Wayang Golék: Performing arts of Sunda (West Java)

Video Cassette ETHNO VC 2

Accompanying texts by Martin Clayton and Simon Cook
Wayang Golék:
Performing arts of Sunda (West Java)

Devised by Martin Clayton
Consultant Simon Cook
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Featuring Gamelan Galura
Director Otong Rasta
Dalang (puppeteer) Atik Rasta

This booklet accompanies the Open University video, Wayang Golék: Performing arts of Sunda (West Java) (ETHNO VC2).

The video contains two main parts:

1. A film about wayang golék (rod-puppet theatre) and the related arts of gamelan music and masked dance in West Java, and in particular the musicians and puppeteers belonging to the Rasta family. This part lasts around 25 minutes.

2. A sequence of demonstrations of the Sundanese gamelan piece Béndrong and of its individual parts. The demonstrations are designed to be used in conjunction with the teaching text which comprises the second part of this booklet (see below).

All the material used for this video was shot on location in and around Bandung, West Java in September 1996.

This booklet also comprises two sections:


2. Teaching text and activities to accompany Section 2 of the video (which begins after approximately 25 minutes). Written by Martin Clayton, this text is adapted from the Open University course AA302 From Composition to Performance: Musicians at Work.

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Performing Arts of Sunda (West Java)
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1. Sunda

The province of West Java is the home of the Sundanese people. They comprise the second largest ethnic group in Indonesia, after the Javanese, who live mainly in the provinces of Central and Eastern Java. Despite inhabiting the western third of the island of Java, the Sundanese are not Javanese, any more than the Welsh are English. The culture and language of Sunda are quite distinct from those of Java, although they are also related in many ways.

Parahyangan, the highland region of West Java, is the heartland of Sundanese culture. This area stretches from the cities of Bogor and Sukabumi to the west, as far as Tasikmalaya and Ciamis to the east. It includes Bandung, the administrative capital of West Java, at one time called "the Paris of Java". Now, with well over two million inhabitants, this once leafy city sprawls right across a huge basin surrounded by mountain ranges, dominated by a brooding volcano. Rapid, uncontrolled urban growth has spawned air and water pollution, congested housing and traffic, and alternating floods and water shortages. Gempolsari, the location of the performance on this video, which until recently was a rural backwater surrounded by green paddy fields, is now right on the edge of a crowded city outskirt dominated by textile factories and an orbital motorway. The closely built-up neighbourhood in Cimindi, where the Rasta family live, has for some years been under threat of demolition, to make way for a runway extension for Bandung airport.

Parahyangan does not include the important cities on the north coast of West Java, notably Jakarta, the capital of Indonesia. In this vast, seething melting pot, which dwarfs Bandung, the Sundanese people are just one of many ethnic groups from all over Indonesia. The northern coastal cities of Cirebon and Indramayu, with their own distinctive cultural traditions, also lie outside the Parahyangan region.
Indonesia has the largest population of Muslims in the world. Islam plays an important role in the daily lives of Sundanese people. At the same time, there is a wide range of attitudes towards religious observance, which does not preclude the practice of older animist beliefs. Wayang golék, the rod-puppet tradition featured on this video, is perceived as a vehicle for the propagation of Islamic values, despite its roots in pre-Islamic mythologies.

2. The Arts

It is unusual, though not unheard of, to find Sundanese performing arts in a concert hall or theatre. The usual occasion for live performances is the hajat, a feast given to celebrate a family wedding, a circumcision, or an important official event or anniversary. Traditionally, Sundanese hajat would be held at the family home, usually spilling out into the street with awnings and chairs for guests. Increasingly, those who can afford it are finding it more convenient to hire a large hall for the reception. Guests queue to congratulate their hosts, then eat and socialize. The entertainment might typically consist of jaipongan dancing or gamelan degung (described below), kacapi kawih (a popular vocal genre accompanied by small zithers, fiddle or bamboo flute, drums and gong), or tembang Sunda (a more prestigious vocal genre with large zithers and bamboo flute). Despite powerful amplification, such entertainment is rarely listened to attentively. If the celebration is a lavish one, it may also be followed by an all-night wayang golék performance.

