for presenting high degrees of musical detail for scholarly

a) standard 8th note beam (press "-")

a') characters nested underneath a standard 8th note beam

b) standard 16th note beam (press "=")

b') characters nested underneath one standard 16th note beam and one 8th note beam

b'') characters nested underneath two standard 16th note beams and one 8th note beam

c) standard 32nd note beam (press "0")

c') characters nested underneath one standard 32nd note beam, two standard 16th note beams and one 8th note beam

d) nonstandard 8th note beam (press "9")
nonstandard 16th note beam (press "+")
nonstandard 32nd note beam (press ")")

e) standard 8th note triplet beam with 8th note triplet spaces in between characters (press "_")

Figure 8. Several keystrokes for KendangFont Sunda.

5. Download KendangFontSunda from the AGI online library at gamelan.org.

Doyong dance movements from Tari Sulintang (left) and Tari Kupu Kupu (right)

analysis and comparison. Since it draws from Sundanese music theory as well as gamelan font strategies previously introduced by the Kepatihan font family, it may also help foster international discourse about Sundanese drumming. KendangFont Sunda was created using a free internet font construction tool (FontStruct) which could be a fruitful resource for others interested in developing customized notation fonts.

Appendix 1 depicts a complete keyboard map and key list for KendangFont Sunda. In addition to facilitating Suparli's notation symbols, the font also includes supplemental gamelan symbols. The keyboard layout prioritizes logical placement of kendang sounds by grouping sounds from the same drumhead together; other musical symbols—cipher numbers, beams, and gongs—are clustered separately. The most commonly used symbols can be made with a single keystroke. Dedicated keys for space width, pitch bending, and grace note groupings are also included.

Figure 8 (previous page) shows details of some of the font keystrokes. Rhythm beams (eighth-, sixteenth-, and 32nd-note beams) are entered in groups that span multiple spaces. A standard eighth note beam (Fig. 8a) spans the width of three full-sized, equal-width characters (for example, "D," "full space," and "D," as shown in Figure 8a'). Similarly, a standard sixteenth note beam (b) spans the width of two characters, and can be stacked on top of a standard eighth note beam (b'). A second sixteenth note beam can be stacked above the third "D," which automatically extends the beams to accommodate a fourth "D" (b"). A standard 32nd note beam spans the width of a single sixteenth note (c), which can accommodate two half-sized, equal-width characters (c'). These concepts increase input efficiency since beams do not need to be inserted manually for every space. Depending on the font user's needs, there are also single keystroke options to create eighth note beams that span two full-sized characters, sixteenth note beams that span four full-sized characters, and 32nd note beams that span two full-sized characters (d). Eighth-note triplet beams and eighth-note triplet spaces (spaces that are ⅓ of the

width of a standard space) are also provided (e), and their function ensures alignment with other standard four-note phrases. As in the Kepatihan and KepatihanPro fonts, all beams are zero-width characters, and can be combined in any number of ways to create custom-length rhythmic groupings. The beams also help create compact, legible scores with perfect vertical alignment which ensures rhythmic clarity.

Font Application: Notating the Doyong Dance Movement
In addition to basic prescriptive tasks, like the Suparli excerpt shown in Figure 7, KendangFont Sunda is also suitable for lengthier descriptive transcription projects. As an example, Appendix 2 shows transcriptions of doyong dance drumming patterns as realized in two Sundanese dance videos. Segments of these videos are useful for identifying and analyzing Sundanese dance drumming patterns within the context of larger choreographed dance pieces. (See References for links to videos.)

The doyong dance movement appears at the beginning of Tari Sulintang [Sulintang Dance] video (Salim 2017), just after the dancers circle the stage. In the Tari Kupu Kupu [Butterfly Dance] video (Emperor Edutainment 2019), the doyong movement and its associated drumming pattern appears multiple times as part of a repeated cycle of dance movements, e.g. sideways-moving foot shuffle, doyong, elaborate wrist-scarf motion, etc.

The doyong drum patterns in each video can be heard in alignment with the respective dance movements. The tempo slows down prior to all doyong instances, serving to spotlight this subtle, static motion, which often precedes more active, stepping-like movements. This brief slowdown also provides the kendang players more musical space to allow for flexible rhythmic density when performing gedug pitch slides. In both videos, the drummers play approximately five strikes per beat, but not in an exact, metered fashion. The exact pitches of each strike are also not precisely executed, although each follows a general ascending contour. As alluded to earlier, these complexities are the principal reason for their omission or approximation via ellipses in the previous notational approaches.

Despite some distinctions, there are broad similarities between all doyong transcriptions in this article (Figure 7; Appendix 2a, measures 5–6; and Appendix 2b, measures 4–7 and 12–15). For example, the gedug pitch slides are always preceded by a low, resonant gedug strike (notated as "Ɗ") on the upbeat of beat 1, and warm unaccented tones (notated as "ῤ") typically provide rhythmic structure on beats 1 and 3. For reference, the transcriptions in Appendix 2 include video time counters, tempo markings, and dance movement descriptions.

Reflection

As with any notation system, no Sundanese kendang notation approach can fully account for what happens during live performance. Great kendang players do not just memorize drum patterns or dance choreographies. They must also react to improvised musical and dance-related events. These iconic elements of Sundanese drumming are, therefore, absent from Sundanese notational approaches by design. Ultimately, the best way to understand Sundanese drumming is to study directly with a master teacher, whether in West Java or elsewhere. Perhaps a font such as KendangFont Sunda, which introduces a handful of symbols to represent otherwise notationally-elusive kendang techniques, will inspire users to enrich their understanding through direct experience with the many talented artists who are the living manifestation of this remarkable tradition. With that in mind, we encourage all interested learners to pursue finding an appropriate teacher to help them learn Sundanese kendang, dance, and its interconnected concepts. ◗

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Videos (used with permission)

Emperor Edutainment
2019, February 25. *Menari Tari Kupu Kupu dan Tari Topeng Kelana: Kostum dan Pagelaran Tari Kupu Kupu* [Dancing the Butterfly and Kelana Masked Dances: The Costume and Presentation of the Butterfly Dance]. VIDEO of Tari Kupu-Kupu

Salim, Aim
2017, July 19. *Tari Sulintang* [Sulintang Dance]. VIDEO of Tari Sulintang

DOWNLOAD

KendangFont Sunda

(direct download here)

or in the AGI library at

www.gamelan.org

(under FONTS)

Appendix 1: Keyboard Functions for KendangFont Sunda

1a: Keyboard Map

This is a keyboard map of all symbols found in the font "KendangFont Sunda." Symbols that are entered in conjunction with the SHIFT key are expressed in the top portion of each square. For example, the cipher numeral "**1**" is inserted by pressing "1" on the keyboard, and "**ᴉ**" is inserted by pressing "SHIFT" + "1." Keystrokes that represent kendang mnemonic syllables can be pressed to input a full-sized symbol (e.g., press "d" to see "**ᴆ**"), or in conjunction with the SHIFT key to input a half-sized symbol (for example, press "SHIFT" + "D" to see "**ᴅ**"). For a complete description of keyboard shortcuts, see Appendix 2b: Keyboard Shortcuts.

Keyboard (top row):

| (Shift) x — Arrow | (Shift) ᴉ — **1** | (Shift) ᴂ — **2** | (Shift) ᴈ — **3** | (Shift) ᴊ — **4** | (Shift) ᴋ — **5** | (Shift) ᴈ· — **3** | (Shift) ᴋᴖ — **5ᴖ** | (Shift) ··· Bottom Dots | | — 8ᵗʰ Beam (short) | (Shift) large — 32ⁿᵈ Beam (normal) | (Shift) large — 8ᵗʰ Beam (normal) | (Shift) large — 16ᵗʰ Beam (normal) | Backspace |

Second row:

| Tab | (Shift) ··· zero-width — Ellipsis | **T** — TING | **ᴛ·** — TURUN-TUNG | **ᴅ·** — DET (HIGH) | **t** — TUNG | **P** — KEMPUL (FN) | **P̄** — PANG | **P̄** — PING | **P̄⁺** — PONG | **P̄·** — PHAK | (Shift) · top dot — [: Repeat | (Shift) · sm. top dot —]: Repeat | |

Third row:

| Caps Lock | **ᴅ·** — Ascend | **ᴅ·** — Descend | **D** — DONG | **ᴅ·** — DET | □ (Shift) — NG GONG | **N** — KENONG | **P̂** — PLAK | **ᴩ** — PEUNG | **ᴩ··** — PAK | **ᴩ** — PHAK | (Shift) · sm. bot. dot — 1/3 Space | 1/2 Space | Enter |

Fourth row:

| Shift | (Shift) 1 small — ·**1** | (Shift) 2 small — ·**2** | (Shift) 3 small — ·**3** | (Shift) 4 small — ·**4** | (Shift) 5 small — ·**5** | (Shift) 3 small — ·**3·** | (Shift) 5ᴖ small — ·**5ᴖ** | (Shift) ··· small — Top Dots | (Shift) · small — • Rest | (Shift) · bottom dot — / Mute | Shift | | |

Bottom row:

| Ctrl | Alt | | Full Space | | | | | Alt | Ctrl |

(Shift) — indented — Grouping Line

1b: Keyboard Shortcuts

NAME (DESCRIPTION)	PRESS THIS	TO SEE THIS
Pitch Cipher, standard octave	1	1
	2	2
	3	3
	4	4
	5	5
	6	3-
	7	5+
Pitch Cipher, bottom dot (+1 octave)	SHIFT 1	1̣
	SHIFT 2	2̣
	SHIFT 3	3̣
	SHIFT 4	4̣
	SHIFT 5	5̣
	SHIFT 6	3-̣
	SHIFT 7	5+̣

NAME (DESCRIPTION)	PRESS THIS	TO SEE THIS
Top Dot (+1 octave)	SHIFT /	˙
(+2 octaves)	8	¨
(+3 octaves)	SHIFT 8	⋯
Pitch Cipher, top dot (-1 octave)	z	1̇
	x	2̇
	c	3̇
	v	4̇
	b	5̇
	n	3̇-
	m	5̇+
Bottom Dot (-1 octave)	SHIFT [	.
(-2 octaves)	,	¨
(-3 octaves)	SHIFT ,	⋮
32nd Note Pitch Cipher	SHIFT z	1
	SHIFT x	2
	SHIFT c	3
	SHIFT v	4

NAME (DESCRIPTION)	PRESS THIS	TO SEE THIS
32nd Note Pitch Cipher (Continued)	SHIFT b	5
	SHIFT n	3
	SHIFT m	+5
32nd Note Octave Dots	SHIFT]	·
	SHIFT ‘	·
Rest	.	▪
32nd Note Rest	SHIFT .	·
Ellipsis (repeated notes)	q	⋮
Ellipsis, zero-width (repeated notes)	SHIFT q	⋮
Eighth Note Beam (3-space width)	-	│
Eighth Note Beam (triplet width)	SHIFT -	│
Eighth Note Beam (2-space width)	9	│
16th Note Beam (2-space width)	=	‖
16th Note Beam (4-space width)	SHIFT =	‖
32nd Note Beam (1-space width)	0	≡
32nd Note Beam (2-space width)	SHIFT 0	≡
Muted Struck Note (dead stroke)	/	╱

Name	Key
Det	f
(32nd note)	SHIFT f
Det (higher pitched)	r
(32nd note)	SHIFT r
Deded (Ascending)	a
(32nd note)	SHIFT a
Deded (Descending)	s
(32nd note)	SHIFT s
Ting	w
(32nd note)	SHIFT w
Tung	t
(32nd note)	SHIFT t
Turuntung	e
(32nd note)	SHIFT e
Nguk	SHIFT `

Name	Key
Pak	l
(32nd note)	SHIFT l
Peung	k
(32nd note)	SHIFT k
Plak	j
(32nd note)	SHIFT j
Phak	p
(32nd note)	SHIFT p
Pang	o
(32nd note)	SHIFT o
Ping	i
(32nd note)	SHIFT i
Pong	u
(32nd note)	SHIFT u
Dong	d
(32nd note)	SHIFT d

Name	Key
Grace Note Grouping Line (for grace notes preceding principal note)	\
Grace Note Grouping Line (indented, for grace notes proceeding principal note)	SHIFT \
Repeat Signs	[
	]
Arrow	`
Full Space (1-space width)	SPACE
Half Space (½-space width, for use with 32nd notes)	;
Third Space (⅓-space width, for use with 8th note triplets)	'
Gong	g
Kempul	SHIFT g
	y
Kenong	h
Kempul + Kenong	SHIFT y

2a: *Doyong* Excerpt #1

This is a *Sulintang* dance excerpt notated with "KendangFont Sunda," and transcribed by Ed Garcia from Salim (2017). Gamelan pillar pitches are displayed in the Sundanese pelog degung scale using Sundanese cipher notation (ascending to descending pitch = 1,2,3,4,5; subscript dot = pitched raised by one octave).

