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THE AUTOCHTHONOUS AMERICAN GAMELAN.

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Music

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W E S L E Y A N    U N I V E R S I T Y

THE AUTOCHTHONOUS AMERICAN GAMELAN

Dennis Alan Murphy

A Thesis submitted to the  
Faculty of Wesleyan University in  
partial fulfillment of the requirements  
for the Degree of Doctor of Philosophy

Middletown, Connecticut

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## INTRODUCTION

I will describe the construction methods of the Javanese gamelans I have made, and the use of these instruments for vocal & instrumental music, and as accompaniment to shadowplay. Since I will be covering the subject from three different approaches, i.e., Javanese musical culture, the small American college culture, and the "Thoomist" culture; it is difficult to determine the best way of presenting the material I want to present.

All of this happened to me, and to others around me, as a story. That is, this paper will necessarily be a narrative above all, as it is the description of a major aspect of my life over the past several years.

Thus, I propose to tell the story as it happened, and as it is still happening, with the cultural aspects in the foreground much of the time.

One difficulty may arise for the reader. "Thoomism" (used for want of a better name) is at one and the same time an elaborate joke, a religion, a lifestyle, a way of approaching beauty, a systematized superstition, a framework for various artistic activities, and an intellectual exercise, i.e., a game, of primarily a linguistic nature. Since "Thoomism" is one of the central themes in the story I have to tell, the reader of this paper must somehow

be convinced that these aspects of Thoomism are not mutually exclusive, but on the contrary, mutually reinforcing, and that although it is in one way an elaborate joke, it is anything but frivolous.

It must also be understood that while the gamelan herein described is a Javanese gamelan, most often performing traditional Javanese music and doing this fairly accurately, it is not merely an incomplete attempt at Javanese musical culture, but is a unique phenomenon, with a life of its own, the beginnings of a constantly developing original repertoire of musical techniques and compositions, a shadowplay distinctly of its own kind, and so on. It is thus a logical organic growth resulting from the fortunate meeting of three distinct cultures.

Musical instruments will travel and change form and function in most interesting ways. Jaap Kunst, in footnote two of Music in Java, page 178, describes the gender's adaptation for use in North American popular music in the guise of the vibraharp (now called vibraphone) and its return to Java in 1932 in this new guise, but tuned to slendro, where it is used in a gamelan owned by Manku Nagara VII.

The harmonica so popular among American blues musicians today is a not-to-distant relative of the khaen of Laos, via migration through China, Japan, and Germany.

And so it goes. Actually, by comparison with these examples, I have been extremely conservative in my adaptation of the Javanese

gamelan to locally-available materials.

As I will reiterate from time to time, I have usually omitted diacritical marks as being of little use, especially in the case of Thoomese words. I have not attempted any consistency in their use, though I am reasonably certain that all words which "need" them occur at least once with them.

I have chosen to begin with the presentation of a small book, which I recently wrote in hopes of having it published. Its inclusion here is the simplest way I know of giving the most basic technical information on gamelan construction. Supplementary technical information will occur in subsequent parts of this paper. I have decided it is best to include the notated music provided for "the book", for the sake of clarity, even though some of it duplicates notated music given in the section devoted to our total repertoire.

All the material here presented should be read through completely, in the order in which it is given. Since I am describing something very much alive and in a constant state of flux, the full picture will appear only after one has read everything. I will have to be satisfied with an arbitrary cutoff-point, but the story can never be completed unless the Thoomese gamelan ceases to grow and change. Perhaps I will be able to make subsequent additions to this paper, in years to come, so as to update the information.

Due to recent spelling reforms, most Javanese words occur in the earlier spelling, but a few are found in the new spelling. The only changes likely to cause puzzlement are these: *tj* is now written *c*, *dj* is now written *j*, and *j* is now written *y*.

Since this paper deals with both Javanese and Thoomese music and shadowplay, the reader may be interested in my view of their relationships as artforms.

Only a very few people who have come in contact with this paper, and/or my work in these areas, have shown any distress or puzzlement about it all. Most, including the few Javanese familiar with it, have been very accepting of it and pleased by it. But perhaps it will be useful to speak to the matter of occasional puzzlement.

Since Javanese music is very much alive and well, it is slowly changing. New pieces are being composed and new performance-practices are developing. I am very much interested in Javanese music as it has been and as it is becoming, and fully expect to spend much time and effort in learning all I can about it, probably for the rest of my life. This does not, however, put any sort of damper on the further development of Thoomese gamelan composition and performance-practice, and the shadowplay which goes with it.

A few people (none of them Javanese) seem puzzled by Thoomese gamelan because it is neither strictly Javanese nor does it reject Javanese practice. Such people seem to feel that one should be very



"purist" about such things, or make a clean break with tradition. I can only reply that: A.) I am interested in "purism", and approve of it, but that is not what I'm doing here, and B.) Nothing, so far as I know, has ever truly broken with tradition. However much the more extreme members of the avant-garde like to think so, one can not create in a vacuum.

A very few people, (none of these Javanese either) would seem to feel that I have "appropriated" something belonging to someone else, and "put it to my own uses". Such people suggest that I might feel resentful if someone were to use my work as a takeoff-point for his own work. I will be only too delighted if this happens. It is, in fact, one of my greatest hopes that writing this paper will have that very effect.

I must emphasize, (as I often do throughout this paper) that Thoomese gamelan and shadowplay are "natural beings" owing much to Javanese culture, not some deliberately programmed artificial entity invented suddenly as an intellectual exercise. I scarcely feel that I have "appropriated" anything, nor that I in turn "own" Thoomese gamelan and shadowplay.

The proprietary attitude sometimes seen among certain musicians and other artists is dismaying to say the least. It seems to me preposterous to practice an art in order to keep it to one's self.

There's a Thoomese saying which covers this: "Nāvenu Vodattah" "It isn't art til you give it away".

The numbers which occur in the text surrounded by red squares refer to the notes in "additions and corrections" at the end of this paper.

## "THE BOOK"

(Here follows the text of the gamelan-making guidebook mentioned above, originally entitled "How to Make and Use Your Own Javanese Gamelan". The text is followed by illustrations and printed music to which the text refers. Throughout the remainder of this paper, this gamelan-making guidebook will be referred to simply as "The Book", in quotation-marks.)

## FOREWORD

What follows is a highly condensed set of directions on building and playing a small Javanese gamelan. Please read through the entire article at least once before attempting to make anything. Some items of information may appear out of place, but this is generally because there was no more logical place to put them. Information concerning any given instrument will occur at several places, and this is why it is essential to read everything before beginning to build.

Above all, ENJOY! Actually, with gamelan it would be hard not to.

One of the more remarkable things about the music of the Javanese gamelan is that almost everyone in our culture likes it on first hearing, even though it is quite different from any Western type of music.

Gamelans in Java vary widely, from huge expensive sets of instruments made of bronze, owned only by the very wealthy, to very small sets with iron keys, found in small villages. This does not mean that iron is a poor material from which to build a gamelan, for there are some iron-keyed gamelans in Java which are very highly regarded.

It is possible to build a small iron-keyed gamelan, capable of performing traditional Javanese music, using only a few very common tools, and materials available in any small city.

First of all, let's consider tuning-systems. Without going into technicalities, it is enough to say that there are two main tunings used for Javanese gamelan music. A very large gamelan really contains two complete sets of instruments, so that the performers can switch from one tuning to the other as needed. If you were to play all available tones in the octave, from low to high, the system called *slendro* would sound to us Westerners something like c d e g a c, which is one of our more common scales. There would be some differences, however ... more about that later. The tuning called *pelog* would sound something like c# d e g g# a b. Smaller gamelans are in only one tuning. The set described here will be

in slendro.

All gamelans of the kind we are going to build consist of three kinds of instruments:

- A.) Those which play the main melody, or "nuclear theme", <sup>[1]</sup>
- B.) Those which play a more elaborate version of the melody, and
- C.) Those which "punctuate" the melody, much as commas, periods and so on are used to divide words into groups.

Our gamelan will consist mostly of iron slabs suspended by cords over a wooden case.

Group A: Melody-carrying instruments. We'll make four of these, each playing one octave. From lowest to highest they are called slentem, demung, saron, and peking. See figure one for the pitches in Western staff-notation. These pitches are only approximate, as will be seen when we come to the tuning-process. The numbers will be explained later also.

Group B: Elaborating (panerusan) instruments. There are many instruments belonging to this group, but in order to stay within practical limits, we will make only one, the bonang barung. See figure two for pitches.

Group C: Punctuating instruments. A set of drums (kendang) <sup>[2]</sup> played with the hands, i.e., no drumsticks, a big gong, one or more smaller gongs called kempul, a set of kenongs, and a ketuk. You'll find that many of the names of gamelan instruments resemble the sounds made by the instruments. By the way, "gong" is a Javanese

word which we have borrowed into English. However, the Javanese gong is much different in sound, and much more complex in shape, than the instrument we call gong. Ours is much closer to some Far-Eastern types. Both are round and made of metal, but there the resemblance ends.

Tools and materials: The cases for the instruments are very simple, and can be made of ordinary lumber, using a few common hand-tools.

The bars are made of fourteen-gauge or sixteen-gauge hot-rolled steel. Fourteen-gauge is slightly preferable. Normally this comes in large sheets, four by eight feet or larger. However, for our purposes, we will want it cut into strips of various widths. The supplier can do this at small cost. For names of suppliers, consult yellow-pages of the phone book under such headings as "sheet steel", "steel distributors", and "steel warehouses".

Here is an estimate of the amounts of metal you'll need in each width:

Three and one-half or four inches wide: ten or twelve feet.

Three inches wide: six or eight feet.

Two and one-half inches wide: about twenty feet.

Two inches wide: about four feet.

It is best to get a little extra, since there will be some waste and errors.

Normally this metal is sold by weight, and costs twenty to twenty-five cents per pound in most areas. It would be difficult

for the supplier to quote an estimate on your order. However, the entire gamelan, bars, cases and all, is unlikely to cost over sixty-five dollars or so at today's prices, and may run a good deal less if it's possible to find scrap and reclaimed lumber. The widths of the metal strips are not critical; a quarter-inch either way won't matter.

Some of the instruments need tubular resonators. These are easily made of tin cans, and you should begin saving cans of various sizes at once as you'll need a surprising number of them.

The bars are cut from the long metal strips with a hacksaw. A twenty-four tooth blade works best, and you'll wear out and/or break about a half-dozen of these by the time you're through. You'll need an electric drill, a highspeed drillbit of one-quarter inch size or thereabout (a slightly smaller drill will do as well), a pair of tinsnips, a center punch, a hacksaw, a hammer, and a reasonably heavy metal vise. All these can be found in just about any public-school workshop.

For the cases you'll need nominal one-inch lumber, one-quarter inch plywood or masonite, casein glue (Elmer's or similar kind), nails (preferably number five or six box nails and number three box or common nails), coat hangers, wire-cutters, and slip-joint pliers.

Making the slentem: This is the lowest of the instruments playing the nuclear theme, and we'll use it as an example for making all the bar-type instruments. It will take longer to build

than any of the others, which is a good reason to do it first. Don't become discouraged. The second instrument will be much easier to make, and by the time you get to the third you'll wonder why it ever seemed difficult.

Begin by cutting bars to approximately the lengths given below, using a strip of metal three and one-half or four inches wide. Note that the width of a bar does not affect the pitch in any way, but we try to keep the bars from being too skinny or too squareish.

Bar Number:	Length in Inches:
1 - - - - -	14
2 - - - - -	13
3 - - - - -	12
5 - - - - -	$11\frac{1}{2}$
6 - - - - -	$10\frac{1}{2}$
7 - - - - -	$9\frac{1}{2}$

Now it is time to tune the bars. Here we come up against a feature of Javanese music which is very difficult for Westerners to accept. Javanese scales are not as precisely and mathematically fixed as ours and most others are. This is a rather complex subject, but we need not go into it here. It will be enough to copy an existing slendro tuning. The easiest way to arrive at it without using special equipment is this:

- A.) Obtain a guitar, in good adjustment.
- B.) Tune it accurately to "concert pitch" (a=440 cps).



C.) Lay it on a table with the tuning-keys to your left.

D.) The tones you want are found at the dots in figure three.

That is:

1 - midway between second and third frets of A-string.

2 - one-quarter of the distance from nut to first fret of D-string.

3 - one-quarter of the distance from second to third fret of D-string.

5 - midway between fourth and fifth fret of D-string.

6 - at second fret of G-string (normal "A" of the guitar).

1̇ - midway from nut to first fret of B-string (that is, an octave higher than bar 1).

These numbers (1 2 3 5 6 1̇), will be used in notating the music.

To produce these tones on the guitar, you can push a pencil point gently under the string, and press with a finger to the left of this spot. This amounts to a sort of movable fret, and while the tone will not be especially clear, it will do well enough for the purpose.

These tones are in the correct octave for the slentem. By a peculiar quirk of human hearing, gamelan instruments often sound as if they were an octave lower than they actually are, and this is especially true of the slentem. However, with the bar-lengths given, it would be all but impossible to mis-tune an instrument to

the wrong octave.

Once the slentem is built, you simply tune the demung an octave higher on each equivalent bar, the saron an octave higher than the demung, and the peking an octave above the saron. Thus the four melody-instruments will be playing the melody in four octaves simultaneously, giving an incredibly strong and rich sound.

To continue making the slentem: Lay the bars over two pieces of clothesline on a table, with the rope contacting the bars about one-quarter of the way in from each end. Figure four shows how this will look. Strike bars gently in the center, with the slentem-tabuh (see below) or any padded stick. (The tone will be very quiet, but don't worry, as the resonators will amplify the volume to an astonishing degree). Each bar will be found to be somewhat too low compared to the pitches obtained on the guitar. Tuning the bars is simply a matter of raising the pitch of each bar to the desired extent. This is done by putting a slight crease down the center of each bar. The more crease, the higher the tone that bar will produce.

To bend a bar, put it in the vise so that half its width sticks out at the top. (See figure five). Strike with a hammer, so as to put a slight crease in it. Most of the bars will be much longer than the width of the jaws on the vise, so start at one end and bend a little, then do the same at the middle, then at the other end, trying to crease the bar evenly. Test frequently by putting the bar back in its place on the clothesline and tapping

with a tabuh (or a sharp rap with one fingertip). If you go too high, the bar can be flattened out slightly to drop the pitch. Figure six shows the average amount of crease in a bar viewed from one of the narrow ends.

Sometimes you'll find that a bar produces two tones when struck. This is almost always because there is a twist in it. Lay the bar on an absolutely flat surface to see which corners touch and which don't, then remove the twist. It isn't necessary to check all bars for twist, since this twist often does not produce any problems. Check and straighten only those which sound unsatisfactory, if any. The problem may not arise at all. If all else fails, discard a faulty bar and begin anew.

Once the bars are tuned, you will need to drill two holes in each, for the cords which support them. There are several ways of finding the proper places for these holes, but the simplest way, while not perfectly accurate, will do quite well: Divide the length of the bar by four, and put the holes that far in from each end, on the central crease. For example, an eight-inch bar would be drilled two inches in from both ends. If you wish to be perfectly accurate, measure two-ninths of the total length from each end of the bar, and drill there. It is best also to measure to find the midpoint of the width, as your crease may be a bit off-center, which poses no problems, but the holes must be on center to make the bars lie reasonably flat in the finished instrument.

While it is possible to make these holes with a hand-powered

drill, it is hard work, and an electric drill is a tremendous saving in time and effort. Make a dent with a centerpunch where you intend to drill, and put a drop of oil on the spot before drilling (and maybe once more, halfway through each hole). It's easier to drill from the back of the bar; that is, like figure six turned upside down.

After all the holes are drilled, remove the burrs from the edges of the holes. I often use the corners of an old flat file for this job. Another way is to put a five-sixteenth inch drill into a bitbrace, and use it much like a countersink would be used in wood. The object of all this is to avoid having any sharp spots which would fray the cords that pass through the holes.

With a fine flat file, smooth the rough ends and corners and edges of each bar. While this seems a picky sort of job, it's worth a bit of care, as it saves cuts and scratches when playing.

After all this, the bars may need slight re-tuning, so be sure to check this out.

Resonator tubes: These tubes stand under the bars, and greatly amplify the volume of sound. This effect is especially evident in the lowest pitches, and becomes less evident in the higher-pitched instruments, where the energy-output of the bars themselves is relatively high.

The tubes for the slentem are made of one-pound coffee-cans, two-quart juice-cans, or similar large tin cans, not over four or five inches in diameter. Begin with the tube for "low I", your

lowest bar. You will make a stack of cans, all of the same diameter, held together with masking tape. Be sure to align the cans carefully, so that you can easily get an airtight seal with the tape. Soldering is better, but is difficult enough to discourage most people. You should examine these taped joints once or twice a year, to be sure they are still airtight. Every so often, the old tape will have to be removed and new tape put on. One end is left in one can, and both ends are removed from the rest, so that you get a tube closed at one end (the bottom) and open at the other (the top). See figure seven.

Once you have stacked up and taped together two or three cans, you'll notice that you can hear a definite musical tone if you blow across the top, or bump the bottom edge against the table. (A piece of thin carpet laid on the table or floor makes an excellent "bumper"). Continue adding cans until this "bump-tone" is about the same pitch as the bar you are making it for. Actually, you'll usually have to go too low, i.e., too long, and trim away the open end until it comes back up to the desired pitch. For a right-handed person: hold the tube across your lap, with the open end to the right. Start cutting off a narrow strip, beginning at the bottom edge of the can. See figure eight. Rotate the can in the direction of the arrow as you cut. Test frequently by "bumping" or blowing over the top, until you get the pitch needed. You do not have to tune the resonating-tube exactly to the pitch of the bar. In fact, it is undesirable to have the two perfectly matched,

as this would give a very loud but very brief tone. I generally tune the tubes a little higher than the bars, but a little lower will do almost as well.

Once the set of bars and tubes has been tuned, the only thing remaining is to build some sort of rack or case to hold it all in position. Figure nine shows the simplest design I know for a slentem case. Note that from the outside all tubes appear to be the same length, but actually all but the longest one have extra cans taped on under the can which has the bottom left in. The reason for this is to get all the open ends of the tubes up close to the undersides of the bars. In the diagram, dark lines show the bottom of the functional portions of the resonators.

Figure nine shows how the string loops down through each bar-hole. A stick, such as a wooden match, about one to one and one-quarter inches long, goes through the loop of string. The best string for the purpose is carpenter's chalk-line, available at hardware stores.