Indonesian society has seen enormous change in the fifty years since Independence. Under former President Soeharto, economic growth brought about the emergence of a middle class, whose members often have little involvement or interest in traditional performing arts. There are televisions in even the humblest Indonesian homes, and they are usually switched on. Radios and cassette players are also ubiquitous. Only a small part of the music pouring from these machines is Indonesian traditional music. MTV, European soccer and Mexican soap operas loom larger in most people's lives than gamelan or wayang.

Nevertheless, traditional performing arts still have a strong minority following, comparable perhaps in size and dedication (though not in social status) to that of classical music in the West. The Sundanese arts are responding in a dynamic way to the changing climate. Experiment and fashion have long been vital elements of the tradition. Even among the more conservative artists, pride in preserving the tradition intact does not preclude pride in being the first to introduce some new element. For instance gamelan degung and tembang Sunda are perceived as being two of the most "classical" genres, yet neither is much more than one hundred years old, and both have changed radically in the last fifty years.

In the Sundanese performing arts, young performers learn primarily through repeated exposure, rather than through formal teaching. Being born into the right family, or at least community, is almost a prerequisite for becoming a musician, dancer or puppeteer. Mass communications have created a gulf among professional performers, between a handful of highly paid superstars, and the rest, who struggle to make a living. This gulf is most marked among dalang (wayang golék puppeteers). The most successful dalang, Asep Sunandar Sunarya, may perform twenty nights or more each month, and regularly appears on television.
and radio, and in the tabloid press. Most other dalang are lucky to perform more than once every six months. Such exposure gives the superstars disproportionate influence in setting norms and fashions.

3. Gamelan

The two most important kinds of gamelan in Sunda today are gamelan saléndro and gamelan degung. Gamelan saléndro (featured on this video) is the ensemble used for accompanying dance and wayang. It is tuned to saléndro, a pentatonic scale in which the intervals are roughly equal (approximately 240 cents each). The tuning of a gamelan saléndro might be represented approximately as:

\[
\begin{align*}
1 &= A \\
2 &= G \downarrow \text{ or } F\# \\
3 &= E \\
4 &= D \\
5 &= C \downarrow \text{ or } B\uparrow
\end{align*}
\]

(\uparrow here indicates a slightly sharper pitch; \downarrow indicates a slightly flatter pitch)

Note that in Sundanese music the pitches are numbered from high to low. Exact tunings vary, and are often demonstrably not equidistant if measured objectively. Nevertheless saléndro is generally perceived by Sundanese musicians as consisting of equidistant (padantara) intervals.

Gamelan degung is a smaller ensemble (although individual instruments have a larger range). It is tuned to a scale of five unequal intervals, pélâg degung, approximately:

\[
\begin{align*}
1 &= G \\
2 &= F\# \\
3 &= D \\
4 &= C \\
5 &= B
\end{align*}
\]

Sometimes gamelan degung is retuned to the sorog or madenda scale by removing the pots and keys for the note 3/D, and substituting pots and keys tuned to a pitch approximately one tone higher, 3-:

\[
\begin{align*}
1 &= G \\
2 &= F\# \\
3 &= E \\
4 &= C \\
5 &= B
\end{align*}
\]

(The Sundanese equivalents of accidentals are minus and plus signs: 3- denotes a raised 3, and 5+ a lowered 5.) The sorog scale is often used in vocal music.

Gamelan degung developed in the courts of the Sundanese aristocracy, and has only gradually become more widely heard since the 1960s. Despite now often being used for 'pop Sunda' (i.e. Sundanese pop music) arrangements, its aristocratic origins still confer on it a higher status than gamelan saléndro. Degung is found only in Sunda, whereas gamelan saléndro, on the other hand, originally came to Sunda from Central Java. Gamelan saléndro is the ensemble generally preferred by the common people. In construction it resembles a small Javanese gamelan. It comprises the instruments listed in the table overleaf.

