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The *Meguru Panggul* Methodology Online: Characteristics of the e-Learning Videos of Balinese Gamelan Music

La metodología *meguru panggul* en línea: características de los vídeos de aprendizaje electrónico de música gamelán balinesa.

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Abstract

The *meguru panggul* (teaching with the mallet) is the traditional method for the transmission of musical knowledge on the island of Bali. It consists of teaching the single musical parts through their execution on the instrument in face-to-face mode between the teacher and the student. The widespread use of this methodology has enrolled the Balinese gamelan music in the field of oral transmission music, although there is also a locally developed music notation system.

The diffusion and development of information and communication technologies in Southeast Asian societies has increasingly enabled members of local communities to produce their own self-narrated cultural videos. A subcategory of the videos produced by Balinese musicians, available on free digital platforms such as popular video sharing services (YouTube, Vimeo, etc.), is represented by E-learning videos for Balinese gamelan music that reproduce the same teaching approach as *meguru panggul* methodology. These videos, which are in the style of similar tutorials for popular music or other musical traditions, are made for a heterogeneous range of motivations that identify a not unique model of social and economic relationships between producers and users. But the E-learning videos that use the *meguru panggul* methodology have in common some peculiar technical characteristics regarding the use of the filming point of view (observer / teacher / student) and the set-up of the instruments (single / multiple; straight / reverse), which allow coherent reflection on specific issues related to the Balinese gamelan learning process through digital media.

Keywords

Balinese gamelan, meguru panggul, web 2.0, E-learning, didactic tools.

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Resumen

El *meguru panggul* (enseñanza con el mazo) es el método tradicional de transmisión de conocimientos musicales en la isla de Bali. Consiste en enseñar las partes musicales sueltas mediante su ejecución en el instrumento de modo presencial entre el profesor y el alumno. El uso generalizado de esta metodología ha inscrito a la música gamelán balinesa en el ámbito de la música de transmisión oral, aunque también existe un sistema de notación musical desarrollado localmente.

La difusión y el desarrollo de las tecnologías de la información y la comunicación en las sociedades del sudeste asiático han permitido cada vez más a los miembros de las comunidades locales producir sus propios vídeos culturales autoconclusivos. Una subcategoría de los vídeos producidos por músicos balineses, disponibles en plataformas digitales gratuitas como los populares servicios para compartir vídeos (YouTube, Vimeo, etc.), está representada por los vídeos de aprendizaje electrónico de música gamelán balinesa que reproducen el mismo enfoque didáctico que la metodología *meguru panggul*. Estos vídeos, que siguen el estilo de tutoriales similares para la música popular u otras tradiciones musicales, se realizan por un abanico heterogéneo de motivaciones que identifican un modelo no único de relaciones sociales y económicas entre productores y usuarios. Pero los vídeos de *E-learning* que utilizan la metodología *meguru panggul* tienen en común algunas características técnicas peculiares en cuanto al uso del punto de vista de filmación (observador / profesor / alumno) y la configuración de los instrumentos (simple / múltiple; recto / inverso), que permiten una reflexión coherente sobre cuestiones específicas relacionadas con el proceso de aprendizaje del gamelán balinés a través de medios digitales

Palabras clave

Gamelán balinés, meguru panggul, web 2.0, E-learning, herramientas didácticas.

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The *Meguru Panggul* Methodology Online: Characteristics of the e-Learning Videos of Balinese Gamelan Music¹

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Introduction

Online video tutorials about Balinese gamelan music have increasingly appeared on the Internet in the last few years, especially with videos that reproduce some peculiarities of the traditional methodology of musical transmission for gamelan in use on the island of Bali, which is called *meguru panggul* (teaching with the mallet). It consists in a way of teaching the single musical parts through their execution on the instrument in face-to-face mode between the teacher and the student, a methodology that has enrolled the Balinese gamelan music traditions in the field of oral transmitted music. These E-learning videos², published on social media and online video sharing platforms (such as YouTube, Facebook, Vimeo, etc.), present common technical characteristics and specific issues related to the Balinese gamelan learning/teaching process traditions passing through aural/visual digital media. This emerging phenomenon enables the posing of new questions and coherent reflections on the subject of *meguru panggul* methodology and about web 2.0 developments and uses.

This theme in my studies represents a subtopic of my research into Balinese music research, specifically a part focused on the use of digital technologies associated with Balinese gamelan³. Sources for this research mainly consist of the interpretation of and comparison with state-of-the-art research carried out in a broad sector of studies and the data collected during fieldwork in Indonesia using an approach that varies between practice-based, *in situ* and virtual ethnography⁴.

The practices of Balinese music teaching traditions have been documented in scientific literature both by international scholars (McPhee 1966, Tenzer 2000, 2011, Herbst 1997, Bakan 1999, Gold 2004), focusing on the oral characteristic of the musical knowledge, and by Indonesian artists (Sudirana 2018, Dibia and Ballinger 2004, Asnawa 2015), who often describe it in the form of auto-ethnographies about their learning and teaching of Balinese gamelan music. In literature, a discourse has also developed about the different teaching practices used abroad, or in the

¹ This article was initially presented at the 2nd ICTM Symposium of the Study Group on Audiovisual Ethnomusicology in Lisbon in 2018 and completed in 2019. As such, certain information and developments on the topic may have emerged since its creation. The author plans to release future publications with added content, particularly about any updates that may have arisen on the use of technologies in Indonesia during the pandemic.

² E-learning is a combined noun that originates in electronic and learning terms, which describes an online learning (or teaching) methodology characterized by a learning process conducted via electronic media, usually available on the Internet.

³ I have partially achieved it via fieldwork in Indonesia. My ethnographic fieldwork in Bali has been conducted in two periods, one lasting from 2013 until 2015 and the second period of research beginning in 2019 and due to last until 2020.

⁴ For a discussion on virtual ethnography see Wood (2008), Hine (2000).

educational tourism sector (eduturism), about how to learn to play Balinese music and the different methodologies applied in these cases (Dunbar-Hall 2014, Jocuns 2007, 2009, Clendinning 2013, 2016).