Measure Number, Tempo (and Video Time Counter)	M. 1, bps ≈ 95	(0'41")
Dance Movements		
Gamelan Pillar Pitches	NG 2	
Kutiplak, Kemprang	. ꝑ . ꝑ	
Gedug, Katipung	ᴆ	

M. 2   **bps ≈ 88**

Dancers circle the stage			*Doyong* (lean to right)
. . . 2	. . . 2	5̣ 1 2 3	. . . 5
. ꝑ ꝑ .ꝑ. ꝑ Ꝑ .Ꝑ	. Ꝑ Ꝑ .Ꝑ. Ꝑ .ꝑ.ꝑ	. ꝑ ꝑ .ꝑ. ꝑ .	ꝑ . ꝑ .
. . . тт . тт	. тт тт тт тт ᴆ	. . . . D	. D ꝑꝑꝑꝑꝑꝑꝑꝑ . D D

M. 6   (1'02")

Dancers straighten torso		Pivot to right, drop scarf	Scarf left hand
. . . 5	. . . 5	. . . 3	. . . 2
ꝑ . ꝑ .ꝑ. ꝑ	. ꝑ . ꝑ . ꝑ	ꝑ .ꝑ. ꝑ . ꝑ .ꝑ.	ꝑ ꝑ . .
. D ꝑꝑꝑꝑꝑ. .	т .D. . .	. . .DD .	. т D т D

2b: *Doyong* Excerpt #2

This is a *Kupu Kupu* dance excerpt notated with "KendangFont Sunda," and transcribed by Ed Garcia from Emperor Edutainment (2019). Gamelan pillar pitches are displayed in the Sundanese pelog scale using Sundanese cipher notation (ascending to descending pitch = 1,2,3,4,5).

Measure Number (and Video Time Counter)	M. 1, bps ≈ 105	(5'59")
Dance Movements		
Gamelan Pillar Pitches	NG 4	
Kutiplak, Kemprang	ˑ ρ ˑ ρ	
Gedug, Katipung	D	

M. 2　　　　　　　　　　　　　**bps ≈ 87**

Sideways foot shuffle		*Doyong* (lean to one side)	
P · · · 3	N · · · 4	P · · · 1	N · · · 2
ˑρˑρˑρˑρˑρˑρˑρˑρ	ˑ ρ ˑ · ˑ ρ	ˑ ρ ρ ρ ρ	ρ ρ ρ ρ ρ
t　t　t　t	t · t t D	· ρρρρρρρρρˑ T	· D ρρρρρρρ···ˑtˑt

M. 6　　　　　　　　　　　　　**bps ≈ 105**　　　　　　　　　　(6'20")

		Wrist flicks, holding scarf	
P · · · 1	PN · · · 2	P · · · 3	NG · · · 4
ρ ρ ρ ρ ρ	ρ ρ ρ ρ ˑρρ	P̄ ρ ρ ˑ ρ ˑρˑ	†ρ ρ ρ · ˑρˑρ
· D ρρρρρρρρρˑ T	ˑDD ρρρρρρρρ··∅ˑt	· t · D t ·	· t · · D

M. 10　　　　　　　　　　　　**bps ≈ 84**

Sideways foot shuffle		*Doyong* (lean to one side)	
P · · · 3	N · · · 4	P · · · 1	N · · · 2
ˑρˑρˑρˑρˑρˑρˑρˑρ	ˑ ρ ˑ ˑρˑρˑ ˑρˑ	ρ ρ ρ ρ ρ	ρ ρ ρ ρ ρ
t　t　t　t	t · D D t D	· D ρρρρρρρρρˑ T	ˑDD ρρρρρρρ···ˑtˑt

M. 14　　　　　　　　　　　　**bps ≈ 100**　　　　　　　　　　(6'41")

		Wrist flicks, holding scarf	
P · · · 1	PN · · · 2	P · · · 3	NG · · · 4
ρ ρ ρ ρ ρ	ρ ρ ρ ρ ˑρρ	P̄ ρ ρ ˑ ρ ˑρˑ	†ρ · · †ρ ˑρˑρ
· D ρρρρρρρρρˑ T	ˑDD ρρρρρρρρ··∅ ˑt	· t · D t ·	· ∅ t · ˑDD

SCORE

Korona Suminggah: a prayer for an end to the Coronavirus pandemic

composition by Saptono, notes by Fumiko Tamura

An imaginary dragon named Osenkou, invented and drawn by Saptono.

Korona Sumingkir

At the beginning of the pandemic in December 2019, while he was in the hospital in Fukuoka, Saptono began working on a new piece for Javanese gamelan. This became "Lancaran Korona Sumingkir *laras pelog pathet barang*."

"Sumingkir" in Javanese means to avoid or step aside. The text exhorts people to pray at temples and shrines for an end to the COVID-19 pandemic. Saptono also drew a picture of an imaginary dragon named *Osenkou*. The name means "incense stick," which the Japanese believe will help prevent widespread illness.

The inspiration for "Korona Sumingkir" was *Oni Subé*, a Shinto fire ritual done to ward off evil spirits; it is performed at a famous shrine in Fukuoka called Dazaifu Tenmangu. Saptono's Japanese translation of the text is called "Korona Subé."

Kartika & Kusuma gave the world premiere of "Korona Sumingkir "at a virtual concert called *Senang-Senang* [having fun] in November of 2020; it was also played by several other gamelan groups in Japan.

People said that the tune helped them breathe deeply and feel normal again.

Korona Suminggah

Seeing that the Coronavirus was still raging worldwide, Saptono composed new versions of "Korona Sumingkir" in both pelog pathet barang as well as in the more serious pelog pathet lima. He added a fourth verse, and changed the title to *Korona Suminggah.*

"Korona Suminggah" may be played in either pelog pathet barang or in pelog pathet lima, depending on the conditions or preference of the gamelan group.

While "sumingkir" meant to avoid, "Korona Suminggah" is a deeper prayer to stop the virus and bring an end to the pandemic. "Suminggah" invokes the Javanese mantra "singgah-singgah,"[Return to where you came from!], which has been used in Java as an incantation against evil spirits. The new piece was premiered and recorded by Kartika & Kusuma in both Javanese and Japanese.

For this edition, Saptono contributed handwritten notation for the vocal part in pelog pathet barang, and kendhang parts for each section of the piece. New balungan and vocal notation were prepared by Steven Tanoto; verses in English were written by Jody Diamond.

[VIDEO of Korona Sumingkir](#)

[VIDEO of Korona Suminggah](#)

Catatan dari komponis

Korona adalah wabah penyakit berupa virus yang meraja-lela ke seluruh dunia sejak Desember 2019 hingga sekarang dan sampai kapan kita semua tidak tahu. Kata Suminggah berarti menyingkir atau menyimpan. Ini sesuai dengan harapan kita semua agar Korona betul-betul tersimpan jauh dari kita.

Sekarang disajikan juga dalam bahasa Jepang menjadi "Korona Subé." Kata Subé berasal dari salah satu upacara tradisi di Dazaifu Tenmangu Kyushu Jepang yang disebut "Oni Subé." Makna upacara itu adalah mengusir Oni (mahluk raksasa yang menakutkan) dengan alat berupa Api besar. Maka dari inspirasi itu, kata subé dimaksudkan untuk mengenyahkan KORONA agar pergi jauh dan tidak akan mengganggu lagi pada manusia di dunia.

Syair yang dipakai dalam lagu pada intinya bermaksud untuk mengajak semua masyarakat di seluruh dunia agar sadar dan ingat kembali pada Yang Maha Kuasa kemudian agar berdoa dan memohon kepadanya supaya dijauhkan dari virus Korona dan selalu dilindungi. Begitu juga semua warga masyarakat Jepang supaya kembali ke Jinja (Shinto kuil) untuk berdoa dan Otera (Candi Agama Budha) yang bersedia dupa yang ditakui Korona.

Sedangkan lagunya berasal dari tembang Jawa, yaitu "Suwe Ora Jamu" yang cukup berusia. Tembang ini telah pula menjadi gendhing kecil dalam karawitan Jawa yang tergolong bentuk Lancaran biasa disajikan dalam laras Slendro atau Pelog. Lagu ini telah di aransemen/diolah oleh Saptono yang kemudian lahir di Jepang sebagai Lancaran "Akifu atau Kisetsuno Uta," sedangkan di Jawa Indonesia lahir kembali sebagai "Eling Jamané" yang pernah dipentaskan di Tokyo tahun 2015. Dan kali ini muncul sebagai "Korona Suminggah."

—Saptono

Notes by the composer

The Coronavirus is the source of a disease that has been rampant around the world since December 2019—and we still don't know how long it will last. The word "suminggah" means keep away, or store elsewhere. This expresses everyone's hope that the Coronavirus will truly be eradicated and kept at a distance.

When sung in Japanese the piece is called "Korona Subé." The word "subé" comes from a traditional ritual called "Oni Subé" that is performed in the [Shinto] shrine Dazaifu Tenmangu Kyushu. The purpose of the ritual is to exorcise the *Oni* (a terrifying demon) by building a large fire. Therefore, "subé" may be interpreted as the desire to eliminate CORONA and end the calamity it has visited on all humankind.

The verses [in "Korona Suminggah"] intend to persuade people around the world to think of the Almighty, and to fervently pray to be protected and saved from the Coronavirus. In addition, all members of the Japanese community are exhorted to pray at a *Jinja* (Shinto shrine) or to go to an *Otera* (Buddhist temple), where they can burn incense to symbolically scare the coronavirus into leaving.