From Java also came the gamelan pélâg, which has the same instrumentation as gamelan saléndro, but is tuned to pélâg jawar, a seven-note scale of unequal intervals. It is no longer played very often in Sunda. Some of the top dalang currently use gamelan selap, in which the saléndro, pélâg degung and pélâg jawar tunings are combined on elongated instruments (perhaps comparable to the way a piano keyboard facilitates the playing of different diatonic scales).
A special feature of the saléndro tuning is that it can be used to accompany melodies in other pentatonic scales. These melodies are sung, and played on the fiddle rebab. Usually the vocal and instrumental scales have three notes in common, and these notes are stressed in the saléndro accompaniment. For instance, saléndro pieces which feature the notes 1, 2 and 4 (approximately A, G and D) may accompany melodies in the sorog-type scale 5+ 1 2 3+ 4 (approximately B♭ A G E♭ D). An example of this can be heard on the video, towards the end of the demonstration of Béndrong by the full gamelan (c. 38'). The tempo slows, and the singer and rebab player perform a melody called Kacang Asin ("salted peanuts") in this sorog scale.

Saléndro pieces which feature the notes 1, 2 and 4 (approximately A, G and D) may also accompany melodies in the pelog-type scale 5- 1 2 3- 4 (approximately C# A G F# D). The contrast between the altered vocal pitches and the saléndro accompaniment gives the music variety and expressive force. Saléndro is sometimes called raja surupan, "the king of tunings", because of its potential to accommodate different Sundanese scales. This is often
cited as a reason why many people prefer saléndro to other, less flexible gamelan tunings.

4. Dance

Gamelan saléndro is also the usual accompaniment for Sundanese dance. Before Independence, dancing was an important accomplishment among the aristocracy. At a social gathering called a tayuban, they would take turns to perform alone. At the end of a dance, a long scarf would be hung around the neck of the next dancer to perform. The sequence of movements in these dances followed an improvised order. By the 1950s, dances were created in the same style, but with prearranged choreography. This was called ibing keurseus, "course dance" (i.e. learned through a course of lessons).

At about the same time, R. Tjetje Somantri was pioneering a more innovative style, intended for stage performance, which used a wider vocabulary of movement. Kreasi baru or "new creation" dances feature eye-catching costumes, and often depict colourful creatures or actions, such as the tari Cendrawasih (bird of paradise), tari Kupu-kupu (butterfly), tari Merak (peacock dance) and tari Tenun (weaving). The gamelan accompaniments typically comprise novel arrangements of quite simple pieces, interpolating catchy instrumental melodies, and employing striking contrasts of texture and rhythm. Another kind of dance which has become popular in the Sunda region is the masked dance topéng (as featured in the video from c. 11'), which originated in Cirebon.

While in aristocratic circles the social dance was tayuban, among the common people it was ketuk tilu. In the open air, ronggéng (female entertainers) sang, danced and flirted to the accompaniment of kendang (drums), rebab (fiddle), kecrék (metal rhythm plates), goong and three small gong chimes: the ketuk tilu. Male clients would pay the ronggéng to dance with them. Some ronggéng were also prostitutes, and ketuk tilu has fallen into disrepute. Occasionally it is revived in cleaned-up stage versions. Musically, the ketuk tilu repertoire is rich and lively, and some of it is has been adapted for gamelan saléndro or degung. In the wayang performance on this video, the music changes from Béndrong into Cikeruhan, a ketuk tilu piece, to accompany an entry of the clowns (c. 15'). The singer Euis Rostini's gyrating, come-get-me dance (glimpsed on this video) is not unrelated to ketuk tilu dancing.

