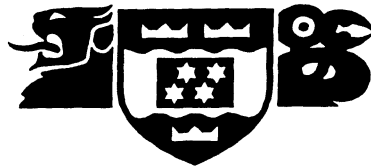


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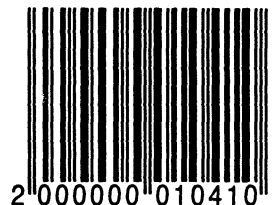


School of Music

Central Javanese Gamelon Handbook

1992

Printed by Communications
Services Section
Victoria University of Wellington
1040/92/60
\$3.50
Incl. G.S.T.



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Jo Hilder

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CENTRAL JAVANESE GAMELAN

A HANDBOOK FOR PLAYERS

FROM THE LIBRARY OF

Ms Joanne Hilder



*compiled by Jo Hilder
with assistance from Joko Sutrisno*

CONTENTS		Page
How to use this book		iii
Introduction		iv
Important Terms		1
Definitions		4
Musical Notation		13
Javanese Names of the Notes		14
Balungan Types		15
Gendhing Structures		16
Wayang Repertoire		17
General Repertoire		19
Playing Techniques		21
1	Interpunctuating Instruments	21
1.1	Gong	21
1.2	Kenong	22
1.3	Kempul	23
1.4	Kethuk/Kempyang	24
1.5	Substitution	24
2	Balungan Instruments	25
2.1	Saron barung, Demung, Slenthem	25
2.2	Saron Panerus	26
3	Bonang	28
3.1	Grambyangan	28
3.2	Mbalung	28
3.3	Mipil	29
3.4	Gembyangan	30
3.5	Imbal-imbalan	31
3.6	Sekaran	33
3.7	Klenangan	34
4	Kendhang (Introduction only)	35
5	Elaborating Instruments (Introduction only)	37
5.1	Rebab	37
5.2	Gender	38
5.3	Gambang	39
5.4	Siter	40
5.5	Suling	40
Appendix		41
References		42
Further Reading		42

HOW TO USE THIS BOOK

You can use this book either as **an introduction** to playing the gamelan for the beginner and as **a reference book** for players with some knowledge. In either case, the definitions section can be a good way into the book, by looking up any term that you come across and following the references to the appropriate section of the book for more information.

Javanese terms are used throughout to accustom the reader to them, so at first it will be necessary to refer back to the definitions section when unknown terms appear.

As an introduction which can be read through, an initial section of important terms is included to introduce a number of terms and concepts basic to the study of gamelan. Individual instruments are described in the definitions sections and pictured in the sections on playing techniques. While the sections on playing techniques of interpunctuating and balungan instruments and bonang give a fairly good idea of how these instruments are played, the remaining sections on kendhang and elaborating instruments are of necessity introductory only. The techniques required are simply too complex. Musical notation conventions are also detailed for the beginner. The introduction contains some thoughts on attitudes and approaches to the study of gamelan.

As a reference book, the definitions section is important because it defines a larger number of terms that will be encountered in the study of gamelan at an intermediate level. The reader is referred to the relevant section for further details where appropriate. For a fuller glossary of terms, see Volume 3 of Karawitan: Source Readings in Javanese Gamelan and Vocal Music (ed Judith Becker). The gendhing structures section can be used for reference until the structures are fully memorised. The playing techniques detailed for the interpunctuating and balungan instruments and bonang can also be used for reference, especially the table of imbal tones and list of common sekaran, although this latter is by no means exhaustive. Other books will be required for the study of the more complex instruments.

The Javanese names of the notes will be useful to students who encounter groups which use these or who study in Indonesia.

INTRODUCTION

- some thoughts on the study of gamelan: attitudes and approaches

Gamelan music is obviously quite different from western music. In its traditional form it is cyclical and consists of different layers of melody. The concept of harmony is not important. It is a co-operative music with a delicate balance between the various instruments, in which the whole body of sound is important, rather than any individuals.

Traditionally, it was taught (or merely learnt) aurally. Children might listen to the gamelan for years and gradually start to play some of the instruments without being formally taught. They just absorbed the music.

Of course, in other countries we do not have this ambience in which to learn, but it is this notion of 'the whole' and of learning by listening that I wish to stress. Two ways in which we can move towards this are:

1. by understanding that notation has a limited role in gamelan, and
2. by playing all the instruments to gain a full understanding of the whole gamelan ensemble

Although today in Indonesia, and especially in Western countries, notation is widely used, it has a different relationship to the music than notation in through-composed western music. While in through-composed music the notation is the starting point and is, for the most part, the authoritative source, in gamelan notation is just a shadow or a reminder of how the music really is. The sound comes first. Most gamelan musicians in Indonesia hold their repertoire in their heads, not on paper.

What is actually notated? Only the *balungan* (or skeletal melody - refer to Some Important Terms, p1) is usually written down, with interpunctuating instruments marked. The other parts are taught aurally, and usually follow certain set patterns. Books of patterns for some instruments exist for teaching purposes but beyond the beginner level, are mainly used for reference, and most learning proceeds by ear. So by no means is the entire music notated.

In fact, the notion of *balungan* itself has only arisen since attempts to write down *gendhing* have been made, and could be seen as an artificial construct. What is written down can "surely not represent the sound of the entire [piece of music] inside them...; rather, it would be the fruit of one musician's attempt to note down a distillate or the essence of the *gendhing*."¹ The *balungan* is **not** the *gendhing*. Because of this, there tends to be a certain amount of imprecision in gamelan notation, especially in the notation of rhythm. For this reason it is better to use notation as a reminder of the sound rather than trying to work out the true sound from the notation, as this will sometimes not be possible.

The use of notation in teaching gamelan has been a subject of debate in America (see "Notation or Not: Some musings about writing it all down" by Jarrad Powell in *Balungan*, Fall 1985). Powell makes the comment that: "... gamelan classes should focus on developing basic musicianship skills. That means precise rhythmic execution, sensitive tone production and the ability to listen and hear one part in various relationships to the overall fabric of the sound. Accurate reading should probably be an adjunct to these skills."

Powell mentions the importance of listening to the relationship of parts to the whole and for this reason it is important for gamelan musicians to be able to play all the

¹Supanggah, Rahaya "Balungan" (translated by Marc Perlman) *Balungan*, October 1988

instruments of the gamelan. Playing all the instruments leads to a much fuller understanding of how the whole fits together. In Indonesia, although musicians often have one instrument they specialise in, they are still able to play the others to some degree of competency. This ability is further necessitated by the absence of a conductor (although the kendhang does control the rhythm and the rebab leads the melodic flow). It is easier to be fully aware of all the other parts when one is free of the necessity to refer to notation.

To some degree then, playing gamelan requires a different way of thinking to that of western music. The general effect is the important thing, and little variations are natural. No gamelan piece is ever played the same way twice as, especially for the elaborating instruments, there are many acceptable ways of rendering the music. There is no one right way. This is why a teacher may demonstrate a part somewhat differently on different occasions.

One way of looking at the different way of thinking required is to look at it in terms of left brain and right brain. Betty Edwards' book Drawing on the Right Side of Your Brain¹ teaches how to use right brain processes to release creativity towards drawing. Most of her chart (which appears in the appendix) can I think also be applied to playing the gamelan. Right brain processes are the ones that are needed.

It is important to play carefully but also not to be timid about making mistakes. Joko Sutrisno makes the point that it is important to be aware of your mistakes, but you must try things out, even if you're uncertain. Because of the lack of accurate notation, learning gamelan tends to be a continuous process of making, perhaps unconsciously, hypotheses about what is going on, and it is essential to test these hypotheses. This process can be likened to the process of acquiring a first language as a child.

The right atmosphere is also important. When I studied at ASKI (in Indonesia) the group laughed loudly when people made mistakes. In the relaxed atmosphere of learning, this was not done to ridicule but out of amusement and reflects a less than deadly serious attitude which I believe is healthy. If one made a mistake once and received this reception, one certainly tried one's best not to make it again!

In summary, the important things to attempt are:

- 1) to be always aware of the whole and the relationship between different parts (facilitated by playing all the different instruments).
- 2) to try to do without notation as much as possible, ie. memorise. If possible, learn initially by ear. Pieces learned this way will be retained better.

Jo Hilder
June, 1991

¹Fontana, 1982, London

SOME IMPORTANT TERMS

Quotations marked with an '*' are from the Glossary in Karawitan: Source Reading in Karawitan, Vol 3 ed. Judith Becker

Balungan

"lit., 'skeleton, frame'.

1. an underlying melody which may be realised on the bonang panembung (Yogyakarta) or implied by the gender/rebab (Surakarta).
 2. the part played by slenthem, saron demung, and/or saron barung." *
- This is the part most commonly notated and used as a teaching device. See the introduction for more discussion of this, or Supanggah's article in Balungan, October, 1988.

Buka

"The opening phrase or introduction of a gendhing." *

It is usually played as a solo, with the kendhang joining near the end to control the speed. It is usually played by bonang, rebab, gender, voice (celuk) or kendhang. The gong and the rest of the gamelan (except kethuk, kempyang and kempul) sound together on the last note of the buka, before continuing directly with the gendhing at the rhythm set at the end of the buka. For information on bonang playing for the buka see p28 (mbalung).

Gatra

lit. "embryo". The smallest structural unit of a gendhing: a group of 4 beats ("usually manifested as strokes of the saron." *).

Gamelan

"Gamelan" refers to the complete set of instruments. It gets its name from the low Javanese word 'gamel', which means a type of hammer, like a blacksmith's hammer. The name 'gamelan' thus refers to the method of playing the instruments - by striking them, as they are almost entirely percussion.

In a complete gamelan there are about twenty different types of instruments. Most of the instruments are in pairs: one of each laras (tuning system).

Gendhing

1. "A generic term for any gamelan composition"
2. "...A class of formal gamelan structures characterised by relatively greater length and the absence of kempul." * See Gendhing structures, p16.

Irama

This is a term which is difficult to define. It relates to tempo and rhythm in gamelan music. As Martopangrawit put it (p9 Source Readings): "Irama' is the relative width of gatra." There are 5 irama, and the relative width of the gatra in each can be measured according to the number of strokes on the saron panerus to one beat of the balungan:

<u>Irama level</u>	<u>Irama name</u>	<u>No. of saron panerus strokes per beat</u>
I or 1/1	lancar	1
II or 1/2	tanggung	2
III or 1/4	dadi (or dados)	4
IV or 1/8	wilet	8
V or 1/16	rangkep	16

Martopangrawit also offers the following diagram to show the expansion involved in changing irama:

irama lancar	6532
irama tanggung	.6.5.3.2
irama dadi	...6...5...3...2
irama wilet6.....5.....3.....2
irama rangkep6.....5.....3.....2

As the iramas get slower, the time in between each note must be filled by more and more notes from the elaborating instruments (rebab, gender etc), and these instruments become more prominent.

"A gongan in irama I takes approximately half the time to perform as a gongan in irama II." *

Each irama can have three distinct speeds: seseg (fast), sedeng (medium) and tamban (slow). It is also worth noting Martopangrawit's point (p10, Source Readings) that "... each player has his own individual sense of tempo, and ... the function for which the gendhing is used may be different, eg. for accompanying wayang kulit, in which the tempi are generally faster than in concert music [klenengan], [and thus] tempo in karawitan is variable."

Karawitan

A general term for gamelan music as a whole and its associated singing.