The melody comes from the well-known old Javanese *tembang* [sung poem] "Suwe Ora Jamu." This tembang is the basis of a classical Javanese piece [for gamelan] in the *lancaran* form [of sixteen beats to each gong cycle] that can be played in either the Slendro or Pelog tuning. My first version of this piece was performed in Tokyo in 2015 as a lancaran titled "Akifu" or "Kisetsuno Uta," while in Java, Indonesia, it became "Eling Jamané." And now I have arranged it to become the composition "Korona Suminggah."

—translation by Jody Diamond

Saptono playing Gamelan Sekaten in Surakarta.

Saptono (b. 1951 in Klaten, Central Java) is an expert gamelan musician who is also well known for composition and choreography.

Saptono studied at KOKAR (*Konservatori Karawitan*) and ASKI (*Akademi Seni Karawitan Indonesia*) in Surakarta, and ISI (*Institut Seni Indonesia*) in Yogyakarta, where he joined the faculty in 1985. He received the degree of *Magister Humaniora* from Gajah Mada University in 1998.

He was appointed as the *Tindhih Karawitan Karaton Surakarta*, and has been the leader of the gamelan at the royal palace of Surakarta since 2008. His court title and name are K.R.R.A. Saptodiningrat.

As a visiting professor at Tokyo National University of Arts from 1979 to 1984, Saptono contributed greatly to the spread and public understanding of gamelan music in Japan. He helped start several Japanese gamelan groups, including Kartika & Kusuma, Lambangsari, and Dharmabudaya. He also founded a performing organization named Saptobudaya, which has presented many programs of Javanese gamelan, dance, and wayang kulit both in and outside Indonesia. His compositions and performances can be enjoyed on CDs released by King Records, Bayu Murty, and NAR.

Recordings

Chamber Music of Central Java, incl. Gendhing *Danaraja*, and Gendhing *Rimong*. 1992, King Record Co., Ltd., KICW 1076

Saptono: Empu Karawitan Jawa, Charm of the Rebab, in gadhon style, incl. Gendhing *Manuhara*, Gendhing *Rondhon*. 2014, Nippon Acoustic Records Inc., NARP 8010

Saptono: Empu Karawitan Jawa II, Vibrancy of the Kendhang, in big Javanese gamelan style, incl. Gendhing *Manuhara*, Beksan Surya *Hamisesa*, and others. 2015, Nippon Acoustic Records Inc., NARP 8011

Compositions by Saptono 1981–2022

1981	Tari Srimpen *Darmasari*
1982	Tari *Primagama* (love dance)
1983	*Asmaradana Pak Fumio* slendro sanga
1983	Tari *Ojosan No Ichinichi*
1985	Drama Tari *Damarwulan Menakjingga*
2000	Gd. Beksan Gambyong *Jankung Kuning* pelog barang
2003	*A Tale From Birds*. Music for marionette theater
2004	Gd. Bonang *Sekaring Tawang* slendro nem
2007	*Prakempa* (rebana, gamelan, and voices)
2008	Gd. *Jati Waluya* slendro sanga
2010	*Trebangan Swara Buwana*
2012	Sindhenan Bedhaya *Luluh*: Buka celuk dhawah Ktw. *Luluh* dados Ldr. *Gumolong* kal. *Plajaran* dados Ktw. *Manunggal* suwuk. Buka bonang Ld. *Gati Sapto* pelog nem
2012	Sindhenan Bedhaya *Wursita-Rukmi*: Ptn.*Wuryanira*. Buka celuk dhawah Ktw.*Wursita Rukmi* suwuk. Buka bonang Ld. *Gati Mulyo* pelog lima
2012	Sindhenan Srimpi *Nugraha*: Ptn. *Sinukarta*. Buka celuk dhawah Ktw. *Nugraha* suwuk. Buka bonang Ld. *Nugraha* pelog nem
2012	Sindhenan Srimpi *Wursita-Rukmi*: Ptn. *Wursita*. Buka celuk dhawah Ld.*Wursita Rukmi* pelog barang
2013	Gd. *Magung* kt. 4 awis mg. 8 pelog lima
2013	Gd. *Manuhara* kt. 4 kerep mg. 8 kal. Ktw. *Hayu* pelog lima
2014	Beksan *Suryàhamisésà*: Lcr. *Wisésà* dados Ktw. *Suryàwisésà* kal. Ld. *Suyàwisésà* slendro manyura
2014	*Karti Bonang*: berbagai garap ricikan bonang seperti racikan, klenangan, imbal, gembyangan, imbal-imbalan, dengan menyajikan beberapa gending slendro dan pelog
2015	Gd. *Asmarandana Plesiran* slendro manyura
2015	Lcr. *Akifu*
2015	Lcr. *Eling Jamane*
2015	Sindhenan Srimpi *Retnomurti*: Ptn. *Winursità*. Buka rebab Gd. *Duduk Wuluh* kt. 2 kr. mg. 4 kal. Ktw. *Mêgatruh* suwuk. Buka bonang Ldr. *Wursità Rukmi* pelog barang
2019	Little notebook about sindhen & gerong
2020	*Gangsaran* kal. Ld. *Sekaringtawang* pelog nem
2020	Lcr. *Korona Sumingkir* pelog barang
2020	Lcr. *Korona Suminggah* pelog lima
2020	Ldr. *Asmarandana Korona-Sube* slendro manyura
2020	Ldr. *Pacoban* slendro nem
2020	Ldr. *Tomato* pelog barang
2022	Lcr. *Haru Ga Kita* pelog lima

Fumiko Tamura is an ethnomusicologist and Javanese gamelan player who studied World music at the Tokyo National University of Arts under the guidance of Professor Fumio Koizumi. She began her study of Javanese Gamelan with Pak Cokro (K.P.H. Notoprojo) in 1973 at a summer program of the American Society for Eastern Arts at the University of Washington in Seattle. As the first student form Japan, she studied and researched Javanese Gamelan in Central Java from 1974 to 1979. In the 1980s, she founded OTOKOBA, a studio of Indonesian Music and Dance, as well as the Japanese gamelan groups Kartika & Kusuma and Lambangsari. After teaching at the Tokyo National University of Arts, in 1999 Tamura became Professor of Asian Culture at Chikushi Jogakuen University in Fukuoka. In the recent years, she has been researching the production and distribution of bronze gongs in Southeast Asia.

Kartika & Kusuma

Fumiko Tamura melded two groups in 1988—one for Javanese gamelan (Kartika), the other for Javanese dance (Kusuma)—to create Kartika & Kusuma, with Saptono as artistic director. Their focus is the performance of Central Javanese gamelan and dance. Kartika & Kusuma has self-produced various performances, including joint ones with musicians and dancers from Java. The group has been invited to perform at venues such as the Tokyo National Museum, the Kyushu National Museum, the Okamoto Taro Museum and at many schools. Through these various concerts and workshops, Kartika & Kusuma has endeavored to share the enchantment of Javanese gamelan and dance.
<http://kartika-kusuma.com/>

Saptono playing rebab at a gamelan concert in Japan.
Below: *Kartika & Kusuma performing the world premiere of "Karti Bonang" in Tokyo, 2014, with Saptono (right, in blue) playing bonang. Both photos by Hitoshi Furuya.*

PERFORMANCE INSTRUCTIONS

Structure

A in irama lancar

This is played as a standard lancaran (*garapan lancaran irama lancar biasa*).

• Bonang plays *gembyang* ["octaves"].
• Kendhang part is standard *kendhang kalih* [two drums] for lancaran.

B in irama dadi with vocal

Instruments play softly with a slower tempo.

• Saron and peking play balungan B. Some quieter variations are possible.*
• Slenthem plays the part marked "B for slenthem." Demung may also play this part.
• Bonang and bonang panerus play imbal-sekaran.
• Gender, gambang, and other elaborating instruments may also play.
• Kendhang "pinatut" for both treatments of B. "Pinatut" means suitable; the kendhang player chooses and arranges the kendhangan. (Two pages of kendhang notation by Saptono are included in this edition).

B in irama dadi instrumental (without vocal)

Instruments play louder and a little faster.

• Saron, peking, and demung play balungan B.
• Slenthem plays the part marked "B for slenthem."
• Gender, gambang, and other elaborating instruments may continue to play if there are enough musicians, otherwise they may switch to balungan instruments as in the video.
• Kendhang "pinatut" (see above).

Sequence of performance

After buka bonang

A is played several times.
  For the transition from A to B: (1) the kendhang signals in the last gatra of the first gongan of A to (2) slow the tempo to irama tanggung by the second kenong of the second gongan, and (3) continue slowing to reach irama dadi by the second gong of A.

B (B1: vocal) is played softly with vocal, and repeats for each verse that is sung, at least two times.

B (B2: instrumental) is played loudly with just instruments, one time.

The alternating treatments of B are repeated as many times as needed.

Return to **A** from B2, the instrumental playing of B.

In the transition back to A, all balungan instruments may play the last kenongan of "B for slenthem"

Repeat **A** several times, then *suwuk* (end).

The sequence might also be represented like this:

[: A :] [: B1 B1 B2 :] [: A :]

NOTES

Pathet

"Korona Suminggah" can be played in either pelog pathet barang or pelog pathet lima. If a high and brilliant singing voice is desired, select pathet barang. If you prefer a lower, mellow voice for singing, choose pathet lima.

Variations in vocal melody

Changes may be made in the vocal melody so that it becomes more suitable to the words or feelings of the players. Saptono's handwritten vocal notation shows two possibilities.

*Variations in balungan

Other versions of the balungan are possible for section B when it is played with the vocal part, in order to make the balungan quieter. The first kenongan of pelog lima is shown here with two variations. Similar changes may be made at the beginning of each kenongan in both pathet.

this kenongan	‾·242· 2456 ·654 2456⌒
may be played as	·42· 2456 ·654 2456⌒
or as	···· 2456 ·654 2456⌒

Vocal texts

The original text by Saptono was in Javanese; this was translated to Japanese for performances in Japan. Saptono also translated the text into Indonesian. The English verses by Jody Diamond were requested and approved by the composer. Performers are welcome to create additional verses in other languages.

What is a *kenongan*?