Figure nine-b: The string is held up between each bar (optionally between pairs of bars in smaller instruments) by a bent piece of coat-hanger wire, inserted into a small hole drilled one or two inches deep into the top rail (d).

The four ends of cord are tied around dowels (c) inserted vertically in each end-board (e). Actually this is only one of many ways of tying the ends. Any method that works is acceptable.

Actual dimensions of the case will depend on sizes of tubes

and bars, which is why the cases are built last of all. Obviously, the top-rails will lie under the holes drilled in the bars, and this will determine the widths of the two end-boards. These end-boards must project about one and one-half inches above the top-rails, so that the bars do not bump the cans, which should line up approximately level with the top edge of the top-rail.

Assemble all cases of number two pine, or wood of similar quality, using casein glue and number five or six box nails at all joints. The bottom of the case is one-quarter inch plywood, or one-eighth inch pressed wood (such as masonite). You will probably want to hide the resonators from view, in which case cloth can be hung from inside the top rails, or panels of plywood or masonite can be slid down from above to cover the tubes, if there is room for such panels.

The cases can be painted any reasonable color, and all instruments in the set should be painted the same color. Red paint, or dark brown stain, or deep green paint, would give a fairly traditional appearance to it all. Do not paint the bars.

One tabuh (mallet) is used to play the slentem. Using nominal one-inch lumber, make a disc about three and one-half inches in diameter. If you have access to a jigsaw, this is an easy operation. If not, clamp the wood in a vise, and use a coping saw to cut out the circle. Smooth out any great irregularities with a rasp or coarse file, but don't worry about small wobbles or bumps. Drill a hole through the center, and glue in a handle of one-half

inch doweling, about fourteen inches long. Groove the rim of the disc deeply, using a triangular file (see figure ten). Wind a strip of soft cloth around the rim, and keep it in place with a rubber band, which will tend to grip into the groove. Put on just enough cloth to give a smooth muffled tone with no trace of "clang".

Don't worry about volume of sound, as even a softly-played slentem can be heard clearly through the loudest gamelan-music, giving a wonderful solidity and strength to the overall sound of the group. Note that ~~the~~ slentem will be too tall for the player to sit on the floor like everyone else in the group. Thus the slentem should be put at the side or back of the group so as to avoid blocking any players behind.

The demung: This will be a smaller affair than the slentem, but otherwise much the same. Use soup-cans, or other cans of that general size, to make the resonators. The bars are of three-inch wide metal, and these are the approximate lengths:

Bar Number	Length in Inches
1 - - - - -	10½
2 - - - - -	9½
3 - - - - -	9
5 - - - - -	8½
6 - - - - -	8
• 1 - - - - -	7½

Again let me mention that these are only suggestions. Nearly any length will do, so long as it is great enough to give a pitch



lower than that actually needed, yet not so much lower as to require a ridiculous amount of creasing to bring it up to pitch. A little experimentation with a piece of the iron will show you what a wide variation in pitch you can give to a bar.

Normally, a demung doesn't need resonators, but for our set it is best to use them, as we are using rather thin metal.

The saron: The bars are two and one-half inches wide.

Bar Numbers	Length in Inches
1 - - - - -	$7\frac{1}{2}$
2 - - - - -	7
3 - - - - -	$6\frac{1}{2}$
5 - - - - -	6
6 - - - - -	$5\frac{1}{2}$
7 - - - - -	$5\frac{1}{4}$

Here we are getting to a pitch-level which is high enough that the tubular resonators can be dispensed with if desired, though they will add some volume.

Make a case like the previous two, but let the sides be made of a single board four to five inches wide. Add a bottom, whether you use resonators or not, as it makes the case stronger, and the resultant empty box-affair will act as a sort of one-piece resonator for all the bars.

The peking: Like a saron, without tubes. Build the box very shallow, and extend the end-boards below, to get a convenient height (see figure eleven), or set the peking up on a platform or

a couple of bricks.

While only one slentem and usually only one peking are used, even in a really large group, there are often several sarons and demungs. If you wish to expand the membership of the gamelan, you could use two demungs and four sarons, or three demungs and six sarons; but do not duplicate either the peking or the slentem.

The demung, saron, and peking all use wooden tabuhs without padding. An easily-made kind is seen in figure twelve. Use nominal one-inch board and one-half inch doweling glued through the hole in the center of the tabuh-head.

Measurements for figure twelve in inches:

	<u>A</u>	<u>B</u>
Demung:	5	11
Saron:	$4\frac{1}{2}$	9
Peking:	$3\frac{1}{2}$	6

A new tabuh will sound a bit harsh unless roughed up on the ends. We take them out to a patch of rough sidewalk, or any other really rough surface, and fray both ends to a splintery mess by repeated blows. This should be done every few months, as constant use tends to smooth and compact the surface.

Unlikely as it may sound, the best tone is not gotten by merely striking a bar dead-on, but rather by tilting the handle of the tabuh (as if you were sighting down the length of the handle), and thus hitting the bar with the far right-hand corner of the striking-surface. You must use a sort of scooping motion, descend-

ing in a semicircle from right to left (assuming you are right-handed), and contacting the bar at the bottom of this arc. See figure thirteen. The exception to this is when playing "Gangsaran", in which peking, saron, and demung do strike straight down, in order to obtain a hard tone.

None of this will mean a great deal until the instruments are ready to play; then a few minutes of experimentation will show you how to get a clear but smooth tone from each instrument.

All four of the above instruments require "damping" as part of their playing technique. This merely means that as you play a note, you stop the previous note by pinching that bar between thumb and forefinger of the left hand, (with thumb uppermost). Incidentally, that assumes you are right-handed. A left-handed player simply uses the tabuh in his left hand, and damps with the right. The damping is done as you strike the next note. In slow playing, it is possible to add a refinement, which consists of damping each note a split-second after striking the next tone. The whole damping-process is liable to be difficult at first, though one would not think so until trying it. Fortunately it becomes very easy after a few hours of practice.

The elaborating group: We will make only one instrument from this group. This will be the bonang barung, i.e., the main-octave bonang. Ours will not look at all like the real thing, which resembles two rows of domes, but will be essentially a demung and a saron, slightly modified. Figure fourteen shows the ten bars as

seen by the player, and their approximate Western pitches. You can copy the equivalent bar-lengths from the saron and demung. Use metal three inches wide for the lower rank (the row nearest to the player), and two and one-half inches wide for the upper rank. It is possible to omit resonators for the higher rank, especially for the three highest tones. Both ranks must be at the same height from the floor, and this height will of course be determined by the length of the lowest resonator, i.e., #2.

Two peculiarities will be noted:

- A.) What is called "1" is actually an octave "too high", and what is called "1̣" (high one) is also an octave higher than it "should be", by all common-sense assumptions. However, this is the way it is. There is no mistake in the diagram.
- B.) The upper rank runs in reverse order from the lower rank. This is to aid in playing a series of notes in parallel octaves (which is one style of playing bonang) without the two hands interfering with each other.

The other difference between this instrument and the rest is that you must fit a damper to each bar, so that the duration of tone will be shortened somewhat. At the other extreme is an unmusical clunk, and we must avoid that too. The most easily adjustable damper is a rubber-band slipped over one end of each bar, with a small patch of cloth between it and the bar. The closer this is to the end, the more the tone is damped. The nearer

it is to the center, the less damping-effect. Experimentation will result in the desired happy medium. You will probably find you need less damping on the highest tones, or maybe none at all.

If, after becoming accustomed to the bonang barung, you want to expand the elaborating group, you can make a bonang panerus. This is the same thing as the bonang barung, except that each bar is an octave higher. As you can see, this means that the upper rank of the bonang barung contains the same pitches as the lower rank of the bonang panerus. Or, to put it differently, the bonang barung covers the tones from the demung's two to the saron's high one, while the bonang panerus covers the tones from the saron's two to the peking's high one.

Directions for playing both bonangs are given below.

The bonang-player will need a tabuh for each hand. These can be small-diameter versions of the slentem tabuh, say about one and one-quarter or one and one-half inches in diameter. The handles should be three-eighths inch doweling, about twelve to fourteen inches long. The heads are grooved and padded in the same manner as the slentem tabuh. You will have to experiment to get just the right sound; you want something between the clear ring of the saron and the dull boom of the slentem. The nearest verbal equivalent is "nangh".

The punctuating group: Most important of all is the gong ageng, or great gong (pronounced gong ah-guhng). In fact, this one instrument is so important that the entire gamelan-type with

which we are dealing is called "gamelan gong ageng", "the orchestra of the great gong", to distinguish it from other related kinds of gamelan.

We can also use one or more smaller gongs of higher pitch, called kempul (accent on second syllable).

The simplest way of providing sounds similar to these, and the only way if we are to keep within reasonable boundaries of time and money, is to locate some of the huge circular saw blades often found in junkyards, neglected pastures, and other such forgotten places. Ask local farmers if they have any, or know of anyone who does, and you can probably pick them up very cheaply.

Most people, in trying to get a sound from one of these big saw-blades, will put a rope or a finger through the arbor-hole in the center, and hit the blade with a hard object such as a stick. This often produces a fine impressive racket, with considerable musical potential, but it isn't what we want for gamelan. We are after a low booming hum, and all circular discs of great hardness (such as saw-blades) will produce this sound if properly suspended and properly struck. You can tell very little about what a given blade will do until you try it out. You can usually assume that a cracked blade is no good, but even here you can't be sure, and it may be worth trying.

First of all you must find the "nodal circle" of the blade. This is a circular line about one-third to one-fourth of the way in from the rim, upon which you must make two holes several inches

apart, big enough to put clothesline through. The best way to find this circle is to set the blade on a table, and prop it up off the table with three wads of cloth about one-third of the way in from the edge. (This can be very approximate). Sprinkle salt or fine sand on the blade, in a very thin coat, and repeatedly strike the blade in the center with the heel of the fist. The salt or sand will tend to collect in a line on the nodal circle. Pick two spots a few inches apart on this circle, mark them, and have holes about one-half inch in diameter burned through at those spots with an oxy-acetylene torch. Any welding-shop, and many garages, can do this in a few moments for a nominal fee.

The gong and kempul(s) can be suspended from a two by four. See figure fifteen. To play, strike in center with heel of fist. Most people find they get a better tone by wrapping a strip of cloth around one hand, fairly tightly, and hitting with that.

If you have only one blade, it will automatically be the gong. If you have more than one, the lowest in pitch will be the gong, and the rest will be kempuls. An ideal setup would be to have a gong of extremely low pitch, and three kempuls: number one at approximately C below middle-C, number six at the A below that, and number five a wholestep lower still. If you have only one kempul, it is best to have it at pitch six (A in our tuning).

Although there is no practical way of tuning a sawblade, the ear will fortunately accept considerable mis-tuning in this area of pitch with the dull quality of tone produced by the blades.

You may have to compromise for awhile, but keep searching and you will probably eventually locate just what you need. In a really bad pinch, one could use an electric bass guitar, but we'll try to avoid that.

The kenong: Again we must make a substitute. Three pitches will be sufficient. These are the same as the highest three tones on the demung, but as we want them to be a little different in tone, they might be made of wider stock, say four inches wide. Add resonators. Play with a tabuh similar to that used on slentem, but somewhat smaller and with less padding. You need a tone somewhere between that of slentem and demung, and it should be loudish and clear. If you like, you can make two bars for each of the three tones, one bar of each pair exactly in tune with the rest of the group, and the other very slightly sharp or flat. This is an un-Javanese thing to do, but does approach the sound of a real kenong better than a single bar.

Yet another form of kenong can be made: cut electrical conduit (any diameter from one to one and one-half inch), cut to the lengths necessary to give the desired pitches. These tubes are to be laid on ropes tacked to a board, so arranged that the tubes contact the ropes at two-ninths of the distance from each end as was done to test the slentem bars, and struck at the center. This gives a fine sound, but it is weaker than one could wish. A little ingenuity with rubber bands will keep the tubes from moving around. Just remember that the rubber bands should touch the tubes at about



the same distance from the ends as the ropes are touching them.

The ketuk: This is at the same pitch as demung bar two. The sound is a dull "took". The easiest way to get just the right sound is to find an automobile hub-cap which gives this pitch when held at the edge and struck at the center. The rack can be a simple wooden square, like a picture-frame, with cords crossing at the center. Set the hub-cap on the cords, convex side up, and strike with a padded tabuh. The tabuh is allowed to rest on the ketuk after striking, so as to damp the sound almost immediately. In fact, it is best to think of gently dropping the head of the tabuh onto the center of the ketuk, not really striking it. It's supposed to sound sleepy.

You could probably make a ketuk using a very wide bar with resonator and damper like the bonang.

Drums: You need three drums, of high, middle and low pitch. The high sound should be produced with the left hand, the middle sound with the right, and the lowest drum should be a little farther away, and played by the right hand. The usual Javanese setup would be two barrel-shaped drums, lying horizontally on racks, with the smaller drum nearer to the player, who plays both heads of the small drum, but only the larger head of the big drum. See figure fifteen-b. You can think of the sounds as tik, dag, and bom. (which is as close as I can get to it on paper) You could probably do nicely by using a conga drum for the bom, and a pair of bongo drums, re-mounted to face left and right, with the smaller

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numbering only. No text  
is missing.

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on the left. However, if your budget is limited, you'll have to improvise. Try everything. Coffee cans with plastic lids are a good place to start.

Now you have the basic gamelan, and it's time to use it.

To show how everything fits together, we'll use a piece called "Udan Mas" or "Golden Rain". Figure sixteen gives the basic notation of this piece.

All players in the group will use this notation, though each person will play it in the particular way appropriate to his instrument. The music is read left to right across each line. In this particular piece, the section marked "A" is played twice. Then the B part twice, A twice, B twice, and so on, until the drummer signals for a stop. I'll explain a little later how this is done. The appropriate place to stop this particular piece is the end of the second time through "A".

Looking at the notation, one can begin to get a hint of the unique Javanese way of looking at rhythm. Our music tends to be grouped into units having a feeling of a strong emphasis followed by relatively weaker events. This is so much a part of our music that we seldom think about it. For example, a typical emphasis-pattern in 4/4 meter, with a quarter-note on each beat is: strong, weak, medium, weak. Also, when we look at both smaller and larger units in our music, we see that there is a tendency for an event to take place, and then some elaboration upon that event, moving away from the event.

Javanese gamelan music is much the opposite. Elaborated figures lead toward an event; everything is in anticipation. For example, the big gong plays at the end of a section, and the kenong comes in at the end of a line of four nuclear notes in "Udan Mas". And as you will see below, some of the instruments anticipate what the main-melody instruments are going to do.

This might seem to be a belaboring of a small point but in fact developing the ability to think of rhythm "in reverse" is the only really difficult thing about this music for us Westerners.

Now for a description of the way this notation is realized by each instrument:

Saron and demung simply play the notes as written, paying attention only to the numbers. (In notating gamelan music, I generally substitute a little inverted "v" for the dot over the number "1" when I want to indicate high 1. This is to avoid possible confusion with dots in other positions, which have other meanings, as will be seen later). The saron and demung thus form the musical nucleus, to which all parts are closely related; hence the term "nuclear theme".

If the piece is being played at a fast or moderate speed, the slentem will do just as the saron and demung are doing. But in very slow style, the slentem elaborates a little. See figure seventeen. The nuclear theme as played by saron and demung is given in the upper row of numbers, with the circles around them. The lower line is what the slentem plays: he will play each tone

three times, cutting the first two short, and allowing the third to ring until after the nuclear note is played. Figure seventeen-a shows this in Western staff-notation as a Javanese musician would think of it, and figure seventeen-b is more as we would think of it. It sounds the same either way one looks at it. When you play this figure, you will see that there is one place in the pattern where it is necessary to damp two bars in very quick succession. I have marked these places with arrows. This style of playing slentem is called mbandul (which is pronounced just as it looks, with the tongue curled up behind the gum-ridge for the final "l").

The peking almost always does at least a little elaboration, whatever the speed. One very common pattern used in medium and fast speeds is seen in figure eighteen. The peking plays each tone twice, first before the saron and then with the saron; note that we are again dealing with anticipation. For variety, this may occasionally be changed to a non-anticipating pattern (see figure eighteen-a), but the first way is far the more characteristic. In figure eighteen I've indicated accents. These need not actually be played louder than the other notes, but many players find it helpful to think of accents in these places, and feel that it keeps them from getting off the beat (or on the beat, to be technically correct).

There is another very useful peking-figuration, used only in slowstyle. This is shown in figure nineteen. This is more difficult to get used to, but is a beautiful effect when well-done.

A general rule in peking playing and for saron, demung, and non-elaborated slentem playing, is: Damp between dissimilar notes; do not damp between identical notes. Figure twenty shows where damping would occur in the style shown in figure nineteen. Figure twenty-one shows damping for the style described in figure eighteen.

Referring back to the full piece (figure sixteen), the gong plays on the circled notes; that is, at the end of each section of sixteen nuclear notes. The gong is never damped, but allowed to ring on as long as it will.

Incidentally, you will find that a "gonggan", which is a section marked off by a gong-stroke at the end, generally contains sixteen, or thirty-two, or eight, etc., nuclear notes. Gamelan music is very much "four-square", as is a high percentage of Western music.

The kempuls play on the notes having a square around them, i.e., in the column marked "P", but not in the first line of each section. Use a kempul of the same pitch as the written note if you have it. If you have only Kempul six, use it at all these places. Kempuls three and two are rarely used, so you may consider the ideal set to be five, six, and high one, using the six when the nuclear note is two, and either the high one or the five when the nuclear note is three. <sup>4</sup>

In most pieces, and especially in slow style, the kempul should be played just a shade later than the nuclear note. Note that this is not done with the big gong.

The kenong plays at the end of each line; that is, each note appearing in the column marked "N". A portion of a piece marked off by a kenong stroke is called a "kenongan", therefore there are four kenongans to each gongan in "Udan Mas".

The same substitutions apply as with the kenongs. Six is used for six and two, five is used for five and sometimes three, high one is used for (either) one and sometimes three. The same remarks about playing "late" apply to the kenong. There are other styles of kenong-playing, but we cannot go into this matter here.

The ketuk is played in the columns marked "T"; that is, on every other note, right on the beat. Strike gently, or it will be much too loud.

Now we come to the bonang (or the bonangs, if you intend to have both sizes). There are two basic ways to play bonang, with some pieces requiring either one or the other, and other pieces requiring a mix of the two. We will use the first four nuclear notes of the second section of "Udan Mas" to illustrate these two ways of playing bonang.