There is also a philosophy behind this word. Rawit is the root of the word (a Javanese word of Sanskrit origin). It refers to something like a refined, smooth feeling, as opposed to intellectual thought. (See also "Pangrawit" in definitions)

Laras

Tuning system or scale. There are two laras in Javanese gamelan music: laras slendro and laras pelog. (See separate entries) Because most gamelan instruments have fixed tuning, a full gamelan consists of two sets of instruments, one tuned to each laras. The tuning of each gamelan is unique so that instruments from one set cannot usually be used with another.

Nada seleh

"1. the goal tone, or ending tone, of a melodic phrase.

2. the last pitch of any even-numbered gatra." *

Especially important in the playing of the elaborating instruments, where the cengkok used are determined largely by the nada seleh.

Pathet

"a modal classification system implying tonal range, melodic patterns and principal notes." *

There are three pathet in each laras. Gendhing in different pathet will emphasise different notes and utilise different cengkok for the elaborating instruments. However, although a gendhing may be accepted as being in a particular pathet, "It is true that a mixture of pathet is common...especially in Surakarta...But, even so, the principal pathet will be clearly felt." ¹

As Martopangrawit notes, the Javanese have "inherited karawitan from [their] ancestors as a finished product"² with certain descriptive terms but without a detailed analysis being passed down with it. Thus because the analysis has occurred recently, differences have arisen in the analytical description.

The following chart is based on discussions of pathet by Sumarsam, Becker and Martopangrawit, using some terms from Becker but taking Martopangrawit as the more authoritative source in terms of content.

The table refers to these notes being used as nada seleh. The terms in italics are the Javanese ones used by Martopangrawit. Roughly equivalent western terms are also given.

Laras	Pathet	Stressed; Tonic <i>Dhong</i>	Also strong; Dominant <i>Lower Kempyung</i>	Avoided as nada seleh <i>Dhing</i>	Almost never played
Slendro	manyura	6	2	5	
	sanga	5	1	3	
	nem	2	5		
Pelog	barang	6	2		1
	lima	5	1		7
	nem	2	5		7

Notes: Becker and Sumarsam and Joko Sutrisno all mention 6 as a stressed note in pelog nem (which makes sense since *nem* means 6).

Martopangrawit also mentions that "the masters of old, [said] that "[pelog lima] falls on pitch 1."³

In slendro, as there are only 5 notes, these are generally all used to a greater or lesser extent. Slendro pathet nem has no notes that are avoided.

In pelog, usually only 5 of the 7 notes are featured in a pathet. Note 4 is used sparingly in all pelog pathet, and when it is used it creates a strong effect. However, it is the presence or absence of 7 or 1 which is most noticeable in distinguishing pelog pathet from each other. Pelog barang is thus the most easily distinguished as it is the only one to feature 7.

For further discussion, see Martopangrawit. For slendro: pp52-65; for pelog: pp132-139. For explanation of the javanese terms: *dhong* etc, see p61.

For further information on cengkok and pathet, see Sumarsam: "Gender Barung, its Playing Technique and its Function in the Context of the Javanese Gamelan." in Indonesia, Vol 20, 1975

¹Martopangrawit, p59

²ibid. p132

³ibid. p134

DEFINITIONS

Quotations marked with an '*' are from the Glossary in Karawitan: Source Reading in Karawitan, Vol 3 ed. Judith Becker

- Alok** "lit., 'to shout/yell'. Short vocal phrases of indefinite or indeterminate pitch inserted within a gendhing to enhance the mood." *
- Ancer** A kenong technique in which the kenong simply plays the same note as the balungan. See p. 22
- Andhegan** See Mandheg
- Arang** lit. 'infrequent, sparse'. A kethuk pattern played in the gendhing form. See p 20 Cf 'kerep'.
- ASKI (ASTI)** The acronym for Akademi Seni Karawitan (Tarian) Indonesia (Indonesian Academy of Performing Arts (Dance Arts)). These are tertiary institutions located in Solo, Yogya and Bandung in Java, Padang Panjang (Sumatra) and Denpasar (Bali). When people say ASKI they often mean the one located in the city of Surakarta (Solo) in Central Java, which teaches mainly Central Javanese style music, as well as dance and puppetry, and some higher traditional crafts such as puppet carving and kris making. It has now been renamed STSI (Sekolah Tinggi Seni Indonesia), which means it can award degrees equivalent to university degrees.
- Ayak-ayak an** A gendhing structure, used in wayang performance. See p 18
- Balung** See mbalung.
- Balungan** See entry in Some Important Terms, p1
- Barung** The lower of two instruments of the same kind. The genders, sarons and bonang each have a barung instrument which is an octave lower than the panerus (cf Panerus).
- Bawa** "1. a vocal composition used as an introduction to a gendhing. ...
2. voice/singing." *
- Beaters** See tabuh.
- Bedhug** "a large pegged drum suspended from a rack and played with a padded mallet." * Used in the sekaten gamelan, for example. See p35.
- Bonang** " A rack of ten, twelve or fourteen small horizontally suspended gongs arranged in two rows..." * They are suspended, open side down, on cords stretched over a rectangular wooden frame. See p 28.
- Buka** See entry in Some Important Terms, p1
- Celuk** "1. The giving of a signal, to call.
2. a vocal introduction to a gendhing in which the text is taken from the same poem as that sung within the gendhing." * ie. a vocal buka.
- Cengkok** Melodic patterns played by rebab, gender, gambang, suling, siter or celempung. They are chosen by the player in accordance with a) the patet of the gendhing; b) the traditions surrounding the gendhing; and c) the progression from nada seleh to nada seleh. A cengkok is not a totally fixed pattern, but more

a melodic idea or shape that is realised differently by different players and in different performances (the realisation of a cengkok is referred to as wiletan). Many cengkok have names eg. dua lolo, ayu kuning. Cengkok are written down in simplified versions for beginners. See p 38 for reference to gender.

- Ciblon** The middle-sized drum used for lively drum playing and for dance accompaniment. It may also refer to the section of a piece where the ciblon drum is used. See p 35
- Dadi** The name of a slower irama. See Irama, in Some Important Terms, p1.
- Dados** Another name for irama dadi.
- Dalang** Puppeteer, who in Java is responsible for the musical direction of a puppet show, all puppet movements, voices, sound effects and also sings solo at certain parts of a show. They perform all-night shows from around 8pm to 5am sitting cross-legged.
- Demung** The largest of the sarons, also known as saron demung. See p 25
- Elaborating Instruments** In this text, this phrase is used to refer to bonang, rebab, gender, gambang, suling and siter. In other words, the instruments which elaborate upon the melody. See p 37
- Gambang** The wooden xylophone played predominantly in octaves with two long-handled small padded beaters. See p 39
- Gangsaran** A distinctive lancaran piece which is played on one repeated tone. Often used in wayang performance.
- Gantung** See Nggantung.
- Gatra** See entry in Some Important Terms, p1
- Gembyang** An octave (especially relevant to bonang, gambang and gender.) "An interval separated by four keys on the gender." *
- Gender** " An instrument with thin bronze keys, each suspended over a tube resonator." * There are two instruments commonly known as gender: the gender panerus and the gender barung. Each is a multi-octave instrument that plays patterns which elaborate on the balungan. See p 38
- Gendhing** see entry in Some Important Terms, p1
- Gendhing Bonang** A gendhing (meaning 2) which features particularly the bonang. The bonang plays the buka. See p 20
- Gendhing Gender** A gendhing (meaning 2) which features particularly the gender. The gender plays the buka. See p 20
- Gendhing Rebab** A gendhing (meaning 2) which features particularly the rebab. The rebab plays the buka. See p 20
- Gerong** To sing in chorus. Often loosely (and in a grammatical sense incorrectly) used to refer to the unison chorus which sings with the gamelan and also provides keplok and senggakan. The correct term for the people who sing is 'penggerong'.

- Gerongan** The part sung by the pengggerong. See 'Pronunciation' entry.
- Gong** " 1. generic term for any kind of vertically or horizontally suspended gong.
2. the largest gong in the gamelan (gong ageng)." * See p 21 and all gendhing structures.
- Gong Suwukan** The second largest gong in the gamelan, often used in wayang repertoire, or to end minor gongan in lancar. See p 21 and all gendhing structures.
- Gongan** " A formal structure marked at the end by a stroke on a hanging gong." * The section of music between two strokes of the gong. The actual length of gongan depends on the gendhing structure.
- Goyang** A kenong technique. See p 23
- Grambyangan** " A melodic unit indicating the pathet, played by the gender or bonang to alert the players before the beginning of a piece." * See p 28.
- Gropak** See suwuk gropak.
- Imbal** " A style of playing in which two identical or similar instruments play interlocking parts forming a single repetitive melodic pattern." Usually played by bonang (see p 31) or sarons (see p 26 and 27)
- Inggah** "The section of a gendhing which follows a merong..." * (Gendhing here means the specific form rather than the generic term.) See p 20
- Interpunctuating Instruments** The instruments which regularly mark points in a gendhing, ie gong, kempul, kenong and kethuk/kempyang. See p 21
- Irama** See entry in Some Important Terms, p1
- Kalajengaken** "transition from one gendhing to another... the second of which does not have the same gong structure as the first -- for example "Ladrang Pangkur kalajengaken Ketawang Sinom Parijatha" (Martopangrawit, p32) is Ladrang Pangkur, followed by Ketawang Sinom Parijatha.
- Kalih** See kendhang kalih
- Karawitan** See entry in Some Important Terms, p2
- Kaseling** When a performance goes from one gendhing to another and back again to the first. eg "'Ladrang Sembawa kaseling Ladrang Dhandhang Gula Mas Kentar" [which indicates a transition from Sembawa to Dhandhang Gula and then a return to Sembawa]" (Martopangrawit, p32)
- Kempul** The smaller hanging gongs. The patterns of when they are played help to define a gendhing structure. See p 23 and all gendhing structures.
- Kempyang** A small horizontally suspended gong, usually on a small rack with kethuk. It is the higher of the two, a 1 in slendro and a 6 in pelog. Its pattern of playing helps to define a gendhing structure. See p 24, and all gendhing structures.
- Kempyang** The interval separated by 2 keys on the gender. Eg $\frac{6}{2} \frac{5}{7}$ Roughly a fifth.

Kendhang Drum. There are four drums in the gamelan, kendhang gede (large), kendhang ciblon (medium-sized), ketipung (small) and kendhang batangan (medium-sized and used for wayang). See p 35

Kendhang batangan a medium-sized drum used for accompanying wayang.

Kendhang ciblon the medium-sized drum and also the drum style used when playing the ciblon drum. It is a vigorous and exciting style, used in kibar sections of gendhing.

Kendhang gede the largest drum. See p 35

Kendhang kalih lit. 'two drums'. A drum style using the kendhang gede and ketipung. See p 36 for an example.

Kendhang satunggal lit. 'one drum'. A drum style using only the kendhang gede, or in wayangan, kendhang batangan. See p 35

Kenong An instrument consisting of a number of horizontally suspended gongs. The playing patterns help to define a gendhing structure. See p 22 and all gendhing structures.

Kenongan " a section of a gongan marked at the end by a stroke on the kenong." * Kenongan are of different length in different gendhing structures. Different numbers of kenongan make up one gongan also depending on the gendhing structure.

Kepatihan "a system of cipher notation devised c. 1900 at the Kepatihan in Surakarta, based upon the Galin-Paris-Cheve system of 1894." *

Keplok The interlocking clapping patterns often played by the penggerong (chorus singers) when they are not singing. Usually there will be a fast interlocking pattern together with a slower pattern. It is used in the kibar section of the playing of a gendhing.