This piece is a *lancaran*—a form of sixteen beats that ends with a large gong, represented by a circle around the final note. This sequence is called a *gongan*. "Korona Suminggah" has two of these. The kenong, a horizontally suspended gong, divides the gong cycle into four segments of equal length, indicated by a curve over the note. Each of these phrases is called a *kenongan.*

So "the second kenongan of the first gongan, and . . . the last kenongan of the second gongan," refers to the two phrases underlined here:

.5.6⌒ .5.6⌒ .4.5⌒ .6.⑤
.2.1⌒ .2.1⌒ .4.5⌒ .4.②

Lancaran **Korona Suminggah** laras pélog pathet limå (Saptono)

buka bonang

. 2 . 1 . 2 . 1 . 4 . 5 . 4 . ②

A: irama lancar

[: . 5 . 6 . 5 . 6 . 4 . 5 . 6 . ⑤

. 2 . 1 . 2 . 1 . 4 . 5 . 4 . ② :]

B: irama dadi

[: .24 2 . 2 4 5 6 . 6 5 4 2 4 5 6

.65 6 . 6 5 4 5 . 5 4 2 4 6 4 ⑤

.64 5 . 5 4 2 1 . . 1 2 1 3 2 1

.12 1 . 1 2 4 5 . 5 6 4 6 5 4 ② :]

B for slenthem

[: . 5 . 4 . 5 . 6 . 2 . 4 . 5 . 6

. 2 . 4 . 6 . 5 . 4 . 6 . 4 . ⑤

. 6 . 4 . 2 . 1 . 2 . 3 . 2 . 1

. 2 . 4 . 6 . 5 . 6 . 4 . 1 . ② :]

Lancaran **Korona Suminggah** laras pélog pathet limå (Saptono)
Vocal score in Javanese, Indonesian, Japanese and English

bukå bonang . 2 . 1   . 2 . 1   . 4 . 5   . 4 . ②

irama lancar [: . 5 . 6̂   . 5̆ . 6̂   . 4̆ . 5̂   . 6̆ . ⑤

  . 2 . 1̂   . 2̆ . 1̂   . 4̆ . 5̂   . 4̆ . ② :]

vocal (irama dadi)

. 5 . 4   . 5 . 6̂   . 2̆ . 4   . 5 . 6̂

. . . . 2 4 5̄6̄ 6 6̄5̄6 i ̇2 i̇̄2̄ 4 5̄6̄ 6

Javanese	Gek ke pri- yé	ja- ma- né da-	di mang- ké- né
Indonesian	Ma- sya Al- lah	ki- ni ja- man-	nya be- ru- bah
Japanese	どう し よう か	こん な じ だ	い に なっ た
English	Un- bid- den and	un- known a glo-	bal sick- ness came

. 2 . 4   . 6 . 5̂   . 4 . 6̆   . 4̄ . ⑤

. . . . 6 i̇ i̇̄2̄ 5 . 5 5 5 4̄5̄6̄5̄ 4̄6̄ 5

Mo- dhèl a- nyar	vi- rus ko- ro-	na su- me- bar
Mo- del a- ba- ru	vi- rus ko- ro-	na me- nyer- bu
しん が た ウィ	ルス コ ロ ナ	ひ ろ がっ – た
And then we learned	co- ro- na vi-	rus was its name

. 6 . 4   . 2 . 1̂   . 2 . 3̆   . 2̄ . 1̂

. . . . 5 6̄i̇̄ i̇̄2̄ i̇ . i̇̄ i̇ i̇ ̇2 ̇2̄i̇ 7 i̇̄2̄ i̇

Wong sak ja- gad	på- dhå su- sah	lan mer- to- bat
Pas- ti- su- dah	o- rang se- du- sah	ni- a su- sah
せ か いじゅう	の にん げん ぜん	ぶ こ まっ た
The world closed down,	and peo- ple had	to stay in- side

. 2 . 4   . 6 . 5̂   . 6 . 4̆   . 1̄ . ②

. . . . ̇2 i̇ 7 5 5 5 5̄6̄ 4 4̄6̄ 5̄6̄ 4̄5̄ 5̄2̄

A- kèh kang lå-	rå kang sé- då	u- gå a- kèh
Je- las ter- se-	rang hing- ga sa-	kit dan te- was
た く さん びょう	き いつ ぱ い	な く なっ た
We could not fight	the vi- rus so	we had to hide

Lancaran **Korona Suminggah** laras pélog pathet barang (Saptono)

bukå bonang

```
 .  3  .  2      .  3  .  2      .  5  .  6      .  5  . (3)
```

A: irama lancar

```
      +     +        +  ⌣  +  ⌢        +  ⌣  +  ⌢        +  ⌣  +
 [: .  6  .  7      .  6  .  7      .  5  .  6      .  7  . (6)

    .  3  .  2      .  3  .  2      .  5  .  6      .  5  . (3) :]
```

B: irama dadi

```
    ‾‾‾  +                  +        ⌢              +              ⌢
 [: .35  3  .      3  5  6  7      .  7  6  5      3  5  6  7

    ‾‾‾        ⌣                    ⌢              ⌣
    .76  7  .      7  6  5  6      .  6  5  3      5  7  5 (6)

    ‾‾‾                        ⌢                  ⌣          ⌢
    .75  6  .      6  5  3  2      .  .  2  3      2  1  3  2

    ‾‾‾        ⌣                  ⌢              ⌣
    .23  2  .      2  3  5  6      .  6  7  5      7  6  5 (3) :]
```

B for slenthem

```
      +              +           ⌢        +        ⌣                ⌢
 [: .  6  .  5      .  6  .  7      .  3  .  5      .  6  .  7

                 ⌢                    ⌢                 ⌣                ⌢
    .  3  .  5      .  7  .  6      .  5  .  7      .  5  . (6)

                                                  ⌢              ⌣          ⌢
    .  7  .  5      .  3  .  2      .  3  .  1      .  3  .  2

              ⌣                  ⌢                 ⌣                ⌢
    .  3  .  5      .  7  .  6      .  7  .  5      .  2  . (3) :]
```

Lancaran **Korona Suminggah** laras pélog pathet barang (Saptono)
Vocal score in Javanese, Indonesian, Japanese and English

bukå bonang   . 3 . 2   . 3 . 2   . 5 . 6   . 5 . ③

irama lancar   [: . 6 . 7̑   . 6̆ . 7̑   . 5̆ . 6̑   . 7̆ . ⑥

                   . 3 . 2̑   . 3̆ . 2̑   . 5̆ . 6̑   . 5̆ . ③ :]

vocal (irama dadi)

. 6 . 5   . 6 . 7̑   . 3 . 5̆   . 6 . 7̑
. . . .   3 5 6̲ 7̲ 7   7̲ 6̲ 7 2̇ 3̇   2̲̇ 3̲̇ 5 6̲ 7̲ 7

	Javanese	Indonesian	Japanese	English
	Gek	Ma-	どう	Un-
	ke	sya	し	bid-
	pri-	Al-	よう	den
	yé	lah	か	and
	ja-	ki-	こん	
	ma-	ni	な	un-
	né	ja-	じ	known a
	da-	man-	だ	glo-
	di	nya	い	bal
	mang-	be-	に	sick-
	ké-	ru-	なっ	ness
	né	bah	た	came

. 3 . 5̆   . 7 . 6̑   . 5 . 7̆   . 5 . ⑥
. . . .   7 2̇ 2̲̇ 3̲̇ 6   . 6 6 6 6   5 6 7 6 5 7 6

	Mo-	Mo-	しん	Un-
	dhèl	del	が	til
	a-	a-	た	we
	nyar	ba- ru	ウィ	learned
	vi-	vi-	ルス	co-
	rus	rus	コ	ro-
	ko-	ko-	ロ	na
	ro-	ro-	ナ	vi-
	na	na	ひ ろ	rus
	su-	me-	がっ	was
	me-	nyer-	–	its
	bar	bu	た	name

. 7 . 5   . 3 . 2̑   . 3 . 1̆   . 3 . 2̑
. . . .   6 7̲ 2̲̇ 2̲̇ 3̲̇ 2̇   . 2̇ 2̇ 2̇ 3̇   3̲̇ 2̲̇ 1̇ 2̲̇ 3̲̇ 2̇

	Wong	Pas-	せ	The
	sak	ti-	か	world
	ja-	su-	い	closed
	gad	dah	じゅう	down,
	på-dhå	o- rang	の	and
	su-	se-	にん	peo-
	sah	du-	げん ぜん	ple
	lan	ni-	ぶ	had
	mer-	a	こ	to
	to-	su-	まっ	stay
	bat	sah	た	in- side

. 3 . 5̆   . 7 . 6̑   . 7 . 5̆   . 2 . ③
. . . .   3̇ 2̇ 1̇ 6   6 6 6̲ 7̲ 5   5̲ 7̲ 6̲ 7̲ 5 6 6̲ 3

	A-	Je-	た	We
	kèh	las	く	could
	kang	ter-	さん	not
	lå-	se-	びょう	fight
	rang	rang	き	the
	kang	hing-	いつ	vi-
	sé-	ga	ぱ	rus
	då	sa-	い	so
	u-	kit	な	we
	gå	dan	く	had
	a-	te-	なっ	to
	kèh	was	た	hide

Javanese

1. Gèk kepriyé jamané dadi mangkéné,
   Modhèl anyar virus Korona sumebar,
   Wong sak jagad pådhå susah lan mertobat,
   Akèh kang lårå kang sédå uga akèh.

2. Jamané manungså wedi nganti miris,
   Mbudi dåyå ywå kongsi kenå lelårå,
   Bebasané campuh nggondhèli nyawané,
   Rinå wengi tan kendhat nyuwun mring Gusti.

3. Modhèl iki virus arané Korona,
   Mångkå obat kang mujarab durung ånå,
   Yèn ing Jepang Otèra tansah sumadhiyå,
   Mambu kukusing dupå korona lungå.

4. Singgah-singgah Virus Korona Suminggah,
   Sumingkirå jå ngganggu manungså lumrah,
   Lanang wadon tuwå anom lan cah-bocah,
   Pådhå Rahayu-Hayu karsaning Allah.

Indonesian

1. Masya Allah kini jamannya berubah,
   Model baru virus Korona menyerbu,
   Pasti sudah orang sedunia susah,
   Jelas terserang hingga sakit dan tewas.

2. Jaman sulit hidup bagaikan terhimpit,
   Sadar bangkit agar terhindar penyakit,
   Bertahan hidup jangan sampai terjangkit,
   Terus berdo'a meski tidak di Mesjid.

3. Model ini virus namanya Korona,
   Obat mujarab apa bisa didapat,
   Otera di Jepang selalu sedia,
   Bau kemenyan korona pergi jauh.

4. Singgah-singgah Virus Korona Suminggah,
   Menjauhlah jangan ganggu manusia,
   Putra putri anak cucu buyut canggah,
   Semua selamatkan kehendak Allah.

Japanese

1. どうしようか　こんな　じだいに　なった
   しんがた　ウィルス　コロナ　ひろがつた
   せかいじゅうの　にんげん　ぜんぶ　こまった
   たくさん　びょうき　いっぱい　なくなつた

2. じだい　にんげん　しんぱいで　こわい
   びょうきに　ならない　よくたのみ
   たたかう　いのち　よくまもり
   まいばん　かみさまに　おいのり

3. しんがた　ウィルス　なまえは　コロナ
   いままで　クスリは　ありますか
   なければ　おてら　いつもようい
   おせんこう　におい　コロナ　こわい

4. Singgah-singgah Virus Korona Suminggah
   しまる　じゃましない　にんげん　ぜんぶ
   だんせい　じょせい　おとし　こどもまで
   みんな　げんき　しあわせ　かみめぐみ

English

1. Unbidden and unknown a global sickness came,
   And then we learned coronavirus was its name,
   The world closed down and people had to stay inside,
   We couldn't fight the virus so we had to hide.

2. A wave of death would visit every nation-state,
   Yet there was nothing we could do but sit and wait,
   In every temple, shrine, and church the people prayed,
   And rules for social distance had to be obeyed.

3. The heat of fire and scent of incense fills the air,
   We call Osenkou and chant a Shinto prayer,
   Men women young and old and children all must say,
   "Singgah-singgah! Coronavirus go away!"

4. Our cries of sadness, grief, and suffering resound,
   We hope that something to protect us will be found,
   It will fulfill the wish in every human heart,
   That friends and family need no longer be apart.