The arguments and discourses about the digitalization and virtualization of the learning process for the Balinese gamelan have remained quite unexplored until now, and many of the possibilities for exploring the subject in greater depth are still to be examined at my stage of research; for that reason, after having introduced the topic and the main references related to it, I am going to concentrate my reflection in this paper on three specific questions: which are the educational methodologies applied to Balinese gamelan music? What are the audiovisual characteristics of gamelan music tutorials available on the web? Which specific issues arise in the *meguru panggul* pedagogic method, especially when related to e-learning gamelan music?

Balinese gamelan oral music pedagogy: *meguru panggul*.

Balinese gamelan music has been always included in the field of oral music because the predominance of oral methodologies has characterized the leaning process on the island. This was as true in the past as it is now, although minority behaviours also exist in the area of music learning, such as the use of music notation system or audiovisual formats. The basic musical pedagogy method used in Bali is called *meguru panggul*, which can be broadly translated as “teaching with a mallet” or as “the mallet is the teacher”. It’s a system that can be described in connection with the more general term *nuwutin*, which can be explained as a “traditional teaching method emphasizing [...] imitating rather than analysing” (Dibia 1992: 383), positioning it in opposition to the theoretical methodology generally associated with western musical culture. In this regard, Micheal Tenzer states that if “reading music is a process of translating symbols into sounds; Balinese musicians bypass this stage entirely and learn music by transforming a received musical gesture directly into physical act of playing” (Tenzer 2011: 106) while Michael Bakan affirms: “playing before thinking is part of a systematic learning strategy that is characteristic of Balinese music-learning situations” (Bakan 1999: 285). The Balinese ethno-pedagogy involves in its strategy the stimulation of what we define as mirror neurons and the development of muscle memory abilities (Dunbar-Hall 2014, Edwarson 2015, Becker 2010).



Figure 01. A private lesson by I Made Subandi using the *meguru panggul* methodology at the *Sanggar Ceraken*.

Meguru panggul essentially consists of teaching the single musical parts through their execution on the instrument in face-to-face mode between teacher and student. The teacher, placed in front of the musicians in a “mirror position” at the same instrument (or a second one), performs a musical segment at full speed and with the appropriate style and expression, repeating it until the musicians memorize his musical part by internalizing all the dynamic and technical aspects shown. This process is repeated portion by portion of the musical parts until the piece has been completed. In brief, we can summarize that *meguru panggul* is a holistic method of knowledge transmission, based on a 4-stage process: transmission, imitation, repetition, and memorization.

The *meguru panggul* teaching situation on the island of Bali should be understood in the communal context in which this practice is realized, where this process becomes more complex especially when it is not related to just a private lesson, but used in a rehearsal that involves a large group of musicians. Exhausting full-ensemble rehearsals are carried out to refine the synchronism of musical concatenations and the perfection of group virtuosity for a gamelan group; meanwhile, all the heterophonic parts are learned by the various sections of the orchestra.

The pictures below show an interaction during a full gamelan rehearsal of a children’s gamelan group at Sanggar Ceraken in Batuyang. I Made Subandi, leader of the music community, is teaching using the *meguru panggul* methodology for all groups of musicians, while teenage members of the *sanggar* support him in a mediated teaching process using face-to-face interaction with younger musicians in the *gansa* section of the *gamelan semar pegulingan*. In an apparently chaotic situation, the various students learn multiple parts simultaneously.



Figure 02. A group rehearsal of the *anak-anak* (children) gamelan of the Sanggar Ceraken.

Oral, written and aural/visual: alternatives to the *meguru panggul* in Balinese gamelan music learning practice

Meguru panggul doesn’t represent the only oral teaching methodology in Balinese music traditions: a secondary level of teaching methodology, called *meguru kuping* (teaching with ears), is also customarily used in Bali. *Meguru panggul* is mainly used by Balinese young musicians in the first stages of the learning process, by non-expert Balinese gamelan groups and by foreign music

students in Bali or abroad. Meanwhile, *Meguru kuping* methodology is used in all cases where the musicians have a good level of expertise; this is currently the most diffused methodology of learning in a gamelan group situation in Bali. *Meguru kuping* consists in following the gamelan leader's (or teacher's) music execution or solfeggio in the *ding-dong* system, only listening to the sounds that should be reproduced without directly observing or imitating the mallet movement on the instruments⁵. It's obvious that these two oral methodologies are not completely separate in practice. The maestro will help an expert musician by demonstrating the part on the instrument, if necessary, just as he will sing along using the *ding-dong* solfeggio to accompany the practice of a student learning with the *meguru panggul* method.



Figure 03. A group rehearsal of the Gamelan Narwastu combining *meguru panggul*, *meguru kuping*, and the use of *aksara* notation as teaching methodology.

In the contemporary Balinese music scene, the use of written music during the learning process is starting to appear more often. And, though generally the notations appear in the form of chipper (*kepatihan*)⁶ or mostly using the *ding-dong* system with the *aksara* symbols (Rembang 1960), composers of new or contemporary gamelan music (such as I Wayan Yudane or I Wayan Sudirana) have begun to use Western staff notation during the preparation of their gamelan group performances.

It is in the Balinese gamelan abroad context (or in the interaction between foreign musicians and Balinese teachers), where pedagogical experiments that combine both oral and written music transmission have been developed over a long time, that new forms of aural/visual methodology to support the learning process have emerged. This new way of learning gamelan music involves videos in which the camera focuses strictly on the hitting of the mallet on the instruments, reproducing

⁵ I Wayan Sudirana has clearly described his self-experience of how, as a student of gamelan music, he has passed through the *meguru panggul* to the *meguru kuping* (teaching with ears) methodology as he advanced his skills as a musician (Sudirana 2018: 40-42).