Kerep lit. 'frequent, at short intervals'. A kethuk pattern played in the gendhing form. See p 20. Cf 'arang'.

Ketawang The name of a gendhing structure. See p 19

Kethuk A small horizontally suspended gong, usually on a small rack with kempyung. It is the lower of the two: a 2 in slendro and a 6 in pelog. Its pattern of playing helps to define a gendhing structure. See p 24 and all gendhing structures.

Ketipung The smallest of the three drums. See p 35

Kibar A term used to describe the playing of a gendhing with lively drumming from the ciblon drum. Often one section during the performance of a gendhing (usually ladrang) is played in this style. Bonangs play imbal-imbalan in kibar sections.

Klenangan A style of bonang playing. See p 34

Klenengan " gamelan playing for pleasure as opposed to playing for dance or theatrical accompaniment." * In other words, concert playing.

Ladrang A gendhing structure. See p 19

- Lagu** "An underlying or abstracted melody of a gendhing." * "Inner melody" (Sumarsam). It is the multi-octave melody of a gendhing that is played by rebab, gender and gambang, as opposed to the single octave balungan. According to Marc Perlman, it is, in fact, not a widely known technical term with a meaning familiar to all professional musicians, and it "is not at all clear that [the concept it expresses forms] part of a traditional body of music theory handed down through the oral tradition. Rather, [it is] (at least in part) [a formulation] of analytical insights by individual musicians."¹
- Lancar** The name of a fast irama. See irama, Some Important Terms, p1.
- Lancaran** A gendhing structure. See p 19
- Laras** See entry in Some Important Terms, p2
- Lik** Abbreviation for ngelik. See ngelik.
- Mandheg** "to come to a stop but not to end." * A technique where "the gamelan players stop, the pesindhen sings alone briefly, then the musicians resume playing." *
- Martopangrawit** A renowned gamelan player and scholar. His name is in fact Marto and 'pangrawit' is an honorific. See separate entry.
- Mbalung** A playing technique where the balungan instruments (p25) or bonang (p28) play the balungan without elaboration.
- Merong** Part of the gendhing structure. "A formal structure ... which cannot be played alone (it must be followed by an inggah)..." * See p 20
- Minggah** See Inggah.
- Mipil** A playing technique of the bonang. See p 29
- Mlaku** A type of balungan. See p 15
- Molak-malik** The technique of switching back and forth between slendro and pelog during the performance of a single gendhing.
- Nacah** "lit 'chopping'. A style of playing the saron panerus." * There are several styles: nacah lamba, nacah selang-seling lamba (each 2 strokes per balungan beat), nacah rangkep and nacah selang-seling rangkep (each 4 strokes per balungan beat). See p 26
- Nada seleh** See entry in Some Important Terms, p2
- Nartosabdo** A famous musician dalang, and composer of gendhing.
- Ngadal** A type of balungan. See p 15
- Ngelik** "1. the section of a gendhing which rises in pitch and is not optional.
2. an optional section of a gendhing which is signalled by the rising pitch of the rebab, gender, gambang, bonang, and pesindhen." *
- Ngepas** A style of gong playing. See p 21

¹Supanggah, Rahayu op. cit.

Nggandhul "lit. 'to delay slightly'. ... a delayed stroke of the kenong, kempul or gong." * This technique is often used for the final gong of the slower gendhing. See p 21

Nggantung A type of balungan "in which there is no melodic motion, in which a single tone is sustained, eg. 33.. ." * Hanging tones. Special patterns are played during such gatra by bonang (see p 30), and the other elaborating instruments.

Nibani A type of balungan. See p 15

Nitir A style of kenong playing. See p 22

Octave See gembyang.

Ompak See umpak

Pamijen "lit. 'singular, one of a kind', from the root siji (one).
 1. gendhing which do not conform to the usual kinds of gamelan formal structures, eg. a gongan with only three kenongan.
 2. gendhing in regular formal structure with a nonstandard kendhang part." *

Panerus The higher of two instruments of the same kind. The genders, sarons and bonang each have a panerus instrument which is an octave higher than the barung (cf Barung).

Pangrawit An honorific title given to very highly accomplished musicians such as Martopangrawit. See Karawitan entry for meaning of the root 'rawit'. 'Pang' is a prefix making it a word to describe a person.

Pathet See entry in Some Important Terms, p3

Pathetan Preludes or postludes to gendhing played in free rhythm by gender, rebab, gambang and suling to set the pathet for the gendhing to follow. The rebab leads the melodic flow and rhythm. While this is a common usage, pathetan are actually: "one of the categories of songs (suluk) sung by a dhalang during a wayang kulit performance accompanied by rebab, gender, gambang and suling." *

Peking Another name for the saron panerus. See p 26

Penggerong See gerong.

Pelog " the tuning system in which the octave is divided into seven non-equidistant intervals." * One of two tuning systems (laras), the other being slendro.

Peralihan A transition from one irama to another. A term often used in the study of kendhang, as it refers to a specific drumming pattern to lead the transition. derived from 'ngalih' = to move

Pesindhen " the solo female singer in the gamelan." * See 'Pronunciation'.

Pin "a rest in which the previous tone is not damped. Notated in Kepatihan notation as a dot." *

Pin mundur A type of balungan. See p 15

Pinjalan "a style of playing interlocking parts with bonang or slenthem." * See p 25 (slenthem) and p 31 (bonang)

Plesedan "the anticipation of a strong tone in the gatra preceding the gatra that includes the strong tone." * A kenong playing technique. See p 22

Pronunciation In Javanese writing, an 'a' is sometimes pronounced as an 'a' and sometimes as an 'o'. To make this clear for foreigners, and also for Javanese when reading or singing old Javanese, one of two systems is used to identify which is which.

1. a is pronounced 'a'; and a is pronounced 'o'.

2. a is pronounced 'a'; and a^o is pronounced 'o'.

When singing a part in Javanese that is not annotated in this way, it is necessary to annotate it yourself with reference to a native speaker

Puppetry See Wayang.

Rangkep The name of a very slow irama. See irama, in Some Important Terms, p1

Rebab "two-stringed fiddle. In a complete gamelan there are two rebab." * See p 37

Salahan lit. "wrong thing". It refers to a variation on the normal pattern, especially for kethuk. See p 24

Sampak A gendhing structure, particularly used in wayang. See p 17

Saron "a metallophone whose keys rest on a low trough resonator." * There are three: saron demung, saron barung, and saron panerus, which are commonly involved in playing the balungan. See p 25

Satunggal See kendhang satunggal.

Sekaran lit. 'flowering'
"ornamenting patterns, either vocal or instrumental, at the end of a regular melodic pattern or at the end of an imbal sequence." * Often used in bonang playing. See p 33

Sekaten The name of a ceremonial set of gamelan instruments that is only used to celebrate the festival of Sekaten each year, and which has some specific repertoire. The Surakarta gamelan sekaten is characterised by the large size, and hence deep and loud sound quality, of the instruments, the use of bedhug, and the absence of kendhang, gender, gambang, rebab, suling and bonang panerus. Gendhing sekaten (in Surakarta) often begin very slowly and sonorously and gradually build up to a frenzied ending.

Senggakan "nonsense syllables inserted within the main vocal melody of a gendhing sung by members of the gerong." * Senggakan are often sung in conjunction with keplok.

Senggrengan "the last rebab phrase of a pathetan. Often played as a brief prelude to the buka of a gendhing, or before the opening pathetan of a gendhing."*

Seseg "fast, usually refers to tempo" * See irama, in Some Important Terms, p1.

Sesegan "the fast section of a gendhing, often occurring at the end of the piece." *

sindhén See Pesindhén.

Singing See Pesindhén (female singing) or gerong (male choral singing). See also 'Pronunciation' entry.

Sirep "to play gamelan quietly" * Often refers to a section in the performance of a gendhing where balungan instruments and bonang stop playing so that the quiet instruments may more easily be heard.

Siter A small plucked zither with 13 pairs of strings. See p 40

Slendro the tuning system in which the octave is divided into intervals which are more equidistant than those in pelog. One of two tuning systems (laras), the other being pelog.

Slenthem "a large-keyed, single-octave metallophone, tuned one octave below the saron demung, whose thin keys are suspended over bamboo or zinc resonators." * It is of the gender family and plays the balungan, although it never joins in rapid melodies, but plays a slower version of the balungan. See p 25

Srepeg A gendhing structure, particularly used in wayang. See p 17

Suling A vertical end-blown bamboo flute. See p 40

Suwuk "lit. 'end'.

1. the gongan on which a piece ends.
 2. a special section added to the final gongan (for sampak, srepegan, ayak-ayakan).
 3. a substitute section at the end of the final gongan." * This last meaning should really be known as suwukan (Martopangrawit)
- Unless suwuk gropak, the suwuk of a gendhing usually involves a slowing down signalled by a distinctive drumming pattern.

Suwuk gropak A style of suwuk where the music speeds up to a sudden stop.

Suwukan See Gong suwukan. Also the term for a substitute section at the end of the final gongan. See suwuk.

Tabuh Beater - the mallet or other shaped beater used to hit the percussion instruments of the gamelan. Tabuh gender means gender beaters.

Tanggung The name of a fast irama. See irama, in Some Important Terms, p1

Tumbuk "the common tone or tones between a particular slendro gamelan and a particular pelog gamelan." * There will be only one kenong for this common tone which will be used in both slendro and pelog. Eg. if a gamelan is tuned to be tumbuk nem, there will be only one kenong 6 for both slendro and pelog.

Umpak "1. an opening gongan of a gendhing, usually played twice, followed by a ngelik. [eg. in Ladrang Wilujeng]
2. a transition section of a gendhing which indicates the form of the following inggah ... consisting of one or two kenongan or a whole gongan."*

Wayang "lit. 'shadow'. ... a generic term referring to any traditional dramatic performance accompanied by gamelan." * Often used meaning puppetry, especially wayang kulit.

Wayang golek Puppetry using wooden, 3-dimensional puppets, common in West Java.

Wayang kulit Shadow puppetry using carved leather puppets, common in Central Java.

Wayang orang "dance-drama with spoken dialogue". It is performed by people, not puppets. ("orang" means people)

Wilet The name of a slow irama. See irama. Also used sometimes to mean cengkok.

Wiletan The particular expressions of a cengkok; the way that the basic cengkok pattern is played. Players will differ from each other in their wiletan while playing the same cengkok, and will also play different wiletan when playing the same cengkok on different occasions.

MUSICAL NOTATION.

Gamelan music is written using numbers to represent the notes. As the music is cyclical in nature, and in the past was primarily an oral tradition, the notation is generally not full. Only the balungan is usually notated in full, and even this cannot be regarded as definitive, as there tend to be variations, depending on who wrote it down. See introduction.

The elaborating instruments play a repertoire of patterns in accordance with the balungan, and thus once the techniques are known it is not necessary to notate everything they play. The gender especially uses cengkok which have names (such as Dua Lolo) and while versions of these are written down for learning, good players eventually can judge for themselves what cengkok is appropriate where.

Balungan Notation.

A balungan is written with the numbers arranged in groups of four, called *gatra*. The following symbols are used to show the structural points at which the structural instruments play.

		alternative symbols
O	gong	G
()	gong suwukan	
)	kempul	P
^	kenong	N or)
-	kempyang	p or py
+	kethuk	K or t


A small number next to the kenong or kempul symbol indicates that that instrument should play that note rather than the balungan note. See p 22-23

Other Symbols:

- 5̇ a dot above a number denotes use of the higher register
- 5 a number with no dot denotes the middle register
- 5̣ a dot below a number denotes the lower register

35 a line under numbers in the balungan indicates that the bonong plays *gembyangan* (octaves) over these notes, using the last note underlined. In this case it would indicate *gembyangan 5*.