Lancaran Korona Suminggah, Pélog Barang.

Buka : . 3 - 2 . 3 - 2 - . 5 - 6 - . 5 - ⑤

[- 6 - . 7 - . 6 - . 7 - . 5 - . 6 - . 7 - . ⑥
  . 3 - . 2 - . 3 - . 2 - . 5 - . 6 - . 5 - . ③]

[. 353 . 3567 . 723 2567 . 767 - 7656 . 653 575⑥
  . 756 - 6532 . 223 2132 . 232 - 2356 . 675 625③]

Gérong/Sindhèn

[. . . . / 3 5 67 7 / 76 7 2 3 / 23 5 67 7 /
    I   Gèk kepri yé ja-mané da-di mangkéné
    III Modhèl i-ki Virus a-ra-né ko-ro-na

  . . . . / 7 2 23 6 / .6 6 .6 6 / 56 76 57 6/
    I   Modhèl anyar Virus koro-na su-me-bar
    III Mangka o-bat kang mu-Jarab du-rung a-na

  . . . . / 6 7 23 2 / .2 2 2 3 / 32 1 23 2 /
    I   Wong sa-jagad padha susah lan mer-to-bat
    III Yèn ing Jepang O téra tan- sah su-ma dhiya

  . . . . / 23 2 1 6 / 6 6 67 5 / 57 67 56 63 /
    I   A-kèh kang Là- ra kang séda u- ga a- kèh
    III Mambu ku-kus -sing du-pa ko-ro-na lu-nga

  . . . . / 3 5 67 7 / 76 7 2 3 / 23 5 67 7 /
    II Ja ma- né ma- nungsa wedi nganti mi-ris
    IV Singgah singgah virus koro- na su-minggah

  . . . . / 7 2 23 6 / .6 6 .6 6 / 56 76 57 6 /
    II mbudi- da- ya ywa kongsi ke - na Le- la ra
    IV Suminggah- a ja ngganggu Manung-sa Lu-mrah

  . . . . / 6 56 3 2 / .2 2 2 3 / 32 1 13 2 /
    II be- ba-sa- né Campuh nggondhèl- li nya-wa-né
    IV La-nang wadon tuwa anom Lan Cah bocah

  . . . . / 2 3 56 6 / .6 6 67 5 / 56 2 13 3]
    II ri- na Wengi tan kendhat nyu-wun mring Gusti
    IV pa dha Ra-ha- yu Hayu kar- sa ning A- lah

In this hand-written notation, Saptono shows that other interpretations of the vocal melody are possible. Here, the first verse ends on high-pitched notes, while the second verse ends low. There are also melodic variations of the balungan for irama dadi [B] in the second kenongan of the first gongan, and in the last kenongan of the second gongan.

One of example alternative kendhangan ler. korona Suminggah

Buka: · 3 · 2   · 3 · 2   · 5 · 6   · 5 ③
                         ‡ ‡ p b   · p · p

       - 6 - 7   · 6 - 7   · 5 · 6   - 7 · ⑥
       - p · p   · p · p   p b p p   p b p p

       · 3 - 2   · 3 - 2   · 5 · 6   · 5 · ③
       b p p b   p p b p   p b p p   p b p p

       - 6 - 7   · 6 - 7   · 5 · 6   · 7 · ⑥
       p p p p   p b p p   p b p p   p b ‡ ·

       · 3 · 2   · 3 - 2   · 5 · 6   · 5 · ③
       p p p p   p b p p   p b p · b · p b   p b p b p p · p ·

Saron: [· · · · 3 5 6 7   · 7 2 3 2 5 6 7
        i i p o i p i o p i i p p i p o   i p i o p i i p i p i p i p i o

         · · · · 7 6 5 6   · 6 5 3 5 7 5 6
        i i p o i p i o p i i p p i p o   i p i o p i i p i p i p i p i o

         · · · · 6 5 3 2   · 2 2 3 2 1 3 2
        i i p o i p i o p i i p p i p o   i p i o p i i p i p i p i p i o

         · · · · 2 3 5 6   · 6 7 5 6 2 5 3
        - p p p - p p p - p p - p p - ‡   - d - b - d - b - d b - b d - b

Also we can apply with kinds of variation of kendhangan Ciblon
for example:

         · · · · 3 5 6 7   · 7 2 3 2 5 6 7

a.   b i p i b i p   i ‡ p - i ‡ p -   p d p b p d p b   i ‡ p - i ‡ p -
b.   ‡ b d - ‡ b d   - i p p i b - p   - ‡ b ‡ p L p ‡   p i p p i b i p

This kendhang notation shows the transition from A to B, and examples of kendhangan played with the vocal part.

The other kendhangan when play without vocal

Saron ‾3 5 3 · 3 5 6 7 · 7 2 3 2 5 6 7

‾7 6 7 · 7 6 5 6 · 6 5 3 5 7 5 6

‾7 5 6 · 6 5 3 2 · 2 2 3 2 1 3 2

‾2 3 2 · 2 3 5 6 · 6 7 5 6 2 5 3
· p p p - p p p - p p - p p - + + + P + - b d - b d - b

‾3 5 3 · 3 5 6 7 · 7 2 3 2 5 6 7
p - p + d b - b p - p + d b - b p - p + d b - b p - p + d b - b

‾7 6 7 · 7 6 5 6 · 6 5 3 5 7 5 6
p - p + d b - b p - p + d b - b p - p + d b - b p - p + d b - b

‾7 5 6 · 6 5 3 2 · 2 2 3 2 1 3 2
p - p + d b - b p - p + d b - b p - p + d b - b p - p + d b - b

‾2 3 2 · 2 3 5 6 · 6 7 5 6 2 5 3
- p p p - p p p - p p - p p - + + + P + - b d - b d - b

When returned to irama lancar:

·2 3 2 · 2 3 5 6 · 7 · 5 · 2 · ③
· p p p - p - p p p p + + + P B - p - p

· 6 · 7 · 6 · 7 · 5 · 6 · 7 · ⑥
· p - p · p - p p b p P p b p P

· 3 · 2 · 3 · 2 · 5 · 6 · 5 · ③ sw
p · p · p b p · b p · b · p · ·

This notation shows an example of kendhangan played without the vocal part, and the transition from B to A.

Two Experimental Gamelan Makers Respond to a Changing Environment: Muhammad Sulthoni and Sigit Pamungkas

by Sean Hayward

Background

Widely regarded as one of the foremost centers for classical gamelan, Surakarta (Solo) is also home to an extraordinary variety of experimental and contemporary arts. For many artists in Solo, interacting with Central Javanese gamelan music and its related art forms is not necessarily a choice, but a predetermined foundation. Creative goals are often pursued through the gamelan by default as it already forms the sonic backdrop of artistic life. As Solo changes, the place and function of gamelan is also evolving and expanding.

Alongside these expanding contexts, innovations in instrument design are precipitating further sonic developments that respond to changes occurring in the environment. The effects of globalization, technological development, a growing population, worsening pollution, and an increased speed of life are readily apparent in Solo. For example, the river whose beauty was immortalized in the song "Bengawan Solo" has slowly filled with plastic. In wayang, the *gara-gara* (comedy sections, typically in everyday Javanese language) become longer as the audience's linguistic fluency with high Javanese decreases and the pressures to keep the audience engaged increase.

Many Solo-based artists are finding new ways to respond to this changing environment. In December of 2019, I had the opportunity to interview two such artists working on the construction of experimental gamelan instruments. Their collective work represents two different, highly personal approaches.

Muhammad Sulthoni

I met Muhammad Sulthoni in his workshop in Mojosongo. It was filled with plastic bottles, old gas canisters, a broken down bed frame, and other assorted "garbage." Born in 1976 in Tanjung Karang on the outskirts of Yogyakarta, Muhammad Sulthoni is known colloquially as "Konde" (hair bun) due to his earlier penchant for keeping his dreadlocks in a bun wound on top of his head.

Mas Konde is one of the founders and driving forces behind a group called Wayang Sampah (trash wayang), a performing wayang collective in which all of the puppets and most of the instruments are made

Muhammad "Konde" Sulthoni, creator of Wayang Sampah.
All photos by Sean Hayward.

entirely from trash and recycled materials. I asked Konde about the inspiration for his work.

> "Originally, I was a lover of nature, spending much of my time in the mountains. One couldn't help but notice the quickly growing amount of trash, especially plastic. As an artist, I was working mostly on Wayang Beber at the time. During the process of making the scrolls, we were using chemical coloring processes and the excess color was ending up in the rivers. When I noticed this, I became interested in studying natural colors. As I continued working with these natural materials and traveling to the mountains, I became more interested in wayang.

Toothbrush tuning pegs on Konde's rebab

Saron keys made from recycled glass (in progress)

I started making wayang puppets from discarded materials in 2014. Once we started performing, friends suggested that the performances should also be accompanied by instruments made of trash. I was certainly interested in the possibility, so I started to experiment. The first instruments we made were drums, from PVC. Soon I started making other instruments such as membrane flutes using plastic bags."

Other instruments produced for Wayang Sampah include a bonang made from discarded gas tanks, another bonang-like instrument made from air-pumped plastic bottles, a spring gong, a rebab made from paint cans and toothbrush tuning pegs, and two saron with keys made of windshield glass, among others.

These instruments stem from the concept of found objects, and in turn, found sounds. I was curious about the motivations for the instruments and puppets of Wayang Sampah, and asked Mas Konde about the goals of the group and how they operate.

"I want audiences to see what we do with these recycled materials, and inspire them to think

creatively, and think about what they can do instead of just throwing things away. Wayang Sampah operates as a collective. Sometimes one member might create a storyline, but usually they are created as a collaboration. Our performances are often much shorter than a traditional wayang, usually only about an hour, and they focus on themes of environmental protection. Often, we hold workshops for general audiences from kids up to adults, so that they can learn how to make puppets from plastic too."

The function of the instruments, wayang, and story lines all work together to educate and inspire the public. According to Mas Konde, the primary goal is to encourage people to think more carefully about their relationship to their trash. More fascinating still was that Mas Konde views this as a continuation of the typical role of wayang in Javanese society.

"In traditional wayang, we learn about the relationships humans hold with each other, with nature, and with the Creator. With Wayang Sampah, we continue working with the same concept, focusing on this

Bonang made from recycled gas tanks

particular element of our environment. We often hold performances in environmental communities and schools, sometimes on campuses as well, to try to educate the public and directly reach as many people as we can."

The creation of trash instruments for Wayang Sampah began in 2016. Although the group was still relatively young, Wayang Sampah received a grant from the nonprofit group Ruang Kreatif for the development of new work, including a performance at Galeri Indonesia Kaya in Jakarta on March 29th 2019 and the construction of new instruments and puppets.

"This performance project was very important for many reasons. This was the first time that Wayang Sampah was performed with instruments made exclusively from trash. Before, we often played with trash instruments combined with Western instruments or existing traditional instruments. We've never had any written, formal compositions as such, and the trash instruments did not have very specific tuning systems or scales, so the combinations were always done by experimenting directly and finding what worked the best.