Figure twenty-two shows "gembyangan", or octave-style.<sup>5</sup> The circled notes are the nuclear theme, the dots represent rests. Line A is appropriate when the gamelan is playing fast, line B is for medium-speed, and line C is used when the group is playing extremely slowly. As you can see, the effect of this is to maintain a certain degree of busyness or thickness of texture, regardless of the speed of the nuclear theme. Thus it is said that, for

the bonangs and other elaborating instruments, "You have to slow down in order to speed up".

If you have both bonang barung and bonang panerus, and barung is playing pattern A, panerus will play pattern B. If barung plays B, panerus plays C. Here we begin to get into certain subtleties, as it is necessary for the bonang barung player to be aware of the speed at which the bonang panerus player is playing, so as not to switch to a thicker texture at such a point that the panerus is unable to double his own speed. The drummer, who is chiefly responsible for regulating the tempo, must also be aware of such things, and in fact, all players should be aware of the limits within which each instrument can and cannot do certain things. While this seems obvious, it is truly surprising how great a challenge it is, even to very sensitive musicians. We are accustomed to having visual cues to guide our group efforts in music. But for all practical purposes, the cues in gamelan are entirely auditory, and all players must stay in a state of super-awareness.

The other important thing to notice about octave-style is that the simultaneous playing of a note in both octaves is not actually quite simultaneous, though it is notated as if it were. In actual practice, the upper note comes squarely on the beat, but the lower note precedes it slightly, just like a grace-note in our music.

The other bonang style is called "mlampah", or walking-style. See figure twenty-three. Again, the three speeds are given. This



is the style appropriate to "Udan Mas", though I've used the first line of that piece to illustrate both styles.

The whole subject of bonang-playing is very complex, and like other aspects of gameian, subject to regional differences, so that it is not possible to tell the whole story here. However, the above information plus a certain amount of careful thought will give reasonably good bonang parts for the pieces given below. Keep in mind that it is not desirable to have big skips in walking-style bonang-part. An example of a pitfall is the combination two-one in the nuclear theme. Since the bonang has no low one, so far as the actual sound is concerned, this combination has to be played with the two in the upper rank followed by the one in the lower rank, which you will remember is really only one step below two, and is called low one only for convenience in notating the parts.

There are other places where it is possible to "work yourself into a corner" as it were. The general rule is simply to keep a mlampah-style part as smooth as possible, and switch to octave-style briefly if this becomes necessary. As you can see, there is some room for individual interpretation, now and then, and the bonang-player will often have to work out his version of a piece before he can play with the group.

"Udan Mas" was chosen for demonstration purposes because it is so typical, so straightforward; except for the bonang-part in the first section. The nuclear combination 6 5 3 2 is played on the bonang as if it were 6 3 6 2. Figure twenty-four gives the

full bonang version at "first speed" (the simplest). After studying figure twenty-four, you can easily see how second and third speeds would work.

There is one other common "exceptional pattern" for bonang, and this is for the nuclear combinations actually notated as six-three and six-two. Figure twenty-five shows how these may be handled at the first speed. This treatment of these combinations holds true regardless of whether the rest of the piece is played in mlampah or kembyangan.

Demung imbal: This is a semi-improvised part, played by two people on one or two demungs. It can be done only when the nuclear theme is proceeding at an extremely slow rate. We find it easier to do when using one instrument with a player on each side, although it may also be done on two separate demungs. Figure twenty-six shows the first four notes of "Udan Mas", with two possible interpretations into imbal. In this case, the dots represent rests; points at which the previous tone is damped. Note that player A's part is fixed, but player B's part is variable within certain limits. The rule is that for his first three tones player B may hit the bar to either side of the bar being played by A, and for his fourth tone B must hit the same bar that A has been hitting. The dot in parentheses in A's part means that if both players are on one instrument, A must not damp at this point, as B has to hit that bar.

The second version, which differs only in part B, illustrates

a further rule, which is that B may go two bars from A's bar, providing that he approaches and leaves said bar by step, not by leap. If all this reads something like a legal document, or something from "Alice", be not dismayed. It all makes perfect sense once two people get together and try it. It is, of course, something you don't attempt until you are familiar with all the basics. Be sure to keep demung imbal very quiet, or it will stand out above everything else, which is undesirable.

In general, it will be best to learn a few pieces in their simplest form first; the bonang and peking will play version "A" of their parts, and nobody does anything "special". Once a few pieces have been memorized by all players, a more elaborate version can be attempted. This will mean slowing down the overall speed so that there is time to play the busier parts on bonang, slentem, etc.

One very usual way of performing many pieces is to begin loud and fast, then get soft and slow and elaborate, then back up to a louder, faster, simpler version, with a brief ritardando before ending. Here we are getting into something very difficult, if not impossible, to describe on paper. You can learn about performance-practice better by listening to recordings of Javanese gamelan music. Unfortunately, such recordings are very difficult to obtain, except for one which you can get rather easily: write to the Department of Ethnomusicology, University of California, Los Angeles, California, and ask for the recording and accompanying

book called Music of the Venerable Dark Cloud. The record is so entitled because the gamelan itself has the personal name Venerable Dark Cloud. Gamelans in both Java and Bali have such names as a matter of course, and sometimes the gong will also have a personal name of its own. This might seem a strange thing to do, but after you have made a gamelan and gotten it playing, you'll undoubtedly want to give it a personal name. I have two gamelans; a large one in both slendro and pelog, called Venerable Sir Voice of the Thoom, and a smaller gamelan in slendro only, named Venerable Sir Small Tiger (because although it is small it is very powerful).

The U.C.L.A. recording includes many instruments and techniques we haven't covered here, plus some use of choral and solo voices. You will also hear some pieces in pelog tuning, and a full performance of "Udan Mas", which shows what a large and highly trained group can do with an essentially simple piece. Very recently, a few other Javanese gamelan recordings have become available. Check your record store for the latest releases.

The drum: Javanese drumming might easily make a small book on its own. For our gamelan, we must simply treat the drums as another tone-color in the group, and a director of tempo-changes. Things the drummer might keep in mind are: Keep the drumming simple; complex patterns will call attention to themselves, which is wrong. No one instrument should "stand out", as a rule (though there are exceptions). To be sure everyone knows that a drum-signal is about to occur, the drummer may fall silent for a moment

before a change-signal.

In most gamelan music, though not all, you can equate soft with slow, and loud with fast. Changes are sometimes abrupt, sometimes gradual, and one of the biggest challenges to the group is to learn to keep together through all this. Perhaps this can only be accomplished after many hours of practice, but a group that has developed the requisite heightened awareness is a very special thing. To simplify things somewhat at the beginning, it may be a good idea to pre-plan the places for all changes.

General comments: All that has been said about Javanese gamelan here is somewhat over-simplified, and represents only the particular regional style (or, actually, mixture of regional styles) that I happened to be taught. Even if I knew everything there was to know about the subject, it would be impossible to give written directions on how to perform this music in a true professional Javanese way. What we will have, then, is somewhat inaccurate Javanese gamelan. But let the purists say what they will; they have no gamelan at all!

You will undoubtedly enjoy hearing recordings of Balinese gamelan too. This is quite a different sound, although the instruments are for the most part very similar. Balinese gamelans tend to be very intense, always at fever-pitch as compared to Javanese. Again, this is an over-simplification. You should have no difficulty in locating several Balinese gamelan recordings in any reasonably large record store.

You will find some traditional Javanese gamelan pieces and a few "home-made" ones, at the end of the illustrations. There is no reason not to try writing your own pieces as well. You can try to make them sound traditional (which is harder than you'd think), or you can do something different. My groups have done both.

Professional Javanese musicians routinely memorize all their music. This is a less formidable task than it might seem at first. What you will actually memorize is the nuclear theme, plus the way your particular part fits with it. Even if you can't memorize the full repertoire of your group, it is worth memorizing a few pieces. They will probably go smoother, and the feeling of accomplishment is an important consideration too.

Note the usual way of ending: There is a short ritardando, and at the very end everyone waits for the gong-stroke, which is slightly delayed. Only then does each person play his last note. It is not necessary nor even desirable that this last note should be played exactly together by everyone; a pleasant scattering of notes is ideal.

Figures twenty-seven-a and twenty-seven-b show suggested ways to set up the gamelan. These can be varied. The main idea is to keep the big things at the back, the drums where they can be heard easily by all, and the bonangs out where they can be seen by the audience. (This last is a concession to visual interest. The bonangs are fun to watch).

Javanese musicians, like most musicians throughout the world,

have a lot of respect for their instruments. I'm sorry to say that we Westerners are somewhat lax in this area, as a group. However, anyone who builds a gamelan and learns to play it is automatically going to look on it as much more than an assemblage of metal and wood that makes nice sounds.

If you think of the instruments as deserving the same respect you would accord to people, you can't go wrong. For example, one would not step over an instrument, nor touch it with his foot; an instrument can be moved by hand, and re-positioned after you have gone by. There are also practical reasons of safety for not stepping over an instrument. Shoes should not be worn into the gamelan area; it is not only disrespectful but creates dirt on the floor, which is where the musicians sit. It is out of the question to allow dogs in the vicinity of the gamelan. Javanese musicians, when walking among the instruments, do not stand boldly upright and run about as if nobody else were around. How far one wishes to take this will be an individual matter, but I have noticed that most of my own gamelan students are respectful of the instruments, and embarrassed by any rare lapse of etiquette.

I've heard it said that there is an idea in Java that the music of the gamelan somehow always surrounds us, and that when the musicians sit down at their instruments, they are just making the music audible. When they stop playing, we cease to hear the music, but it goes on forever anyway.

MUSICAL EXAMPLES, DIAGRAMS, ETCETERA, FOR "THE BOOK"



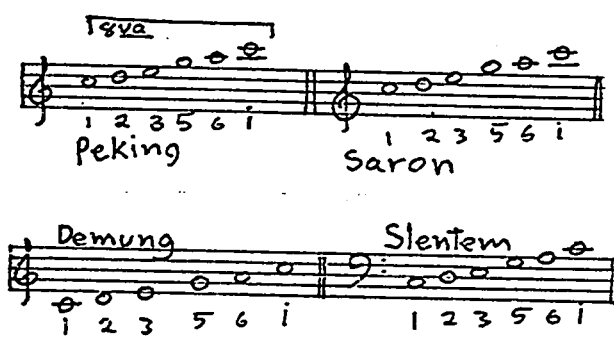


Fig. 1

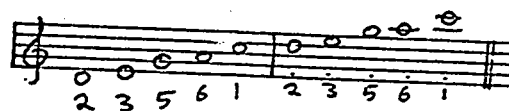


Fig. 2

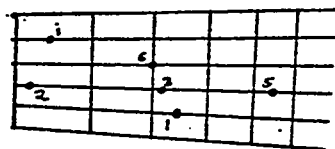


fig. 3

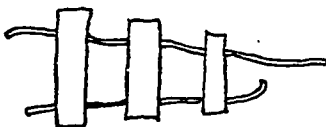


fig. 4

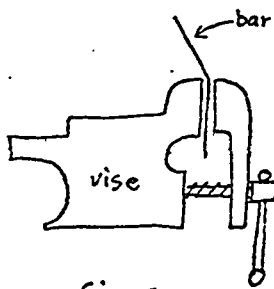


fig. 5



fig. 6

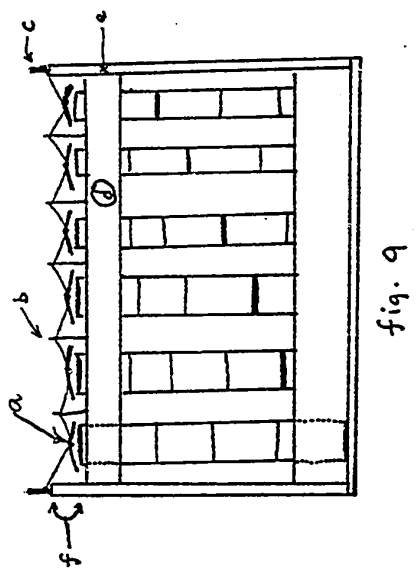


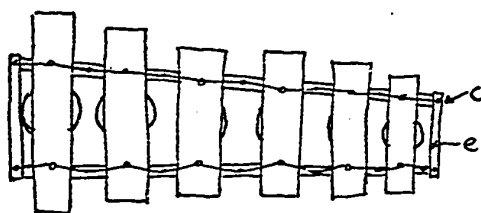
fig. 7



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fig. 8





view from above

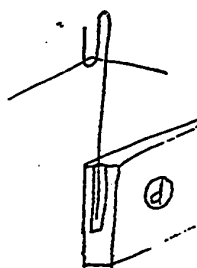
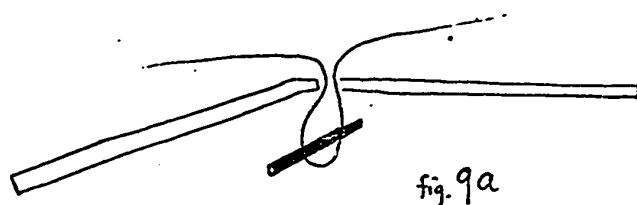


fig. 9b

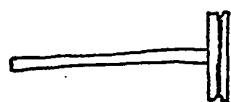


fig. 10

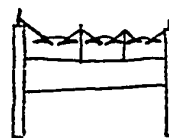


fig. 11

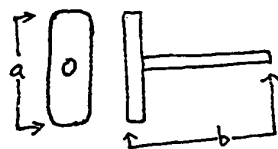


fig. 12

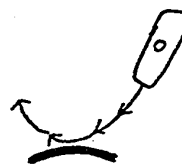


fig. 13

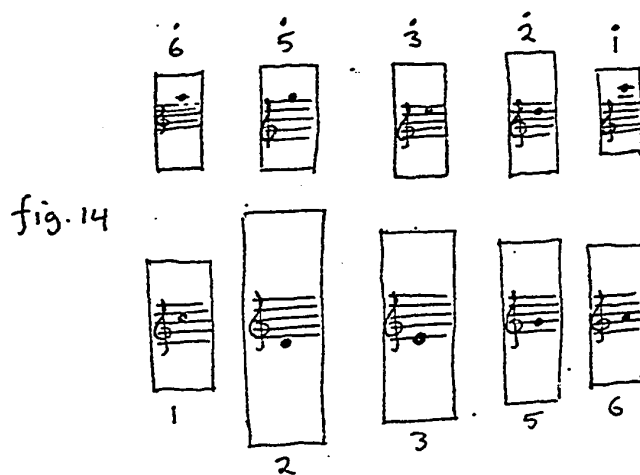
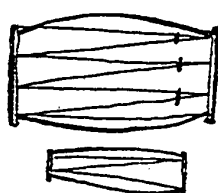
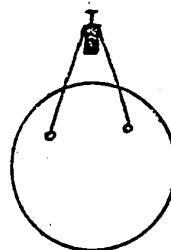
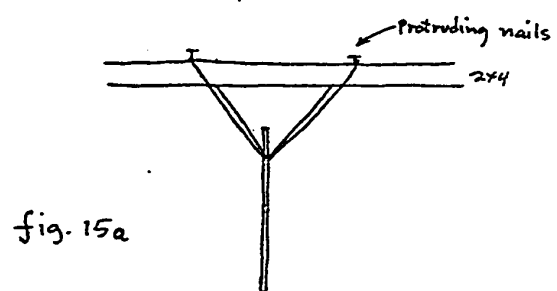


fig. 14

(Player Here)



X  
player here

fig. 15b

view from above

fig. 16

## "Udan Mas"

T P T N

A.  $\text{||: } 6 \ 5 \ 3 \ 2$   
 $6 \ \boxed{5} \ 3 \ 2$   
 $2 \ \boxed{3} \ 5 \ 3$   
 $6 \ \boxed{5} \ 3 \ \textcircled{2} \text{:||}$  ← ends here

---

B.  $\text{||: } \uparrow \ 5 \ 6 \ \uparrow$   
 $5 \ \boxed{6} \ \uparrow \ 2$   
 $2 \ \boxed{\uparrow} \ 6 \ 5$   
 $6 \ \boxed{\uparrow} \ 6 \ \textcircled{5} \text{:||}$

⑥      ⑤

666° 555° etc.

fig 17.

Saron

Demung

Saron

fig. 17a





fig. 17b

⑥ ⑤ ③ ②  
6 6̇ 5 5̇ 3 3̇ 2 2̇

fig. 18

④ ⑤ ③ ②  
6̇ 6̇ 5̇ 5̇ 3̇ 3̇ 2̇ 2̇

fig. 18a

⑥ ⑤ ③ ②  
6 6̇ 5̇ 5̇ 6 6̇ 5̇ 5̇ 3 3̇ 2̇ 2̇ 3 3̇ 2̇ 2̇

fig. 19

⑥ ⑤  
6 6̇ 5̇ 5̇ 6 6̇ 5̇ 5̇ etc...  
↑ damp ↑ damp ↑ damp  
6 5 6

fig. 20

④ ⑤ ③ ②  
6̇ 6̇ 5̇ 5̇ 3̇ 3̇ 2̇ 2̇  
↑ damp ↑ damp ↑ damp  
6 5 3

fig. 21

	①	⑤	⑥	⑦
A	↑ 1	5 5	6 6	↑ 1
B	↑ 1 1 1	5 5 5 5	6 6 6 6	↑ 1 1 1
C	↑ 1 1 1 1	5 5 5 5 5	6 6 6 6 6	↑ 1 1 1 1

fig. 22

note: octaves, such as  $\overset{\circ}{6}$ , may also be  
 written as a single number with a superscribed  
 circle — eg.  $\overset{\circ}{6}$

	①	⑤	⑥	⑦
A	1 5	1 5	6 1	6 1
B	1 5 1 .	1 5 1 5	6 1 6 .	6 1 6 1
C	1 5 1 . 1 5 1 .	1 5 1 5 6 1 6 . 6 1 6 . 6 1 6 1		

fig. 23

A

:	6	3	6	3	6	2	6	2
	⑥		⑤		③		②	
	6	3	6	3	6	2	6	2
		⑥		⑤		③		②
	2	3	2	3	5	3	5	3
	②		③		⑤		③	
	6	3	6	3	6	2	6	2
	⑥		⑤		③		②	:
	6	3	6	3	6	2	6	2

---

B

:	1	5	1	5	6	1	6	1
	①		⑤		⑥		①	
	5	6	5	6	1	2	1	2
	⑤		⑥		①		②	
	2	1	2	1	6	5	6	5
	②		①		⑥		⑤	
	6	1	6	1	6	5	6	5
	⑥		①		⑥		⑤	:
	6	1	6	1	6	5	6	5

fig. 24.

$$\begin{array}{cccc} \textcircled{6} & & \textcircled{3} & & \textcircled{6} & & \textcircled{2} \\ \frac{6}{3} \cdot & & \frac{6}{3} \cdot & & \frac{6}{2} \cdot & & \frac{6}{2} \cdot \end{array}$$

fig. 25

	$\textcircled{6}$	$\textcircled{5}$	$\textcircled{3}$
A	$6 \cdot 6 \cdot 6 \cdot 6 \cdot 6 \cdot 6$	$5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5$	$3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3$
B	$\cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 6$	$\cdot 3 \cdot 3 \cdot 6 \cdot 5$	$\cdot 5 \cdot 5 \cdot 5 \cdot 3$
A	$6 \cdot 6 \cdot 6 \cdot 6 \cdot 6 \cdot 6$	$5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5$	$3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3$
B	$\cdot 5 \cdot \uparrow \cdot 5 \cdot 6$	$\cdot 6 \cdot 3 \cdot 6 \cdot 5$	$\cdot 2 \cdot 1 \cdot 2 \cdot 3$

fig. 26

gong	ketuk. ↓ kenongs	kempuls
Peking saron	Drum	Demung slentem
saron	Bonang	Bonang Demung

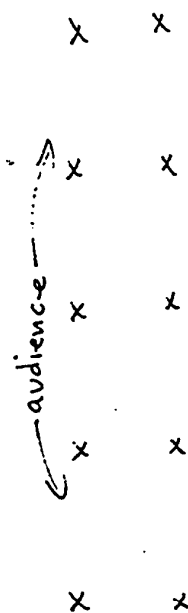


fig. 27a.

