

“If only beautiful céngkok are selected”: The Problem of Codification in Central Javanese Gendèr Playing

Ki Sindoesawarno (?–1965), a leading figure behind the establishment of the first conservatory for Central Javanese music and one of its primary instructors, made the following statement:

The idea of recording all possible céngkok is not strange. The number of possible permutations of gatra, although quite large, is certainly limited, and if only beautiful céngkok are selected, *a codification of céngkok for every practical use could be compiled* (emphasis added). The method of studying how to play the rebab and gendèr at the Konservatory Karawitan Indonesia¹ is based on this speculation, as well as on the names for céngkok commonly used by musicians (1956, 395).

The establishment of formal, publically-funded performing arts education in the 1950s brought about significant and long-lasting changes to the way karawitan is taught, and by extension stimulated the development of newer, more analytically-oriented theoretical approaches. Before this time, students would have done the bulk of their learning through observation and imitation, supplemented by private instruction. Moving the music into a classroom setting—where one teacher is responsible for teaching a group of students the same material—necessitated a shift away from the traditional model (Hand 2018, 71). For instrument like the gendèr, this meant formalizing the process of selecting appropriate *céngkok*,² or formulaic melodic patterns, for a given context. The act of choosing céngkok is one of the more clearly defined examples of what is known as *garap* (lit. to work/do), what Supanggah defines as “the creative framework of *pengrawit* [gamelan musicians] in the performance of a composition” (2009, 4; translated by author). It became the goal of conservatory-style education to take *garap*—originally a form of unwritten, esoteric, and somewhat personal form of knowledge—and mold it into an explicitly defined system of music theory. In other words, to codify it.

¹ Sometimes abbreviated as KOKAR, the conservatory was established in 1950. This was followed by the Akademi Seni Karawitan Indonesia (ASKI) in 1964, the precursor of today’s Institut Seni Indonesia (ISI).

² Same as with many of the authors cited in this paper, I treat Javanese terms like ‘céngkok’ as potentially either singular or plural.

For reasons that will be discussed in this paper, the campaign to codify *garap* ran up against considerable obstacles when it came to *gendèr* playing. In order to teach *gendèr* in a classroom setting, it is necessary to have a way of identifying, isolating, and naming individual *céngkok*. The same can be said of analyzing and writing about *gendèr* playing in a musicological context. However, even today there is little consensus about how *gendèr céngkok* should be called, nor is there any widely-recognized objective basis for distinguishing between one *céngkok* and another. This difficulty is often explained away as being a function of *wilètan*— the spontaneous variation of *céngkok* spanning anywhere from microscopic rhythmic minutiae to clearly recognizable and notable melodic/rhythmic deviations (Sutton 1998, 75). Such a rationale carries with it an implicit assertion that *gendèr* playing is freely improvised and therefore beyond the reach of theoretical reduction. As a number of authors attest (see Forrest 1980; McDermott & Sumarsam 1975; Supanggah 2009; Sutton 1998), this is most certainly not the case.

In reality, the range of acceptable *wilètan* is quite constrained. All *wilètan* of a particular *céngkok* must be similar enough to one another to be heard as having the same identity (Sutton 76). Each *céngkok* has a number of constant features, both structural and contextual, that *wilètan* must observe. Various descriptions imply that *gendèr céngkok* are essentially fixed entities. Martopangrawit, whose work will be discussed in-depth later on, stated that every *céngkok* is “a permanent, unchanging melody, either vocal or instrumental” and “a motif” (1975, 14). For Supanggah, *céngkok* are “configurations of notes and/or rhythms that are fixed in length,” as well as patterns that “have a particular impression or character” (2009, 248; translated by author). Perlman summarizes *céngkok* as “the stable melodic content of a stock phrase,” which despite variation “remains recognizable” (2004, 57).

What then is the difficulty in codifying *gendèr céngkok* according to their fixed features? In a certain sense, this type of reductive approach is at odds with the highly associative and contextual nature of musical practice. *Céngkok* are never performed in isolation, but instead seamlessly linked end-on-end to form a musical impression that is greater than the sum of its parts. A player is not necessarily thinking of each individual *céngkok* in a larger phrase, at least on an explicit level. As Sumarsam and McDermott note, “Simply stated, all *gendèr* players perform essentially the same patterns of notes in every performance of a given *gending* or piece. And

gendèr players are in agreement on this point; their parts are basically stable and unchanging” (1975, 234). In other words, players work off of a memorized sketch of the composition that includes all céngkok in their proper sequence. What is left up to the moment of performance is wilètan, the spontaneous choice between céngkok variations.