Now we are going to make a much more complete set of instruments, tuned in pelog. In addition, for this project, we have to make 200 wayang puppets for an installation in the gallery. We hope that our performances can inspire audiences to

become more aware of their own actions and trash production, ideally even become more actively involved in protecting their environment. Here, it is very difficult to change people's mindset. We have to be very persistent. Honestly, we hope that after a while people will feel embarrassed when throwing their trash on the ground and start to change their habits. The challenging thing is that if they only watch a performance once, they are impressed, think about it in the moment, and then go back to their usual ways."*

Sigit Pamungkas

I met Sigit Pamungkas at his home in Solo and we traveled together to his father's house in Sukoharjo. Mas Sigit was born in this house, in Pundungsari village (about 40km south of Solo) in 1986. Upon arriving at the traditional house, an open door reveals numerous gamelan and boxes full of wayang, all waiting to be sold.

Sigit was born to a family of dhalang, including his father and three siblings. Aside from performing as dhalang, they all are engaged with gamelan arts in various ways, constructing and selling both wayang puppets and gamelan instruments. Quite by accident, Mas Sigit found himself more closely connected to the visual and material arts, which influenced his designs when he returned to gamelan construction.

Mas Sigit—in addition to owning a cafe in Solo (*Bukuku Lawas*) and selling rare books—has produced two gamelan from unconventional materials. I spoke with him about his background, motivations, and the process of creating these instruments.

"After high school, I wanted to become an actor. I applied to the television department at school, but I was rejected twice. Eventually, I looked and saw that

Sigit Pamungkas, metalworker and gamelan maker

Gong Komodhong, made in the form of an elephant from mahogany frame and pamor keys
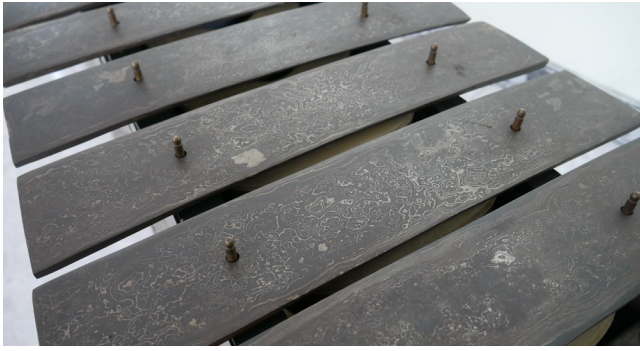
Pamor keys of Sigit's gambang gangsa

there was a department that had only four applicants: craftsmanship. The lecturer told me to just sign up and that later we could get drunk together. I liked the sound of that so I signed up without even knowing what it was, and I thought it would be pretty relaxed As it turned out, it was hard work and I didn't like the program very much. However, there was an extracurricular class for making kris (traditional Javanese daggers).

Because I had been around kris since I was a child due to my father's profession, I was very interested. My studies in school became secondary to my study of kris. Almost 24 hours a day, I was there working and sleeping on campus. To make some extra money, some friends and I started making accessories and jewelry from the same material.

The decision to eventually make gamelan was quite natural, because I had also been around gamelan from a young age. Previously, the artist Hajar Satoto also made a gamelan from pamor, but the form was still completely traditional. I felt it was interesting but could continue to be developed further and perhaps in a new direction. For my first gamelan, the frames were still made from wood (mahogany), but I developed their shapes in new ways. The process for making the keys from pamor is exactly the same as making kris."

Kris are made from *pamor* (a distinctive layered metalworking style used to make kris), and hold great

Kendhang ciblon in the form of an elephant

spiritual and philosophical power in traditional Javanese thought. I asked Mas Sigit about the process of discovering the right thickness and hardness for the keys, as kris are not produced with sound or resonance in mind.

"I didn't have to experiment much to find the right sound for the keys, because when making a kris, the craftsman will often flick the blade to test its strength. From this simple action, the maker already indirectly understands its resonance. The main difference between a pamor gamelan and a bronze gamelan is the character of the sound. For bronze, the sound is softer and more refined; for pamor, it is a little stronger and harder."

The first gamelan Mas Sigit produced, while pursuing a bachelor's degree at ISI Surakarta, was a *gamelan gadhon* (a chamber ensemble of a few instruments) with mahogany frames and pamor keys. Each of the instruments was designed in the form of a fantastic creature, inspired by the shape of an elephant. After seeing the gamelan and asking about the inspiration for these shapes, I was interested to learn that his ideas came from contemporary visual arts and the symbolic meaning of elephants, and that he was trying to appeal to particular audiences.

"When making the frames, I wanted to design something that was equally compelling for people of all ages including children, as the form of a traditional gamelan feels very "adults only." For my first gamelan, I drew inspiration from the elephant, first because of its aesthetic characteristics and second because it has heavy philosophical implications. Ganesha (the elephant-headed god of Hinduism) is the god of science and I felt that my work was teaching about a new science, the science of making gamelan from pamor.

Once the frames were finished, I left the gamelan in my friend's house. When I arrived at his house one day, there were children playing on the frames. This is exactly what I wanted. The form invites the curiosity of children, and only once they are close do they have the opportunity to ask and discover that these are gamelan instruments, hopefully sparking their curiosity about gamelan itself."

Mas Sigit notes that for many young people, kris and pamor are associated with deep mystical and spiritual beliefs. For many in Java, this actually makes them frightened and want to stay away. By making accessories and other objects, including gamelan, he wanted people to feel excited and to feel a greater freedom to approach these materials and even experiment with them.

The second gamelan that Mas Sigit produced while pursuing a graduate degree at ISI Yogyakarta was a *gamelan cokekan* (small ensemble of four instruments, often played by street musicians),with frames made entirely of brass and keys made again of pamor. The frames for this set are also creatures of fantasy, this time inspired by the form of a dragon.

This set includes a kendhang made from brass. When one sees this gamelan for the first time, the visual aesthetic

Gender barung in the form of a dragon.

Meticulously hammered details on Sigit's slenthem

Dragon's head on the gender panerus

is immediately striking. The question almost always follows, "But how does it sound?" According to Mas Sigit, searching for an effective sound was an absolutely critical and inseparable part of the creation.

> "This project was aimed at both visual art as well as sound. During the process of making the metal kendhang, it was very difficult to get the sound right. I kept trying different things for three months until I found a solution. Later if I get the chance to make another gamelan, I'll certainly have a chance to improve it further. For my second gamelan, because the frames are made of metal I decided to use individual resonator tubes for all of the instruments."

I asked about how these works have been received in Java by other artists as well as the general public: it seems that the response from musicians has been generally positive. However, Mas Sigit is no stranger to mixed opinions and the occasional criticism.

> "My thinking is relatively simple: I want to reintroduce the gamelan. There is certainly an influence from contemporary visual arts culture, but sometimes I'm confused. After graduating, I went to Yogja and wanted to have a solo exhibition. I met the director of an important contemporary gallery and showed him the gamelan I had made. He responded that 'the materials are contemporary, but the form is still traditional.' He felt it was not yet contemporary enough. This was very stressful for me, instead I ended up making a variety of other objects that were more acceptable for this standard. I come from a traditional background and I enjoy contemporary art, but sometimes I feel some sense of inner conflict. Once I made a series of maybe fifty kris in strange shapes, twisting, bending, etc. My concept was to bring a dynamic, visual aesthetic to the creation of kris. Some people ended up feeling that I wasn't respecting

traditional culture. There was a lot of discussion around that point. The truth is that I want to bring forth the existing philosophy of kris through my own visual imagination."

Mas Sigit is hoping to sell these gamelan, so that he can continue producing more in the future. For both of these sets, he funded the construction himself through his work selling rare books online. Mas Sigit says he still has many ideas for future gamelan, but until these are sold, he will not have the financial resources to create them. Thus far, these sets have also been used for performances in various galleries in Java as well as in ISI Surakarta and ISI Yogyakarta.

Conclusion

Neither Mas Konde nor Mas Sigit speaks with a lofty idealism. Both view themselves as proceeding humbly, developing the traditional arts of their culture in their own way, from their own point of view. The forms of their work can be seen as a response to a changing environment; for Mas Konde, he is searching for a way to help people rethink the trash they produce, and for Mas Sigit the goal is to capture the imagination of people in any age group, and bring them closer to gamelan again. The contemporary art of today becomes the traditional art of tomorrow, and even within the world of those forms that we consider "traditional," new approaches are emerging on a regular basis. In their own way, these artists are trying to reintroduce the gamelan and create a positive change, a shift in the way we view the form. ◗

Sean Hayward is a composer and performer, holding a Doctorate of Musical Arts from the California Institute of the Arts. As a student of Indonesian gamelan music, Hayward promotes the performance of both traditional and contemporary works for Indonesian instruments. This article was produced in 2019-2020, during his time in Central Java as a Fulbright Project Grant recipient, with additional support from California Institute of the Arts, AMINEF, and ISI Surakarta.

FESTIVAL

Rocky Mountain Balinese Gamelan Festival

by Elizabeth McLean Macy

Festival Plans

When Bapak I Made Lasmawan moved to Colorado in 1993, he and Professor Victoria Lindsay Levine founded Gamelan Tunjung Sari at Colorado College in Colorado Springs. Prior to Lasmawan's arrival, Levine had engaged the help of Dr. David Harnish in acquiring a Balinese gamelan angklung for Colorado College. It was a timely coincidence that brought Levine and members of Gamelan Tunas Mekar (Denver's community ensemble) together, and led to her connecting with Lasmawan when he came to Colorado to serve as their Artist-in-Residence.

Lasmawan's arrival in Colorado spurred the development of gamelan ensembles along the Front Range mountains, extending from Colorado Springs to Boulder and beyond. He helped found (and often serves as artistic director for) several gamelan in Wyoming, Montana, Idaho, South Dakota, and Arizona, and he has been instrumental in the development of a number of ensembles across the United States. To celebrate these achievements and bring together the vibrant community of people who had been working with Lasmawan, Dr. Levine and Pak Lasmawan hosted "Temu Wicara Bali, a Celebration of Balinese Performing Arts" in 2013.

When I moved to Colorado, where I currently teach Ethnomusicology at Metropolitan State University of Denver (MSU Denver), Lasmawan and I began talking about how to build on the 2013 event. Our idea was a festival jointly hosted by MSU Denver and Colorado College (Lasmawan's home institution), highlighting the Balinese performing arts communities along the Rocky Mountains where Lasmawan's influence was prevalent. Our discussions grew during fall 2018 and spring 2019, with plans to hold such an event in the ensuing years. Joined by Lasmawan's eldest son, I Putu Tangkas Adi Hiranmayena, the three of us sketched out an event that would include an academic symposium, a series of concerts, and a variety of workshops focused on Balinese music and dance. We announced our plans at our final concerts in Spring 2019, where we were joined by a delegation from the Consulate General of the Republic of Indonesia in Los Angeles.

In the following school year, we secured some funding support and set dates for a Spring 2021 festival. But when the global pandemic shutdowns began, it rapidly became apparent that 2021 would not be a possibility. So we began raising funds and making plans for a Spring 2022 festival, hoping that we would be in a different place with Covid-19.

Festival logo by Gus Dark.

The first Rocky Mountain Balinese Gamelan Festival (RMBGF) was finally announced for April 21–24, 2022. We invited people to join us for an #epicgamelanshredfest highlighting sustainability and Balinese arts. Our commissioned logo, designed by Balinese political cartoonist Gus Dark, combined images of Colorado, Bali, and gamelan to evoke our theme of sustainability.