Ketuk + Kenongs

Demung

Kempul + Gong  
(one player)

Slentem

Drum

Saron

Bonang

Saron

Peking

x x x (audience) x x x

x x fig. 27b x x

mājalālīlah ..... the Cat's play

	T	P	T	N
A.	: <u>2</u> 1 2 3	2 1 2 6		
	2 1 2 <u>3</u>	2 1 2 6		
	2 1 2 <u>3</u>	2 1 2 6		
	3 5 6 <u>5</u>	3 2 3 <u>2</u> :		
<hr/>				
B.	: <u>1</u> 1 2 1	2 3 5 6		
	↑ 6 5 <u>2</u>	5 3 2 1		
	2 3 2 <u>1</u>	2 3 2 1		
	2 3 2 <u>3</u>	6 5 3 <u>2</u> :		



Buka and Special Bonang Part  
for "the cat's play"

BK: •66•5561•••66•5561

accel.....  
65 23 65 3 2 |

A. ||: <sup>②</sup>3<sup>①</sup>2<sup>②</sup>3<sup>③</sup>5<sup>②</sup>3<sup>①</sup>2<sup>②</sup>3<sup>③</sup>3<sup>②</sup>1<sup>②</sup>2<sup>⑥</sup>1<sup>⑥</sup>

(ditto)

(ditto)

<sup>③</sup>3<sup>⑤</sup>5<sup>⑥</sup>6<sup>⑤</sup>5<sup>③</sup>2<sup>②</sup>3<sup>③</sup>2<sup>②</sup>2<sup>②</sup>2<sup>②</sup> ||

B. ||: <sup>①</sup>1<sup>①</sup>1<sup>②</sup>2<sup>①</sup>1<sup>②</sup>2<sup>③</sup>3<sup>⑤</sup>5<sup>⑥</sup>6<sup>⑥</sup>  
<sup>①</sup>1<sup>⑥</sup>6<sup>⑤</sup>5<sup>②</sup>2<sup>②</sup>5<sup>⑤</sup>3<sup>③</sup>2<sup>②</sup>1<sup>①</sup>  
<sup>②</sup>6<sup>③</sup>5<sup>②</sup>1<sup>②</sup>1<sup>①</sup>6<sup>②</sup>5<sup>③</sup>3<sup>②</sup>1<sup>②</sup>1<sup>①</sup>  
<sup>②</sup>6<sup>③</sup>5<sup>②</sup>1<sup>②</sup>1<sup>①</sup>6<sup>②</sup>5<sup>③</sup>3<sup>②</sup>1<sup>②</sup>1<sup>①</sup> (end)

Udan mas ..... Golden Rain

BK: (Bonang) 1 1 1 5 6 1 2̂ 2̂ 1 6 5 6 1 6 ⑤

↑

T P T N

||: 6 5 3 2

A. 6 ⑤ 3 2

2 ③ 5 3

6 ④ 3 ② :|| (End)

---

||: ↑ 5 6 1

5 ④ ↑ 2

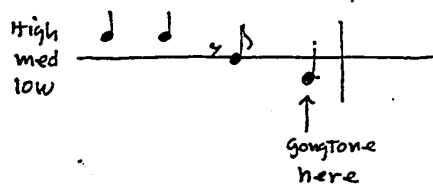
2 ① 6 5

6 ① 6 ⑤ :||



"the Drum Buka" 7

an introductory pattern  
which can be used for  
any piece, if no other  
buka is given:



## Misty Mountain

BK: (Bonang)  $\underline{12} \ 0 \ \frac{2}{2} \ . \ . \ \underline{12} \ 65 \ \underline{35} \ \textcircled{2}^6$ 

	T		P		T		N
6	2	6	5	6	↑	6	5

3	5	3	$\boxed{2}$	1	5	3	2
---	---	---	-------------	---	---	---	---

6	3	6	$\boxed{2}$	6	3	5	6
---	---	---	-------------	---	---	---	---

↑	6	5	$\boxed{3}$	1	2	3	$\textcircled{2}^6$
---	---	---	-------------	---	---	---	---------------------

One possible Bonang Part for  
"misty mountain"

nuclear:	6	2	6	5	6	1	6	5
Bonang:	$\frac{6}{2}$	$\frac{6}{2}$	6	5	6	5	$\frac{6}{6}$	$\frac{5}{5}$
	3	5	3	2	1	5	3	2
	$\frac{3}{3}$	$\frac{5}{5}$	$\frac{3}{3}$	$\frac{2}{2}$	1	$\frac{5}{5}$	$\frac{3}{3}$	$\frac{2}{2}$
	6	3	6	2	6	3	5	6
	$\frac{6}{3}$	$\frac{6}{3}$	$\frac{6}{2}$	$\frac{6}{2}$	$\frac{6}{3}$	$\frac{6}{3}$	5	6
	1	6	5	3	1	2	3	2
	1	$\frac{6}{6}$	$\frac{5}{5}$	$\frac{3}{3}$	1	$\frac{2}{2}$	$\frac{3}{3}$	$\frac{2}{2}$

## Tjuntang

T	P	T	N
1	2	1	6
1	2	1	6
1	2	1	6
2	3	5	3
5	6	1	6
5	6	1	6
5	6	1	2
2	3	2	1

## Bawang Sebungkul

T	P	T	N
6	1	6	3
6	5	6	3
6	3	6	2
6	3	6	2
6	2	6	1
6	2	6	1
6	3	6	1
6	3	6	1

One possible way to play Bonang in "Tjiluntang":

Nuclear:	1	2	1	6	3	2	3	5								
Bonang:	1	$\hat{2}$	1	$\hat{2}$	1	6	1	6	3	2	3	2	3	5	3	5
	1	2	1	6	3	2	3	5								
	1	$\hat{2}$	1	$\hat{2}$	1	6	1	6	3	2	3	2	3	5	3	5
	1	2	1	6	3	2	3	5								
	1	$\hat{2}$	1	$\hat{2}$	1	6	1	6	3	2	3	2	3	5	3	5
	2	3	5	3	2	1	2	1								
	2	3	2	3	5	$\overset{0}{5}$	3	$\overset{0}{3}$	$\hat{2}$	1	$\hat{2}$	1	$\hat{2}$	1	$\hat{2}$	1
	5	6	$\uparrow$	6	5	3	2	1								
	5	6	5	6	1	6	1	6	5	$\overset{0}{5}$	3	$\overset{0}{3}$	$\hat{2}$	1	$\hat{2}$	1
	5	6	$\uparrow$	6	5	3	5	6								
	5	6	5	6	1	6	1	6	5	3	5	3	5	6	5	6
	5	6	$\uparrow$	2	1	6	3	5								
	5	6	5	6	1	$\hat{2}$	1	$\hat{2}$	1	6	1	6	3	5	3	5
	2	3	2	1	3	2	6	5								
	2	$\overset{0}{2}$	3	$\overset{0}{3}$	$\hat{2}$	1	$\hat{2}$	1	$\hat{2}$	$\hat{2}$	$\hat{2}$	$\hat{2}$	$\overset{0}{5}$	$\overset{0}{5}$	$\overset{0}{5}$	$\overset{0}{5}$



In "Bawang Sebungkul", Slentem and Bonang ignore the reiterated "6", and play like this:

nuclear:	6	$\hat{1}$	6	3	6	5	6	3
Slentem:	.	1	.	3	.	5	.	3
Bonang: A)	1	$\overset{0}{1}$	3	$\overset{0}{3}$	$\overset{0}{5}$	$\overset{0}{6}$	3	$\overset{0}{3}$
B)	$\overset{0}{1}$	.	$\overset{0}{1}$	.	$\overset{0}{3}$	.	$\overset{0}{3}$	.

Slentem-tones are allowed to ring through the dots... the effect should be very smooth + sustained.

Bonang choose whichever part fits, according to overall speed of the performance.

## Gondjang Gandjing

T P T N

2 1 6 5

2 5 2 1

2 1 2 1

2 1 6 ⑤ (end)

2 1 6 5

2 5 2 1

2 1 2 1

2 1 2 ①

3 2 6 5

↑ 6 5 6

5 6 3 5

2 1 6 ⑤

## mūnitsūre:

"Sage in Darkness"

T P T N  
5 3 2 3 | 5 ↑ 6 5

5 3 5 ⑥ | ↑ 5 3 2

3 5 6 ⑤ | 3 2 3 2

3 5 3 ② | 3 5 ↑ ⑥

## the Happy Mongoose

T P T N  
6 5 2 1 | 6 5 2 1

6 5 6 ① | 6 5 3 5

↑ 6 5 ②<sup>5</sup> | ↑ 6 5 2↑ 6 5 ②<sup>6</sup> | 3 2 1 ⑥

## Gara Gara — Raging of the Elements

nuclear:	2 1 2 1 3 5 6 5	6 5 6 5 3 2 3 2
Kenang:	1 1 1 1 5 5 5 5	5 5 5 5 6 6 6 6
Bonang:	1 . 1 . 5 . 5 .	5 . 5 . 2 . 2 .
	3 2 3 2 3 5 6 5	6 5 6 5 3 2 3 2
	2 2 2 2 5 5 5 5	5 5 5 5 2 2 2 2
	2 . 2 . 5 . 5 .	5 . 5 . 2 . 2 .
	3 2 3 2 5 3 2 1	2 1 2 1 3 2 3 2
	6 6 6 6 1 1 1 1	1 1 1 1 6 6 6 6
	2 . 2 . 1 . 1 .	1 . 1 . 2 . 2 .
	3 2 3 2 5 6 1 6	1 6 1 6 3 2 3 2
	6 6 6 6 6 6 6 6	6 6 6 6 6 6 6 6
	2 . 2 . 6 . 6 .	6 . 6 . 2 . 2 .
	3 2 3 2 5 3 2 1	(To beginning)
	6 6 6 6 1 1 1 1	
	2 . 2 . 1 . 1 .	
		Coda:
		2 1 2 1 2 1 2 1
		1 1 1 1 1 1 1 1
		2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1
		2 3 6 5
		5 5 5 5 (end)
		2 2 3 3 6 6 5 5

## Gangsaran

BK. Drum:  $\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$

(\*) Gong, and all others play last notes of their patterns.

Peking  
Saron  
Demung

$$2 \quad 2 \quad \boxed{2}^p \quad 2 \quad \boxed{2}^p \quad 2 \quad \boxed{2}^p \quad (2)^6$$

Slentem  
Kenong

• 2 • 2 • 2 • 2

Bonang  
Barung

Bonang  
Barung

Bonang  
Panerus

Pangkur 6

T	P	T	N
3	2 3 1	3	2 1 6
↑	6 3 <span style="border: 1px solid black;">2</span>	5	3 2 1
3	5 3 <span style="border: 1px solid black;">2</span>	6	5 3 2
5	3 2 <span style="border: 1px solid black;">1</span>	3	2 1 <span style="border: 1px solid black;">6</span>

Pangkur 5

T	P	T	N
2	1 2 6	2	1 6 5
6	5 2 <span style="border: 1px solid black;">1</span>	3	2 1 6
2	3 2 <span style="border: 1px solid black;">1</span>	5	3 2 1
3	2 1 <span style="border: 1px solid black;">6</span>	2	1 6 <span style="border: 1px solid black;">5</span>

COMMENTARY ON THE PIECES IN "THE BOOK"

Udan Mas: This piece has been pretty well covered in the foregoing. Bk: means "buka", an introductory pattern. In this case, it is played on bonang. The arrow marks the place for the drum to enter. Everyone plays the five in the circle, including the gong-player (this is called the "gong-tone"), and all then go into the piece itself.

The buka starts rather rapidly, and slows down as it approaches the gong-tone. Thus, the buka sets the beginning speed of the piece.

Misty Mountain: This piece was written mostly by Christopher Patton, a student of mine. Begin rather slowly and softly, and gradually get somewhat louder and faster. After one or two times through in this louder and faster manner, there is a drum-signal, and a sudden drop to very soft and slow. After two or two and one-half times through this way, build up to very loud but only moderately fast, and end when desired with a very brief ritard.

Tjluntang: The title is pronounced chluntahng. This is a very busy sort of tune, but it can also be played softly and slowly if you like. The bonang part will take a bit of figuring out, as there are certain pitfalls, such as the high one-two-one combination in the penultimate line. One possible bonang version is given.

Bawang Sebungkul: The title means "Bunch of Garlic". The "2X" means that each pair of lines is repeated. As usual, the lines appearing in and around the numbers are just eye-guides. See special bonang and slentem parts given. This piece is considered appropriate for the ending of a concert, as is Udan Mas. Traditionally, the audience will get up and leave during the playing of the last piece on a program, so as to depart with the sound of the gamelan still ringing in their ears. American audiences won't do this, however much you assure them that it is correct.

Sage in Darkness: This is a "home-made" piece I wrote for the Goddard College gamelan. We begin very quietly, somewhat less than medium speed. After awhile, drop to slow speed, still quiet. Over a long period of time, build up to medium speed and very loud. We use this piece for scenes in shadowplays, depicting a character deep in thought, eventually reaching a solution to the problem.

The Happy Mongoose: I wrote this in honor of my Aunt Mongoose. Can be played at any speed. Bonangs will have to combine octave and walking styles. Many interpretations are possible, and it's fun to work out different ways. The small numbers next to the kempul-squares show which kempul to play. One of these three is not what you'd expect, according to the usual rules.

Gondjang Gandjing: This piece is in slow style only. Bonang plays octave-style throughout. Begin with drum-buka, starting medium speed at first, slowing very much during the first two lines, so that by the time you come to line three the slentem can go into

mbandu|. When you want to end, stop at end of section A. The whole piece must sound quiet, strong, and dignified.

Djentik Manis: A very happy piece, though it can also be played in slow style if you like. "Sweet finger" is the finger you wear your wedding-ring on.

The Cat's Play: I wrote this for one of my cats. The vertical line is merely an eye-guide, with no musical meaning. The horizontal line divides the two gonggans, each of which is repeated.

A single underlined number in the nuclear theme means to play it as two eighth-notes (if you consider an ordinary number to be a quarter-note). If the underlined note is followed by a different note (like the 2 at the beginning of section A), the first of the eighth-notes is damped very short. If the underlined note is followed by the same note (such as the 1 at the beginning of the B-section), both eighth-notes are cut short.

All this is called "ngentjot", pronounced approximately "ngunchut". It is optional in this piece. The special bonang part is a joy to play and hear, but it can be omitted while others are learning the piece.

Manjar Sewu: These are directions for a small gamelan; a large group would play this somewhat differently:

Kempuls play on the squares. Use only number six kempul if the kempul-player is responsible for the gong as well; this is often the case in a small group. Unlike most cases, the kempuls in this piece are damped right after striking. The gong is not damped.



The gong is played softly on single-circled notes, loudly on double-circle. This double-circle is the stopping point. The kenong plays the appropriate tone, reading the small superscribed numbers. No ketuk is used.

We often begin very slowly and softly, and build up to very loud and moderately fast, and end suddenly, without ritard. The drum must be easily audible by everyone in the group if you plan to end this way.

The bonang plays in between the nuclear notes, using the second of each pair of notes. The bonang also plays the buka, with no internal ritard in this case. This is illustrated under the notation of the piece itself.

Gangsaran: Slightly simplified version. This is not "a piece" as such, but an ostinato pattern, played medium to fast, almost always loud. It is used for several purposes, but most often to depict generalized excitement, such as battle-scenes in shadowplay or dance. Peking, saron, and demung strike directly from above the bar, for a hard tone. Slentem and kenong play fairly loudly, with the usual tabuh-stroke. Nobody damps except for the kempul, which plays six on the squares, and damps quickly after each stroke. Gong plays on circle. Accents in bonang panerus are more mental than audible. Arrows show how this part, if present, correlates to the bonang barung.

Wiludjeng: Pronounced viloojung; this is a very auspicious piece. It is slow style, and is begun like Gondjang Gandjing, q.v.

Where the kempul-stroke falls on a rest, use the kempul appropriate to the nuclear tone coming up next. The same is true of the bonang. Note that section A is repeated, but section B is not. Bonang is in octave-style throughout.

Pangkur: Given in two versions. The only difference is that one is a one-bar transposition of the other, yet it is amazing how different they sound. Slow style throughout. Consult notes for Gondjang Gandjing.

Raging of the Elements: This is a somewhat simplified version, since you won't have all the "heavy artillery" for an all-stops-out version. Nevertheless, it can be pretty impressive. Begin soft and slow, and build to fast and loud, taking lots of time to get there. Peking anticipates as usual until this gets too fast to sound good (which means about the last time through), then plays just like saron and demung to the end.