Since 1980 the dominant social and stage dance has been jaipongan. This was created by Gugum Gumbira. He blended elements of ketuk tilu and the martial art penca silat, together with the red-hot jaipong style of the drummer Suwanda. It uses gamelan saléndro, although this is often inaudible behind the relentlessly dynamic drumming. The music was promoted through Gugum Gumbira's own Jugala cassette label, and during the 1980s became all the rage. Elements of jaipongan drumming have been absorbed into wayang, and even gamelan degung.

In all forms of Sundanese dance, the most important musical instrument is the kendang. The drummer plays rhythmic patterns which should exactly match the dancer's movements. In dances which have not been choreographed beforehand, this is no easy task, and a good dance drummer is highly prized. The kendang accompanies the dance of wayang puppets in exactly the same way.
The dalang Atik Rasta is himself an accomplished dance drummer, as we see in the video of masked dance. Drummers without drums handy often vocalize the dance rhythms with imitative syllables. Atik Rasta (with his father singing the rebab part in the background) drums verbally while demonstrating the refined dance movements of the wayang puppet Arjuna (13'35''), and again when his son Tia is dancing the more dynamic flying knight, Gatotkaca (21'25'').

5. Wayang

Wayang golék purwa, the type of rod puppetry shown on this video, is found only in Sunda. Its stories and form derived from wayang kulit purwa, the flat leather shadow puppetry popular in Central Java. Its precursor in West Java was wayang golék cepak, rod puppetry based on Islamic and indigenous Indonesian stories, which it began to oust in the early 20th century. The stories of wayang kulit purwa and wayang golék purwa are loosely based on the Indian Ramayana and Mahabharata epics, which came to Java with Hinduism some one thousand years ago. They are spiced with many colourful indigenous characters not found in India. Some flat leather wayang kulit puppets are still used in wayang golék, notably the kayon or gunungan, a pear-shaped stylized tree filled with animals, decorated with flames on one side. This is a prop used to represent virtually anything, for instance a forest (kayu = 'wood'), mountain (= 'gunung'), wall, building, fire, flood, wind, or dust cloud. It is also used to signal the end of a scene.

Wayang is an expensive undertaking, and performances are sponsored by a wealthy individual or institution, who thereby acquire considerable prestige. It is staged as part of the celebrations of a marriage, circumcision, a momentous occasion or anniversary. Performances normally happen out of doors, begin in the evening, and continue into the small hours. Seats and food may be provided for invited guests, while the general public is free to mill around and watch. The crowd also attracts cigarette hawkers, food sellers, purveyors of home remedies, gamblers, and every conceivable form of pedal, horse and motor-driven public transport.

The dalang (puppeteer) sits cross-legged at the front of a square, covered stage of shoulder height. Two soft banana tree trunks are placed across a stand in front of him, into which the spike at the bottom of the central rod of the puppets can be stuck. To his left is the large wooden chest, in which the puppets were carried to the performance. He cues the gamelan saléndro at his back by knocking on the chest with a heavy round piece of wood, the campala. Hanging loosely together on the side of the chest are several metal plates, the kecrek, which he causes to crash loudly with his foot at appropriate moments during fight scenes.

The dalang has sole responsibility for manipulating the puppets, providing the dialogue and narration (including long passages in archaic language), singing the kakawen (mood songs), improvising jokes and slapstick, and directing the ensemble by giving percussive and verbal cues. For some eight hours he has no opportunity to stretch his legs or relieve himself. The only chance the dalang has to rest is during the lagu selingan, songs sung at the request of members of the public. The titles requested are written on a piece of paper, enclosing some money, and handed to the female singer during the performance.
The kendang player provides the main musical link between the dalang and the gamelan. As well as playing dance patterns, he adds sound effects during fights, signals transitions, or adjusts the tempo to match the movement or action. Certain pieces (notably Karatagan and the lagu perang, or battle music) contain phrases of indeterminate length: they last until the kendang plays a pattern to cue the goong.