The realization of our years of planning felt celebratory. After two years of pandemic time, we welcomed the opportunity to make music together, to perform for one another, to share our ideas communally, and to do these things in person. As we closed the festival, the symposium presenters reflected on the meaningful conversations we'd had, the vibrancy of the performances, the clear ways we had connected over the course of the festival, and discussed plans for carrying this momentum forward—including plans to publish the symposium proceedings, in both a scholarly and publicly accessible forms, harnessing the power of the BASAbali Wiki.

We see this as a beginning —the first of many projects to come—and hope to make this a recurring event. It won't look the same next time (be that in two years, or four years from now), but we will work to capture the energy of the very first Rocky Mountain Balinese Gamelan Festival. ◗

Festival announcement and poster

The Invitation

"The Rocky Mountain Balinese Gamelan Festival (RMBGF), April 21–24, 2022, is jointly hosted by Metropolitan State University of Denver, Colorado College, and the University of Colorado in Colorado Springs. This four-day festival will feature an academic symposium on the theme of 'Moving Mountains: Sustainability and Balinese Arts,' workshops, and performances by gamelan groups along the Rocky Mountains, including concerts featuring Denver-based Gamelan Tunas Mekar and leading Balinese musicians and dancers. This festival is intended to draw students, faculty, and interested community members from the Rocky Mountain region and beyond."

The call for papers

"Moving Mountains: Sustainability and Balinese Arts" invites practitioners and scholars to broadly consider the place of sustainable practices in Balinese traditional and contemporary arts. As advocates of Balinese arts are increasingly vocalizing socio-political concerns and perspectives, we propose an exploration of sustainable models for artistic expression as a means to address shifting ideologies of academic inquiry. Proposed topics for discussion may include: composition, choreography, and collaboration; innovations and pedagogies; forming community; and sustainable practices. Non-traditional presentations are encouraged."

Planning Committee

The RMBGF planning committee (Macy, Lasmawan, and I Putu Tangkas Adi Hiranmayena, Lasmawan's son) constructed the four-day festival to reflect much of the original planning. The committee's primary goal was to draw the Balinese performing arts community that Lasmawan has helped develop and foster over the last three decades, and to highlight the vibrancy of the local (and extended) gamelan communities in our area.

Location

The entire festival took place on the Auraria Campus in downtown Denver, Colorado, home to Metropolitan State University of Denver (MSU Denver). Events were spread out over the course of four days (April 21–24, 2022), with the majority of the festival taking place on Friday and Saturday.

THE SCHEDULE

Thursday, April 21, 2022
Opening performance/reception with Balinese experimental duo **ghOstMiSt**, featuring **PAK Yeh** and **Justice Miles** (in conjunction with the MSU Denver Department of Music's Music, Race, & Social Justice Visiting Artist Series).

Friday, April 22, 2022
Symposium: "Moving Mountains: Sustainability and the Arts in Bali"
Opening Remarks from **Elizabeth McLean Macy** and **I Putu Tangkas Adi Hiranmayena**, with a welcome from **Dr. Peter Schimpf.**
Performance by MSU Denver's **Gamelan Manik Kusuma**. Program: *Gamelan Baleganjur Kelinci Meabian* ("Farming Rabbits") communally composed by the ensemble; Nyoman Windha's welcome dance, *Tari Puspanjali* (1988), choreography by Ni Luh Nesa Swasthi Wijaya Bandem and danced by Ida Ayu Ari Candrawati, Rhianna Fairchild, Ni Putu Indira Sandika, Laricca Siregar, and Dewa Ayu Eka Putri; and *Gilak Sumpang Tumeka* (1995), exit music by I Made Lasmawan.
Keynote I: **David Harnish**: "Innovation and Volunteerism in the Sustainability of Balinese Arts"
Panel I: moderated by **Allan Zheng**
    • **I Gde Made Indra Sadguna and Elizabeth A. Clendinning**, "Moving Mountains, Crossing Oceans: Building a More Sustainable Academic Dialogue about Balinese Performing Arts"
    • **Meghan Hynson,** "Development and Sustainability in the 21st-century Gender Wayang Complex"
    • **I Nyoman Wenten,** "Dance as Industry of Tourism, Business Model in Bali"
Performance by **Gamelan Tunjung Sari**: two pieces dedicated to Colorado College Professor Emeritus Victoria Lindsay Levine: the premiere of a new dance piece, *Tari Tunjung Sari* by I Made Tangkas Ade Wijaya with choreography by Ni Ketut Marni and danced by Rhianna Fairchild, Ni Ketut Marni, Ni Putu Indira Sandika, and Ni Nyoman Yonitika and Lasmawan's *Singga Natha* (Royal Throne).
Panel II: moderated by **Oscar Smith**
    • **George Rah**i "On Expo 86', Gamelan Bike-Bike, and Other Utopian Ideas"

• **I Putu Arya Deva Suryanegara** "A Compositional Approach to Balinese Gamelan and Electronics"
• **Ni Nyoman Srayamurtikanti** in conversation with **Dewa Ayu Eka Putri**, plus the premiere of Sraya's composition *Himpit* (virtual)
• **I Nyoman Catra, Lynn Kremer and Nyoman Triyana Usadhi,** "New Theatrical Work: Creative Collaboration Across Disciplines, Cultures, and Traditions"

Keynote II: **Lasmawan in conversation with Levine,** "Perjalanan: a Conversation with Bapak I Made Lasmawan"

Performance by **Gamelan Tunas Mekar** a communally composed piece for gamelan baleganjur, *Tari Gabor* danced by Rhianna Fairchild, Ni Ketut Marni, Ni Putu Indira Sandika, and Ni Nyoman Yonitika, *Tabuh Telu Tri Parwata* composed by I Made Tangkas Ade Wijaya, *Tari Palawakya* composed by Gede Manik and danced by Dewa Ayu Eka Putri, and *Barong Kuda Maya* composed and danced by Hiranmayena.

Saturday, April 23, 2022

Workshops throughout the day for festival attendees and community members led by visiting Balinese artists: Balinese dance, gamelan angklung, gamelan semar pegulingan, Balinese gamelan with Orff (for music educators), and Balinese vocal techniques.

Performance by **Gamelan Manik Harum** (pre-recorded): *Tari Pendet* and *Menanti* ("awaiting") composed by Dorothy Morrison during the pandemic.

Performance by **Gamelan Candra Wyoga**: *Tabuh Liar Samas* by I Wayan Lotring, and *Jauk Manis*, danced by Nyoman Triyana Usadhi.

Performance by **Gamelan Raga Garnita:** Lasmawan's *Tabuh Belimbing Buluh* ([Sour Star Fruit], 2017) and I Nyoman Windha's *Tari Cendrwasih* (1987) with choreography by Ni Luh Nesa Swasthi Wijaya Bandem and danced by Ni Ketut Marni and Ni Putu Indira Sandika.

Performance by **Gamelan Merdu Kumala:** "New Music for Old Gamelan." *Tabuh Petegak "Langsing Tuban"* and *Tari "Perong Condong"* (both traditional pieces from Pedungan, Denpasar, danced by Anna Inuzuka) and *Tabuh Kreasi Pegambuhan "Kala Senja"* and *Tari Kreasi Pegambuhan "Sepuk Ngenget"* (new compositions by Hirotaka Inuzuka with choregraphy and dance by I Nyoman Wenten).

Performance by **Krama Bali USA**: J*aya Semara* (Beratha, 1964); *Kebyar Duduk* and *Oleg Tambulilingan*, choreographed by I Ketut Marya in 1925 and 1952 respectively, danced by Ni Ketut Marni and I Nyoman Usadhi; *Legong Kraton* (Condong), danced by Ni Made Yunirika, Ni Nyoman Yonitika, and Ida Ayu Ari Candrawati; *Topeng Manis Monyer*; *Topeng (Jauk)*

Legod Bawa, choreographed by I Wayan Dibia in 2012; *Topeng Tua*; *Topeng Bondres*. Audience members joining the artists on stage for a community dance during the final performance with all three topeng dancers: I Nyoman Wenten, I Gusti Ngurah Kertayuda, and I Nyoman Catra.

Sunday, April 24, 2022
A brunch for symposium attendees and a closing Balinese kecak workshop, led by **Nyoman Catra**.

*Pak Lasmawan in conversation with Dr Victoria Levine at the symposium's second keynote. (Photo by author)*

Ni Ketut Marni dancing her new choreography for Tari Tunjung Sari, *a new piece composed by her son, I Made Tangkas Ade Wijaya, at Tunjung Sari's Friday performance. (Photo by author)*

"I have taksu!" Pak Made Lasmawan leading Gamelan Tunas Mekar's communally composed baleganjur piece. (Photo by Miranda Fan)

The closing Balinese kecak workshop led by Nyoman Catra. (Photo by Josh Geurink)

Nyoman Triyana Usadhi dancing Kebyar Duduk with Krama Bali USA. (Photo by Miranda Fan)
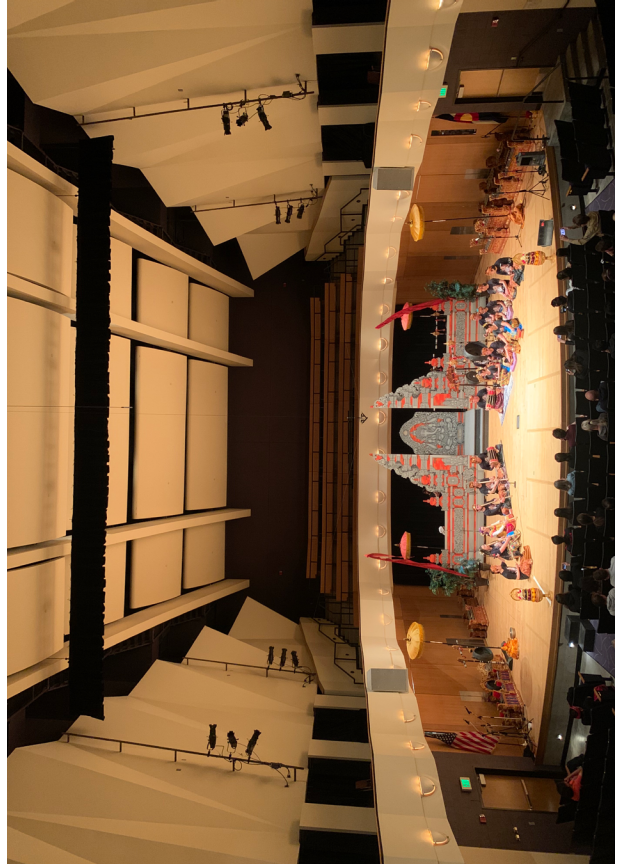
Gamelan Merdu Kumala performing gambuh in their program "New Music for Old Gamelan." (Photo by Miranda Fan)

PARTICIPANTS

Family of I Made Lesmawan

I Made Lasmawan (Lecturer and Director of Indonesian Music, Colorado College; Artist-in-Residence, Gamelan Tunas Mekar)

Ni Ketut Marni (wife of Made Lasmawan, Balinese Dance Instructor at Colorado College; Artist-in-Residence, Gamelan Tunas Mekar)