Signal for going to coda is given by drummer about where the "X" is. Immediately there is a ritardando and diminuendo to the end. The kenong player is very busy, and must play confidently throughout. Kempul plays on the four squares, gong only at the end of the coda. Bonang plays each note written in his part simultaneously in both octaves. Note the slightly different bonang-part in the coda. No ketuk is used in this version. The slentem plays only every other tone; like the underlined tones in this example:  
2 1 2 1 3 5 6 5 etc.

This piece is used in the shadowplay at that crucial time,

around midnight, when the Forces of Evil begin to be overcome by the Forces of Good.

### HISTORICAL OUTLINE

(In the following pages I've attempted to give an historical account, followed by technical information but, as will be seen, the two are very much interwoven, and are not actually separable except in the most general way).

The historical outline will necessarily be somewhat sketchy, especially so far as the earlier days are concerned. Like so many things, my experiences with Javanese gamelan, and the subsequent developments into "Thoomese" gamelan, just "happened". Until recently nobody paid much attention to it all in a historical sense.

My very first contact with gamelan was hearing a recording of one in connection with a course I was taking at the University of Wisconsin in about 1957 or so. I liked what I heard very much, but never expected to have any further contact with it.

Perhaps a year later, Professor L. Reed Tripp, then the head of the Economics Department at the University of Wisconsin, returned with his family from a stay in Java. He brought back a small slendro gamelan. His two sons had studied dance and gamelan while there, and the family was interested in continuing to play gamelan music. Accordingly various University students, and Professor Crane of the Music Department would meet at the Tripp's home on

weekends to play gamelan music. We did not work for public performance, although the group, its ranks expanded by the addition of two or three Javanese students, did play once for an "International night" program.

As I remember, the instrumentation was: peking, two saron, demung, gender barung, slentem, bonang barung, bonang panerus, ketuk, kenongs six and five, rebab, kendang and ketipung, gong ageng, gong suwukan two (out of tune and subsequently retuned), and kempul six. The rebab and gender were never used, as nobody had yet learned to play them.

When I left Wisconsin for Wesleyan University in 1962, I lost contact with the Tripp family and the gamelan, but have since heard that one of the sons is now teaching gamelan at Berea College in Kentucky.

While still at Wisconsin, I made a few attempts to build gender-type instruments, using iron of about sixteen gauge, and cutting the bars to lengths giving appropriate pitches, using a hacksaw. At the time I didn't know that there was a Javanese precedent for gamelans using thin iron keys. Consequently, I was also unaware that tuning is done by the amount of central crease hammered into a bar, with the length being a much less critical factor (see "The Book" for details). I felt rather proud of myself for "inventing" an iron gamelan, but later felt rather silly when I learned about the easier tuning method. These instruments were used occasionally at informal painting and potting parties. It

was at these parties, informal gatherings of musicians and artists from the University of Wisconsin, that the entire "Thoom" business began. It seems logical to digress at this point long enough to explain Thoom further.

These parties occurred nearly every weekend, and were called "orgies", although they were actually orgies of work. Generally they took place at the home of Bernie Pyron, a potter/psychologist, and most of us spent a good deal of time making pots; if not well, at least enthusiastically. Sometimes it would be an orgy of woodcuts, or communal writing, or painting. Always there was music; if not gamelan instruments, then mouthbaws, home-made sitar, or innumerable other instruments (and voices too, of course). Altogether a very enjoyable and productive time was had by all.

As so often happens in such surroundings, a good deal of ceremony plus nonsense occurred. For our patron deity we took the Great God Pan; a logical choice. Thoom entered by accident. One day I saw a comic Hallmark card, consisting of a series of three-hundred sixty-five national holidays listed for the benefit of people who only drink on national holidays. Among other equally silly holidays was the "Feast of the Great Boiled Thoom". We found this immensely funny (and still do), and immediately adopted Thoom as one of our guardian deities. He has since then become the chief deity of all.

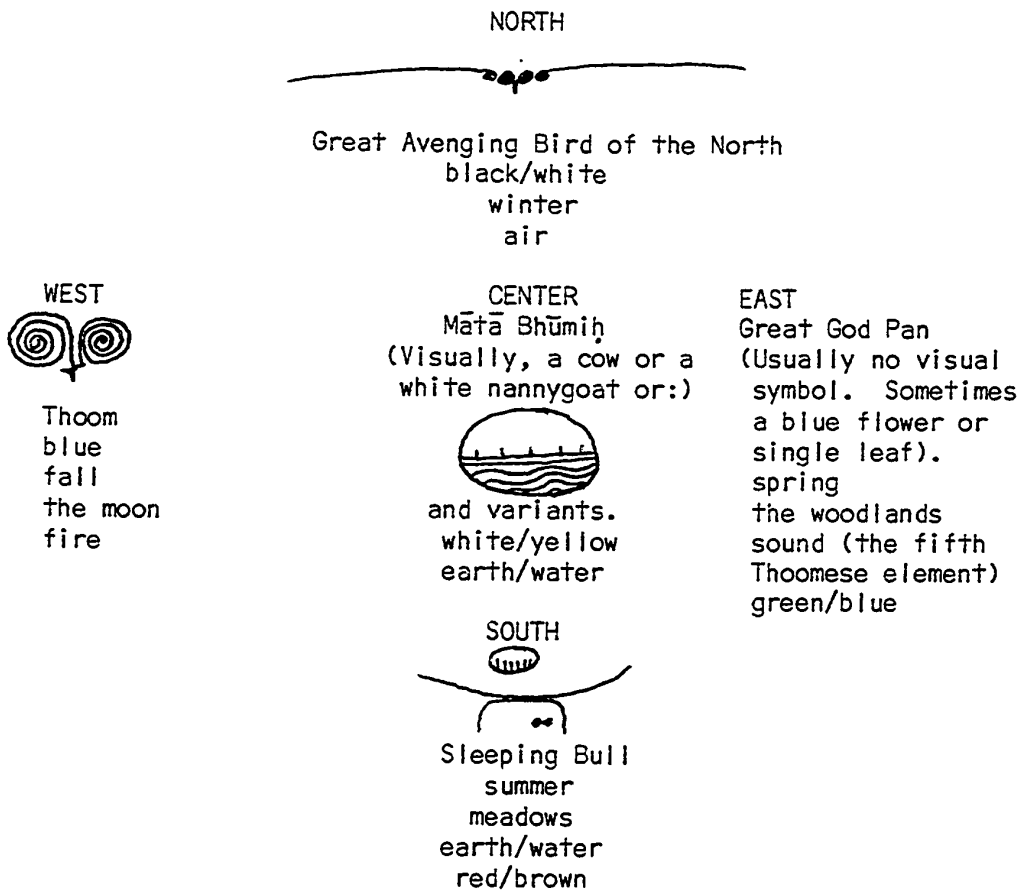
As a result of making various kinds of art-objects together at these gatherings, we began to develop some visual and literary

symbols and ideas in common. Eventually all this developed into what could be described as a "Cult of the Great God Pan".

At about the time I left Wisconsin, this group dispersed, though the influences of the "cult" are still felt today in the work of at least three former members.

My own particular branch has developed in this way:

Primary figures in Thoomism, with some of their attributes:



Other important figures are Bhagavān Sūrya, the sun; and  
The Small Cat Who Knows.





Here is a variant of this script suitable for brush-writing,  
which I sometimes use when writing on Chinese/Japanese-style  
paintings.



Thoomese was (and is being) designed primarily as a game. I wanted to make a completely regular language. As it has developed, irregularities have crept in for one reason or another, and now it is full of pleasant inconsistencies. It is useful as a sound-medium. I enjoy writing simple poems in it, and like to use it for song-texts. I have had some success in composing songs in Karnatic style with Thoomese texts, but have found Thoomese difficult to set as the *geronggan* for gamelan music. The primary difficulty is that Thoomese tends to have accents early in a word, insofar as it has them at all, with unaccented endings; quite the opposite of the general texture of gamelan music. Thus, a certain distortion of the text takes place when setting it to gamelan music. I have reason to believe that such is also the case in setting Kawi as Javanese gamelan *gerongan* and *sinden*, but since I have virtually no knowledge and hence no preconceptions about Kawi, I scarcely notice the distortion of speech-rhythms. It is otherwise with Thoomese.

Thoomese has other pleasures. It contains features differing considerably from English. Namely:

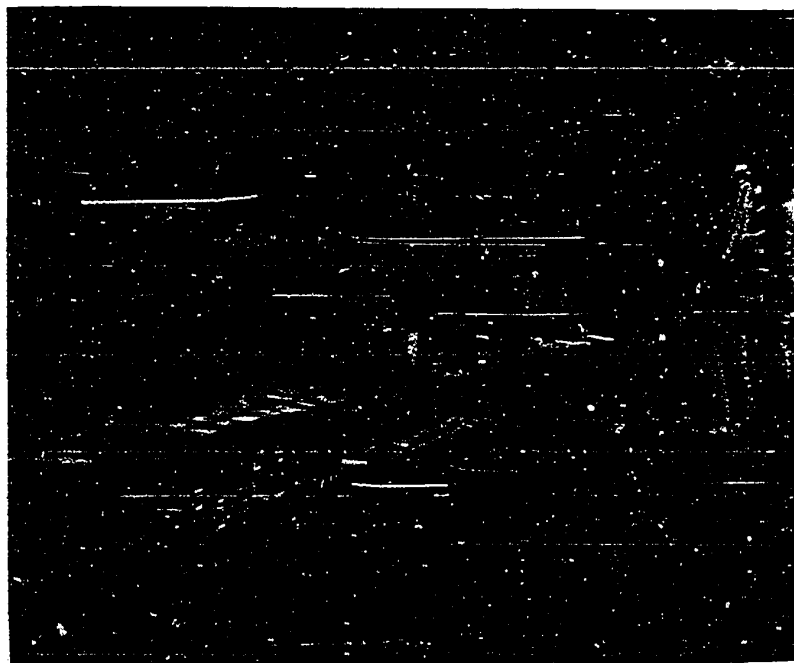
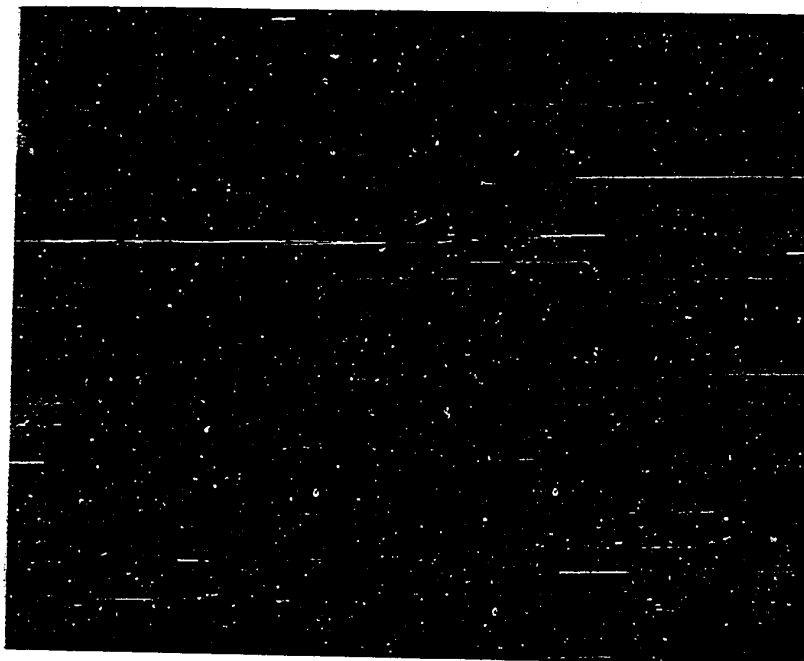
- 1.) A declension system present in English only in the obsolescent genitive.
- 2.) No definite and indefinite articles (not unusual in languages, but requiring an interesting readjustment for an English-speaker).
- 3.) Almost complete avoidance of the normally multitudinous forms of "to be". This can be paraphrased as "to stand",

but it is seldom necessary or even helpful.

Nevertheless, considerable subtlety of tense, mood, etc., is possible. Again, this is not unusual. Chinese is even more ascetic than Thoomese in most ways, yet apparently can convey the finest shades of meaning.

In short, Thoomese is a very interesting linguistic and calligraphic game, quite different in some radical ways from English, intimately tied to Thoomism, and to the shadowplay and gamelan music designed to fit Thoomist ways. I would very much like to continue my explanation of Thoomist thought, language, writing, poetry, visual symbols, and so on; and indeed I hope one day to be able to do so in another paper; but this is not the time for it, and I wished only to give some slight flavor of the whole Thoomist ethos as background to my use of the gamelan and shadowplay. Now we will return to more technical matters:

When I first entered Wesleyan's music program, the Music Department had on loan a small iron gamelan, from which I learned the right way of tuning iron bars. The gong Kemodong that came with this set had a leaky resonator and thus was of no real use. We substituted a pair of round G.E. transformer-covers, hung up like gongs. Now I set to work and built the four instruments seen below:



The first photo shows these in the following order from front to rear: demung and saron combined in one instrument, gender panerus, gender barung, slentem; all in slendro. Something much like the combined saron and demung exists in Java. Sybil Marcuse describes it thus in Musical Instruments; a Comprehensive Dictionary:

"Gambang gangsa -- multi-octave saron of Java, now obsolescent, with fourteen-fifteen bars, generally without bosses. It represents an older period when the three other sarons did not exist as separate instruments. Also called gambang selukat. If the bars are bossed, it may be called pantu".

In Solo, it is called chelepita; in West Java it is called dempling.

The other photo shows Professor David P. McAllester playing these instruments at an informal concert given at a party.

Since I had arbitrarily set the pitch of six at A=440 C.P.S., our larger gamelan to this day is rather low in pitch; perhaps a whole step lower than most I've heard. Mr. Prawoto says a gamelan should be pitched so that male singers can descend to five without too much strain. Donald Lentz says that a common practice is to tune slendro high one to a comfortable no-strain pitch when sung by the tuner.

The two genders were used for some years at Goddard, but later abandoned for genders having thicker bars. These in turn are due to be supplanted in the near future by genders with bars a full one-eighth inch thick. The slentem, despite the thin bars (about sixteen ga.) is quite good, and so is still used. The demung-cum-saron is now brought out only for emergency use, such as heavy enrollment in the gamelan.

One of the interesting things about my experiences in making gamelan instruments is that as I learn more, I become increasingly dissatisfied by my earlier efforts, and so am caught up in a presumably endless round of rebuilding. Far from being discouraged by this, I find it quite exciting and satisfying.

By the time I arrived at Goddard (1967) I had bought some heavy aluminum bell-shaped objects (see photo below) which I slotted with a hacksaw in such a way that two notes could be derived from one bell, depending on where it was hit and pinched at the rim. These were tuned to Western pitches (g a b c d), but were nonetheless used as kenongs. One can be seen in the background of this picture:



The picture also shows our first bar-type bonang barung; very thin metal and no bumps.

The next photo shows the gamelan as it was perhaps two or three years after my arrival at Goddard. We had made our first gong. This is a flat plate, with collar at right angle. It is made of quite heavy metal, perhaps twelve gauge, and is very large in diameter.

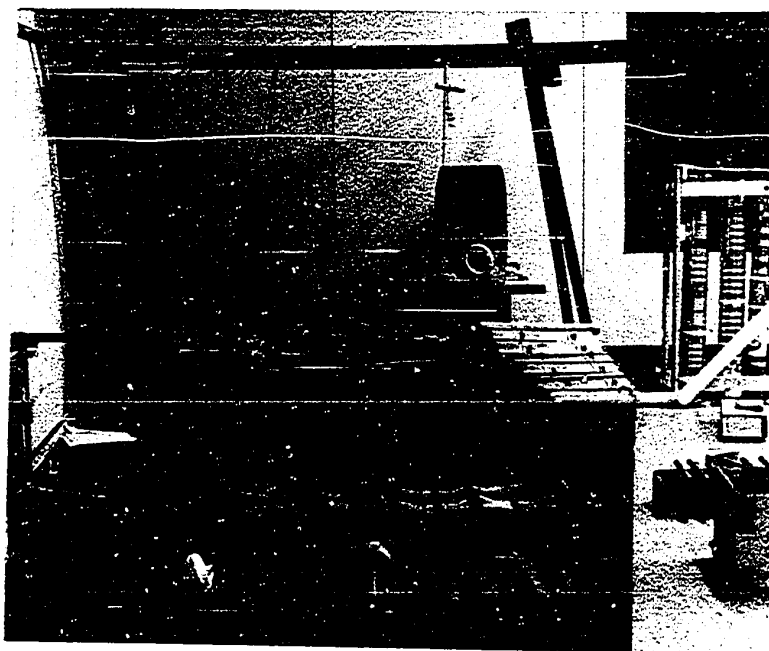


There is a weight welded inside at the center to bring the pitch down to slendro two in the gong suwukan range. Until recently this was our only gong, and served both as gong ageng and gong suwukan.

We had branched into both slendro and pelog by this time, and I had discovered that old-style milk-strainers sound much like kenongs when suspended like kenongs and struck on the curved area

below the central perforated area. At this stage, most bars were of sixteen or fourteen gauge hot-rolled steel, i.e., iron, as I had not yet discovered the superiority of one-eighth inch iron for most purposes.

Our kempuls consisted of two sawblades, at the approximate pitches of slendro six and three in the kempul-octave. These were suspended as described in "The Book".



Subsequently a large number of kempuls have been built, and there are at present six gongs.

I've also built a small slendro-only gamelan as a result of coming into possession of a set of cast bronze gender barung bars, which I purchased from Professor Robert E. Brown after his return from a trip to Java. These bars were obviously too high to be



tuned easily in accordance with the existing gamelan, so I re-tuned them to a slendro scale a good deal higher than that of the existing gamelan. Then there had to be other instruments to go with this gender, and so a second gamelan, not only higher in pitch but of somewhat different intervals, came into being.

This small gamelan consists of one each of peking, demung, slentem, gender barung, gender panerus, bonang barung, bonang panerus, two saron barung; plus a few special kenongs and kempuls that could not be "borrowed" from the low-pitch set. Fortunately the somewhat diffuse tone and the low pitch of kempuls and gongs allows the ear to accept considerable mis-tuning in these instruments so that much borrowing is possible.