The gamelan players provide a running commentary on the action, heckle the clowns and bad guys, laugh at the jokes and answer rhetorical questions. They enliven their playing with the rhythmic, interlocking hoots and catcalls called senggak. They may also sing improvised phrases (alok) while the female singers are resting.

Wayang golék works at many levels: pure entertainment, low-brow humour, promotion of commercial products, propagating government family planning programmes, social satire, creative etymology, philosophical, mystical or religious teaching, communing with the past, narrative, benediction or even exorcism. Different members of an audience might focus on quite different elements: music, movement, fights, jokes, slap-stick, sexy singers, archaic language, vocal prowess, word-play, dramatic tension, gimmicks (such as puppets which puff smoke or vomit noodles), a social gathering, a fun place to eat and drink. Wayang is as diffuse and rich as life itself.

Further Reading


Gamelan Saléndro

Teaching text and activities to accompany Section 2 of the video

Martin Clayton

1. Introduction

Gamelan is the name given to a number of related musical ensembles in Indonesia. These ensembles comprise various types of instruments, the majority made of metal and most struck with beaters. There are several gamelan traditions, of which three are particularly well-known. These three are, moving from east to west, the Balinese, Javanese and Sundanese gamelans.

Most gamelan music is performed without the aid of notation, yet involves the coordination of many parts, which interlock and overlap in a variety of ways. An obvious question is, therefore, how can the members of the group keep together and produce coherent music, without either playing from notation or memorizing impossibly large amounts of music?

The demonstration part of the video (Section 2, beginning at approximately 25'), together with the text and activities below, should answer that question. This section features a type of Sundanese ensemble called gamelan saléndro. As Simon Cook explains above (p.5), this music is based on a pentatonic scale, also called saléndro. The Sundanese use various methods to describe this scale, the simplest of which is a numerical system in which each note of the scale is assigned a number from 1 to 5; the Sundanese assign the numbers to a descending scale, so that pitch 1 is higher than pitch 2 and so on. Pitches in the higher octave are indicated by a dot beneath the number, and those in the lower octave by a dot above. The scale is roughly equidistant, with pitch 1 approximately equivalent to A in the Western scale. I have written out the scale in Example 1 in staff notation, although in fact you may find it easier to simply follow the number notations than to 'translate' everything to and from Western terms.

Example 1

Section 2 of the video, headed 'Demonstrations', takes you through a few of the simpler instrumental parts for the piece Béndrong. You may need to replay the relevant sections of the video several times to complete each Activity. As we work through the various instrumental parts you will gradually see how the structure of the piece works, with overlapping instrumental parts working together to build up the overall sound.
**Activity** The gong part

The gong player plays a repeated pattern of notes in an 8-beat cycle, using two gongs called the Kempul and gong,¹ as demonstrated and identified on the section of video that you are about to watch.

The grid below allows a space for each beat of the cycle. Watch the video and fill in the grid to indicate whether the Kempul ('P') or the gong ('G') is played on each beat. Leave the space empty if there is a rest with neither instrument playing on a particular beat. Wait for the indication on the screen to help you identify the first beat of the cycle before you try to complete the grid.

Watch the section of video featuring the gong player now, and fill in the grid below.

<table>
<thead>
<tr>
<th>beat 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Discussion**

This is how the grid should have been completed. If this is not what you got, watch the video again and try to relate what you see and hear to what is written below.

<table>
<thead>
<tr>
<th>beat 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>G</td>
</tr>
</tbody>
</table>

**Activity** The jengglong part

The jengglong is a set of smaller pitched percussion instruments (sometimes called 'gong chimes' or 'kettle gongs'). Again you will see that the performer on the video plays them in a set sequence - or, rather, in two alternating sequences, which I would like you to listen to carefully and record in the grid overleaf. The grid is in two rows for you to fill in both cycles. (It doesn't matter which one you put first, since they alternate repeatedly.)