I Putu Tangkas Adi Hiranmayena (first-born son of Lasmawan; Affiliate Faculty in Music, MSU Denver; Lecturer in Visual and Performing Arts, University of Colorado Colorado Springs; Director of Gamelan Manik Kusuma, Gamelan Candra Wyoga; Artist-in-Residence, Gamelan Tunas Mekar)

I Made Tangkas Ade Wijaya (second-born son of Lasmawan; Artist-in-Residence, Gamelan Tunas Mekar)

I Nyoman Tangkas Aji Guyasa (third-born son of Lasmawan)

Individuals

I Nyoman Catra (Visiting Fellow in Balinese music, dance, and theatre at College of The Holy Cross)

Elizabeth A. Clendinning (Associate Professor of Music, Wake Forest University)

Gus Dark (Political Cartoonist and Graphic Designer)

Rod Garnett (Director of Gamelan Raga Garnita)

David Harnish (Professor Emeritus, University of San Diego)

Meghan Hynson (Visiting Assistant Professor of Music at the University of San Diego)

Hirotaka Inuzuka (Artistic Director of Gamelan Merdu Kumala)

Lynn Kremer (Professor, College of The Holy Cross, Department of Theatre and Dance, and Distinguished Professor of Humanities),

Victoria Lindsay Levine (Professor Emeritus, Colorado College)

Elizabeth McLean Macy (Assistant Professor of Ethnomusicology at MSU Denver)

Justice Miles (Dancer, Colorado College Alumnus)

Dorothy Morrison (Director of Gamelan Manik Harum)

Dewa Ayu Eka Putri (Sanggar Cudamani, BASAbali Wiki, and Visiting Artist-in-Residence with Gamelan Tunas Mekar)

George Rahi (Interdisciplinary Artist and Co-Founder of Gamelan Bike-Bike),

I Gde Made Indra Sadguna (Ph.D. Candidate, Florida State University and Lecturer, Institut Seni Indonesia)

Peter Schimpf (Chair and Professor, Department of Music at MSU Denver)

Oscar Smith (PhD Student in Ethnomusicology at the University of British Columbia)

Ni Nyoman Srayamurtikanti (M.A. Student at ISI, the Indonesian Art Institute in Surakarta, and head of Sanggar S'mara Murti)

I Putu Arya Deva Suryanegara (Composer and M.A. Student at Université de Montréal)

Nyoman Triyana Usadhi (M.A. in Religion candidate at Yale Divinity School and the Institute of Sacred Music)

Nyoman Wenten (Faculty in World Music Performance: Indonesian Music and Dance, CalArts)

Allan Zheng (PhD Student in Ethnomusicology at UC Riverside, Colorado College alumnus)

Groups

Gamelan Candra Wyoga (Laramie, Wyoming) means "Wyoming Gamelan" or "meditation on the beauty of the full moon," and is a name given by former music director I Made Lasmawan to the University of Wyoming Department of Music's gamelan semar pegulingan. This community ensemble is supported by a generous gift from the Allan and Regina Willman Fund. *Members: Putu Hiranmayena (director), Leif Cawley, Mollie Hand, Jordan Hayes, Betsy Mock, Christine Reed, Lander Stone, Zach Wallace, Victoria Zero.*

ghOstMiSt was founded in the summer of 2020, the result of a distanced practice during the COVID-19 pandemic. They focus on "practices of reflexive improvisation toward phenomenological inquiries into confronting cultural contradictions." *Members: I Putu Tangkas Adi Hiranmayena and Dewa Ayu Eka Putri.*

Krama Bali USA, also known as the "Bali All-Stars," is a multigenerational collective of Balinese musicians, composers, and dancers, whose members live, teach, and perform in the United States. The ensemble draws performers from across the US, based largely on availability. As a group they present programs that are largely traditional and already familiar to members, many who are graduates of the Schools of the Performing Arts in Bali and Java. *Members: I Ketut Gede Asnawa, Ni Putu Oka Mardiani, Ni Made Yunirika, Ni Nyoman Yonitika, Dewa Ayu Eka Putri, I Putu Arya Deva Suryanegara, I Nyoman Catra, I Nyoman Usadhi, I Nyoman Wenten, I Gede Oka Artha Negara, I Nyoman Saptanyana, Ida Ayu Ari Candrawati, I Putu Tangkas Adi Hiranmayena, I Made Tangkas Ade Wijaya, I Nyoman Tangkas Aji Guyasa, I Gusti Ngurah Kertayuda, Ni Ketut Marni, I Made Lasmawan.*

Gamelan Manik Harum (Missoula, Montana) translates as "a powerful force that gives you a good feeling like a pleasant aroma." It was established in 2007 as a community gamelan in Missoula, Montana, under the direction of Dorothy Morrison.

Gamelan Manik Kusuma (Metropolitan State University of Denver, Denver, Colorado) means "brilliant or powerful aura," and was named by I Made Lasmawan in 2011. Under the direction of I Putu Tangkas Adi Hiranmayena, the group performs traditional and new music on Balinese gamelan angklung and gamelan baleganjur. *Members: Geoffrey Banninger, Andi Bean, I Putu Tangkas Adi Hiranmayena,*

Elizabeth Macy, Luis Murillo Alfonso, Dewa Ayu Eka Putri, Jordan Rhoades, Tucker Smidt, Ashley Stitt, Ethan Tatreau, Jakey Wherry, Brianna Winkler

Gamelan Merdu Kumala (Tujunga, California) was founded in 2014 by artistic director Hirotaka Inuzuka. This independent ensemble explores classical gambuh repertoire. *Members: Matthew Clough-Hunter, Shameen Cooper, Geoff Dent, Kim Frost, Spencer Hauck, I Putu Tangkas Adi Hiranmayena, Anna Inuzuka, Hirotaka Inuzuka, Kayle Khanmohamed, Cordey Lopez, Arev Markarian, Eugene Moon, Kerri Shak, Steve Sauté, and Dan Wingo.*

Gamelan Raga Garnita (Spearfish, South Dakota), also called the Black Hills Balinese Gamelan, is a community ensemble under the direction of Rod Garnett. They seek to offer an experience of the essential aspects of Balinese music and dance through education and performance. *Members: Colin Garnett, Katrina Garnett, Rodney Garnett, Michelle Jennings, Dan May, Scott McKirdy, Colleen McKirdy, Charolyn Mize, Johnica Morrow, Jeffrey Winter*

Gamelan Tunas Mekar (Denver, Colorado), based in Denver, Colorado, is a community ensemble under the direction of Balinese composer and Artist-in-Residence I Made Lasmawan and family. The group presents traditional and new music for Balinese gamelan at music festivals, schools, private events, local venues, specially produced concerts, and by special invitation both internationally and nationally. Modelled after typical village groups found throughout Bali, and learning by traditional methods, they provide American audiences a rare opportunity to experience one of the world's most fascinating cultures. Gamelan Tunas Mekar is sponsored in part by the University of Denver Lamont School of Music. *Members*: *Aaron Burris-DeBoskey, Kendall Burks, Karen Burton, Russ Callison, Ben Cefkin, Aleanna Collins, Joe Engel, Rhianna Fairchild, Michael Fitts, Jill Fredericksen, I Nyoman Tangkas Aji Guyasa, Tara Hatfield, Jordan Hayes, Chris Hewitt, Chase Hildebrandt, I Putu Tangkas Adi Hiranmayena, I Made Lasmawan, Elizabeth Macy, Ni Ketut Marni, Dewa Ayu Eka Putri, Ni Putu Indira Sandika, Kristina Schauer, Angus Smith, Andrea Tracey, Jakey Wherry, Katy Wherry, I Made Tangkas Ade Wijaya.*

Gamelan Tunjung Sari (Colorado College, Colorado Springs, Colorado) grew out of the Indonesian performing arts program at Colorado College that was jointly founded in 1993 by Professors Victoria Lindsay Levine and I Made Lasmawan. Over the years, their Indonesian performing arts program has grown to include several kinds of Balinese gamelan: gamelan angklung, gamelan gender wayang, gamelan baleganjur, gamelan suling gambuh, gamelan joged, and gamelan selonding; as well as a Javanese gamelan ageng and Balinese dance. In addition to Indonesian performing arts, the college offers academic courses on the music of Indonesia, the arts and culture of Bali, Hindu epics, and a summer study abroad course on the arts and culture of Bali that is held in Indonesia. *Members: Džafer Čamdžić, Ryland Hayes, Naomi Henry, Gina Jeong, Al Lo, Perry Nachbur, Xinran Wang, Sam Yolles, Lincoln Grench, Christian Olsen, Simon Steudel*

PAK Yeh (Denver, Colorado) is a trio of improvisors who have been exploring sound together since 2011 using Balinese musical sensibilities. PAK Yeh in Balinese means "Mr. Water," but it is also an acronym for Putu-Aaron-Kendall. As the name suggests, the improvisatory exploration mimics water's diverse movements while still maintaining its characteristic of providing life sustenance. *Members: Aaron Burris-DeBoskey, Kendall Burks, I Putu Tangkas Adi Hiranmayena.*

Composers and Choreographers featured in Concerts
Ni Luh Nesa Swasthi Wijaya Bandem (1946–)
I Wayan Beratha (1926–2014)
I Wayan Dibia (1948–)
I Putu Tangkas Adi Hiranmayena (1989–)
Hirotaka Inuzuka (1982–)
I Made Lasmawan (1958–)
I Wayan Lotring (1898–1982)
I Gede Manik (1912–1984)
Ni Ketut Marni (1975–)
I Ketut Marya (1897–1968)
Dorothy Morrison (1959–)
Ni Nyoman Srayamurtikanti (1996–)
I Putu Arya Deva Suryanegara (1996–)
I Made Tangkas Ade Wijaya (1999–)
I Nyoman Wenten (1945–)
I Nyoman Windha (1958–)

Institutions
American Institute for Indonesian Studies (AIFIS, made possible through the Henry Luce Foundation)
BASAbali Wiki
Colorado College
Consulate General of the Republic of Indonesia in Los Angeles
Gamelan Tunas Mekar
Metropolitan State University of Denver
Sanggar Manik Galih
University of Colorado at Colorado Springs, Visual and Performing Arts Department
University of Denver Lamont School of Music

Credits

The Rocky Gamelan Festival (RMBGF) was made possible through the hard work of many individuals and the generous support of the MSU Denver Department of Music,

MSU Denver Asian Studies, the Department of Music and the Asian Studies Program at Colorado College, The Arts at CC, the Visual and Performing Arts Department at UCCS, BASAbali Wiki, Sanggar Manik Galih, The American Institute for Indonesian Studies (made possible through the Henry Luce Foundation), the MSU Denver CLAS Deans Office, Gamelan Tunas Mekar, and the Consulate General of the Republic of Indonesia in Los Angeles.

Gus Dark's logo was made possible with the support of the Consulate General of the Republic of Indonesia in Los Angeles.

Resources

RMBGF (Rocky Mountain Balinese Gamelan Festival) Event site, hosted by MSU Denver, 2022. This page includes an overview schedule and extended bios of some participants.

Temu Wicara Bali, A Celebration of Balinese Performing Arts. Documentation of the 2013 event hosted by Colorado College: conference schedule, performance programs, and participant bios.

ghOstMiSt's opening performance in MSU Denver's Emmanuel Art Gallery. (Photo by author)

An offering on stage. (Photo by Jody Diamond)