⁶ *Kepatihan* is a system of cipher notation devised in around 1900 at the *Kepatihan* in Surakarta, based upon the Galin-Paris-Chev  system (Sumarsam 1995).

with a different technical medium the main characteristic of the traditional *meguru panggul* pedagogy: learning by following the mallet. These videos can be defined as online video tutorials or E-learning videos of Balinese gamelan music, from the moment that they began to be published on the Internet.

The Balinese gamelan and culture on the Internet between data and document

The spread and development of information and communication technologies (ICT), specifically the advent of communication channels which allow the free diffusion and exchange of musical material, and the diffusion of affordable and easy to use audiovisual recording systems (cameras, smartphones, etc.) everywhere, including in Southeast Asian societies, has increasingly enabled members of local communities to produce their own self-narrated cultural videos. In the last few years, Indonesians, especially those who live in urban areas, have been accessing the Internet with sufficiently stable and widespread connections thanks to improvements in infrastructural technology: the basic conditions necessary to deeply transform people's daily life with massive use of Internet-related technologies.

The Balinese people have quickly integrated these information and communication technologies into their routines. Nowadays, it is common to order food or transport through smartphone applications (GoJek, Grab), publish a live video using social networks (Facebook, Instagram) to share every moment in life, or communicate via WhatsApp chat the meeting time for the beginning of temple ceremonies. It is in this mutated framework that Balinese people have become habitual users and producers of new content on local culture and gamelan music. Thousands of videos of Balinese music performances, rehearsals, concerts and rituals have since appeared on the web, presenting online a huge quantity of information on local music traditions and contemporary culture. A sort of unlimited online video library that should make all scholars happy, although it is important to be aware that not all these videos represent ethnomusicological documents, as Giorgio Adamo said: "the ease of use and affordability allowed by technological evolution, however, are not enough to transform a technical medium into a conscious instrument of scientific research" (Adamo 2010: x)⁷. This consideration is valid for both the use of technical instruments (like cameras, smartphones, recorders, etc.) and digital documents (videos, audio recordings, picture and so on) made available online in a sort of virtual soundscape.

Keeping in mind this lesson, I selected and researched a small portion of the videos published online in the area of my studies, focusing on the strategy to create from a coherent corpus of online data (the Balinese gamelan tutorial videos selected) a series of documents that can be studied from an ethnomusicological perspective. This has been done by combining information collected *in situ* and via virtual fieldwork through participation in the musical learning process, as part of a gamelan community that uses video tutorial to integrate musical teaching in the preparation for concerts, filming gamelan musical lessons using the *meguru panggul* methodology, filming videos of musical

⁷ Translated by the author.

parts on single instruments to help with transcription off the field, and interviewing the producers and users of the E-learning videos published on Internet.

Are Balinese gamelan tutorials on the web a field for *in situ* or virtual ethnography?

Understanding the learning process of Balinese gamelan music through online videos involves consideration of various communities and the use of different approaches to explore in greater depth their use of these media. So, if we can make the preliminary statement that this kind of videos are mainly produced and published for foreign communities of gamelan players often situated outside Bali by their more expert members, their Indonesian teachers or passionate gamelan musicians for their personal use, once these videos are published online, we can observe virtual interaction with many single online users, expressed through comments, and requests for new specific tutorials by emails to the owner of the platform where the videos have been published. This virtual interaction and the use of online media do not exclude that the single users behind the laptop screen are taking part in another community using these videos to learn the musical parts for a specific piece that they cannot directly access elsewhere. For that reason, we cannot refer to pure virtual ethnographic fieldwork for this research argument based on online videos, because this interaction involves one or more communities that have real-life meetings outside the online viewing of the videos and these communities are mainly unconnected to one another.

At the same time, given that the attention initially paid to this phenomenon was mainly related to subjects situated outside Bali, my fieldwork involved the ethnographic study of the learning process for the preparation of performances on the island of Bali in conservatories (ISI Denpasar and SMKN)⁸ and Balinese gamelan group communities. Not excluding practice-based participation as students in private lessons and members of the gamelan group of the Narwastu Art Community, an international interfaith community of local and foreign musicians living temporarily in Bali, which use video tutorials as support for their musical learning process also video tutorials.

Corpus of videos and subjects involved in the Balinese gamelan tutorials between Bali and worldwide dissemination

The discourse obviously refers to the Balinese gamelan, whose music is played by more than thirty types of musical orchestras constituted by a unique set of instruments, mainly by idiophones made of bronze, bamboo or iron and tuned in *pelog* or *slendro* scales. In the current Balinese music scene, gamelan is used regularly both in secular and religious contexts, performing a wide instrumental repertoire, and accompanying vocal, dance and theatre forms (Bandem 2013: 1-2, 235-238). It is customary to describe Balinese gamelan music as an artistic phenomenon located on the island of Bali and part of the *gong* music traditions of Southeast Asia and the Indonesian archipelago, but

⁸ ISI (*Institut Seni Indonesia*) Denpasar is the Indonesian Institute (or Academy) of the Arts situated in Bali, which includes a conservatory that provides education from Bachelor of Arts until Doctoral level in a university program. SMKN (*Sekolah Musik Karawitan Negeri*) of Sukawati, previously known as KOKAR (*Konservatori Karawitan*), is instead the high-school level Balinese traditional music conservatory.

starting from the second half of the last century, gamelan gained worldwide dissemination into international universities, cultural centres, and Indonesian embassies. It is into this group of foreign Balinese gamelan that the use of videos began to appear in support for the musical learning process, with some exceptions sited on the Island of Bali constituted by the Narwastu Art community's gamelan group (Narwastu Art Group 2012) and a more recent video tutorial in the same style realized by Balinese musicians on their YouTube channels.

I also want to point out that most of the E-learning videos about Balinese music are realized in a small portion of the variety of Balinese gamelan orchestras, following the proportion of the diverse diffusion of the many gamelan existing in Bali and abroad. Bronze gamelan orchestras are for sure the most present, mostly represented by the *gamelan gong kebyar*, clearly the most diffused example, with some representatives of *gamelan semarandana* and *gamelan gender wayang*, while sometimes tutorials on bamboo orchestras, like the *gamelan rindik*, also appear. Other gamelan, like *gamelan selonding* and *gambang*, are present in just a few units in the online tutorials.