Somewhere along the line, the low-pitched original gamelan acquired the name "Kyaiḥ Thūmasya Vācanah", or "Venerable Sir Voice of the Thoom", and the "gong" (actually pitch two gong suwukan) of that set acquired the name "Sleeping Bull".

The higher pitched gamelan is "Kyaiḥ Rđīharimau", or "Venerable Sir Small Tiger", so named because though small it is quite loud. I plan to add another saron to this set, and make a few minor improvements, but otherwise it is complete. Much of its value lies in its portability, and I don't want it to get too bulky.

Besides the "heavy artillery" listed below, the larger gamelan has approximately the following instrumentation in each tuning-system: one peking, three sarons, two demungs, one slentem, gender

barung (one slendro and two pelog), bonang barung, bonang panerus, rebab, sulings, drums, kepraks, kenongs 3 5 6 1 in slendro and 5 7 in pelog, ketuks two in slendro and six in pelog.

It is difficult to give exact instrumentation, especially in the nuclear instruments as we do not usually find use for all available sarons, for example. The confusion is compounded by the fact that some of the instruments were built at college expense and hence are college property, while the great majority were built at my own expense, and are my own property. Inevitably there is much duplication.

For some months "Small Tiger" resided in my living-room. It became apparent that it would be more useful at school, and I moved it. At first, the instruments were set up in their own portion of the Music Temple, but this used up so much room that we were obliged to mix them in with the low-pitch set. Thus, as can be seen in some of the photographs, a bonang or saron player, for example, is surrounded by three instruments, representing low pitch slendro (forward-facing), low pitch pelog, and high-pitch slendro.

There is no really satisfactory tumbuk (common-tone) between the two gamelans, so they must be used in musical isolation from one another.

This is the history up to my arbitrary cutoff-point of the summer of 1973. The remainder of the history, up to the moment of typing the final draft of this dissertation, will be found in the journal-section. The same is true of all other sections of this dissertation.

### TECHNICAL INFORMATION

Probably the most interesting, and certainly the most frustrating, part of my experiences in gamelan-making has been with gongs and kempuls. I have never had the time, ambition, money, or tools to attempt making a gong of iron closely following the shape of a Javanese bronze gong. Ours is a very simple design, and is of course inferior; yet we get very satisfactory instruments with this design.

The first attempt was with what is now our "Sleeping Bull" gong, which is actually a suwukan in pitch slendro two. This is made of very heavy metal, twelve gauge I would guess, and has no central boss, though it does have the depressed area near the outer part of the face. Inside, at the center, is welded a weight, to lower the pitch. This is still our loudest gong, and we use it a good deal in the function of gong ageng though it is far too high.

I had originally intended to cause the collar to "angle closed" as does the rim of a Javanese gong, but the person doing the welding misunderstood the directions and set the collar at forty-five degrees to the face. I realized that this saves metal. Any other angle requires an arc-shaped piece of metal for the collar, which is wasteful. Also, it worked, and I was very pleased and saw no reason to change it. Eventually I will try other designs

but we are too busy at the moment in building other badly-needed instruments.

Ron, my first gong-maker, left soon after the construction of "Sleeping Bull", the only gong named so far. John, the next to help me, built a number of very fine instruments, as did Ken, my present gong-maker. All three showed great interest and joy in the work, and gave freely of their time without any reward beyond the work itself. Ken and I have worked together for some time now, and it is interesting that we have fallen into certain behavior-patterns which I've observed among a large percentage of instrument-makers of all kinds; things such as referring to each other as "Herr Doktor" or some other silly title, complaining bitterly when something goes exceptionally well, sighing and exclaiming in relief when something goes badly. For example, "Gee, for one awful moment I was afraid the top was going to be big enough to fit the rim".

This is a sort of comic-relief to the tension of making instruments, and perhaps an attempt to placate the forces of bad luck which are ever ready to pounce upon an unsuspecting instrument-maker. I've always done this, ever since I began making things, and most of my friends do it too. I notice a similarity to the practice among gong-smiths in Java of taking ceremonial names and speaking in certain ways when work is in progress. (See Kunst pages 137ff).

Though we are pleased enough with our present gongs and kempuls, there is much room for improvement. Kunst (page 142)

describes fine Javanese gongs thus:

"These gongs possess a sound that grips one through the splendor that emanates from them, spreading an atmosphere of truly lofty restfulness and power. Whoever has been fortunate enough, be it only once, to hear the benefaction of this timeless booming tone, dominating the teeming sounds of the gamelan, and to hear it, as it were, come out of the silence of eternity, will forever carry it with him as a most precious memory."

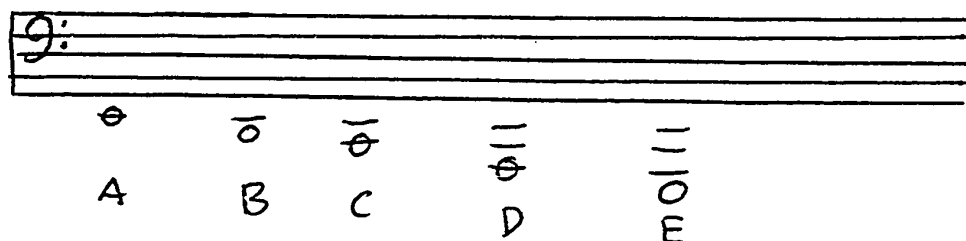
This poetic praise is not in the least exaggerated. Our gongs make a solid boom, somewhat too explosive. They are nice, but they are a statement, not an unfolding of dark sound. Improvements will be made when the time and money become available. In the meantime, we will make do very well with what we have.

Since our first gong was naturally an item of considerable excitement and joy, I decided it needed a name. Sleeping Bull was an obvious choice, since not only is this the name of a major god of Thoomism, but the name expresses power and quietude at once, and indeed this is the character of this gong's sound. One afternoon we held a brief bilingual (English and Thoomese) gong-naming ceremony in the basement of CR dormitory (then the location of the gamelan) and performed a short concert. I remember this time as one of quiet magic. Perhaps it is presumptuous to name anything but the finest of cast bronze gongs; certainly this would be so in Java. But since, for all our culture's mechanical superiority, we are nowhere near the metalworking skill of the Javanese gong-smiths, we must name, respect, and care for whatever gongs we can make. Though we Westerners, and especially we North Americans, are often

labeled as lacking in perception and various "finer sensibilities", it is not necessarily so. I and many of my students are quite aware of some instruments, including some gongs, as having definite personal characteristics. That is, they possess the inanimate equivalent of a personality. None of us really thinks, for example, that one of the gongs actually is Sleeping Bull, nor that it in any way contains a self, but this does not prevent it from being very much an individual, and very much liked for its particular character.

This is a list of the gongs and kempuls now in use at Goddard as of this writing (November, 1973):

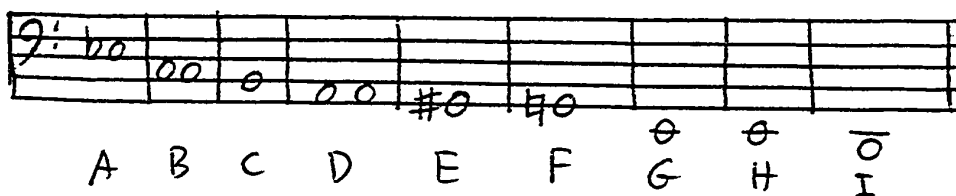
#### Gongs:



- A.) Same pitch as kempul three, low pitch of which we have two. Can use as suwukan two in high pitch, though it is a bit flat for that purpose.
- B.) Sleeping Bull, our first and loudest gong. Lowpitch suwukan two slendro.
- C.) Lowpitch siyem one slendro. Inferior tone; to be replaced.
- D.) Lowpitch gong ageng six.

- E.) High pitch gong ageng three. Can use as lowpitch five, but it's very sharp for that purpose.

Kempuls:



- A.) Attempt at high pitch one, but it's very flat.  
 B.) Low pitch one; one old, one newer with better tone.  
 C.) Low pitch pelog seven.  
 D.) Low pitch six; one old, one newer, neither perfect, both satisfactory.  
 E.) Low pitch pelog five. Diffuse tone, to be replaced eventually.  
 F.) Low pitch slendro five; a bit flat.  
 G.) Low pitch slendro three; poor tone.  
 H.) Low pitch pelog three; good.  
 I.) Approximate low pitch slendro two; diffuse tone.

It should be understood that the pitches given in staff-notation above are the nearest Western equivalents of the actual pitches of these gongs and kempuls.

I have tried making kempul komodan; that is, a very low pitched "gender", with two bars and two tubes per tone, slightly

differing in pitch. The tonal quality was very satisfactory, but the volume was so low that I was forced to discard the idea.

Then I tried adding a central boss to the simple design of our Sleeping Bull gong. After much trial and error I have come up with the following "rules" on the making of gongs and kempuls of this type. These are more nearly assumptions than rules, and I must admit considerable confusion in this area:

- 1.) Depth of collar is immaterial to pitch. Its function seems to be only to provide inertia at the edge of the disc. Theoretically, the heavier the collar, the better; but I don't know this for a fact.
- 2.) Increasing diameter of face decreases C.P.S.
- 3.) Increasing thickness of face increases C.P.S. and loudness.
- 4.) The central boss acts as a weight would act, i.e., it decreases C.P.S.
- 5.) The depressed area around the circumference raises the pitch. The further in toward center this is carried, the higher the pitch.

All this is somewhat conjectural, as my experiments have been greatly hampered by a tendency for the face of a gong to buckle during the process of welding it to the collar.

My recent experiments with tiny gongs of this design (intended to be bonang-kettles), lead me to think that as one hammers the depression around the rim the pitch descends to a certain point,



then begins to ascend if carried further. Given a slightly bowed-out condition of the face to begin with (a state which seems almost invariably present), the above would make good sense, as can easily be seen.

A very fine-toned kempul once existed at Goddard. This was a blue enameled roasting-pan, rectangular in outline, about fourteen inches by twenty inches in size and perhaps seven inches deep. I found it on a junkpile somewhere, and discovered that when it was hung up from a certain spot and struck with a certain portion of the bare hand, a beautiful tone resulted. This was the first kempul ever used in the Goddard gamelan, antedating even the gold-sprayed sawblades, and much superior to them in tone.

When our gamelan-area was changed to a different place, at the end of a year or so after my arrival at Goddard, the janitor dropped our precious blue-enameled kempul, and it became inoperative, to my great dismay. Nevertheless this "kempul" was saved, and became the repository of printed gamelan music, a function it still fulfills.

At the same time I attempted to make a gong-substitute of a large koto-like affair with many thick metal strings. It worked very poorly, but we had nothing better. I am amazed at our humble beginnings as I look back on it all.

The standard monochord: This is a simple tool I use often and in various ways. It consists of a length of two by four, or some other stiff piece of wood, to which is cemented a metric ruler, one

meter long, divided into millimeters. Alongside this is stretched a length of music-wire, capable of being tuned to A=440 C.P.S. ( or 220, or 110, etc.), with coarse adjustment via an autoharp tuning pin, and fine adjustment via a sliding bead. The string is exactly one meter long, with nut and bridge at beginning and end of the metric-ruler. While the sound is quiet, it is sufficiently audible to serve the purposes for which it is intended. Sound is produced by gently plucking the string. To fret (stop) the string, I use a knifeblade held so as to barely touch the underside of the string, and very light pressure just to the left of the knifeblade to insure a solid contact.

By means of simple "kitchen arithmetic" and a good musical ear, it is possible to perform many useful acoustical functions normally served by oscilloscopes, tone-generators, stroboscopic devices, etc. The monochord is not as accurate as the electronic laboratory, but certainly it is cheaper by far, and nearly as satisfactory, given a "good ear". Thoom has seen fit to bless me with this, and I am ever grateful.

The tuning of a gamelan, for instance, may be recorded and reproduced at will simply by locating its pitches on the string and recording the appropriate numbers from the metric rule. These numbers have little meaning beyond reference-points to find and reproduce the pitches in question at a later time, and it is as satisfactory to record sounding-length or amount of string "cut out", i.e., beyond the sounding length.

It is also possible to "steal" a gamelan tuning from a phonograph record by tuning the open string to a given pitch of the recorded gamelan (most conveniently pitch six) and finding the remainder of the pitches. The tuning may be accurately transposed wholesale to any pitch-level by re-tuning the string to the "new" six, or whatever was chosen as open-string-tone. The numbers on the metric-stick will remain valid. Since gamelans vary not only in intervallic structure but also in overall absolute pitch, i.e., in tessitura, it is most convenient to be able to reduce a number of tunings to a common six, for example, in order to compare interval sizes.

One further step in calculation is useful; extremely so, as it allows not only accurate comparisons, but also the duplication of a scale of any sort if it is stated in C.P.S. (or Hz, as is the modern fashion of nomenclature). I expect that the following could be expressed neatly in simple mathematical formulae. Unfortunately I must confess my ignorance of even the most elementary math. I have had to find my own awkward ways of expressing those few mathematical relationships essential to my work in music.

The rule is: To convert from a list of scale-pitches given C.P.S. into sound on the "standard monochord" described above, divide given C.P.S. into whichever of the following numbers falls below the lowest tone (in C.P.S.) given in the scale-series: 55, 110, 220, 440, 880, etc. In actually producing these tones on a monochord, one may double or quadruple (etc.) any number below 499

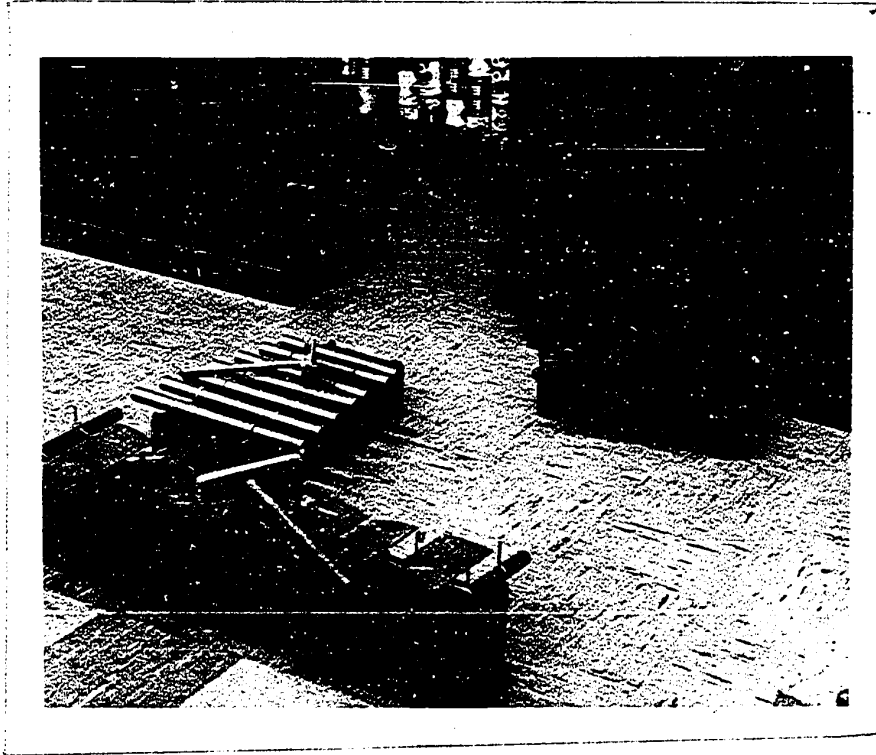
to make use of the greatest possible string length. Obviously it is only necessary to reverse the procedure in order to convert an audible sound into a numerical value stated in C.P.S. The following chart gives the monochord-numbers for my two gamelans. These numbers represent the sounding lengths:

Sir Voice of the Thoom		Sir Small Tiger	
Pelog	Slendro	Slendro	
<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
1.) 784	1.) 862	1.) 860	1.) 732
2.) 728	2.) 746	2.) 755	2.) 644
3.) 670	3.) 664	3.) 660	3.) 560
4.) 580	5.) 584	5.) 570	5.) 482
5.) 542	6.) 500	6.) 500	6.) 424
6.) 500	← Tumbuk ↑		
7.) 448			

Columns A, B, and D are actual measurements. In column C I have reduced Small Tiger's tuning to a common six with Voice of the Thoom, to allow comparing the sizes of the intervals. The best way to understand these tunings is to reproduce them on a standard monochord.

When I first began building gamelan instruments at Goddard, I felt that the sixteen gauge iron would not make a good-sounding peking. I don't remember testing this out, however. Accordingly, I used three-quarter inch electrical conduit, with a rack consisting

of a board framework, with two pieces of rope on the long edges, where the pipes would touch. The pipes were kept from rolling via rubber bands attached to the rack. We used this for several years.

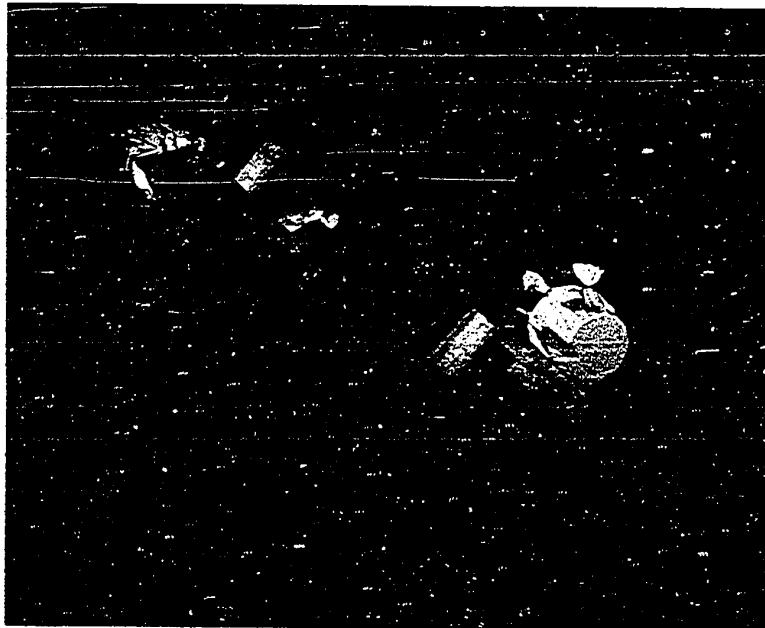


This makes a satisfactory peking, so long as the player makes certain the tubes do not move out of position. Our present pekings (one-eighth inch iron slabs) are so far superior, however, that I wonder why I didn't try this sooner. As I remember, my reluctance to use thick metal stemmed from my lack of success in bending it with the vise and hammer I then had. Subsequently I found heavier tools at the Sculpture Department, and have had no trouble since.