53 a line above numbers denotes that the notes have half their usual length. Two lines denote quarter length. The stress falls on the first note.

Eg. 5 3 53 5123 could be written in western notation as: 

[] square brackets are placed around the part of a *gendhing* that is repeated cyclically.

Kendhang Symbols See p 36 for interpretation.

P	dung
b	dah
t	tak
l	ket
.	tong

Rebab Symbols: / up bow \ down bow

JAVANESE NAMES OF THE NOTES

Modern Names (these are simply the name of the numbers in Javanese).

	<u>Short (common) name</u>	<u>Full name</u>
1.	ji	siji
2.	ro	loro
3.	lu	telu
4.	pat	papat
5.	ma	lima
6.	nem	enem
7.	pi	pitu

Old Names (these names, which are not commonly used today, do not equate to numbers)

	<u>Slendro</u>	(interpretation)	<u>Pelog</u>
1.	panunggal	head	bem/panunggal
2.	gulu	neck	gulu
3.	dada	chest	dada
4.	-		pelog
5.	lima	hand (5 fingers)	lima
6.	nem	meaning unclear	nem
7.	-		barang

BALUNGAN TYPES

The main types of balungan are as follows:

1. Balungan mlaku (also known as balungan mlampah)

"stepwise balungan" *

Eg.: 2 3 2 1 3 5 3 2

No rests appear, or if they do, not at regular intervals.

2. Balungan nibani (also known as ndhawahi)

Eg.: . 2 . 1 . 2 . 6

Rests appear between each note.

3. Balungan nggantung

"No melodic motion; a single tone is sustained" *

Eg.: 3 3 . .

4. Balungan pin mundur

"Rests occur at accented points in the gatra." *

Eg.: 2 . 1 . 2 . 2 6

5. Balungan ngadal

Eg.: $\overline{25} \overline{35} \overline{23} 1$

GENDHING STRUCTURES

Introduction

The various gendhing structures in gamelan music are listed here from the shortest cycle to the longest.

The first 3 structures are forms for the accompaniment of wayang shows, but are also used as part of concert performances.

In the notation used here, dots will be used rather than the numbers which of course show the balungan melody in an actual gendhing. The point is to show the structure: the number of gatra to a gongan, positions of kempul, kenong and kethuk/kempyang.

Most gendhing, except for some special ceremonial pieces and contemporary experimental pieces, conform to these structures, so that once the structure is known, it should be possible to play any of the structural instruments correctly for any gendhing in a known form, except where there may be individual peculiarities in a gendhing.

Contents:

1. Wayang Repertoire

- 1.1 Sampak
- 1.2 Srepeg
- 1.3 Ayakayak-an
- 1.4 Some notes on wayang repertoire

2. General Repertoire

- 2.1 Lancaran
- 2.2 Ketawang
- 2.3 Ladrang
- 2.4 Gendhing

1. Wayang Repertoire

1.1 Sampak



Gongans in this form are of varying length, usually 2, 3 or 4 gatra. The kendhang signals when the gong is to fall.

This form can stop after any gong, signalled by the kendhang. The suwuk usually takes the form of a little coda to end, eg., in Sampak pelog barang, after the gong immediately following the kendhang signal, one final gatra is played, the second two notes of which are always 2. See example below.

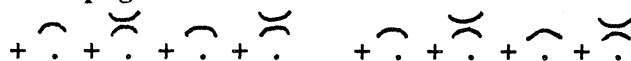
This form is normally played in irama lancar.

The melodic shape of sampak is quite distinctive, eg:
Sampak pelog barang:

[2 2 2 2 3 3 3 3 7 7 7 7
7 7 7 7 2 2 2 2 6 6 6 6
6 6 6 6 3 3 3 3 2 2 2 2]

with a suwuk of: 2 2 2 2; 7 7 2 2 or 6 6 2 2 for endings following gong 1, 2 or 3 respectively.

1.2 Srepeg



Gongans are of varying length, according to the pathet, the melodic phrase and the kendhang signals.

Kenong and kempul play the same tone as the nada seleh (see example below).

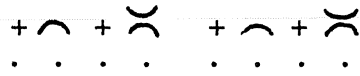
This form is normally played in irama lancar.

The suwuk can occur at any part of the cycle. See example.

The melodic shape of srepeg is quite distinctive, eg:
Srepeg slendro nem

Buka: 2 3 5
[6 5 6 5 2 3 5 3 Lik: 2 1 2 1 3 2 3 2 5 6 5 6
5 3 5 3 5 2 3 5 5 6 5 6 2 1 2 1 3 2 6 5 4 2 4 5
1 6 5 3 6 5 3 2 Suwuk: 3 6 3 2 (from 6 5 6 5)
3 2 3 2 3 5 6 5] 5 2 3 2 (from 5 3 5 3)
3 5 3 2 (from 3 2 3 2)

1.3 Ayak-ayakan



Gongans are of varying length.

Kenong plays the same tone as the nada seleh.

In ayak-ayakan slendro manyura the gong suwukan plays instead of the kempul (at the end of each gatra, except for the end of a gongan).

This form usually begins in irama lancar and slows down during the first few gatra into irama tanggung, dadi or rangkep.

The suwuk can occur at a number of points in the cycle.

Eg. Ayak-ayakan slendro manyura

Buka: b b d b . 3 . 2 . 3 . 2 . 5 . 3 . 2 . 1
 [2 3 2 1 2 3 2 1 3 5 3 2
 3 5 3 2 5 3 5 6
 5 3 5 6 5 3 5 6 5 3 2 3 6 5 3 2
 3 5 3 2 3 5 3 2 5 3 2 3 2 1 2 1]

Suwuk: either 1 1 2 1 3 2 1 6 (after gong 2)
 or 2 3 2 1 3 2 1 6 (after gong 1)

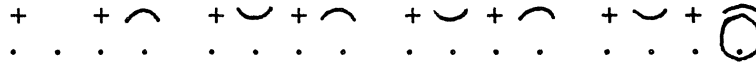
1.4 Notes on wayang repertoire

1. Because wayangan was played only with slendro instruments prior to the 20th century, sampak, srepegan and ayak-ayakan were originally only in slendro. Thus pelog versions are often adaptations of slendro pieces, rather than pieces in their own right.

2. Petalon, or Gendhing Talu, is a kind of overture to a wayang performance that consists of Cucur Bawuk, Srikaton, Sukma Ilang, ayakayak-an, srepeg and sampak played one after the other in a continuous flow. Srepeg played in this context uses gong suwukan instead of kempul. In the full form, this sequence represents the life cycle. If time is short, Short Petalon is used which is an abbreviated form beginning from ayakayak-an.

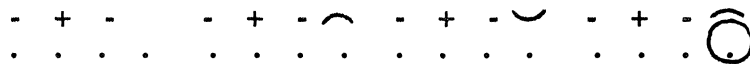
2. General Repertoire

2.1 Lancaran



There are usually 4 gongan in a lancaran.

2.2 Ketawang

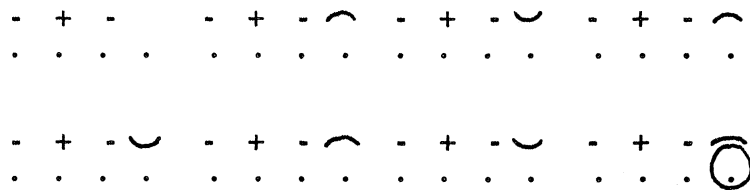


A ketawang usually consists of two sections: an ompak (one gongan, often played twice) and a ngelik (usually 3 or 4 gongan). Many ketawang have the same ompak section and are only differentiated by their ngelik sections.

Ketawang are mostly played in irama tanggung or dadi and occasionally in irama rangkep.

The ketawang form originated in the court of Prince Mangkunegara IV of Surakarta (who reigned from 1853 - 1881).

2.3 Ladrang



The structure of a ladrang is very similar to that of a ketawang, the main difference being that the gongan of a ladrang is twice as long as that of a ketawang.

Some ladrang can only be played in irama tanggung or dadi, though others can be played in irama wilet and rangkep as well. In irama wilet, each gatra is usually expanded to become 2 gatra either by converting it from balungan mlaku to balungan nibani (eg 3 2 becomes . 3 . 2) or by more elaborate means (eg 7 6 3 2 may become 7 7 . . 6 6 7 2) The essential thing is that nada seleh remain the same.

Some ladrang may have a ngelik section like the ketawang, which has a high pitch. A ngelik in ladrang is usually the same length as the preceding section, ie. one gongan.

2.4 Gendhing

(The term 'gendhing' is used here to denote a specific form, not as the generic term for gamelan pieces.)

The gendhing is the longest and most complex of the forms and is usually played in irama dadi or rangkep, though they may also have faster sections. When rebab or bonang are particularly prominent or important in a gendhing, the gendhing will be classed as a gendhing rebab or gendhing bonang respectively, although this will not be mentioned in the official title of the gendhing.

Gendhing consist of 2 main parts: the merong and the inggah (or minggah).

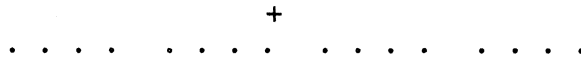
The merong and inggah both consist of 4 kenongan, but the kenongan may differ in length, from 4 to 32 gatra.

Gendhing are classified according to the number of kethuk strokes to a kenongan.

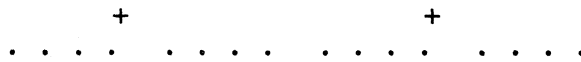
In the inggah form, the kethuk/kempyang pattern is the same as for the ladrang and ketawang forms, and depending on the inggah, there will be 4 to 16 kethuk to a kenongan (and therefore correspondingly 4 to 16 gatra). Sometimes the inggah of a gendhing will be a ladrang in its own right.

The merong form is classified according to the position of the kethuk strokes in the kenongan (no kempyang is used) as well as the number of kethuk strokes. There are two kethuk patterns in the merong: arang and kerep. Shown over 4 gatra, they are as follows:

arang



kerep



The title of a gendhing indicates all the above features and thus the exact form of the gendhing.

Eg. Gendhing Gambirsawit kethuk 2 kerep minggah kethuk 4.

The name of the Gendhing is Gambirsawit.

The merong has 2 kethuk strokes per kenongan in kerep style, and this implies there are 4 gatra to a kenong.

The minggah has 4 kethuk (and thus also 4 gatra) per kenongan.

The gong will play at the end of every 4th kenongan (as for all gendhing).

INSTRUMENT PLAYING TECHNIQUES

Note on Stylistic Differences

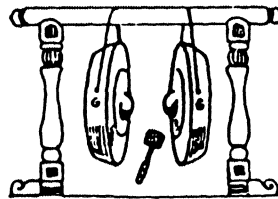
There are many different styles of karawitan in Java. Playing in the palaces is very different from music in the villages, but even between 2 palaces in the same city, as in the cities of Solo and Yogya, there are differences. There are also regional differences. The most well-known regions for Central Javanese gamelan are Surakarta (Solo) and Yogyakarta (Yogya) (2 cities right in the centre of the region, and widely regarded as the cultural centres of Central Javanese arts), Banyumas and Surabaya. West Javanese (Sundanese) gamelan is quite a different form.