This does not mean that céngkok cannot be isolated and their features analyzed, just that it is divorced from how experienced players of the music think in practice. However, it can be seen from Sindoesawarno’s statement quoted earlier that there was an interest in codifying céngkok for purposes of teaching beginning students in a classroom setting. I myself as a student at Institut Seni Indonesia in Yogyakarta from 2015–2020 learned to play gendèr in essentially this manner. Additionally, a system of céngkok codification is necessary for purposes of formal analysis.

Codification has proceeded in two main directions with significant interaction between them. The first is what I will call the ‘associative naming approach.’ With this, céngkok are given names that refer to “melodic ideas from the vocal repertoire, gendèr melodic lines, or other technical gamelan terms” (Sumarsam 1975, 162). As will be shown, there are a number of issues with using these names for codification purposes. The second is what I will call the ‘arah nada/matrix’ approach, which organizes céngkok according to the tonal distance they travel from beginning to end. This is significantly more empirical, but lacks specificity. The two approaches are often mixed and matched in practice, but this only serves to combine their respective shortcomings. In studying these, I attempt to identify areas in which gendèr céngkok codification could potentially be improved, which in turn would benefit both pedagogical and theoretical activities.

Before proceeding, a brief note on the application of gendèr céngkok is needed. The most commonly used céngkok, as well as those with the greatest structural variety, span four beats of the *balungan* or skeletal melody. There are also céngkok that span two or eight beats. Because each four-beat segment of the *balungan* is called a *gatra*, we can describe céngkok as being either one-gatra, half-gatra, or two-gatra in length, respectively. At the end of every céngkok is a goal-tone or *sèlèh*. This *sèlèh* lines up with metrically-important moments of the *balungan*, in particular the final beat of each *gatra*.

The associative naming approach

Céngkok name	Sumar. 1971	Marto. 1975*	Marto. 1973	Polan. 2005**	Author 2015***
Aja ngono	x				
Ayo yok oyokan		x			
Ayo-ayo			x		x
Ayu kuning	x	x	x	x	x
Debyang-debyung	x	x	x		x
Dudukan		x	x		
Dua lolo		x	x		
Dua lolo kecil/alit	x				x
Dua lolo besar/ageng	x			x	x
Ela elo		x		x	x
Gantungan/nggantung	x	x	x	x	x
Genduk kuning		x			
Jarit Kawung	x	x	x	x	x
Jawata			x		
Kacaryan			x	x	x
Kemul adem		x			
Kuthuk kuning	x		x	x	x
Nduduk	x			x	x
Nya tali nya emping		x	x		
Ora butuh	x	x	x	x	x
Pipa landa		x			
Pipilan				x	
Plesedan/mlesed		x	x	x	x
Putut gelut	x	x	x	x	x
Putut semedi	x	x	x		x
Rambatan				x	x
Rujak-rujukan	x				
Tinandur			x		
Tumurun			x	x	x
Tumuruna		x			
Ya Suraka		x	x		

*Martopangrawit's *Catatan-Catatan Pengetahuan Karawitan* was first published in 1972 and later revised in 1975, but work on the manuscript began in 1969.

**Larry Polansky's booklet *Beginning Central Javanese Gendèr* is based on his studies with Sukamso, a musician of Sumarsam's generation who has sat on the faculty of STSI/ISI Surakarta for many years. The book was first published in 1993.

*** These were the céngkok names commonly used by teachers at ISI Yogyakarta during my studies from 2015–2020.

This above is an alphabetized list of *céngkok* names as they appear in different sources, which in itself reveals nothing about the relationships between them. There is a substantial amount of redundancy; ‘aja ngono’ and ‘ora butuh’ refer to the same two-gatra *céngkok*, ‘pipa landa’ refers to the second half of ‘ora butuh,’ ‘pipa landa’ is essentially the same as ‘dua lolo alit,’ etc. Conversely, multiple *céngkok* that are demonstrably different in terms of structure and/or function may be referred to by the same name. Nor is it safe to assume that the above list is exhaustive. I can recall a number of *céngkok* names from my own studies that are not included in these sources. It is the case that *céngkok* names are passed down orally from teacher to student as part of practical instruction, which may range from being relatively standardized to highly idiosyncratic. As with the *céngkok* themselves, it is quite possible that differences in naming fall along some of the axes suggested by Perlman (1998, 56)—urban versus rural society, institutionalized education versus traditional learning models, etc.—but to my knowledge, comparative research along these lines has never been conducted.