The tutorial videos sometimes cover the arrangements of all the instruments in the orchestra with a one-on-one focus, especially when the videos are realized for a specific gamelan group that makes large usage of this practice. But usually the e-learning videos published are not related to complete orchestra arrangements but focus only on some instruments, such as *kendang* and *suling*, or about their use in the representation of a specific technique like the *kotekan* for the *gansa* bronze instruments or the *norot* for the kettle gong of the *reyong* instrument⁹. This choice to limit the video production on some instruments like the *pemade*, and in part *reyong*, of the *gamelan gong kebyar* is characteristic of these gamelan groups that do not make much use of the videos to accompany the learning process, preferring to focus on technique like the interlocking which takes more time and practice to memorize. But the same choice is made by passionate musicians or experts that produce this kind of video for personal use or to share with everybody without having a specific gamelan group which is using their tutorials. In this case, it is important to underline the importance of the representation of Balinese music through the *kotekan* musical technique and the importance that the Balinese themselves give to it in the teaching approach for foreign gamelan players.

In this paper, I decided to focus on the E-learning videos representing the *kotekan* technique on *gansa* instruments using *pemade* or *kantilan* instruments of the gamelan bronze orchestras like *gamelan gong kebyar* and *semarandana*. Usually, the videomakers filmed both parts in Balinese interlocking style, called *polos* and *sangsih*. This choice is related to the discourses about the diffusion and cultural self-representation of this specific technique (which I just have briefly explained) but also because it is in this group of video tutorials that representation of the *meguru*

⁹ *Kotekan* is a style of playing musical ornamentation in most varieties of Balinese gamelan music. It consists in an interlocked combination of two musical parts called *polos* and *sangsih*, played by a pair or more of the same kind of instruments (*pemade*, *kantilan*, etc.) tuned with a slight difference in order to create the typical Balinese effect (*ombak*), while *norot* is a style of interlocked elaboration pattern played on *reyong* instruments by four musicians.

panggul teaching methodology has affected the filming choice of the videomakers¹⁰.

The video examples which I will focus on, also have the common characteristic of being realized in a context where foreign gamelan players and Balinese teachers meet, because it is in this relationship that these videos begin to appear with a modified filmic style. More recently, Balinese musicians, unrelated to foreigner gamelan groups or cosmopolitan experiences, have begun to publish online video tutorials that reproduce the same filmic style as the *meguru panggul* video tutorials as a kind of genre of YouTube videos. This subgroup of video tutorials is very interesting from an ethnographic perspective and regarding the social use of online sources in musical fields in Balinese society, but in terms of their filmic characteristics, they appeared in a moment when video tutorials were shaped by *meguru panggul* methodology and they merely copied this specific style of video (for some examples see Dipta Mahaputra 2015, Edi Bud 2018, Lalah Manis 2018, Prana- Art 2018, Wira Gamelan Bali 2018, Wisnu Yogart 2018, Candi Bali 2019).

Balinese gamelan aural/visual music pedagogy: *meguru panggul* tutorials on the web

A subcategory of the Balinese gamelan videos published online is represented by E-learning videos for Balinese gamelan music that reproduces the same teaching approach as *meguru panggul* methodology in an audiovisual medium. These videos can be found online using a combination of keywords on YouTube's search tool; words like: Balinese gamelan; *belajar* (to study); tutorial; *polos* or *sansih* (the two parts of Balinese interlocking patterns); or the names of various instruments (*pemade*, *ugal*, *reyong*, etc.). In this way, we can find hundreds of videos that have gradually shaped a way of reproducing the Balinese learning approach through the use of moving images.

The distinctive quality of *meguru panggul* gamelan tutorials is that they are dedicated to a single musical part played by the Maestro on the respective instrument, focusing on the movement of the mallet (*panggul*) hitting the bar of *gansa* family instruments. This correlation with the *meguru panggul* teaching method is often represented in a holistic dimension too, realizing videos that just show the part to be played from beginning to end without adding any theoretical pedagogical features¹¹. I previously presented in part, the tutorials produced by Balinese musicians (or by foreigners filming their Maestro) are mostly focused on a few instruments, like the *polos/sansih* parts for the *pemade* of *gamelan gong kebyar*, and only in a few cases on all the parts for the instruments in the orchestra.

In any case, these video tutorials are made for a heterogeneous range of motivations that

¹⁰ The online tutorials, which teach the music parts of *kendang* (Made Agus Wardana 2013, Dipta Mahaputra 2015, Candi Bali 2019, Wisnu Yogart 2019) and *suling* (Made Agus Wardana 2017a, 2017b, Lalah Manis 2018, Wira Gamelan Bali 2018), did not develop a specific audiovisual technique. They are simply filmed from a frontal perspective which is enough to represent the face-to-face lesson of these instruments through visual media. *Suling* (Balinese bamboo flute) and *kendang* (Balinese double-sided membrane drum) video tutorials are less present on the international gamelan group YouTube channels, while they are largely present in the videos locally filmed by the Balinese specifically for publication on the web.