In terms of the study of Central Javanese music (certainly in foreign countries), the most commonly studied styles are those of Solo and Yogya. These two styles are fairly similar but, for example, one of the most often noted difference between Solo and Yogya is that the saron panerus in Solo follows behind the beat of the balungan, whereas in Yogya it anticipates the beat.

1. INTERPUNCTUATING OR STRUCTURAL INSTRUMENTS.

These are gong, kenong, kempul, kethuk and kempyang which together give structure to a gendhing.

1.1 Gong



There are two gongs in a gamelan, the gong ageng (large gong) and the gong suwukan (medium-sized gong), which are generally used with both the slendro and pelog instruments. The gong ageng marks the longest cycle in a gendhing. The gong suwukan is used in the sampak form, in place of the kempul in Ayak-ayakan slendro manyura, and in other specific instances.

There are 2 styles of gong playing:

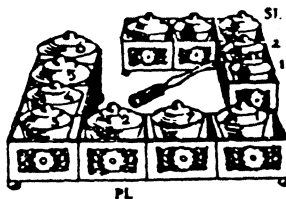
i. Gong ngepas

The playing of the gong exactly in time with the balungan. This type of playing is used especially in sampak, srepeg and gangsaran forms.

ii. Gong nggandul

The playing of the gong a little after the beat. This is used most noticeably at the very end of a gendhing.

1.2 Kenong



The kenong is the next most important structural instrument after the gong, subdividing the flow of the gendhing into equal-length musical phrases.¹ When the irama is slow enough, the kenong usually plays slightly after the balungan beat, and should generally be hit with a strong ringing stroke, lifting the beater quickly off the kenong to allow the sound to ring.

There are several different techniques in playing the kenong:

i. Kenongan ancer

The kenong simply plays the same note that is being played in the balungan (or a suitable substitute should there not be such a kenong in the set - see note on substitution at the end of this section.) This is the most commonly used technique.

ii. Kenongan tuturan

'tuturan' is the Javanese for "to inform" or "to advise".

The kenong anticipates the last note of the following gatra to guide the melodic flow.

Eg.

2 7 2 . 2 7 2 $\hat{3}^3$ ancer

2 7 2 . 2 7 2 $\hat{3}^7$ tuturan

7 5 6 7 3 2 6 $\hat{5}^5$ ancer

iii. Kenongan plesedan

The kenong anticipates the following balungan note where a repeated note follows, to guide the melodic flow.

Eg.

2 1 2 3 2 1 2 $\hat{6}^3$ plesedan

3 3 . . 6 5 3 $\hat{2}^1$ plesedan

1 1 . . etc.

iv. Kenongan kempyung

The kenong plays a note in the relation of a kempyung to the balungan note to support the feeling of the pathet.

Eg. in pelog lima

. 1 1 1 2 3 2 $\hat{1}^5$ kempyung

v. Kenongan nitir

The kenong technique use in the sampak form, where the kenong plays twice as fast as the balungan, on the same note throughout each gatra, the note being the nada seleh (the last note) of the gatra.

Eg. $\hat{2}^2 \hat{2}^2 \hat{2}^2 \hat{2}^2$

¹ Sumarsam, Notes for Music 451/452

vi. Kenongan nibani

The technique used in Ayak-ayakan and srepeg, where both kenong strokes in each gatra will use the nada seleh.

Eg.

2 $\widehat{3}^1$ 2 $\widehat{1}^1$ 3 $\widehat{5}^2$ 3 $\widehat{2}^2$

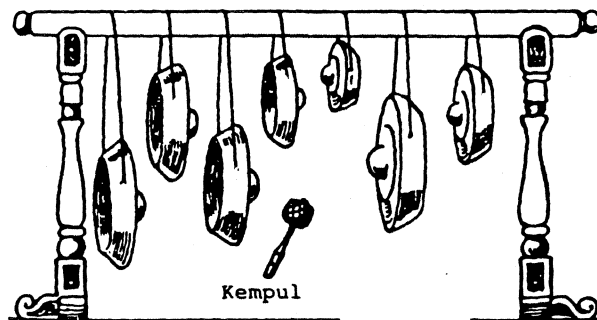
vii. Kenongan goyang (also known as kenong sungsun)

This technique is only used in irama dadi in certain gendhing pamijen (special gendhing). It is a style of playing in which the kenong tone is reiterated after the 1st and 2nd kenong stroke of a ladrang form.

Eg. Ladrang Surung dayung

. . 5 6 1 2 3 $\widehat{2}$
 $\widehat{2}$ 2 $\widehat{1}^2$ 6 5 6 1 $\widehat{2}$
 $\widehat{2}$. $\widehat{3}^2$ 5 . 6 4 $\widehat{5}^6$
 6 6 2 1 3 2 6 $\widehat{5}$

1.3 Kempul



The small hanging gongs, known as kempul, often form an interlocking pattern with the kenong (see lancaran, ketawang and ladrang forms). The kempul should be damped after playing by grasping either the knob or the edge at the back.

A number of kempul playing techniques are the same as for kenong: ancer, plesedan and kempyung. Substitution when there is not a full set of kempul follow the same rules as for kenong (see substitution note at end of this section).

In addition, there is:

i. Kempulan monggangan

This style is reserved for certain gendhing pamijen (special gendhing).

Eg. the ompak of Ketawang Subakastawa

$\widehat{1}$ $\widehat{6}$ $\widehat{1}$ $\widehat{5}$
 . 1 . 6 . 1 . 5
 $\widehat{1}$ $\widehat{6}$ $\widehat{1}$ $\widehat{5}$
 . 1 . 6 . 1 . 5

1.4 Kethuk and Kempyang

The tuning of the kethuk and kempyang are as follows:

	Kethuk	Kempyang
Slendro	2	1
Pelog	2	6



In fast-moving styles (sampak, srepegan, lancar), the kethuk plays in between the balungan notes (ie. off-beat) with a dull, damped stroke (thuk), achieved by not lifting the beater off the kethuk after hitting it.

For other forms, the kempyang and kethuk alternate and there are different playing techniques for each:

The kempyang is played with a light stroke, lifting the beater quickly after hitting so that a high tone rings out (pyang).

The kethuk is played with a rapidly repeated dull stroke (thululuk).

For example, the pattern for each gatra in a ladrang or ketawang is: - + -

Leading up to a gong, a special pattern (salahan) is often played over the last two gatra:

- + - + - + - (the kempul stroke is shown here for clarity)

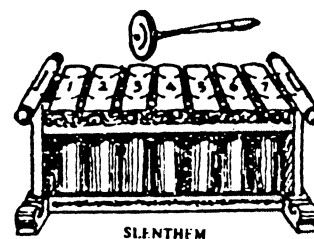
1.5 Substitution

If there are not kenong or kempul for each note, in general one should play the tonic (dhong) for that pathet. (see pathet, p 3)

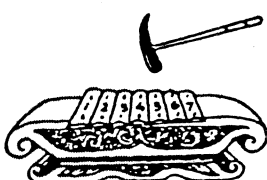
Pathet	Kenong/Kempul
pelog barang, slendro manyura	6
pelog lima, slendro sanga	5
pelog nem, slendro nem	2

2. BALUNGAN INSTRUMENTS

These are : slenthem
 saron demung (often called just demung)
 saron barung (often called just saron)
 saron panerus (also known as peking)
 listed from the lowest in pitch to the highest.



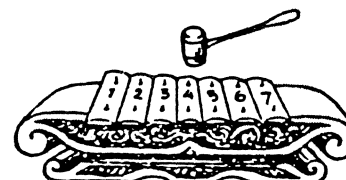
SLENTHEM



SARON PENERUS



SARON BARUNG



DEMUNG

Tuning: Slendro instruments usually have a 6 as their lowest note (6123561), while pelog instruments start at 1 (1234567). The 4 balungan instruments are tuned to adjacent octaves and thus together cover a range of four octaves.

Striking: All the sarons are played by the right hand with the mallet held slanting a little to the right to produce a full sound when striking. Demung and saron barung are played with wooden mallets, but the saron panerus is played with one of horn. The slenthem is struck with a vertical movement of a soft-headed mallet. The slenthem often plays a slower version of the balungan when the sarons are playing very fast.

Damping: The left hand is used to damp each note by grasping the key just struck at the same time as the right hand strikes the next note, even when there is a rest between notes. The exception is where there are repeated notes, when damping should then be done between notes.

2.1 Saron barung, demung and slenthem

i. mbalung

This is simply playing the balungan as notated, without elaboration.

ii. Tabuhan pinjalan (pinjalan playing)

This technique consists of interlocking patterns being played between different instruments, eg. demung and slenthem.

For example in irama tanggung, the demung plays the balungan as normal, while the slenthem follows, playing the same notes half a beat behind, so as to form an interlocking pattern:

balungan:	3	6	3	5	3	6	3	2	
demung:	3	6	3	5	3	6	3	2	
slenthem:		3	6	3	5	3	6	3	2

In irama dadi, the saron also plays in irregular pattern.

Eg: from Ladrang Wilujeng:

balungan:	2	3	2	7					
demung:	2	3	2	3	2	7	2	7	
slenthem:		2	3	2	3	2	7	2	7
saron:		3	3	7	7				

The resulting melody from demung and slenthem is thus the same as that played by the saron panerus: 2233 2233 2277 2277 The following is a description of this example:

The demung plays at twice the speed of the balungan, beginning half a beat ahead, and taking two balungan notes at a time and playing them twice (ie. a b a b for a balungan of a b).

The slenthem plays the same as the demung but delayed, following a quarter of a beat behind the demung (ie. off-beat to the demung).

The saron barung plays the same rhythm as the balungan, but plays only the second and fourth notes of the gatra, playing each twice.

iii. Tabuhan imbal

In tabuhan imbal, two of the same instruments play interlocking patterns, ie. 2 demung or 2 saron barung.

2.2 Saron Panerus

The saron panerus has a more ornamental role than the other balungan instruments. As illustrated in the following examples, its playing style differs between Yogya and Solo (see note on different styles on p. 21). In general, Yogya style anticipates the beat, while Solo style follows.

At all times the saron panerus should play at a speed that is comfortable for playing and fills the space between the balungan notes fairly fully (although in Yogya style for irama dadi, filling the space up fully is not so important). The style therefore has to be varied according to the irama at the time.

i. Nacah lamba

balungan:	6	5	6	7	6	5	3	2								
peking(Solo):	6	6	5	5	6	6	7	7	6	6	5	5	3	3	2	2
peking(Yogya):	6	6	5	5	6	6	7	7	6	6	5	5	3	3	2	2

ii. Nacah selang-seling lamba

balungan:	6	5	6	7	6	5	3	2								
peking:	6	5	6	5	6	7	6	7	6	5	6	5	3	2	3	2

(There is no variation between Solo and Yogya for this style).

iii. Nacah selang-seling rangkep

balungan:	6	5	6	7	6	5	3	2																								
peking(Solo):	6	6	5	5	6	6	5	5	6	6	7	7	6	6	7	7	6	6	5	5	6	6	5	5	3	3	2	2	3	3	2	2
peking(Yogya):	6	6	5	5	6	6	5	5	6	6	7	7	6	6	7	7	6	6	5	5	6	6	5	5	3	3	2	2	3	3	2	2

Note: When there is a rest in the balungan or a repeated note, the saron panerus keeps playing continuously by continuing the rhythm using notes nearby in accordance with the pathet. There is usually more than one way of interpreting such a section.

Eg: balungan: 2 7 5 6 3 3
 peking(Solo): 2 2 7 7 2 2 7 7 5 5 6 6 5 5 6 6 5 5 3 3 5 5 3 3 2 2 3 3 2 2 3 3

For balungan nibani, the saron panerus paraphrases the balungan melody in accordance with the particular gendhing, and its pathet.