As you watch, the video graphics will help you to identify the first beat of the 8-beat cycle, and will also identify the note name in the form of a pitch number for each instrument.

¹Usually spelled 'goong' in Sundanese, and pronounced 'guh-ong'.
Watch the section of video demonstrating the jengglong part now, and fill in the appropriate pitch number for each beat in the grid below.

Discussion

I hope you got the following answer. (You could have the two lines the other way around; it doesn’t matter.) If this is not what you got, watch and listen again, trying to match what is on the video to my answer.

We need next to look at how the gong and jengglong parts fit together. The upper part of figure 1 below reproduces the gong player’s part above the corresponding beats of the jengglong player’s line. The lower part of Figure 1 shows a different way of laying out the same information, incorporating the two parts into the same notation. Notice that the beat divisions have been changed to give 4 sets of 2 beats per line, instead of 8 single beats per line. This is simply a change to give us a neater and less cluttered form of notation. This style of presentation will be helpful as we look at adding yet more instrumental parts to the music.

The next instrument I want to consider adding is the saron. The ensemble uses two, identical, saron, which are played as a pair. The principle of the saron is the same as a xylophone, but it is made of metal (hence the generic term ‘metallophone’). In this particular piece of music, ‘Béndrong’, the two players have a choice of three possible patterns that they can play during the phrase that we have been considering. These alternative lines are called lancaran, caruk and ciaseman. It is important to understand that these three options are alternatives,
and cannot be played simultaneously; the players select just one of them at the relevant point in the piece.

**Activity**

On the next section of the video, first the lancaran line, then the caruk line and the ciaseman line are demonstrated by the saron players. After a short introduction saron I begins alone; saron II joins in later. The note patterns played by each player are supported by the highlighted notation on the screen to help you to follow what is being played, and how the two parts interlock. Watch the video demonstration of the lancaran, caruk and ciaseman now, trying to follow the notation as you watch. Do not worry if you get lost at first, but replay the video section until you can follow the notation and hear how the two saron parts interlock.

**Discussion**

In Figure 2 I've written out in parallel the parts for gong/kempul, jengglong and the three saron alternatives. You should remember that this is not a score: although I have illustrated parts for several players in parallel there are many other parts not shown here, and moreover the lancaran, caruk and ciaseman parts are alternatives to each other and are not played simultaneously.
Activity

Now I’d like you to look at the parts written out in Figure 2 and try to work out the following.

1. How do the lancaran saron parts relate to the jengglong part?

2. Bearing in mind your answer to (1) now compare the caruk parts with the lancaran parts. What similarities and differences can you spot between them? (A couple of clues. You will find it useful to begin by looking at a fragment of the line, for instance the first four notes of each saron part. Look, too, at the ends of lines and phrases, i.e. those occurring just before the vertical lines.)

3. How do the ciaseman parts relate to the other parts illustrated here?

Discussion

Here are my answers to those questions.

1. The lancaran saron I is in fact exactly the same as the jengglong part, with the pitch '4' added before each note: thus '51' becomes '4541' and so on. Saron II plays a single repeated pitch (either 1 or 2) before each of the saron I notes. These saron II pitches are the same as the jengglong notes that coincide with Gong strokes (to check this, look immediately below each 'G').

2. The caruk parts look rather different at first sight, apart from the phrase '4543' which also comes in the lancaran saron I at the same time. Looking at the ends of phrases, however (just before the vertical lines), we see that the notes are identical with both jengglong and lancaran parts. If the similarity is found at the end of each phrase, the difference lies in what happens before this common final pitch. Whereas in lancaran the two saron parts appear to follow a separate logic, in caruk the two only make sense when considered together, because together they form a continuous, conjunct melodic line. Figure 3 indicates how the melody is perceived by the ear: as one continuous line for caruk but as 2 separate lines for lancaran. Replay the demonstration on the video if you didn't notice this before.