¹¹ A different case is represented by a series of videos published on YouTube during 2009 by the local Academy of Arts (ISI Denpasar). These videos - with a focus on a theoretical approach - were designated to explain the characteristics, musical form and techniques of the different classes of instruments in Balinese gamelan (isidenpasar 2009). They differ largely from the Balinese gamelan tutorials reproducing the *meguru panggul* methodology because they have been created for a different end.

do not identify a unique model of social and economic relationships between producers and users. Economically, gamelan tutorial videos do not represent a source of income for the content's producers, nor for the musician filmed, with the sole exception of Made Agus Wardana. He received few economic rewards during a period in which he entered YouTube's remunerative program, as a producer of lots of content in his channel, offering videos of his performances, Balinese culture, and life in Europe and Bali, as well as —of course— tutorials on Balinese gamelan music (Made Agus Wardana 2007). Considering the other cases, I could generalize saying that the musicians filmed to play the instruments are almost always Balinese musicians invited as teachers for the gamelan community abroad or just filmed during educational tourism lessons in Bali. In both cases, it does not matter if the video is published by the musician himself, the foreign student or the gamelan community: the remuneration of these activities is related to face-to-face teaching and the video tutorials are just extra support for this learning process. The recent appearance online of video tutorials made by young Balinese musicians in their personal online networks, reproducing the video characteristics of these gamelan tutorials realized in a cultural exchange between Bali and abroad, does not change the free availability characteristic of gamelan tutorials and the reasons for creating them, which are only related to their social exposure and pleasure in spreading knowledge of Balinese music and culture worldwide. At this time, it does not appear to be their intention to sell private lessons online, to expand the number of private students for face-to-face lessons, or, to create collective remuneration systems to finance the production of this kind of online content, as is the case in other music tutorials that can be found on the web for western popular music or other musical traditions (e.g., Indian).

Audiovisual characteristics of gamelan music tutorials on the web

E-learning videos using the *meguru panggul* methodology have in common or differ in some peculiar technical characteristics regarding the use of the filming point of view (observer / teacher / student) and the set-up of the instruments (single / multiple; straight / reverse). These two main filmmaking characteristics, combined with the execution of a single or multiple musical parts by musicians on the instruments, classify the different variants and efficacy of the *meguru panggul* methodology applied in an audiovisual frame.

In terms of the characteristics of the instrument set-up, we mainly find a single instrument or two played at the same time by one or two musicians. In videos that show a single musical part in the Balinese interlocking pattern, and we usually find only one musician playing one instrument that can be positioned in a straight or reverse position to the camera. By straight, I mean when the instrument is filmed from the side of the musician, with the lower tones on the left side of the screen and higher on the right. When a video shows the execution of the interlocking pattern played by two musicians (called *kotekan*), generally, they sit in front of the camera with one or two instruments between them. A set-up with a pair of instruments has the advantage of producing the peculiar beats (called *ombak*) generated by the slight difference in the tuning of the paired gamelan instruments, which is so important in Balinese music. Worth noting, is that a video that reproduces the two-interlocked parts of a *kotekan* (*polos* and *sangsih*) simultaneously presents more difficulties

in terms of its use for learning a single musical part, and usually these kinds of videos are filmed more to show the combined parts ornamentation or the skills gained by musicians than as a tool for E-learning. So, even though it is obvious that E-Learning through a video with just one musical part played by just one musician is more efficient, all the possible combinations (with one or two musicians, one or two instruments, the execution of one or two musical parts) are published online. When there are two instruments present in the video, I have noticed two main tendencies: one with the instrument posed to be played in the correct position (straight) and a second posed in front in which a musician reverses his instrument to play in “mirror position”, as the teacher does during the learning process. There is a second set-up in which both the musicians play in their relatively straight positions, but watching the video we observe one instrument in a straight position and another in reverse position from the viewer’s perspective. Sometimes there are also other sounds in the background, reproducing the colotomic cycle of gongs or the beat keeping of the *kajar*, but usually, these instruments are placed off screen.



Figure 04. The combination of two instruments in straight (left) and reverse (right) playing positions from two online tutorials (Narwastu Art Group. 2017c, Tut arta. 2018).

In the videos that I examined on the web, which in various ways seek to help transmit musical knowledge, I classified three different filming points of view that I will present in order of least adherence to my theory of the application of *meguru panggul* methodology in video tutorials online.

“*The observer’s point of view*”. The videos that present this characteristic show a musician playing on the instrument which has been filmed from a certain distance and from a side or frontal position. Musicians and instruments are completely inside the screen image, but the camera does not focus on the mallet beating the instrument. The style of these images has an approximate continuity with the images of ethnographers’ silent videos from the first part of the last century (e.g. Colin McPhee and Miguel Covarrubias’ video collections). These videos transmit more information about musician embodiment and often context, offering an external viewpoint of the execution. The videos published online with the “observer’s point of view” filmic characteristic, even when they are reproducing a single musical part on a single instrument (as in the other cases), are not always focused on developing strategies for teaching musical parts through the *meguru panggul* methodology. Sometimes they are just videos showing a musical student’s learning process or

personal skills, an aspect that it is also more evident when two musicians simultaneously play the combined parts of the interlocking of *kotekan* or *norot* in the video. When one of these videos records just a single musician playing a single part on an instrument with the intent of realizing a tutorial, we are witnessing the first stage of the development of the filmic style applied to *meguru panggul* methodology, which still oscillates between *meguru panggul* and *meguru kuping* teaching traditions (see, GamelanSekarJaya 2007, isidenpasar 2010, Made Agus Wardana 2010a, 2010b).



Figure 05. The observer's point of view (isidenpasar 2010).

“The teacher’s point of view”. The videos in this classification are filmed from a closer distance and zoom in on the mallet striking the instrument from a frontal position in relation to the musician and the instrument. This is usually the teacher’s visual position in face-to-face *meguru panggul* lessons. If these videos present a filmic technique that distinguishes the mediatisation of the learning experience into a video, it also presents difficulties that are usually avoided by inexpert gamelan musicians: the instrument is showed into the video frame through an opposite visual than the one that the musician experiences while playing (Daniel Smither 2015, Sanggar Seni Suara Mustika 2019). The musician sitting in front of the instrument usually has the lower tones on his left side and subsequently the upper tones to his right, whereas in these videos the opposite placement of the instrument in front of the camera represents mainly the view experienced by the teacher during the education process when he plays the musical part (with great mental elasticity required to always be in a position opposite the instrument (mirror position) in relation to the normal execution position (straight position).



Figure 06. The teacher's point of view (Daniel Smither 2015).