Eg: balungan: 6 5
 peking: 11221122116611662211221166556655

iv. Imbal-imbalan

Imbal-imbalan involves interlocking patterns.

It can be played by 2 saron panerus or with 2 players using a single instrument.

For this technique, looking at nada seleh of each gatra is crucial.

One player will play for a nada seleh of say 2: 2 2 5 2 5 2 5 2,

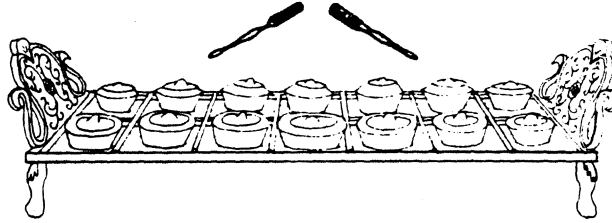
while the other will play an equivalent pattern one note above: 3 3 6 3 6 3 6 3

The higher player will anticipate the beat so that the pattern using the nada seleh falls on the beat.

The resulting pattern would be, for a gatra with a nada seleh of 2:

3232 6532 6532 6532

3. BONANG



The bonang is played with 2 padded sticks. Bonang kettles should be struck so that they ring, then quickly damped with the stick before striking the next note.

Tuning: Both the bonang barung and the bonang panerus encompass 2 octaves each. The bonang panerus is pitched one octave higher than the bonang barung and its lowest octave overlaps with the bonang barung's highest octave. Slendro bonangs usually cover two tones more than two octaves.

Layout of kettles: Slendro bonang

6 5 3 2 1̇ 2̇
1 2 3 5 6 1

Pelog bonang

4 6 5 3 2 1̇ 7̇
7 1 2 3 5 6 4

For pelog bonang, the positions of tone 1 and 7 are interchangeable depending on the pathet of the gendhing, ie for pelog barang gendhing, the sevens would be swapped with the ones to make it easier to play them.

3.1 Grambyangan

The grambyangan is a signal from the bonang barung (lower bonang) to other players that playing is about to commence. There is a short version (grambyangan jugag) and a longer (grambyangan wantah).

i. **grambyangan jugag:** 6 . 5 . 5 5 5 . 2̄5
(the rhythm is not faithfully recorded here)

ii. **grambyangan wantah:** . 2 3 5 3 6 5 3 . 2 . 6 5 5 5 2̄5

3.2 Mbalung

Mbalung playing is simply playing the same as the balungan and is used for playing a buka, or for the first one or two gatra after the buka when it may be too fast to use other techniques. Note that when a buka is played on the bonang, the last gatra is played using gembyangan if gembyangan is to be used immediately following the buka. Otherwise mbalung should be used throughout the buka.

There is a slight difference between the styles of Yogya and Solo for the playing of a gembyangan gatra in a buka.

Eg: for a buka ending 6 5 3 5

Yogya style 5 5 5 5

Solo style 5 . 5 .

3.3 Mipil

Pipilan or mipil literally means "to pick off one by one" or "to play single tones one at a time". Basically it involves looking at the notes of the balungan two at a time; taking a pair of notes and playing around with them while the balungan instruments play them.

The bonang anticipates the balungan as it must finish with the balungan notes when the balungan instruments do. The bonang panerus plays at twice the speed of the bonang barung, adapting the bonang barung part as necessary.

The bonangs must adjust their playing to the irama so that they are always comfortably filling the spaces in the balungan. This means that as the irama slows down, the bonang must choose the right time to swap from the lamba (slow) technique to the rangkep (fast) technique (see below). Where there is a rest in the balungan, the bonangs must continue playing (cf saron panerus) by playing a note nearby or by using gembyangan (see below).

i. mipil lamba mlaku (for balungan mlaku, irama tanggung)

eg. balungan:	3	2	3	5												
bonang barung:	3	2	3	2	3	5	3	5								
bonang panerus:	3	2	3	.	3	2	3	2	3	5	3	.	3	5	3	5

ii. mipil rangkep mlaku (for balungan mlaku, irama dadi)

eg. balungan:	3	2	3	5														
bonang barung:	3	2	3	.	3	2	3	2	3	5	3	.	3	5	3	5		
bonang panerus:	3	2	3	3	2	3	2	3	2	3	5	3	3	5	3	5	3	5

iii. mipil lamba nibani (for balungan nibani, irama tanggung)

eg. balungan:	.	2	.	1												
bonang barung:	2	1	2	.	2	1	2	1								
bonang panerus:	2	1	2	.	2	1	2	.	2	1	2	.	2	1	2	1

iv. mipil rangkep nibani (for balungan nibani, irama dadi)

Adapt the lamba technique as for the mlaku examples.

3.4 Gembyangan

The gembyang technique involves the playing of gembyang (octaves), which are notated either as 3 or 3.

3

i. Mipil cegatan nggembyang

This is the style of gembyang used in lancar in irama lancar, in srepegan and in sampak. In each case the bonang generally plays gembyang using the last note of each gatra (the nada seleh).

Lancaran:

balungan nibani: . 3 . 5 . 6 . 5 . 6 . 5 . 7 . 6

bonang barung: 5̣. 5̣. 5̣. 5̣. 5̣. 5̣. 6̣. 6̣.

bonang panerus: .5 . 5̣5̣ .5 . 5̣5̣ .5 . 5̣5̣ .6 . 6̣6̣

balungan mlaku: 3 1 3 2 3 1 3 2

bonang barung: 2̣. 2̣. 2̣. 2̣.

bonang panerus: .2 . 2̣ 2̣ .2 . 2̣ 2̣

ii. nDuduk nggembyang

This style of gembyang is used in certain places within the pipilan style:

- where there are gantungan (see definitions)
- where there is a single pair of repeated notes (eg. 3 3 5 6)
- to indicate that the ngelik section of a gendhing will be played next (rebab, gender and bonang all indicate this by special patterns)
- places where the melody goes into a high register beyond the highest pitches of the bonang range
- where a leap of more than an octave occurs in the balungan.

Example: for gantungan

balungan: . . . 6 . 6

bonang barung: 6 6 6̣ . 6 6̣ . . . irama tanggung

bonang panerus: 6 6 6̣ . 6 6̣ . . 6 6 6̣ . 6 6̣ . . . irama tanggung
(or bonang barung irama dadi)

Once the basic pattern is mastered, most players play the following pattern:

balungan: . . . 6 . 6

bonang: 6 6 6̣ . . 6̣ . . 6̣ . . 6̣ . . 6̣ .

iii. nDuduk tunggal

Used for low range gantungan, this technique uses the same rhythm as nduduk nggembyang but playing only the single lower tone. (tunggal means 'one')

3.5 Imbal-imbalan (sometimes called pinjalan in Yogyakarta)

This technique involves the bonang barung and bonang panerus playing an interlocking pattern, each bonang playing a pair of notes interlocking with the other's pair. The bonangs do not lead the sarons melodically here, as they do in other techniques. In fact, "imbali does not necessarily relate to any specific pitch of the balungan but rather to pathet and register."¹ Usually the pattern will end in unison with the nada seleh or with a kempyung to it. The bonang panerus plays the off-beats (unstressed) while the bonang barung plays the stressed beats.

Imbal is usually used in gendhing or parts of gendhing that are lively in mood, and often coincides with use of the ciblon drum.

Example:

1. balungan: 3 5 6 7 (irama dadi)
 bonang barung: . 5 . 7 . 5 . 7 . 5 . 7 . 5 . 7
 bonang panerus: 6 . 2 . 6 . 2 . 6 . 2 . 6 . 2 .
2. balungan: 3 2 7 6
 bonang barung: . 7 . 3 . 7 . 3 . 7 . 3 . 7 . 3
 bonang panerus: 2 . 5 . 2 . 5 . 2 . 5 . 2 . 5 .

¹ Rene T. A. Lysloff The bonang barung in contemporary gamelan performance practice Balungan, Fall, 1985

The following chart compiled by Rene Lysloff¹ outlines what imbal tones can be used with each pathet, and what registers they imply.

Pathet	Bonang Barung	Bonang Panerus	Implied register
slendro nem	6/2	1/3	lower and middle
	1/3	2/5	low and middle
	2/5	1/3,3/6	high
	3/6	2/5,5/1	high
slendro sanga	6/2	1/3	low and middle
	2/5	1/3,3/6	high
	5/1	3/6	high
slendro manyura	1/3	2/5	low and middle
	3/6	2/5	high
pelog lima	6/2	1/3	low and middle
	2/5	1/3,3/6	high
pelog nem	6/2	1/3	low and middle
	1/3	2/5	low and middle
	1/4	2/5	low middle
	2/5	1/3,1/4	high
	3/6	2/5,5/1	high
	7/3	2/5	low and middle
pelog barang	7/3	2/5	low and middle
	3/6	2/5,5/7	high

¹ Ibid.

3.6 Sekaran

Literally translated from the high javanese, this term means flowering. It refers, in gamelan performance, to a variation on the usual pattern (either melodic or rhythmic), but most commonly refers to florid melodic patterns played by bonang at the end of kenongan when imbal is being played.

The following is a list of some sekaran. It is of course by no means exhaustive, and there is always room for creativity. Longer or shorter sekaran will be used depending on how many gatra imbal and sekaran are being spread over. (An imbal pattern and sekaran may alternate over 1, 2 or 4 gatra.)

For further examples of sekaran (and indeed a good discussion of all bonang barung techniques) see "The bonang barung in contemporary gamelan performance practice" by Rene T. A. Lysloff in Balungan, Fall 1985 (Appendix 2 for sekaran).

for Pelog barang and nem and Slendro manyura and nem
(if in pelog barang, replace 1 with 7)

nada seleh	sekaran
1 barung: panerus:	$\overline{612} \overline{1} \overline{1} \overline{1} . \overline{1} \overline{1} \overline{1} .$ or $\overline{53} \overline{53} \overline{56} \overline{1}$ $\overline{612} \overline{2} \overline{2} \overline{612} \overline{2} \overline{2}$
2	$(\overline{21}) \overline{6} \overline{3} \overline{6} \overline{1} \overline{2} \overline{61612}$ or short form: $\overline{2} \overline{61612}$ or $\overline{65} \overline{3} \overline{6} \overline{1} \overline{21} \overline{65} \overline{32} \overline{2}$ or $\overline{3} \overline{2} \overline{1} \overline{6} \overline{63} \overline{6} \overline{1} \overline{2} \overline{3} \overline{6} \overline{1} \overline{2}$
3	$\overline{3_1} \overline{5} \overline{3_1} . \overline{3_1} \overline{51653}$ or $\overline{61} \overline{2} (1) \overline{65} \overline{63} . \overline{56} (1) \overline{65} \overline{3}$
5	$\overline{5_1} \overline{6} \overline{5_1} . \overline{5_1} \overline{61615}$ or short form: $\overline{5} \overline{61} \overline{61} \overline{5}$
6	$\overline{3} \overline{5} \overline{6} \overline{1} \overline{3} \overline{21516}$ or $\overline{35} \overline{61} \overline{21} \overline{6}$

for Pelog lima and Slendro sanga

nada seleh	sekaran
1	$\overline{52} \overline{5} \overline{6} \overline{1} \overline{2} \overline{5} \overline{6} \overline{1}$ or $\overline{5} \overline{2} \overline{5} \overline{6} \overline{1} \overline{5} \overline{6} \overline{1}$ or $\overline{65} \overline{42} \overline{1} \overline{1} \overline{65} \overline{42} \overline{1} \overline{1}$
5	$\overline{5} \overline{6} \overline{1} \overline{2} \overline{21} \overline{5} \overline{1} \overline{5}$ or $\overline{5} \overline{6} \overline{1} \overline{2} \overline{2} \overline{3} \overline{1} \overline{6} \overline{5} \overline{2} \overline{3} \overline{5}$
6	$\overline{5} \overline{1} \overline{5} \overline{3} \overline{5} \overline{1} \overline{5} \overline{6}$ or $\overline{21} \overline{6} \overline{6} \overline{6} \overline{65} \overline{35} \overline{15} \overline{6}$ or $\overline{2} \overline{1} \overline{6} \overline{6} \overline{6} \overline{21} \overline{5} \overline{1} \overline{6}$ or $\overline{2} \overline{1} \overline{2} . \overline{21} \overline{5} \overline{1} \overline{6}$

3.7 Klenangan

This is a less common technique as its use is restricted to certain gendhing. It is described as "old-fashioned" in the Glossary to Karawitan: Source Readings.