Ultimately, it is not the name itself that matters, but the learned association between name and *céngkok*. Regarding the use of associative names during instruction, Sumarsam comments that the “teacher calls out the *céngkok* by name to the student. Their names have evocative meanings that relate to exciting melodies so they can be easily remembered” (Sumarsam 1975, 162). In other words, a mnemonic device. While it is true that some (not all) *gendèr céngkok* names take after vocal melodies, that does not necessarily mean that all such vocal melodies are commonplace, or for that matter even part of current practice. It is also doubtful that a beginning *gendèr* student would begin their studies already possessing such an intimate knowledge of vocal practice. For this and other reasons, statements formulated as “*gendèr céngkok* X derives from vocal melody Y” should not be interpreted literally. The following passage from Martopangrawit (1975, 103) is particularly pertinent to the ‘chicken-and-egg’ relationship between vocal melody and *gendèr céngkok*:

Since the *céngkok* of vocal melodies can be accompanied on the *gendèr*, *our predecessors chose melodies that were the same length as gendèr céngkok* (emphasis added). They chose fixed melodies in *irama dados*, since in this *irama* one gatra...is equal to one *gendèr céngkok*...*Gendèr céngkok* are sometimes two gatra long...and there are also half-gatra *céngkok* for vocal melodies that are mixed. All of the *gendèr céngkok* are distinguished according to the name of the particular vocal melody associated with them

Thus, the correlation between vocal melody and *gendèr céngkok* is not proof of one being derived from the other. After all, there are plenty of *céngkok* which have no name commonly associated with them, and these are not fundamentally any different than the ones that do. When the short vocal melodies associated with *gendèr céngkok* are actually sung in context—typically either in the form of *sènggakan* or *isèn-isèn*³—the *gendèr* player will often “abandon normal *céngkok* and explicitly follow the vocal line” (Roberts 2018, 51), further attesting to the looseness of their relationship.

‘Arah nada,’ or the matrix approach

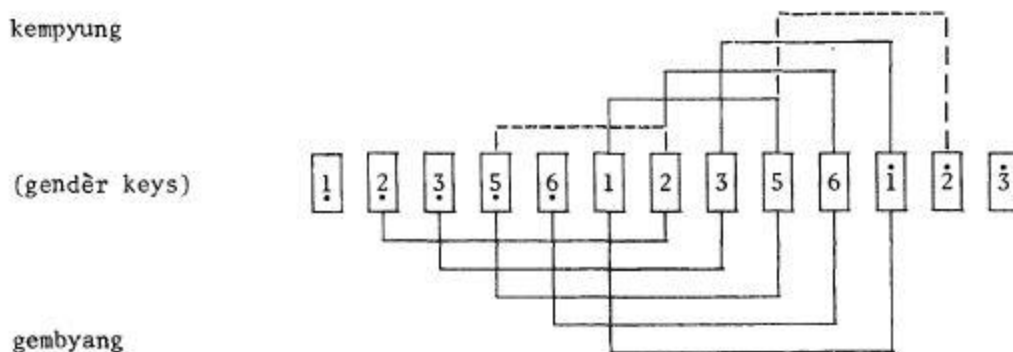
A colleague of Sindoesawarno, the court musician-turned-theorist Martopangrawit (1914–1986) had a disproportionate influence on the way Central Javanese music was to be taught in a conservatory setting. Among other important works, in 1973 he published a sizable reference book of *gendèr céngkok* notation—*Titiraras Céngkok-céngkok Gendèr dan Wilètannya*—which remains the gold standard as far as codification is concerned. In essence, *Titiraras* organizes one-gatra *céngkok* according to movement (‘*arah nada*,’ lit. melodic direction) between subsequent *sèlèh*, and then provides numerous examples of possible *wilètan*. The book does periodically contextualize *céngkok* in terms of associative name or *pathet*, but these are subordinate to ‘*arah nada*.’