“The student’s point of view”. The subgroup of videos that present this filmic characteristic is the one that best mediatizes the face-to-face experience of the *meguru panggul* lesson received in real-life into an audiovisual medium. These videos are filmed from a top-behind position with close-ups of the mallet and instrument, focusing the attention on the movement of the mallet hitting the bars. They offer a simulation of what a musician effectively sees during his own execution in “straight position” or when observing the teacher in “mirror position”; in both cases looking at the video the instrument is placed in the same position that it should be played in. These videos are specifically designed to teach musical parts using the *meguru panggul* methodology by video, and to a certain extent they represent the evolution of the videos with the previously described filmic styles realized through different steps and experiments carried out by the various videomakers. Nowadays, “The student’s point of view” filmic characteristic as applied to the online gamelan tutorial is that which is most often applied, and what I consider more properly an online Balinese gamelan tutorial applying *meguru panggul* methodology (Werdhi Agung 2012, Narwastu Art Group 2017a, 2017c, Made Agus Wardana 2018, Tut arta 2018).

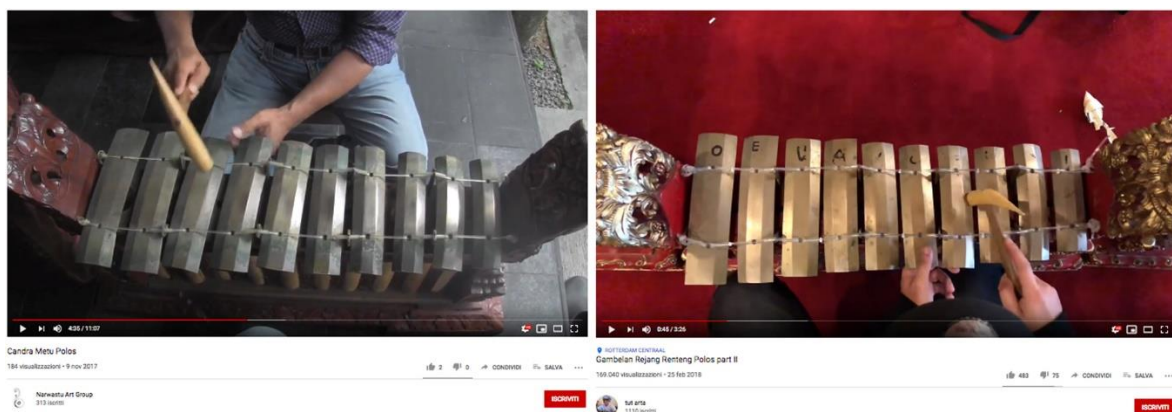


Figure 07. The student’s point of view: On the left, the teacher is playing on “mirror position” (Narwastu Art Group 2017c); on the right, the teacher is playing on “straight position” (Tut arta 2018).

As we can see, different videomakers have found more or less consciously diverse audio-visual strategies in an attempt to transmit their musical knowledge in a new medium. Some choices are more successful than others, but they are always related to the application of *meguru panggul* teaching methodology.

Issues related to the meguru panggul pedagogic method on gamelan music E-learning videos

The online diffusion of tutorials teaching how to play the Balinese gamelan undoubtedly creates the opportunity for new learning strategies to arise. This is a new situation about which it is good to reflect, considering the specific issues and advantages related to the process of learning Balinese gamelan through digital media.

Some advantages generally related to the online tutorial field can be identified. The videos are available to anyone anywhere at any time, creating new opportunities for knowledge access. The online tutorials are produced to help a large group of users with different previous abilities. In the specific case of gamelan tutorials, it is noticeable that the execution of the musical parts is slightly clearer and slower than the usual execution during performances, making it easier for viewers to understand the musical parts and rebalancing some difficulties related to the use of technology during practice. The development of the filmic technique for the *meguru panggul* tutorial has gone in the direction of minimizing the impact of and simplifying the use of technological hardware (smartphones or laptops) during rehearsals.

Specific issues related to the Balinese gamelan learning process also clearly appear through digital media:

- The first issue is exemplified by the insoluble problem created by the peculiarity of the gamelan's unique tuning. Every gamelan has its own tuning for tone and intervals, so it is unusual to find the same tuning in another set of instruments. This characteristic makes it less comfortable to play the same part or the interlocked opposite part (*polos* or *sangsih*) along with the videos.
- These videos can only represent face-to-face teaching moments using the *meguru panggul* methodology, excluding all the other circumstances that appear during a rehearsal. Learning a single musical part that will subsequently be rehearsed in a gamelan group community is a way to fix one's own part, but it does not offer the chance to play the interlocking and heterophonic parts simultaneously with the other musicians.
- There is no interaction or guidance from the teacher: most videos show just the musical execution by an instrument from beginning to end. The division of musical phrases into small units is done directly by the student using the play/pause/rewind features of the video player.

Other issues are related to the videos' existence on the web as data available to everybody, which can lead to misinterpretation of Balinese music:

- These videos present single musical parts without “musical meaning” outside orchestration. For example, the *polos* and *sangsih* parts of interlocking *gansa* patterns, on which most tutorials are focused, create only when combined the musical ornamentation for which they were conceived, and in any case, we hear the piece only when all the heterophonic parts are played, which in the case of *gamelan gong kebyar* is constituted by around twenty-five musical lines. It is evident that an online video in which only the *polos* part of the *Rejang renteng* (Made Agus Wardana 2018) is played cannot represent the richness of a full Balinese orchestra. But approaching gamelan music through such a video could also be a source of misunderstanding of Balinese gamelan music.
- The absence of extra information about the context is another source of possible misinterpretation; if we refer again to the *Rejang renteng* (Made Agus Wardana 2018) tutorial, nothing in the video lets viewers understand that it is music performed to accompany the homonymous dance during religious ceremonies (*odalan* and *melasti*) in *Agama Hindu Bali* (Balinese Hinduism). The *Rejang renteng* dance is included in the group of dances considered *wali* (sacred), and according to local sentiment should not be performed outside the religious context (Picard 1990: 66-70)
- The close-up shots of instruments, usually realized to focus on the mallet hitting the instrument and to render the instrument as large as possible on screen, or sometimes due to the focal lens of the camera used to film, cause the exclusion from the screen of any information about the place, circumstances or even musician in the video, who does not always coincide with the person that published it online. The absence of most parts of the musician's body is at the same time an advantage in the sense of making him a digital avatar of the student, as psychologically it can be a switch to self-identify and stimulate memory through the mirror neurons involved in the imitation process. But it also represents a loss of information about the entire embodiment-related behaviours.