It resembles imbal in that the parts of the bonang barung and bonang panerus combine to form a melodic pattern, but in the klenangan technique the bonang barung plays the first pair of notes of the pattern of four, and the panerus the second pair.

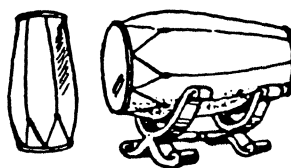
Eg. in the ompak of Ketawang Subakastawa

balungan:	.	1	.	6	.	1	.	5
bonang barung:	5 6 ..	5 6 ..	5 6 ..	5 6 ..	5 6 ..	5 6 ..	5 6 . 6	. 6 ..
bonang panerus:	.. 1 2	.. 1 2	.. 1 2	.. 1 2	.. 1 2	.. 1 2	.. 1 .	1 . 1 2

In gangsaan, the following pattern is used, with the same rhythmical variation leading to a gong as above:

bonang barung:	2 3 ..
bonang panerus:	.. 5 6

4. KENDHANG¹



4.1 Description

The drums used for gamelan are 2-headed symmetrical barrel drums with heads of different diameters stretched over rattan or leather hoops and laced in a Y pattern. They rest horizontally on kendhang stands (except the ketipung which is held in the lap) and are played with the bare hands.

There are 3 drums usually used in the gamelan for concerts:

1. Kendhang gede (or kendhang ageng). (gede/ageng: low/high Javanese = large) This is the largest kendhang. It is played on its own (in the style 'kendhang satunggal' (satunggal = 1)) in gendhing or sections of gendhing which have a peaceful or majestic feeling. It is sometimes played in combination with the ketipung in the drum style 'kendhang kalih' (kalih = 2).

2. Kendhang ciblon

This medium-sized kendhang is used to accompany dance and also in concert music where it plays rhythmic patterns derived from dance. It is technically more difficult to play than other kendhang.²

3. Kendhang ketipung

The smallest drum. It is played in combination with the kendhang gede in the drum style 'kendhang kalih'.

In addition there is a kendhang wayangan or batangan, a medium-sized drum used for accompanying wayang (although nowadays it is common to use all the kendhang), and a bedhug which is occasionally used in conjunction with other drums to accompany dance, in gendhing to welcome guests and in gamelan sekaten. The bedhug is an extremely large symmetrical barrel drum with 2 nailed heads of the same diameter. It is hung on a stand (or placed on a frame) and when struck with a beater like a gong beater, gives a deep dull thud. In the archaic gamelan ensembles: Monggang and Carabalen, kendhang are beaten with a drum stick.

4.2 Function

The kendhang is an important instrument in the gamelan as it controls the rhythm. It sets irama and keeps the tempo steady, controls transitions to faster and slower irama and controls the suwuk. Since the kendhang directs the music rhythmically, the rest of the gamelan must listen for kendhang signals and follow them.

In dance and wayang, the kendhang also accompanies the movements of the dancer or puppet.

4.3 Tuning

Kendhang are tuned by adjusting the Y lacing and by striking the hoop that the skin is stretched over to force it down and thus tighten the skin. The heads are tuned to a tuning which suits the kind of drum and the drumming style to be played, and need not exactly agree with the pitches of other instruments.

¹This section is largely a reorganisation of material from Sumarsam Javanese Gamelan Instruments and Vocalists 1977-1978

²The word *ciblon* is the Javanese name for a type of water-play, which is very popular in villages. A group of people smack the water with different hand shapes, producing amazing rhythmic patterns. This sound is imitated by the ciblon drum.

4.4 Playing Techniques

Drumming is very complex and requires intensive study and expert tuition. Only the briefest of introductions may be given here.

The large head is usually played with the right hand, and the small head with the left hand. A few of the most common drum syllables are described below (the symbol used in notation is given in brackets):

Syllable	Sound	Kind of drum	Where	How
dhah (b)	open, deep ringing	any kendhang except ketipung	edge of large head	fingers and part of palm
thung (P) (or dung)	open, ringing higher than b	ketipung	edge of large head	index finger or thumb
		other drums	middle of large head	fingers
ket (l)	dull, closed	any kendhang	middle of large head	tip of fingers esp index, middle and ring fingers
tong (.)	open, not very loud	any kendhang	edge of small head	tip of fingers esp middle and ring
tak (t)	closed, loud slapping	any kendhang	small head edge to middle	fingers and part of palm. RH dampens the large head

4.5 Drum Patterns

There are different drum patterns for every type of gendhing structure and for each of the different irama, as well as special patterns for transitions (peralihan) and suwuk, and signals for any special sections of gendhing such as sirep.

The following is given as one simple example:

Kendhang Kalih for lancaran irama tanggung

Buka: t t P b . P . P

A: . P . P . P . P . P . P . P . P 1st time only

B: [P P P P P b P P P b P P P b P P]

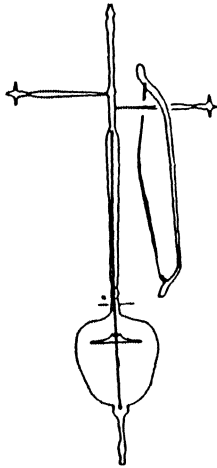
C: b P P b P P b P P P b P P P b P last line of each cycle (except when suwuk)

Suwuk: P . P . P b P . b P . b . P . .

5. ELABORATING INSTRUMENTS¹

The elaborating instruments (other than bonang) all require quite complex technique and the following serves only as a brief introduction. Rebab, gender and gambang are the instruments which play pathetan before gendhing.

5.1 Rebab



5.1.1 Description

The rebab is a 2-stringed bowed fiddle. It has a removable, low bridge (called a srenten). The bow resembles a violin bow but the hairs must be held tight by the player.

5.1.2 Function

As the kendhang leads the gamelan rhythmically, so the rebab is considered to be the leader melodically. In most gendhing (except gendhing gender, gendhing bonang and lancaran), the rebab plays the buka which determines the gendhing, laras and pathet which will be played. The melody of the rebab reveals and directs the melodic direction of the gendhing.

5.1.3 Tuning

The strings are tuned to an interval of a kempyung (roughly a fifth).

In slendro: 6 and 2

In pelog: 6 and 2 or 5 and 1 depending on the pathet.

5.1.4 Playing Techniques

The technique of playing the rebab is difficult and requires considerable training to produce a clear sound, accurate intonation, good bowing technique and positioning of fingers.

The lower string is rarely played alone. When the higher string is played open, it is often played together with the lower string. The fingers of the left hand do not usually depress the string right down to the finger board which makes intonation quite tricky.

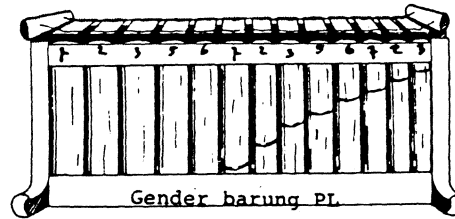
The rhythm of the rebab is fairly free. Notation is not strictly adhered to and decorations are often introduced, but the following is a brief example:

excerpt from **Ladrang Pangkur** pelog barang

	\ / \ \ / \ / \ / \ / \ / \
Buka:	. 3 $\overline{32}$ 2 . 3 $\overline{32}$ 2 3 $\overline{72}$ $\overline{23}$ 2 2 $\overline{76}$ $\overline{27}$ 6
Balungan:	3 2 3 7 3 2 7 6
Bowing:	/ \ / \ / \ / \ / \
Rebab:	$\overline{72}$ 3 $\overline{23}$ $\overline{72}$ $\overline{72}$ 3 $\overline{56.6}$ $\overline{.6}$ $\overline{6.6}$

¹This section is largely a reorganisation of material from Sumarsam Javanese Gamelan Instruments and Vocalist 1977-1978

5.2 Gender



5.2.1 Description

There are 2 sizes of gender: the gender barung and the gender panerus, the panerus being one octave higher in pitch. They have 12 - 14 keys suspended by cords over tube resonators. Their sound is soft and ringing. There is one slendro gender of each size, and two pelog of each size to accommodate different pathet. (See 5.2.3)

5.2.2 Function

The gender barung is a particularly important instrument which makes the sound of the gamelan full and sonorous. Some gendhing (gendhing gender) have a buka played by the gender, and in the absence of a rebab to play the buka, the gender will step in (unless it is a gendhing bonang). In lancar, either gender or bonang barung may play the buka.

In wayang performances the gender barung player also accompanies the dalang during chants or narration or dialogue.

5.2.3 Tuning

A gender encompasses more than 2 octaves. Pelog genders do not have a key for note 4. One pelog gender has sevens and no ones (pelog barang) and the other has ones and no sevens (pelog lima and nem).

5.2.4 Playing Techniques

The gender is played with 2 small, soft mallets. The gender barung is usually played by both hands simultaneously so there are usually two melodic lines from the one instrument. The gender panerus tends to play only one note at a time as it plays at twice the speed of the gender barung.

i. Damping: Since both hands are playing, damping has to be done by the same hand as that playing, using the side of the hand or the thumb or little finger. It is done at the same time as the next note is being played or immediately after.

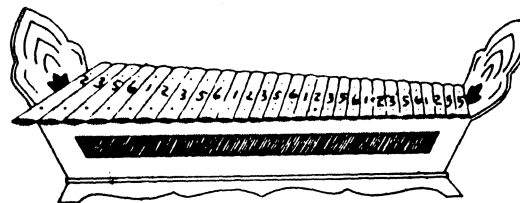
ii. Cengkok: When playing gender, cengkok are used. These are melodic patterns, most of which have names which are from parts of the vocal repertoire, from genderan (gender playing) itself or from other technical terms. While cengkok are notated nowadays, notations are only personal renderings and often simplifications of cengkok that have been passed down aurally. Traditionally in teaching gender, the teacher indicates the cengkok's name rather than having to enumerate individual notes. Cengkok are varied according to the situation and should be smoothly connected. They are selected in accordance with the pathet, traditions surrounding the gendhing and the progression from nada seleh to nada seleh. When slower irama are used, the gender plays more notes per balungan note.