Brinner identifies Martopangrawit’s system as one of several ‘cultural matrices’ in the Javanese performing arts, understood as “formalized expression[s] of common patterns of characterization and categorization[s] of repertoire, practice, and other cultural knowledge” (1995, 440). The matrix *Titilaras* implies might be visualized as a two-dimension grid, with one axis labeled ‘From *sèlèh* X’ and the other ‘To *sèlèh* Y.’ Every point at which these axes intersect represents a *céngkok* that traverses the vertical difference between *sèlèh* X and Y over the course of four beats.

As the *gendèr* is played with two hands, *sèlèh* are always in the form of dyads. The lower note of the dyad, played in the left hand, determines the *sèlèh*’s basic identity. The right hand then

³ *Sènggakan* are short vocal interjections typically performed by the *gèrongan* or male chorus. *Isèn-isèn* (lit. filler) are stock phrases that the solo female vocalist or *sindhèn* uses over metrically-weak phrases.

adds a second note either a kempyung (roughly a perfect fifth) or gembyang (octave) above the left. This distribution of kempyung and gembyang sèlèh can be seen below.



The range of sèlèh on the gendèr. From Sumarsam (1975, 167).

In total, there are ten possible sèlèh (g = gembyang, k = kempyung): 2̇g, 3̇g, 5̇g or k, 6̇g, 1g or k, 2k, 3k, and 5k. The size of our grid should consequently be 10 x 10, representing as many as 100 one-gatra céngkok. Presumably, if one knew what sèlèh they needed to pass through, they could look up the corresponding entry in *Titilaras* and quite literally ‘plug in’ the result.⁴ Under each entry, Martopangrawit provides a number of possible wilètan (hence the latter half of the book’s title) organized according to *laku*, a concept related to rhythmic subdivision or density. The distribution of entries for one-gatra céngkok in *Titilaras* appears as follows:

⁴ I have heard this method of gendèr playing disparagingly referred to as ‘menempel céngkok;’ that is, copy-pasting memorized céngkok in a way that is technically correct but lacking in subtlety.

From Sèlèh

	2̣g	3̣g	5̣g	5̣k	6̣g	1g	1k	2k	3k	5k
2̣g	x	x	x		x					
3̣g	x	x	x		x	x	x			
5̣g	x	x	x		x	x	x	x		
5̣k										
6̣g	x	x	x		x	x	x	x	x	
1g		x	x		x	x		x	x	
1k		x	x		x		x	x	x	
2k			x		x	x	x	x	x	x
3k					x	x		x	x	x
5k										x

A visual representation of Martopangrawit's matrix. X's indicate entries, while empty cells indicate that no céngkok is provided.

What do we make of the fact that precisely half of this table is empty? That it is not possible to move freely from any sèlèh to any other sèlèh? Continuing his discussion of cultural matrices, Brinner (1995, 441) states that "A matrix may call attention to an anomaly in a musical system and so give focus to fundamental distinctions and unrealized potentials or stimulate people to produce explanations and theories." In this sense, the relative emptiness of the grid may lead to insights about the céngkok classification and gèndèr playing more generally.

One easy-to-spot feature of the grid is that there are no one-gatra céngkok ending on sèlèh 5̣k. This is generally reflective of practice, although there are exceptions (see example in McDermott & Sumarsam 1975, 240). Sèlèh 5̣k more often appears at the halfway point of two-

gatra céngkok, particularly those Martopangrawit identifies as ‘ora butuh’ and ‘kacaryan’ (1973, 59–62; 72–3).

Kacaryan

$\dot{2}\dot{1}\dot{3}\dot{2}$ 6532 3536 353 $\boxed{2}$ 565. 5653 2125 .353
 2132 $\dot{6}\dot{5}\dot{3}\dot{2}$. $\dot{3}\dot{2}\dot{3}$ $\dot{5}\dot{6}\dot{1}\dot{5}$.. $\dot{2}\dot{3}$ $\dot{5}\dot{1}\dot{5}\dot{6}$ $\dot{5}\dot{3}\dot{5}$. $\dot{6}\dot{5}\dot{3}$.