Nevertheless, I still recommend fourteen gauge metal for most

people, as it can be worked easily with the most basic and inexpensive tools. A little experimentation by the builder will tell him whether the difficulties and time involved in working the thick metal are justified by the results. [91]

Since most drums violate vegetarian precepts, it was necessary to make a new kind of drum. Although we have recently acquired a conga drum with a plastic head, most of our drums are cardboard tubes with plastic sheeting of various types. The tension is provided by string attached to the heads and to pegs which perforate the drum-tube several inches from the head. This is a variable-tuning modification derived from an African drum.



Mylar sheeting, sold as a wrap for roasting portions of corpses intended for human consumption, makes the best drum-head. There is a certain joy in turning roaster-wrap (rooster-wrap, as we call it), into more peaceful and sane channels.

This kind of drum is not particularly loud, due to the small diameter and low tension and mass of the head. However, there is a definite and very musical pitch to such a drum and if tension is a bit below maximum, two tones can be produced; one "open" and a higher one resulting from leaving the striking fingers on the head after the stroke, thereby increasing tension. The lower note is naturally the more sustained.

The highest-pitch drum has a short tube, and is closed at the end opposite the head. This gives it the frequency of the head itself, whereas in an open-ended drum, the frequency is near to the natural resonating frequency of the tube, assuming it to be closed at one end by the head. Actually, the frequency is lowered a bit from the theoretical one, due to the elasticity of the head.

All really loud drum-sounds are made on our large conga, which has a commercial plastic banjo-head, capable of withstanding powerful strokes.

The drumming itself is purely functional. It provides a certain color in the gamelan's sound, and it directs the group. There is no real connection between my drumming-style and proper Javanese gamelan drumming, as I have never had the opportunity to study this. We have worked out a fair imitation so far as the

untrained Western ear is concerned, and with the drums and *kepraks*, are able to signal most changes fairly well, though it is difficult to signal a sudden piano with no tempo change.

My iron *slentems* and *genders* are actually louder than the usual Javanese models, due to the greatly increased resonator length. This makes the instruments unwieldy and requires the *slentem*-player to sit on a chair, but I think the increased richness of the total gamelan sound is well worth these disadvantages. Javanese *genders* used to be taller than at present, and the discovery that partially closing the open end of a resonator will drop the pitch (though at the expense of loudness) was welcomed chiefly because the players of such instruments no longer had to violate etiquette by sitting higher than the prince or other dignitaries present. I use partial closure only on the lowest note or two of the *gender barung* and *slentem*.

The bars of my *sarons*, *demungs* and *pekings* are suspended as in the *slentem*, etc. This is done in an effort to gain maximum efficiency and sustaining-power. Normally these three instruments are built so that there is a metal or wooden pin through the holes in the bars, with a cushion underneath, between bar and case.

Lentz, on page 46ff, speaks of wide variations from the theoretical pitch-standard, which are acceptable to Indonesian musicians. I had proof of this when I once tried to tune a plastic *suling* to the Wesleyan gamelan. Mr. Prawoto, then the gamelan master, showed complete willingness to accept tones which were very



far from those of the saron I was using to check against. (See Lentz pages 55-57 for commentary on this).

It is sometimes difficult to make a flute-type instrument with one hole per tone if the tones are widely spaced in places. Sometimes it is necessary to drill two holes, which are then operated as a unit by two fingers, the possible intermediate tone not being used. The difficulty often is not apparent in the lower octave, but becomes obvious in the second octave.

I have found that it is best, in making a suling, to have the holes rather large, which simply means placing them lower on the tube than they would be placed if smaller. This usually prevents any problems with the two octaves differing from each other.

We have a large number of sulings to choose from at Goddard. I first made some fairly traditional ones, using nominal three-quarter inch P.V.C. tubing. They sound nice, but are very quiet, and I found it confusing to spend so much time in the cross-fingered third octave, though I often wanted these higher pitches. Later I made them of one-half inch tubing, about an octave higher.

Since our surrogate bonangs have their bars on strings, it is not practical to change the positions of the bars as is sometimes done with "commercial" bonang kettles. Therefore we have adopted the following array as the most generally useful in pelog:

4 6 5 3 2 1 7

1 7 2 3 5 6 4

In notating bonang parts, I have decided that it is most reasonable

to notate positionally. Hence the "one" in:slendro is notated with or without the superscribed dot or carat depending on whether it lies in the upper or lower rank of bars. This is despite the fact that the one in the lower rank is nearly an octave above the two next to it, and therefore is actually "high one". In pelog, there is no problem as the pitches "one" and "high one" occur in lower and upper ranks respectively.

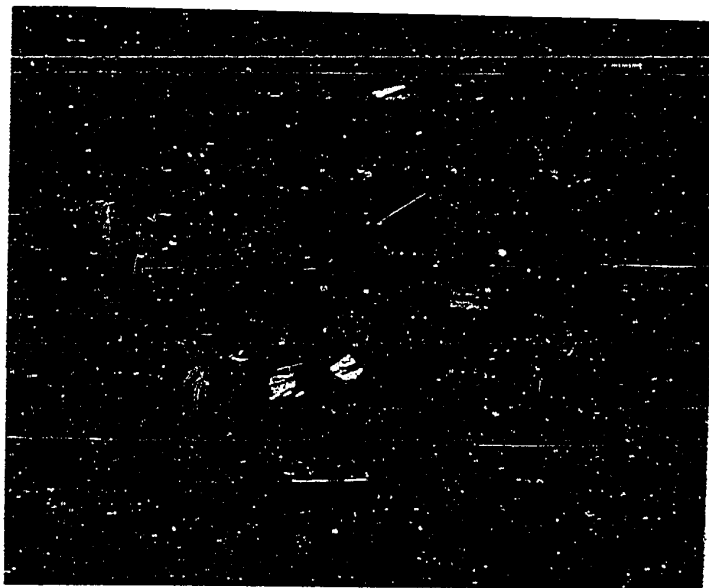
It's interesting to note that giving an instrument a function is often enough to make it "sound like" a particular instrument. A good example is the "bonang" described in "The Book". The bars and resonators of this instrument are no different than those of the sarons described in the book, except that they are slightly damped via a cloth patch held on by a rubber band. But the fact that they play bonang parts makes them "sound like" a bonang, so long as one is not paying special attention to this instrument when hearing the entire gamelan.

An amusing example of this "function over form" phenomenon is my all-wood-nylon-strung fretless banjo, which shares only the tunings and playing-techniques of the normal instrument, yet "sounds like a banjo".

In the gamelans I've built, some of the bonangs have had their plain bars replaced by bars with "bumps"; domed protrusions at the center, hammered from the back via a ball-peen hammer, with the metal heated at this point by the welding-torch. A short piece of pipe is used as an anvil to help shape the bumps. These bumps

need not be especially perfect or symmetrical. Tuning is accomplished by bending the bar at both sides of the bump, since it is obviously impossible to bend through the bump. This limits the variations in length possible for a given pitch.

Eventually all the bonangs will be converted to this type of bar, unless recent experiments in making welded kettles prove more satisfactory. The few kettles which have worked have sounded very good, but it is hard to get the higher ones to ring well. The "bump bars" are a fair approach to true bonang tone, and I have no real fault to find with them, except that they are not as loud as I would like.



Variations in tabuhs also have great effect of tonal qualities. When Goddard acquired a wood lathe, I made a demung tabuh of mahogany, quite large, in the traditional shape, and a peking tabuh of very hard wood, in an effort to duplicate the sound made by a peking tabuh made of buffalo-horn. The players showed themselves highly conservative, and disliked the new tabuhs, saying they were too loud. Actually, they produce a tone much closer to the norm. Now that new players without preconceptions have taken over the instruments, they happily switch from one kind of tabuh to another, depending on the effect desired, so actually we have a certain flexibility of timbre in the overall gamelan sound.

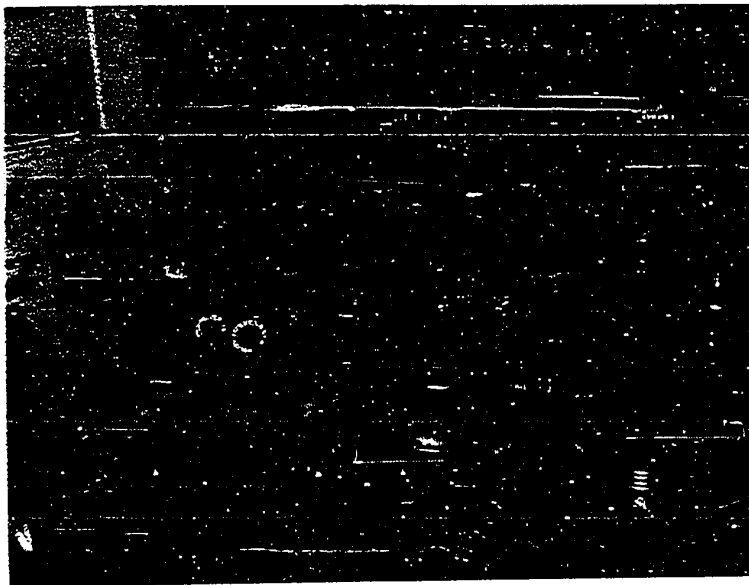
So far as I can tell, there's no difference in the efficiency of a resonator soldered together at the seams and one merely held together with masking tape, and certainly the tape method is faster and easier. But I like to solder all tubes, or at least the acoustically functional portions thereof, as I feel it will pay off later in lack of maintenance problems. Some tin cans, notably those used for acid fruits and juices, such as tomato juice, are made of a metal which will not soft-solder. A can of this type exhibits a bluish cast, unmistakable when compared to the usual type of can. Consequently, these may only be used in taped construction, or as taped-on "extras" under the functional portion of a resonator.

The easiest method of soldering cans to make resonators seems to be this:

- 1.) Remove both ends from all but the lowest can, and be sure all are perfectly round at the rims.
- 2.) With medium sandpaper, clean the first two cans to be joined. Both rims must be sanded bright at the point of contact and on the outer portion of the lip.
- 3.) Apply non-corroding soldering paste lightly to all the sanded surfaces. Make sure the coat is light but complete.
- 4.) Stack the cans on a level table, and heat with a propane torch. Hold the solder in the left hand, and have a foot or more protruding from the reel. This permits a very light touch, which is essential, especially for the first portion.
- 5.) When the solder flows, move around to the left, following the solder with the torch or heating and then removing the flame while applying solder. (One soon works up a rhythm to all this). Be sure not to over-heat the metal, as the cans will then deform and not touch at the rims and thus will not solder. This is more of a problem with large cans than small ones.
- 6.) Continue piling up cans this way until you pass below the desired pitch, then trim back to pitch (see "The Book" for details).
- 7.) Add any cans needed at base to bring mouths of all resonators level.

Occasionally I find I've chosen a can with a very flexible end as the bottom of a resonator. This can result in some pretty amusing sounds, or just inefficiency. If I don't want to rebuild the resonator, I try sticking a blob of silicone cement on the outside of the troublesome surface. This often works, but not always.

In "The Book", I have deliberately refrained from giving exact lengths and diameters of resonators, since there are so many variables. One should keep in mind the possibility of shortening an instrument, such as a slentem or gender, by semi-covered tops as described earlier. I try to avoid this, for efficiency's sake, but this avoidance does make for a bulky instrument.

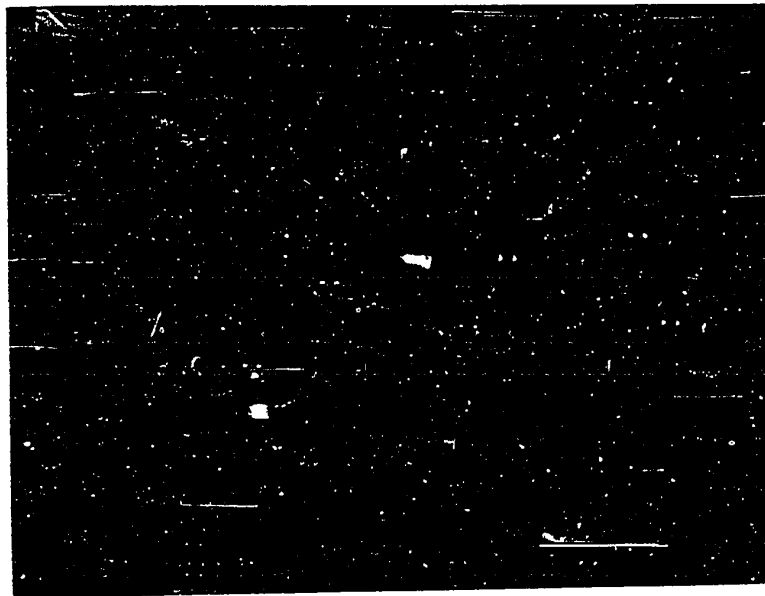


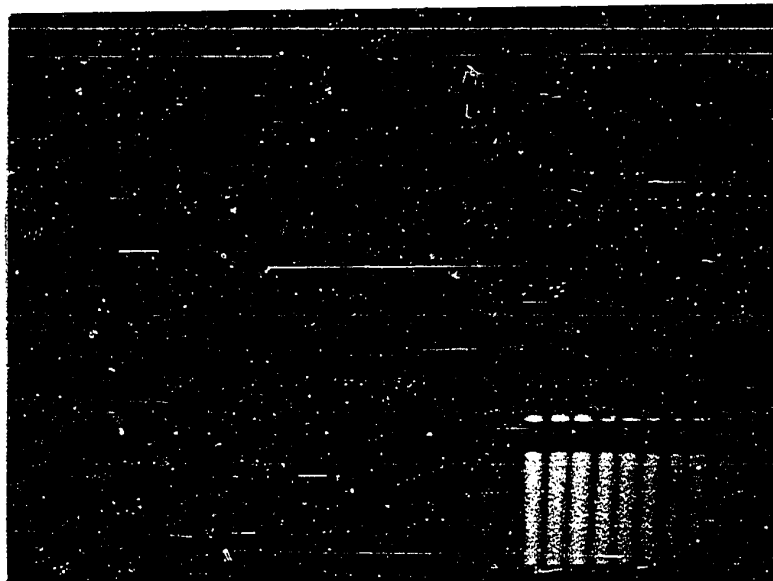
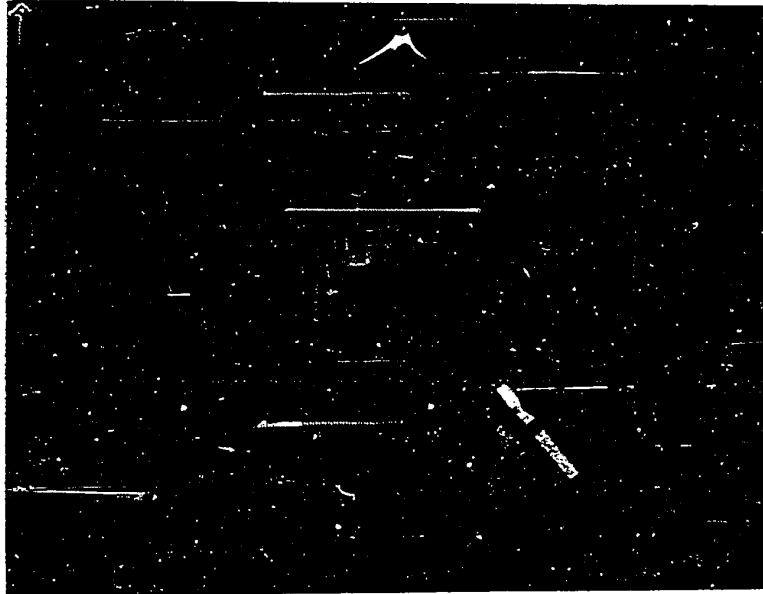
Our milk-strainer kenongs are perhaps the funniest-looking instruments in the gamelan, but they sound very good. The tuning-method is interesting. The strainer is placed with the open end

on the ground (to deaden the inevitable racket) and hammered from above, on the perforated part and/or the rim just around the perforations; as if trying to flatten it to the ground. This causes the pitch to drop. It is necessary to stop exactly when the desired pitch is reached, as it seems impossible to reverse the procedure to raise the pitch.

Of the many shapes of milk-strainers, only a few produce kenong-like tones in anything near the correct octave. This fact, coupled with the fact that this type of strainer is no longer manufactured, makes it very likely that future gamelan-makers in America will have to find another way to make kenongs. I plan to try doing this by constructing large thick bars with central bumps.

Here is the entire gamelan-setup as of January, 1974:







The first photo shows, as I have previously described, that the slentem, demung, and bonang barung, for example, each exist as three separate instruments, with the player boxed-in between them.

For outdoor concerts, we generally move only part of the "heavy artillery":



Here is depicted one such event, a dedication concert in the recently restored formal garden at Goddard.

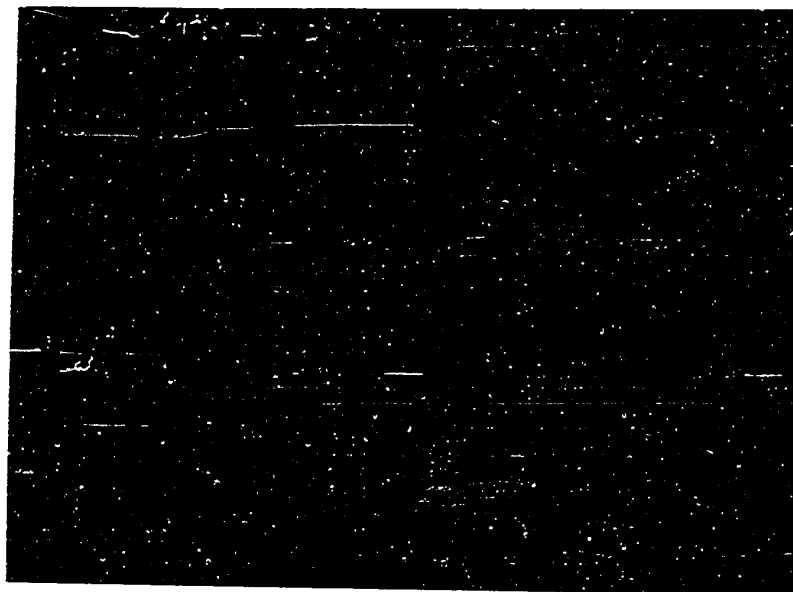
Below is one of my two star pupils, Chris Patton, moving the instruments for this concert; a job which often fell on his shoulders as he is the only one of us with a truck.