The following is a small example:
excerpt from **Ladrang Pangkur** pelog barang (Irama dadi)

Balungan:	3	2	3	7	3	2	7	6
Gender RH:	<u>5 6 5</u>	<u>5 6 5 3</u>	<u>6 5 6 3</u>	<u>6 5 6 7</u>	<u>5 6 5</u>	<u>5 6 5 7</u>	<u>5 6 5 7</u>	<u>5 6 7 6</u>
LH:	<u>. . 6 7</u>	<u>2 . 2 .</u>	<u>6 5 3 .</u>	<u>6 2 6 7</u>	<u>. . 5 6</u>	<u>7 . 7 .</u>	<u>. 5 3 5</u>	<u>6 7 2 6</u>
Cengkok name:	dua lolo						tumurun	

Balungan:	7	6	3	2	5	3	2	7
Gender RH:	<u>7 2 7</u>	<u>7 2 7 3</u>	<u>7 2 7 3</u>	<u>7 2 7 6</u>	<u>5 6 5</u>	<u>5 6 5 3</u>	<u>6 5 6 3</u>	<u>6 5 6 7</u>
LH:	<u>. . 7 2</u>	<u>3 . 3 .</u>	<u>. 7 6 7</u>	<u>2 3 5 2</u>	<u>. . 6 7</u>	<u>2 . 2 .</u>	<u>6 5 3 .</u>	<u>6 2 6 7</u>
Cengkok name:	kutut kuning kempyung (KKP)						dua lolo	

5.3 Gambang



5.3.1 Description

The gambang is a wooden xylophone with 17 - 21 keys played with 2 long-handled, soft beaters. The keys are easily removed as they have a small hole at one end that fits over a nail sticking up out of the frame.

5.3.2 Function

The gambang elaborates upon the melody of the gendhing and enriches the total sound of the gamelan. In wayang, the gambang also plays to accompany 2 kinds of chant sung by the dalang.

5.3.3 Tuning

There is one slendro gambang and one pelog gambang which has no keys for note 4, and on which the keys for 1 and 7 are interchangeable depending on the pathet. Sometimes, though, there may be 2 gambang for the different pathet.

5.3.4 Playing Techniques

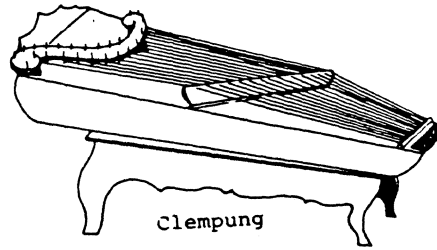
There is not such a highly developed repertoire of traditional cengkok for gambang as for gender. Most of the time the gambang plays in octaves, sometimes playing a kempyung and sometimes featuring other ornamentation. It plays at high speed and requires flexible wrists. No damping is required as the wood does not ring on. When slower irama are used, the gambang plays more notes per balungan note.

The following is a brief example:

excerpt from **Lancaran Manyar Sewu** pelog barang

Balungan:	. 5 . 3	. 5 . 3	. 5 . 3	. 6 . 5
Gambang RH:	<u>2 7 . 3 . 7 2 3</u>	<u>2 7 . 3 . 7 2 3</u>	<u>5 5 5 6 5 6 7 2</u>	<u>2 3 7 6 5 2 3 5</u>
LH:	<u>2 7 6 7 6 7 2 3</u>	<u>2 7 6 7 6 7 2 3</u>	<u>5 5 5 6 5 6 7 2</u>	<u>2 3 7 6 5 2 3 5</u>

5.4 Siter (or celempung)



5.4.1 Description

The siter is a plucked zither with 13 pairs of strings. It rests on the ground with supports at one end so that it slopes down toward the player. The celempung is set on 4 legs.

5.4.2 Function

The siter or celempung plays an elaborating melody that enriches the total sound of the gamelan. It plays at the same speed as the gambang.

5.4.3 Tuning

On one side of the siter, the strings are tuned to slendro and on the other, to pelog.

5.4.4 Playing Techniques

The siter is plucked with the thumbnails and the fingers are used for damping - the right hand fingers from the below the strings, and the left hand fingers from above the strings. As slower irama are used, the siter plays more notes between each balungan note.

excerpt from **Ladrang Pangkur** pelog barang (irama dadi)

Balungan:	3	2	3	7
Siter RH:	<u>3 . . . 3 5 6</u>	<u>3 . . . 6 5 3</u>	<u>7̇7̇ . 7̇ . 7̇ 2̇ 3̇</u>	<u>2̇7̇ . . 6 . . .</u>
LH:	2 . 6̇ 7 2 . . .	2 . 6̇ 7 2 6 . 6 6 3 . 3 2 7
Balungan:	3	2	7	6
Siter RH:	<u>3 5 6 7 6 7 2 6</u>	<u>5 . . . 2 . 7</u>	<u>2 3 5 6 5 . 5 6</u>	<u>3 . 7 . 7 . 6</u>
LH:	3 . 3 2 7 . 6 3 . .	2 . 2 7 6 . 6 .

5.5 Suling



5.5.1 Description

The suling is an end-blown vertical bamboo flute. The slendro suling has 4 finger holes, and the pelog has 5 holes.

5.5.2 Function

The suling plays elaborating melody in free rhythm over the top of the gamelan.

5.5.3 Tuning

A suling encompasses a range of more than 2 octaves, but the lowest octave is rarely played.

5.5.4 Playing Techniques

It is played intermittently, usually toward the end of a melodic phrase.

The following is a brief example:

suling cengkok for pelog barang, nada seleh 6:

3̇ 3̇ 3̇ 2̇ 7̇ 3̇ 2̇ 3̇ 4̇ 2̇ 3̇ 2̇ 7̇ 6 5 7 6 7 6 3̇ 6̇ 3̇ 6̇

The lines underneath notes mean the these notes should receive one stress.

Appendix Using the right side of your brain to play gamelan.

A comparison of Left-Mode and Right -Mode Characteristics

L-Mode	R-Mode
<u>Verbal</u> : Using words to name describe, define.	<u>Non-Verbal</u> : Awareness of things, but minimal connection with words.
<u>Analytic</u> : Figuring things out step-by-step and part-by-part.	<u>Synthetic</u> : Putting things together to form wholes.
<u>Symbolic</u> : Using a symbol to <i>stand for</i> something. Eg., the drawn form stands for <i>eye</i> , the sign + stands for the process of addition.	<u>Concrete</u> : Relating to things as they are, at the present moment.
<u>Abstract</u> : Taking out a small bit of information and using to represent the whole thing.	<u>Analogic</u> : Seeing likenesses between things; understanding metaphoric relationships.
...	
<u>Rational</u> : Drawing conclusions based on <i>reason</i> and <i>fact</i> .	<u>Nonrational</u> : Not requiring a basis of reason or facts; willingness to suspend judgement.
<u>Digital</u> Using numbers as in counting.	<u>Spatial</u> : Seeing where things are in relation to other things, and how parts go together to form a whole.
<u>Logical</u> : Drawing conclusions based on logic: one thing following another in logical order - eg. a mathematical theorem or a well-stated argument.	<u>Intuitive</u> : Making leaps of insight, often based on incomplete patterns, hunches, feelings or visual images.
<u>Linear</u> : Thinking in terms of linked ideas, one thought directly following another, often leading to a convergent conclusion.	<u>Holistic</u> : Seeing whole things all at once; perceiving the overall patterns and structures, often leading to divergent conclusions.

REFERENCES

- Forrest, Wayne Jeffrey: "Concepts of Melodic Pattern in Contemporary Solonese Gamelan Music", in Asian Music (Journal of the Society for Asian Music), Vol XI - 2
- Lysloff, Rene T. A.: "The bonang barung in contemporary gamelan performance practice", in Balungan, Vol 2, No 1
- Martopangrawit, Raden Lurah: "Catatan-Catatan Pengetahuan Karawitan" volume 1 and 2, translated by Martin F. Hatch, in Karawitan: Source Readings in Javanese Gamelan and Vocal Music, Ed. Judith Becker, Ann Arbor, Michigan: Center for South and Southeast Asian Studies, University of Michigan, 1984-1987
- Soeroso: Bagaimana Bermain Gamelan PN Balai Pustaka, Jakarta, 1982
- Sumarsam: "Gender Barung, its Playing Technique and its Function in the Context of the Javanese Gamelan", Paper delivered at the conference of the Northeast chapter of the Society for Ethnomusicology, Brown University, Providence, Rhode Island, March 23, 1974. Also in Indonesia Vol 20, 1975
- Sumarsam: Kendangan Gaya Solo: Kendang Kalih dan Satunggal dengan Selintas Pengetahuan Gamelan ASKI, DepDikBud, Solo, 1976
- Sumarsam: "The Musical Practice of the Gamelan Sekaten", Asian Music (Journal of the Society for Asian Music), Vol XII - 2
- Sumarsam: Javanese Gamelan Instruments and Vocalists Notes for Music 451 and 452, 1977-78. With technical assistance from Marc Perlman and Cindy Benton

FURTHER READING

Introductory Books:

- Lindsay, Jennifer: Javanese Gamelan Kuala Lumpur: Oxford University Press, 1979
- Sorrell, Neil: A Guide to the Gamelan United Kingdom: Faber and Faber, 1990

Other Books:

- Becker, Judith: "A Musical Icon: Power and Meaning in Javanese Gamelan Music" in The Sign in Music and Literature ed. Wendy Steiner, Austin: University of Texas Press, 1981
- Becker, Judith: Traditional Music in Modern Java Honolulu: University Press of Hawaii, 1980
- Hood, Mantle: The Nuclear Theme as a Determinant of Patet in Javanese Music Groningen and Djakarta: JB Walters, 1954
- Kunst, Jaap: Music in Java: Its History, its Theory and its technique 2 vols, 3d ed enlarged. The Hague, Martinus Nijhoff, 1973

Martopangrawit , Raden Lurah: "Catatan-Catatan Pengetahuan Karawitan" volume 1 and 2, translated by Martin F. Hatch, in Karawitan: Source Readings in Javanese Gamelan and Vocal Music, Ed. Judith Becker, Ann Arbor, Michigan: Center for South and Southeast Asian Studies, University of Michigan, 1984-1987

Periodicals:

All issues of Balungan (The Journal of the American Gamelan Institute)

Becker, Judith and Alton: "A Grammar of the Musical Genre, *Srepegan*" and " A reconsideration in the Form of a Dialogue" in Asian Music (Journal of the Society for Asian Music) Vol.????

Forrest, Wayne Jeffrey: "Concepts of Melodic Pattern in Contemporary Solonese Gamelan Music", in Asian Music (Journal of the Society for Asian Music), Vol XI - 2

Heins, E L: "Cueing the Gamelan in Javanese Wayang Performance" in Indonesia Vol 9, 1970

McDermott, Vincent and Sumarsam: "Central Javanese Music: The Pathet of Laras Slendro and the Gender Barung" in Ethnomusicology 19 no. 2, 1975

Perlman, Marc: "Notes on 'A Grammar of the musical Genre, *Srepegan*" in Asian Music (Journal of the Society for Asian Music) Vol.????

Sumarsam: "The Musical Practice of the Gamelan Sekaten", Asian Music (Journal of the Society for Asian Music), Vol XII - 2

Sutton, R. Anderson: "Concepts of Melodic Patterns in Javanese Gamelan Music, with reference to the gambang" in Asian Music (Journal of the Society for Asian Music) Vol. XI - 1

Tirtaamidjaja, Nusjirwan: "A Bedaja Ketawang Dance Performance at the Court of Surakarta." in Indonesia Vol 3, 1967

Even More?

See the bibliography in Volume 3 of Karawitan: Source Readings in Javanese Gamelan and Vocal Music, Ed. Judith Becker, Ann Arbor, Michigan: Center for South and Southeast Asian Studies, University of Michigan, 1984-1987 for more references including literature in Indonesian and other languages.