Ora butuh

3565 3.35 3536 353 $\boxed{2}$ 565. 5653 2125 .353
 $\dot{6}$. $\dot{1}\dot{5}$. $\dot{1}\dot{6}\dot{5}$ $\dot{3}\dot{5}\dot{6}$. $\dot{5}\dot{6}\dot{1}\dot{5}$.. $\dot{2}\dot{3}$ $\dot{5}\dot{1}\dot{5}\dot{6}$ $\dot{5}\dot{3}\dot{5}$. $\dot{6}\dot{5}\dot{3}$.
 -----céngkok I----- -----céngkok II-----

There are also few entries that involve the higher *sèlèh* 5k. My own sense is that wherever *sèlèh* 5k is an option, it can always be substituted with $\dot{5}g/\dot{5}k$. Martopangrawit makes a comment to the effect that *sèlèh* 5k should only be used over odd-numbered gatra, which are felt to be metrically weaker (1973, 8).

We can therefore dispense with *sèlèh* $\dot{5}k$ and 5k for the moment. However, even after omitting these (thereby turning the 10 x 10 table into an 8 x 8), there are still a substantial number of empty cells. Most of these missing *céngkok* are explained by the fact that Martopangrawit limited his scope to *céngkok* that traverse three steps or less in either direction. It also explains why the pattern of empty cells appears roughly symmetrical. This limit is reasonable albeit arbitrary, as *gendèr* players typically opt for the smallest possible motion between *sèlèh* whenever possible unless there is a compelling musical reason to do otherwise (see discussion in Sumarsam 1975b, 268–72).

That being said, there are occasionally situations where a *gendèr* player may need *céngkok* that traverse four steps. Martopangrawit does provide two options for 3k to $\dot{5}g$, but only as part of a larger two-gatra *céngkok* that he calls ‘*dudukan/ya suraka*’ (1973, 67):

Dudukan/ya suraka

<p>2356 $\dot{1}$6.6 5.i. 656$\dot{1}$</p> <p>.... ..5. .3.1 .2.3</p> <p>-----céngkok I-----</p>	<p>656$\dot{1}$.$\dot{1}$65 3236 3565</p> <p>212. 1231 6$\dot{5}$3$\dot{2}$.3.5</p> <p>6.6$\dot{1}$ 6.63 6$\dot{1}$6$\dot{2}$ 6$\dot{1}$65</p> <p>.235 .2.6 .3$\dot{2}$3 5$\dot{2}$3$\dot{5}$</p> <p>-----céngkok II-----</p>
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From the same example, ‘céngkok I’ can be used to reach $\text{sèlèh } 3k$ from $5g$. Unlike in the previous case of céngkok going to $\text{sèlèh } 5k$, it can be argued that both ‘céngkok I’ and ‘céngkok II’ above do occur on their own; that is, as one-gatra céngkok independent from the two-gatra céngkok ‘dudukan/ya suraka.’ Martopangrawit does not address the downward movements $2k$ to $3g$ or $1g/k$ to $2g$. Based on my own experience, these can potentially be rendered as follows:

<p>2k to 3g</p> <p>$\dot{1}$.$\dot{1}$6 3532 56$\dot{1}$. $\dot{1}$653</p> <p>.132 6$\dot{5}$3$\dot{5}$.2$\dot{1}$2 3$\dot{5}$6$\dot{3}$</p>	<p>1g/k to 2g</p> <p>6536 3532 1213 1232</p> <p>6$\dot{5}$6. 16$\dot{1}$5 3$\dot{2}$3. 5$\dot{3}$2.</p>
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Céngkok that traverse four steps in the upward direction are more difficult to account for. Typically speaking, musical situations that necessitate a large upward motion are not approached with regular céngkok but instead via a combination of techniques known as ‘*plesedan/mlesed*’ (to slip) ‘*rambatan/mrambat*’ (to crawl) and ‘*gantungan/nggantung*’ (to hang). For example, some of the options Martopangrawit (1973, 76; 111; 114) provides for the motion $2g$ to $1g$ (annotations by author):

For balungan such as ...1 or ..21

<p>. . 5 6 5 . 5 6 5 6 5 3 6 5 6 $\dot{1}$</p> <p>. . . 6 1 2 . . 6 2 6 . 6 2 3 1</p> <p>---mlesed 6 to nggantung 2k---</p>	<p>-----sèlèh 1g-----</p>
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For balungan such as 3̣3̣.1, 3̣3̣6̣1, or 3̣3̣21