![Figure 3](image-url)
This is a little harder to identify. Not all the phrase endings are the same, but alternate phrases are. The patterns have something in common with the interlocking caruk patterns, but contain more rhythmic and melodic interest, which is clearer if we write the ciaseman part out as in Figure 4.

Figure 4

You should now be getting the hang of some of the basic underlying principles of this music, and of this piece in particular. I'll now elaborate on a few of the principles, starting from a point with which you should already be familiar.

The ends of lines and phrases are particularly important. Thus in this piece we have seen how the first phrase always ends on pitch 1. Examining the rest of the parts we can see that the second phrase ends on a 1, the third on a 3 and so on, giving the pattern shown in Figure 5 below, which records the last note of each phrase. We can call these end-of-phrase notes 'destination pitches', while those coinciding with the gong strokes may be termed 'gong tones'.

Figure 5

If you look back at Figure 2, you can see that the jengglong part simply interpolates the pitch 5 between each of these notes. The lancaran saron I precedes each destination pitch with '454...', while lancaran saron II repeats one of the 'gong tones' on the off-beats. In caruk, the two sarons together combine to produce a conjunct melodic line ending on the destination pitch.

Similarly, each of the other instruments has its own idiomatic way (or, like the sarons, choice of ways) of moving to each destination pitch or gong tone. In some cases, the patterns are rather more complex than those we have considered here. Moreover, several instruments can either be played in the kind of simple style illustrated here, or in much more complex and elaborate patterns, depending on the proficiency of the player. The result is that the sound of the group playing together is quite dense and complicated, and yet the underlying structure of the piece is remarkably simple - Sundanese musicians would actually be able to reconstruct all the parts, given only the identity of the two 'gong tones'.

Although not all Sundanese pieces are this simple in conception, the basic principle that complexity is built on very simple structural foundations certainly does hold true for more complicated pieces. Now we can go on to make some more observations.
2. Variation

In order to take us this far, I’ve had to write down a few parts and analyse them. This has clarified some points, but obscured others, the most basic of which can be stated bluntly: virtually every part in every Sundanese gamelan piece is subject to variation. Each player has, as a general rule, not a single correct part, but rather a selection of equally correct options. In fact each player knows the basic structure (such as that discussed above), and how to derive the part for his own instrument from that structure. But the rules for deriving a particular part from the basic framework generally allow several possibilities. This applies in cases like that we’ve covered, where an instrument (saron) has a choice of different types of pattern (lancaran, caruk or ciaseman), but it’s also the case that each type of pattern can be realized in several ways.

To give an example, the caruk pattern quoted above is in fact only one of many possibilities. The ‘rule’ is that the two sarons should combine to produce a simple melody ending on a destination pitch. The way this is achieved is by the two sarons effectively dividing up the scale between them. Thus if the destination tone is a 1, saron I will play mostly 1s and 3s; saron II will play 2s, 4s and high 5s. We’ve looked at one possibility, that saron I plays ’1331’ and saron II adds ’242’, resulting in the conjunct line ’1234321’, as laid out in Figure 6.

![Figure 6](image)

Following the same principles, Figure 7 shows some other possibilities.

![Figure 7](image)
Thus, the lines tend to be mostly conjunct, with only occasional leaps, something which is achieved by the two players carefully listening to each other and responding appropriately. Almost all the parts, as I said, are similarly variable. The result is that, even if the group kept repeating the same basic framework all night, it would never be realized exactly the same way twice.

3. Expansion and contraction of the piece: wilet

It should already be clear that, in order for this music to work, musicians need to listen out carefully for what their colleagues are doing. For instance, since the saron I has at least three possible patterns to play (lancaran, caruk and ciaseman), the saron II player must keep listening in case his colleague changes from one to another. The same 'interlocking' principle applies to certain other instruments too. In order to show just how important group interaction is in this music however, it will be necessary to introduce another factor.