Three examples of Balinese gamelan online tutorials

I would like to focus on three examples of online gamelan tutorials based on *meguru panggul* methodology: one realized in Bali by the foreign gamelan community and the other two produced by two Indonesian musicians involved in the European gamelan diaspora with different levels of skill. These videos seemed relevant to me due to their characteristics and influence on other videomakers, who, following these examples (among others), realized their own online tutorials in the Indonesian community.

Gabor Pemade Polos (slower version) (Narwastu Art Group 2017a)

The tutorial online for the *Gabor* dance was created for the gamelan group of the Narwastu art community. Gamelan Narwastu is an interfaith and international group based in Bali since 2005, when Jonathan and Tina Bailey gathered together a group of people who wanted to learn to play music on the Balinese gamelan. Since then, some hundreds of people traveling in Bali from between a few months to a couple of years have been involved playing gamelan with them and the Balinese musicians that complete the group community. The Gamelan Narwastu has the unique condition of being mainly a foreign gamelan group existing on the island of Bali, and for that reason some of the behaviours internal to the group are more similar to the Balinese gamelan abroad than to the local *sekaha gong*.



Figure 08. The Gamelan Narwastu performing in Batuyang.

The video tutorial *Gabor Pemade Polos (slower version) (Narwastu Art Group 2017a)* was filmed by Jonathan Bailey in 2013 using in freehand a video camera to capture the execution of the *polos* part of the *kotekan* played by I Wayan Rajeg, the music leader of this ensemble. From a methodological perspective, the video represents a classical online gamelan tutorial using the *meguru panggul* didactic method: the Maestro just performs the single musical part from beginning to end, without giving any extra information. It presents the filmic characteristic of the use of “the student’s point of view” with a single instrument in a straight position, but differently to the best applications of Balinese gamelan in the audiovisual medium it presents the *pemade* instrument of the *gamelan gong kebyar* not in a straight visual on the screen (as the same Jonathan Bailey has done in more recent video tutorials published on the Narwastu YouTube channel (Narwastu Art Group 2012)). It is, though, interesting that a video tutorial for the *sangsih* part does not exist, only the combined playing of the complete *kotekan* by two musicians, *Gabor Polos Sangsih* (Narwastu Art Group 2017b). That happened because inside this community is usual to give the *sangsih* part of the *kotekan* to musician with more experience or skills, and for these musicians, learning their musical part just during the ensemble rehearsal using a combination of the *meguru panggul* and *meguru kuping* methodologies is sufficient.

The Narwastu Art Community video tutorials, like other similar ones, were originally at the disposal of new entry members of the gamelan group to quickly gain confidence with a repertoire to them unknown, via a material exchange using USB drives. Only in 2017 were these online tutorials realized for the internal use of the gamelan ensemble made available online to support the learning process; this happened in the concomitance of the increase in the Internet bandwidth in Bali.

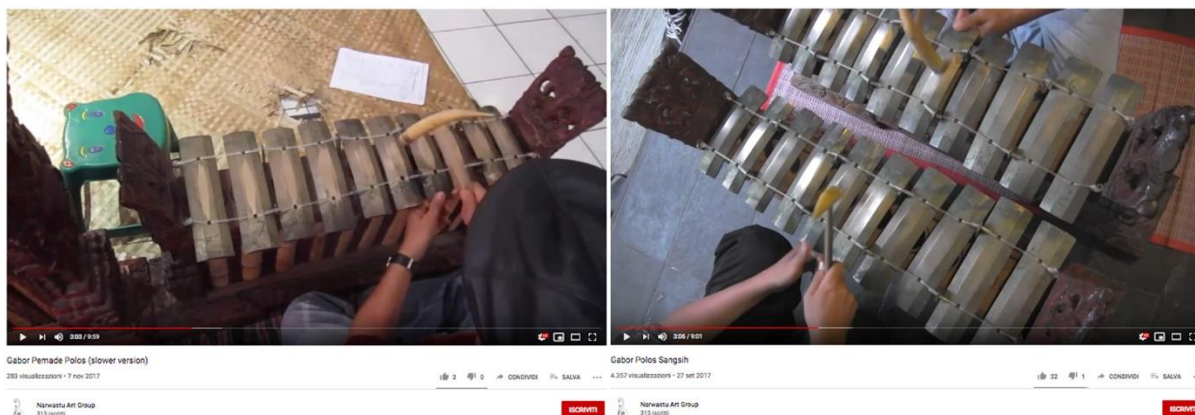


Figure 09. Narwastu's *Gabor* online tutorials: polos part (Narwastu Art Group 2017a); combined parts of *kotekan* (Narwastu Art Group 2017b).

Ciaaattt...Tutorial rejang renteng/Polos -Belajar Rejang Renteng 2018 (Made Agus Wardana 2018)

I Made Agus Wardana is a musician born in Denpasar in 1971. He has traditional and Balinese conservatory training, the latter completed at ISI Denpasar just before he was invited in 1996 to be a gamelan teacher in Belgium. Afterwards, he found a job as an embassy staff member and from that moment on he became an important figure for the Balinese diaspora living in Europe and for gamelan enthusiasts, until autumn 2018 when he moved back to live in Bali with his family. During this period, he organized different cultural events related to Balinese culture and taught many gamelan groups in Europe (Barcelona, Paris, Koln, Amsterdam, Den Haag, Amstelveen, Brussels). The first video on YouTube using the tagline "*Ciaaattt...How to play Gender Wayang*" (Made Agus Wardana 2010a) was published in 2010, one of the first of the online gamelan tutorials. Over time, he developed the style of his web tutorials moving from what I defined as "observer's point of view" to "the student's point of view", getting closer to the application of the *meguru panggul* methodology on the web as described earlier.