3 . 2 3 2 . 2 3 6 ¹ 6 3 5 . 6 ¹
 . 3̣ . . . 6̣ 5̣ 3̣ 6̣ 1 2 . . 3 2 1
 -----mlesed to 3g----- ---mrambat--- ---sèlèh 1g---

For balungan such as 55.1, 5521, or 5.21

5 . 3 5 3 . 3 5 6 ¹ 6 ² . ¹ ² ¹
 . 5̣ . . . 1 6̣ 5̣ 6̣ 1 2 . 3 2 1 .
 -----mlesed to 5g----- -----sèlèh 1g-----

Unlike the majority of one-gatra céngkok found in *Titilaras*, for those like the above it is necessary to consider beats one through three of the gatra. Whether this lack of independence from the balungan disqualifies them from being true céngkok is debatable. In any case, the asymmetry in form observed between céngkok that traverse four steps downwards versus those that traverse four steps upwards is reflective of a more general principle that governs melodic motion in karawitan: gradual conjunct downward motion dominates, periodically offset by sudden disjunct upward motion.

The remaining holes in Martopangrawit's matrix relate to considerations of pathet. Each sèlèh on the gendèr is associated with one or more pathet in the slendro tuning system. According to McDermott and Sumarsam (1975: 236), the distribution of sèlèh in relationship to pathet is as follows:

	2g	3g	5g	6g	1g	1k	2k	3k	5k
Pathet nem	x	x							x
Pathet sanga			x	x		x	x		
Pathet manyura				x	x		x	x	

Martopangrawit does not provide céngkok for the motions 1g to 1k or 1k to 1g because they represent an unusual mixing of pathet sanga and manyura. That is not to suggest that such céngkok are technically impossible, but rather that there is no practical use for them. For the motion

1k to 3k—again implying a mixing or modulation of pathet—Martopangrawit (1973, 97) advises the reader to use a combination of *gantungan*:

. 6 $\dot{1}$ 5 $\dot{1}$ 6 $\dot{1}$ 5 6 . 6 $\dot{1}$ 6 5 6 $\dot{1}$
. . . $\dot{5}$ $\dot{6}$ 1 1 1 . 2 1 2 3 . 3 .
-----nggantung 1k----- -----nggantung 3k-----

The above motion is necessary for some pathet *sanga* phrases whose *balungan* passes through 3. However, the reverse motion—3k to 1k—is a ‘true’ *céngkok*, not a composite of *gantungan* or other techniques (1973, 42):

6 5 6 $\dot{2}$ 6 $\dot{1}$ 6 5 2 . 5 . 3 . 3 5
2 1 2 . . $\dot{6}$ 1 $\dot{5}$. 1 . $\dot{5}$. $\dot{5}$. 1

Register, pathet, and midpoint tones

Having thus contextualized most of its apparent anomalies, it can be seen that *Titilaras* is in fact quite comprehensive. However, the major shortcoming of Martopangrawit’s ‘*arah nada*’ system is not that it contains missing entries, but rather that many of the entries conflate *céngkok* that are distinct in form and/or function. In other words, it neglects crucial information about *garap*—for *gendèr* playing, the process of selecting a contextually appropriate *céngkok* out of numerous options. To start, there is no mention of how *gendèr céngkok* relate to melodic register in the *balungan*. For instance, the following *céngkok* are given for the movement 2k to 1g (1973, 31–2):

(A)	(B)
2 $\dot{3}$ 2. 2 $\dot{3}$ 2 $\dot{1}$ 656 $\dot{2}$.1 $\dot{2}$ 1	565. 5653 6563 656 $\dot{1}$
.. $\dot{6}$ 1 2523 212. 321.	.. $\dot{6}$ 1 212 $\dot{6}$. $\dot{5}$ 3 $\dot{5}$ $\dot{6}$ 231

These are both dubbed ‘*dua lolo*’ by Martopangrawit and found under the same heading. In practice, (A) would be selected if the *balungan* heads toward $\dot{1}$, whereas (B) implies motion to

1 an octave lower. This distinction of register is especially important for *céngkok* ending on 1g and 6g, as the *gendèr* has no higher or lower version of these *sèlèh* tones.