It is common practice in Sundanese gamelan music to change the speed of the gong pattern (and, therefore, of the sequence of destination pitches). Say the piece starts with the gong phrase (i.e. the time which elapses between two strikes of the big gong) lasting $X$ seconds. By decelerating, this phrase can be expanded to $2X$, $4X$ or even $8X$ seconds. A common pattern is for a piece to go through one, two or more such expansions, and then to return by the same stages to the original level (in some cases a higher or extra-fast level, say with a gong phrase of $\frac{1}{2}X$ seconds, may also come into play). These different levels are called wilet. It would be a little misleading to think of this shift as simply a change in tempo. In practice, most players will adjust the number of notes they play per cycle so that the tempo - the speed at which the listener feels the music to be moving - does not change as much as these figures would suggest.

Wilet change has something in common with augmentation and diminution in Western music, but is really a process peculiar to south-east Asian music - I like to think of it as analogous to a machine changing gear. Figure 8 demonstrates this shift, with the gong phrase on the top line keeping the same pattern but spreading it over a longer time, while another instrument continues to play notes at the same speed but has time to play more of them in the same basic gong phrase:

\[
\begin{array}{cccc}
\text{expanded could become} \\
\hline
\hline
\text{and expanded again could become} \\
\hline
\end{array}
\]

Figure 8

\[2\] The melodic notations here are not intended as actual instrumental parts; they have been invented to give a clear picture of the process being described.

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and so on. So although the gong pattern becomes more and more sparse, most of the other parts play at much the same speed, but have time for more notes.

This process has various ramifications, but the most important for us here is that it puts an extra burden on group interaction, since (1) the whole group has to expand and contract the pieces together, while (2) the way the piece will work out (how it will be expanded and contracted, and when) is normally decided only in performance. In practice these changes are signalled aurally by the drummer to the rest of the ensemble and the rhythms he plays enable the group to 'change gear' in a co-ordinated fashion.

Activity

The next section of the video illustrates this wilet change in practice. Try to follow what happens: although the whole group is playing, the camera focuses on the drummer and gong-player to make this easier. If you concentrate on the gong pattern, which should be quite familiar by now, you will notice the decelerations to successive expansions of the piece. The gong-player is following the drummer's cues - cues which are entirely aural.

Watch the video section entitled "Béndrong" - demonstration of wilet changes' now.

Activity

Finally, I'd like you to see and hear how all these things come together. The next video sequence shows two extracts of the whole group playing the piece 'Béndrong' together, going through a sequence of expansions and contractions. The music is, I think you'll agree, rather complex - but try to remember as you watch, just how simple the underlying structure is! Watch the performance on the video section entitled "Béndrong" - played by the whole group' now.

4. Conclusion

I asked the question at the beginning of this section on Sundanese gamelan music: how is it possible for a group of musicians to play highly complex music, in a cohesive manner, without the use of notation and without having to memorize impossibly large amounts of music? My answer came in a number of stages.
1 Rather than reading, or memorizing vast amounts of music, the musicians memorize the simple frameworks of pieces. Individual parts are all related to these frameworks.

2 Parts are worked out by the application of simple principles or rules, which allow for several equally valid realizations. Having learned his instrument's part for a few pieces, a musician can apply the same principles to other pieces too, working out the part as he goes along - in performance.

3 A strong sense of ensemble ensures a cohesive performance. Everyone knows, at least in general terms, how the other instrumental parts go: musicians listen to each other and respond to each other's changes. In particular,

(a) in the case of some instruments (such as the sarons), separate parts interlock to form a coherent whole;

(b) in order to expand and contract the piece together, everyone must listen and respond to aural signals given by the drummer.

This material is adapted from Chapter 12 of the Open University course A A 302, From Composition to Performance: Musicians at Work. Details of this and other Open University courses are available from Course Enquiries Data Services, PO Box 625, Dane Road, Milton Keynes, MK1 1TY, telephone 01908 858585, or on the Internet at http://www.open.ac.uk/
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