Figure 10. Screenshot of *Ciaaattt...Tutorial rejang renteng/Polos -Belajar Rejang Renteng 2018* (Made Agus Wardana 2018).

The video on which I want to focus on is called *Ciaaattt...Tutorial rejang renteng/Polos - Belajar Rejang Renteng 2018* (Made Agus Wardana 2018), which is part of a series of videos used to show the various musical parts to execute the music for the *Rejang Renteng* dance piece. The knowledge of this sacred dance was very useful for the Balinese Hindu community in central Europe for the accomplishment of ceremonies at the Hindu temple at Brugelette in Belgium.

This video, filmed with an affordable handycam on a tripod and with a few post-edits on iMovie software, shows him playing the *polos* part of the interlocking of *gamelan gong kebyar's pemade* instrument. He originally filmed this tutorial to help the members of the *Saling Asah* gamelan group in Belgium to continue to study the piece at home between rehearsals, but after he published this kind of video, young Indonesian musicians, especially those who do not have gamelan teachers in their villages, began making requests for new videos. Often these requests were arriving from members of villages transmigrated from Bali to other islands in the archipelago. Made said to me that they like these tutorials because they are slow, easy to understand and clear.

In the video, we notice that he gives by voice some indication of execution points and a number of repetitions to be done using the Indonesian language. During the video he also sings along to the music, imitating the basic tones of the *pokok* melody to give an indication of the point of synchronization for the *kotekan* parts. In this way, he tries to avoid some of the issues related to the coldness of the audiovisual medium, adding more information useful for playing with the full orchestration. The video's characteristics, in relation to my classification of the *meguru panggul* methodology on the web 2.0, are the use of "the student's point of view" with a single instrument in a straight position, the best set-up for this kind of tutorial.

Belajar dasar Gamelan Baris / Learn basic of Gamelan Baris (Werdhi Agung 2012)

Another good example of a mediated pedagogical approach between the standard *meguru panggul* method and a western theoretical elaboration is realized in the video *Belajar dasar Gamelan Baris / Learn basic of Gamelan Baris* (Werdhi Agung 2012), published on the YouTube channel named Werdhi Agung (Werdhi Agung 2007). Wayan Kariasta, an Indonesian citizen currently living in Holland, owns this channel. He is from a village named Werdhi Agung, involved in the *trasmigrasi* from Bali to Sulawesi after the Gunung Agung eruption of 1963. Wayan Kariasta is the current leader and organizer of the activities of the *Gamelan Semara Gita* in Rotterdam, but he had never played gamelan before moving to Holland for work reasons. The teacher of this gamelan at the moment that the video was filmed was Made Agus Wardana.

The video tutorial about *Baris* music was also initially filmed for the internal use of a group to learn musical parts at home during the long periods between the monthly rehearsals that the group organizes. This video was published in November 2012, and it is one of the Balinese gamelan tutorials with the most online views. This online tutorial was made with just a smartphone and a little post-editing to add some textual information - an aspect that I want to focus on, as it is the peculiar characteristics of this video.



Figure 11. Screenshot of *Belajar dasar Gamelan Baris / Learn basic of Gamelan Baris* (Werdhi Agung 2012).

The teaching process he uses, also in this case, differs from the standard *meguru panggul* tutorial methodology. He introduces step-by-step learning directions, introducing some basic elements of structural analysis of this famous dance piece and he divides the musical theme into two parts (*Bagian A* and *Bagian B*). His execution is at a drastically slower speed than it should be played, but interestingly in the second half of the video tutorial he plays the musical part on an audio recording made previously of himself at the embassy. His didactic objective was to show how this musical part has to merge with orchestration into the heterophonic stratification of the Balinese gamelan. As in the previous example, the filmic characteristic of the video is the use of “the student’s point of view” with a single instrument in a straight position.

Conclusion

Meguru panggul gamelan online tutorials represent an innovation that appeared in the teaching methodology used in Bali and abroad, adding an aural/visual approach to the most common oral and written learning options. In my opinion, it is interesting to see how the videomakers at the time developed a common strategy (also influencing each other) to translate face-to-face interaction through audiovisual media, adopting similar choices. So, if in the older videos published online there was more variety in filmic style, the most recent videos tend to use what I have classified as “the student’s point of view” on a single instrument in the straight position to offer easier imitation of the musician playing or in the visual relationship with the Maestro playing in the mirror position. It is not by chance that Balinese musicians had begun to propose similar video tutorials choices to imitate this style of filming. We still have to understand the impact of the increase in interest in the micro-phenomenon of studying gamelan with digital media that arose in international centres on Balinese culture, especially regarding the possibilities related to the use of these “technoscapes”, as Arjun Appadurai would have called them (Appadurai 1996), on the Balinese island.

In two of the video examples that I proposed we were able to see how in E-learning applications for teaching gamelan music, some teaching mediation appears between the theoretical Western approach and the holistic Balinese one. These videos, which use some analytical elements in the tutorials, move a little farther from what we mean by *meguru panggul* methodology on the web, but it is an interesting development related to the communities involved abroad and the necessity to offer new strategies to address the difficulties related to the coldness of the audiovisual medium compared to real-life interaction. It is an attempt to compensate for the difficulties related to the passage from the 4-stage learning process of the traditional *meguru panggul* (transmission, imitation, repetition, and memorization) to the 5-stage process applied during the use of *meguru panggul* gamelan tutorial (search for a video, play, pause, rewind, memorize).

Though most of the implications of this argument are still to be explored, I suppose that gamelan tutorials represent an immediate stage in learning Balinese gamelan music than a theoretical approach based on notation and probably represent a way to preserve (through a technological application) the way of learning that characterize the Balinese island ‘s musical traditions.

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