Forrest (1980, 66) notes that not all *céngkok* listed under a given heading follow the same contour. For example, Martopangrawit suggests the following options for the movement 1g to 3g (55, 1973).

(A)	(B)
6536 3532 565. 5653	5651̣ .653 2125 .353
6̣5̣6̣. 3̣.6̣5̣ .2̣.5̣ .2̣.3̣	.5̣.1̣ 6̣126̣ 5̣35̣. 6̣5̣3̣.

It would not be a mistake per se to use the above *céngkok* interchangeably. A conscientious player, however, will judge the musical context at hand and choose accordingly. (A) and (B) imply different melodic contours; most significantly, (A) passes through 5k at its midpoint, whereas (B) passes through 6k. In the former case, the combination of midpoint 5k and *sèlèh* 3g is strongly associated with *pathet nem* as well as the characteristic *balungan* phrase 6523. (B), with its combination of midpoint 6k and *sèlèh* 3g, may be felt as either *pathet nem* or a low-register *pathet manyura*, and is more likely to be used with *balungan* phrases such as 5653.⁵

Much like *sèlèh* tones, the midpoint tones of *céngkok* are also marked for *pathet*. And as can be seen in the above example, midpoint tones also play a role in reinforcing (or destabilizing) melodic motion in the *balungan*. Unfortunately, little has been written about midpoint tones. There is no special Javanese term for ‘midpoint’ in the way that there is for *sèlèh*. In his analysis of *wilètan* of a single *céngkok*, Sutton (1978) indirectly references midpoint tones, although he does not privilege them over tones at the one-quarter or three-quarter mark. Perlman directly addresses the relationship between midpoint tones and *pathet*, but recognizes that the topic is not “explicitly verbalized in Javanese music theory” (1998, 51). Generally speaking, the midpoint tone—most often a dyad, but occasionally a single tone in the right hand—should not include the *pantangan* or avoided tone of the *céngkok*’s associated *pathet*. That means that for *céngkok* in *pathet manyura*, tone 5 does not appear at the midpoint; for *pathet sanga*, 3; for *pathet nem*, 1.

⁵ Mcdermott and Sumarsam (1975) discuss modulation between *pathet* in greater depth.

	Pantangan (avoided)	Lower kempyung	Dhong (tonic)	Upper kempyung	Pelengkap (auxiliary)
Manyura	5	2	6	3	1
Sanga	3	1	5	2	6
Nem	1	5	2	6	3

The modal hierarchy of tones in each of the three slendro pathet. Based on a similar figure in Martopangrawit (1975, 61).

The midpoint tone should also be somewhat different than both the upcoming *sèlèh* and that of the previous *céngkok*. Otherwise, the feeling becomes that of a *gantungan* passage.

To illustrate this point, we can compare *céngkok* that end on *sèlèh* 1k. Based on the relationship between *sèlèh* tones and pathet detailed earlier, these *céngkok* are unambiguously in pathet *sanga*, meaning that 3 is avoided. The following are taken from various sections of *Titilaras* (Martopangrawit 1973, 5–6; 12; 31; 42):

From 3k

656[˙] 6[˙]165 2.2. 2.35
212. .6[˙]1[˙]5 .1.1 .5[˙]6[˙]1

From 1k version A

6[˙]16. 6[˙]16[˙]2 6[˙]16[˙]2 6[˙]165
. .6[˙]1 26[˙]1[˙]5 .6[˙]5[˙]6 1231

From 6g

5.56 3565 6[˙]16[˙]2 6[˙]165
.12. .6[˙]1[˙]5 .6[˙]5[˙]6 1231

From 2k

3536 3565 6[˙]16[˙]2 6[˙]165
.6[˙].2 .6[˙]1[˙]5 .6[˙]5[˙]6 1231

From 1k version B

6[˙]16. 6[˙]16[˙]2 6[˙]16[˙]2 6[˙]165
. .6[˙]1 2.2. 6[˙].5[˙]6 15[˙]6[˙]1

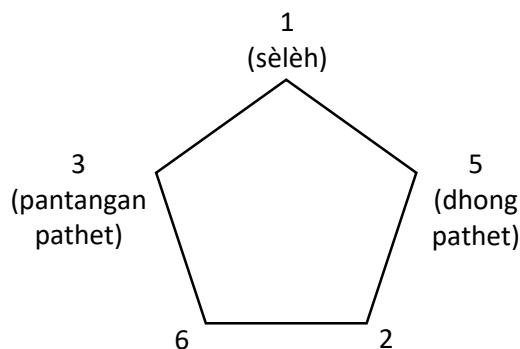
From 5g

(same as from 1k)

To summarize, if starting from 3k, 2k, or 6g, the midpoint tone will most likely be 5g. If starting from 1k or 5g, there are two options; either the midpoint tone is 2g, or 5 and 2 sounded together (a *kempyung* but expanded by one octave). The fact that midpoint tones are not only variable but also seem to be influenced by the previous *sèlèh* is a complicated matter. We might hypothesize that if starting from 3k, 2k, or 6g—*sèlèh* which are also associated with pathet *manyura*—passing through 5g at the *céngkok*'s midpoint is necessary for maintaining the feeling of pathet *sanga*, as 5 is understood to be the *dhong* or modally strongest tone. If starting from 1k

or 5̣g, it is redundant to pass through 5̣g because the feeling of pathet sanga is already strong. Therefore, the midpoint incorporates 2 instead.

What about a midpoint that incorporates 6? For this, it helps to visualize the relationship between tones as a closed circle of kempyung:⁶



Because the kempyung counter-clockwise from the sèlèh is the pantangan or avoided tone of the pathet, tones used for the midpoint must lie in the clockwise direction. 5 is the default choice, as it is closest in position to 1. As explained before, in cases where 5̣g is felt to be redundant, 2 is the next tone to be incorporated. This is where midpoints 2g and 5̣-2̣ derive from. Thus, 6 does not enter into the picture because configurations of tones 5 and 2 already satisfy the conditions at hand. While not an avoided tone per se, 6's proximity to 3 in the circle of kempyung weakens it in a pathet sanga context.

A similar analysis could be performed for every possible combination of sèlèh motion and midpoint tone. That being said, a céngkok is defined by more than its sèlèh and midpoint. Borrowing from the previous example, the céngkok used for the motion 6̣g to 1k in pathet sanga—commonly referred to 'jarit kawung'—always has a midpoint of 5̣g. Fulfilling those criteria, however, is not in itself sufficient for creating the impression of 'jarit kawung.' To be heard as such, the céngkok must pass through 2k at the one-quarter mark. Does that mean for purposes of codification that it is necessary to specify this 2k? Not necessarily. A student of gendèr would

⁶ Presentation of this 'circle of fifths' will perhaps elicit a comparison to theories of Western tonal harmony. However, it was Martopangrawit himself who proposed this in his explanation of pathet (1975, 64–5). The slendro tuning system, while far from being a five-equal division from the octave in practice, is treated as a closed circle of fifths in theory. The same conceptual relationships are largely maintained in pelog despite the tuning being even further away from a five-equal division.

know that ‘jarit kawung’ is limited to the motions 6̣g to 1k in pathet sanga and—transposed up one step—1g to 2k in pathet manyura. The short segment used to transition from 6̣g to 2k in the first quarter of ‘jarit kawung’ (or again, 1g to 3k if pathet manyura) is modally determined. In other words, it is performed the same way whether occurring in the context of céngkok ‘jarit kawung’ or not. This sort of fundamental musical vocabulary is reasonable to assume of gendèr players at any level, and is therefore not necessary to specify.

Conclusion

In this paper, I have explored the issue of codification as it pertains to céngkok. Attempts at codification reached their peak with Martopangrawit’s ‘arah nada’ system in the mid-1970s. Supplemented by the older ‘associative naming approach,’ it remains the basis of beginning gendèr instruction at Central Java’s conservatories and schools for the arts. By extension, it is also reflected in much of the scholarly writing on gendèr by both native musicians and foreign ethnomusicologists. Therefore, codification of céngkok and garap more generally is directly relevant to pedagogical and theoretical activities. Recognizing that no system of codification will ever be perfect, I have suggested a number of features that could be adopted to make the current system more consistent and precise. Such features, which would be used as needed to avoid ambiguities, might include:

1. Melodic register in the balungan
2. Pathet, including instances of modal ambiguity
3. Midpoint variability

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