Chris is our first dalang in Thoomese wayang tholi.



My other star pupil, Kathy Brand, was too photo-shy to appear in this paper, but did consent to display some of her earlier puppets. Her more recent creations are copies of actual Javanese and Balinese puppets, and are very impressive and elaborate; but her original designs are in some ways more interesting. The character on the viewer's right is the Great Blue Panerus; Kathy is addicted to "in-jokes".



This is the gamelan at U-32 High School, near Montpelier. It is led by an old student of mine, Rick Winston, who is seen playing gong and drum. There are only seven players, and it is slendro only, but the word is spreading. This group is now listed with the Vermont Council of the Arts, for traveling concerts in the area.

Another gamelan is scheduled to be built in Orleans, Vermont by the clarinetist in my woodwind quintet, who teaches high school music there.

Barbara Benary has built a gamelan at Rutgers.

MUSIC REPERTOIRE OF GODDARD GAMELAN AS OF APRIL, 1974

GaraGara 'Raging of the Elements' SI. PT. Sanga

B:	2	1	2	1	3	5	6	5 <sup>S</sup>	6	5	6	5	3	2	3	2
N:	1	1	1	1	5	5	5	5	5	5	5	5	2	2	2	2
P:		1		1	5				5	5			2		2	
Bon. (over):	1	.	1	.	5	.	5	.	5	.	5	.	2	.	2	.
T	x	.	x	.	x	.	x	.	x	.	x	.	x	.	x	.

3	2	3	2	3	5	6	5 <sup>S</sup>	6	5	6	5	3	2	3	2
2	2	2	2	5	5	5	5	5	5	5	5	2	2	2	2
	2		2	5				5	5			2		2	
2	.	2	.	5	.	5	.	5	.	5	.	2	.	2	.

3	2	3	2	5	3	2	1 <sup>S</sup>	2	1	2	1	3	2	3	2
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2
	2		2	1	6			6	6			2		2	
2	.	2	.	1	.	1	.	1	.	1	.	2	.	2	.

3	2	3	2	5	6	↑	6 <sup>(w)</sup>	↑	6	↑	6	3	2	3	2
2	2	2	2	6	6	6	6	6	6	6	6	2	2	2	2
	2		2	6	6			6	6			2		2	
2	.	2	.	6	.	6	.	6	.	6	.	2	.	2	.

3	2	3	2	5	3	2	1 <sup>S</sup>
2	2	2	2	1	1	1	1
	2		2	1			
2	.	2	.	1	.	1	.

coda	2	1	2	1	2	1	2	1	2	3	6	5 <sup>S</sup> gang
	1	1	1	1	1	1	1	1	5	5	5	5
		1		1		1		1		5		
	2 <sup>0</sup>	1 <sup>0</sup>	2 <sup>0</sup>	1 <sup>0</sup>	2 <sup>0</sup>	1 <sup>0</sup>	2 <sup>0</sup>	1 <sup>0</sup>	2 <sup>0</sup>	3 <sup>0</sup>	6 <sup>0</sup>	5 <sup>0</sup>

C  
m  
d







## Pangkur - pelog pt. 7 (Barang)

3

Bk: .3.2 .3.2 3732 .7<sup>505</sup>6 gong

|| 3 2 3 7 3 2 7 6 N  
 7 <sup>aw</sup>3 2<sup>ing</sup> 5 3 2 7 N  
 3 <sup>aw</sup>3 2<sup>ing</sup> 6 5 3 2 N  
 5 3 2<sup>ah</sup>7 3<sup>ah</sup>2 7<sup>ooooop</sup>6 9 ||

ger:

. 3 . 2 . 3 7 3 2 . 7 6 N  
 . . . . Pa ra be sang ma ra ba nyun

. 7 . 6 . 3 2 5 3 2 7 N  
 . . . . se-pad dom ba Ka-li o-jā

. 3 . 5 . 3 2 6 5 3 2 N  
 . . . . A-dja do-lan Lan Wong Pri ja

. 5 3 2 7 3 2 7 6 ||<sup>N</sup>gong  
 . . . . Ge-ra meh no ra-Pra sa-dja

## Sinden

. . . . / . . . . / . . . . / N.

. . . . / 2 2 2 2 / 6 2 6 5 / 3 5 6 7 / N.  
 Ru djak nangka Ru djak Pa ra sar-dja na

. . . . / 2 2 2 2 / 3 2 7 6 / 6 7 7 2 2 / N.  
 a-dja nyangka di men les Ta-ti wi da da

6 2 6 3 / 3 2 2 7 / 3 3 2 4 / 3 2 7 6 N (G).  
 A la Bappik Adja nyangka di men los Ta-ti wi da da

Manjar Sewu

Bk: 2.3.26.60<sup>9</sup>

Di: .1.6.1.6

.1.6.5.A

.5.3.5.3

.5.3.6.A

.6.5.6.5

.6.5.3.2 ← (stop)

.3.2.3.2

.3.2.1.A

□=P  
Δ=5  
O=9

Bawang Segungkul (bunch/galle) ④

T	P	T	N
6	1	6	3
6	5	6	3
6	5	6	3
6	3	6	2
6	3	6	2
6	2	6	1
6	2	6	1

(2x) (2x) (2x) (5) (5) (5)

Tiluntang SI.

T	P	T	N
1	2	1	6
1	2	1	6
1	2	1	6
2	3	5	3
5	6	1	6
5	6	1	6
5	6	1	2
2	3	2	1

Gondjang gandong "Henggo Babo" etc

T	P	T	N
2	1	6	5
2	5	2	1
2	1	2	1
2	1	6	5
2	1	6	5
2	5	2	1
2	1	2	1
2	1	2	1
3	2	6	5
1	6	5	6
5	6	3	5
2	1	6	5

Tiluntang, Pelay

T	P	T	N
2	3	2	7
2	3	2	7
2	3	2	7
3	5	6	5
6	5	6	7
6	5	6	7
6	7	2	3
3	5	3	2

BK. Saron: 11

123561 653555

⑤

Udan mas Pelog

Hadjasusib's version

T P T N  
 || 2 1 6 5  
    2 1 6 5  
    5 6 1 6  
    2 1 6 ⑤ :||  
 BK: Bonang  
    • 3 3 3 1 2 3 5  
    3 2 1 6 5 5 5 ⑤

---

|| 3 1 2 3  
    1 2 3 5  
    5 3 2 1  
    2 3 2 ① :||

Udan mas Pelog

Prawasaputra's version

bk: 3 3 2 3 | 1 2 3 5 | 4 2 4 | 2 1 6 ⑤ ||

T P T N  
 2 1 6 5  
 2 1 6 5  
 • 6 5 6  
 2 1 6 ⑤ 2x  
 3 3 2 3  
 1 2 3 5  
 • 4 2 4  
 2 1 6 ⑤ 2x

mbalung bonang barung:

Wiludjeng Pelog A: 2 3 7 6  
 B: 3 2 7 6

Udan mas Pelog A: 1 6 1 5

B: 2 1 2 1 — not in B, bonang to consider section  
 as reading | 3 3 | 1 2 3 5 |  
 5 3 2 1 | 2 3 2 ① ||

Pangkur standar ⑤ 2 1 2 6

Gondjeng gondjeng 2 1 6 5

Wiludjeng pelog ⑤ 2 3 7 6

Wiludjeng standar ⑤ 2 1 2 6

(6a)

## Ladrang "Wiludjeng", Pelog Patet Barang

①	T	P	T	N				
:	2	7	2	3	2	7	5	6
	3	3	.	.	6	5	3	2
	5	6	5	3	2	7	5	6
	2	7	2	3	2	7	5	⑥ :

②		.	.	6	6		7	5	7	6
	3	5	6	7		6	5	3	2	
	6	6	.	.		7	5	7	6	
	5	7	3	2		.	7	5	⑥	(end)

mbalung :        3                      2                      7                      6  
(bonang)

form: A A B A A B etc.

page 1

Ladrang Wiludjeng  
NOTE SPECIAL KENONG PARTPL. Pt. Barang pesinden +  
gerongan (6B part 1)

BK: . 7 3 2 6 7 2 3 7 7 3 2 . 7 5 6 ⑥

① Iram I

2	7	2	3	2	7	5	6 (N)
3	3	.	.	6	5	3	2 (N5)
5	6	5	3	2	7	5	6 (N)
2	7	2	3	2	7	5	6 (N)

② Iram II

BL:	2	7	2	3	2	7	5	6 (N3)
Sd:	.	.	.	.	.	.	.	.
						jar-wa	tir	—

BL:	3	3	.	.	.	6	5	3	2 (N5)
Sd:	7 2	3	.	.	.	.	.	.	.
						rin-widjiling	A-Ka	—	Sa

BL:	5	6	5	3	2	7	5	6 (N6)
Sd:	.	.	5 6 7	5 7 6	5 3	.	.	.
			Ra-ma	Ra-ma		nyemju	win-a	

BL:	2	7	2	3	2	7	5	6 (N5)
Sd:	.	.	.	.	.	.	.	.
			Ya-Ra	ma-ne				

③

BL:	.	.	.	.	6	(6)	7	5	7	6 (N6)
ger:	.	.	.	.	6	7	2	3	3 2	7 6
					E			Ba	—	to

BL:	3	5	6	7	6	5	3	2 (N6)	
ger:	.	.	.	.	.	.	.	.	
			was	—	Teng		Se	—	la

BL:	6	6	6	7	5	7	6 (N6)		
ger:	.	.	.	.	.	.	.		
			Se	—	la		kem	—	bang

BL:	(5)	7	3	2	7	5	6 (N6)		
ger:	.	.	5 6	7	3	2	.		
			Dro	—	sa		mo	—	dr8

(ending point)

(Wiludjeng Vocals, 2<sup>nd</sup> page)(6B)  
Part 2

(A<sup>1</sup>) Bl: . 2 . 7 . 2 . 3 . 2 . 7 . 5 . 6 (N3)  
 Ger: . . . . . . . . . . 2 3 23 2 323 6  
 Ba — bo — Ba — bo

Bl: . 3 . 3 . . 3 56 6 . . 7 5 . 3 2 (N5)  
 Ger: . 3 . . . 3 56 6 . . 7 5 . 3 2  
 mi — tu — tu — ta

Bl: . 5 . 6 . . 5 3 2 2 7 5 6 (N6)  
 Ger: . . . . . 6 3 2 2 2 3 23 2 323 6  
 ma — rang Wu lang Kang — U — ta — ma

Bl: . 2 . 7 . 2 3 2 7 5 6 (N6)  
 Ger: . . . . . 32 34 3 . . 34 2 . 32 3 6  
 kang — U — ta — ma

(A<sup>2</sup>) Bl: . 2 . 7 . 2 . 3 . 2 . 7 . 5 . 6 (N3)  
 Ger: . . . . . . . . . . 2 3 23 2 323 6  
 Ba — bo — Ba — bo

Bl: . 3 . 3 . . 3 56 6 . . 7 5 . 3 2 (N5)  
 Ger: . 3 . . . 3 56 6 . . 7 5 . 3 2  
 mi — tu — tu — ta

Bl: . 5 . 6 . . 5 3 2 7 5 6 (N6)  
 Ger: . . . . . . . . . . . . . . .

Bl: . 2 . 7 . 2 . 3 . 2 . 7 . 5 6 (N6)  
 Ger: . . . . . . . . . . . . . . .

An-cho  
 (go to B)

Ladrang "Wiludjeng" Sléndro Pt. manjurā ⑦a  
form: AAB AAB etc.

Buka gender:  $\frac{.6 | .1 | \dot{2} | \dot{2} \textcircled{6}}{5.6 | 1. | 5.3 | 5. \textcircled{6}} \parallel$  <sup>gang</sup>

A)

	T	P	T	H
: 2	1	2	3	6
		(w)		
3	3	.	.	2
5	6	5	3	6
2	1	2	3	2
				1
				2
				⑥ :

B)

.	.	6	6	↑	5	↑	6
3	5	6	↑	6	5	3	2
6	6	.	.	↑	5	↑	6
5	↑	3	2	.	1	2	⑥
							(end)

Mbalung  
Bonang

1

2

1

6

Wilujeng slendro gender Barung (for pelog, change to 7)

(713)

(for 1st, 3rd, 5th, 7th  
on 1st line of 7)  
Buka

$\frac{1656}{32126}$   $\frac{3561}{6123}$   $\frac{5516}{1132}$   $\frac{5.6}{216.6}$   $\frac{1.6}{6.6}$  gong

A 1st time  
1st line  
(during 1st time)  
 $\frac{2}{1}$   $\frac{2}{6}$   $\frac{1}{1}$   $\frac{2}{2}$   $\frac{1}{1}$   $\frac{6}{2}$   $\frac{1}{3}$   $\frac{6}{2}$   $\frac{1}{1}$   $\frac{2}{6}$   $\frac{1}{1}$   $\frac{5}{5}$   $\frac{6}{3}$   $\frac{5}{6}$  N

$\frac{3}{6563}$   $\frac{3}{6561}$   $\frac{5}{5651}$   $\frac{5}{5616}$   $\frac{1}{121}$   $\frac{1}{1213}$   $\frac{1}{1213}$   $\frac{1}{1216}$

$\frac{5}{232}$   $\frac{6}{2326}$   $\frac{5}{212}$   $\frac{3}{2121}$   $\frac{2}{656}$   $\frac{1}{6561}$   $\frac{2}{5651}$   $\frac{6}{5616}$

$\frac{2}{2126}$   $\frac{1}{2321}$   $\frac{2}{5.1}$   $\frac{3}{6561}$   $\frac{2}{656}$   $\frac{1}{6561}$   $\frac{2}{5651}$   $\frac{6}{5616}$

1st line of A  
2nd time:

$\frac{2}{2126}$   $\frac{1}{2321}$   $\frac{2}{5.1}$   $\frac{3}{6561}$   $\frac{2}{656}$   $\frac{1}{6561}$   $\frac{2}{5651}$   $\frac{6}{5616}$



sub. 1 for 7 to play in sléndro,

(page 2 of 2)

gendéran, Wiludjeng sléndro, "B" section

(7C)

$$\begin{array}{cccccccc}
 & & 6 & (6) & 1 & 5 & 1 & 6 \\
 \hline
 .35. & 3356 & 5651 & .616 & 535. & 5651 & 5651 & 5616 \\
 \hline
 .22. & 26. & 561. & 216. & .16. & 3.53 & 53.5 & 6126
 \end{array} N$$

$$\begin{array}{cccccccc}
 3 & 5 & 6 & 1 & 6 & 5 & 3 & 2 \\
 \hline
 232. & 2326 & 232. & 2321 & 6561 & .616 & 1213 & 1216 \\
 \hline
 .161 & 222. & .656 & 1231 & .263 & 1.26 & .161 & 2352
 \end{array} N$$

$$\begin{array}{cccccccc}
 6 & 6 & . & . & 1 & 5 & 1 & 6 \\
 \hline
 .666 & 5.56 & 5651 & .616 & 535. & 5651 & 5651 & 5616 \\
 \hline
 6. & .216 & 561. & 216. & .16. & 5.53 & 53.5 & 6126
 \end{array} N$$

$$\begin{array}{cccccccc}
 (5) & (1) & & 3 & 2 & . & 1 & 2 & 6 \\
 \hline
 .111 & 6.61 & 6561 & 6162 & 535. & 5651 & 5651 & 5616 \\
 \hline
 1. & .321 & .263 & 2352 & .16. & 5.53 & 53.5 & 6126
 \end{array} \textcircled{G}$$

D.C.  
(no repeat  
of B)

Form = AAB, AAB, etc., endigonB

Page 2 (of 2)

Djagung, pel. 12 Low throughout.  
BK: 3.12 3.12

A) . 6 . 3 . 6 . 5 . 6 . 3 . 6 . ②  
 . 6 . 3 . 6 . 5 . 6 . 3 . 6 . 2  
 . 6 . 3 . 6 . 5 . 6 . 3 . 6 . 2  
 . 6 . 3 . 6 . 5 . 6 . 3 . 6 . 2  
 . 6 . 3 . 6 . 5 . 6 . 3 . 6 . ②

B) . 6 . 3 . 6 . 5 . 6 . 3 . 6 . 2  
 . 6 . 3 . 6 . 5 . 6 . 3 . 6 . 2  
 5 6 5 4 2 1 2 ⑥  
 7 5 6 . 5 . 4 ⑦ 2 . 5 4 2 1 2 ⑥

C) 7 5 6 . 5 . 4 . 2 . 5 4 2 1 2 ⑥  
 7 5 6 . 5 . 4 ⑦ 2 . 5 4 2 1 2 ⑥  
 \* 3 . 1 . 3 . ② . 3 . 1 . 3 . 2  
 . 6 . 3 . 6 . 5 . 6 . 3 . 6 . ②

order: • A) 2, 3, or 4 times, slowing upon  
down-signal (around beginning of 3rd line)

• B) C), B) C), B) C), etc — speed up  
on signal at \*.

• Finish the section, go to A), play  
a few times, slow down a lot [signal  
about beginning of 1st line] then signal  
beginning of 3rd line, accel. to end.

Udan Mas, sténdro 8  
"golden rain"

A) T P T N  
 ||: 6 5 3 2  
 6 ⑤ 3 2  
 2 ③ 5 3  
 6 ⑤ 3 ②: ||

B) ||: ↑ 5 6 ↑  
 5 ④ ↑ 2  
 2 ① 6 5  
 6 ① 6 ⑤: ||

form: AA BB/AA BB/..... AA ||

Pangkajene ⑥ sténdro

T	P	T	N
3	2	3	1
↑	6	3	②
3	5	3	②
5	3	2	①
3	2	1	6
5	3	2	1
6	5	3	2
3	2	1	6

for pelon, change 1 and ↑ to 7

Djantik Manis, sténdro  
("sweet finger")

T	P	T	N
6	2	6	2
6	2	6	2
↑	6	5	⑥
5	6	↑	②
6	2	3	5
6	2	3	5
2	3	2	1
1	6	3	⑤

for pelon, change ↑ (only) to 7

majalatihah ("the cat's play")

④	T	P	T	N
(3)	1	2 3	2 1	2 6
	2 1	2 3	2 1	2 6
	2 1	2 3	2 1	2 6
	3 5	6 5	3 5	3 ② (Repeat)

⑤	(1)	1	2 1	2 3 5 6
	↑	6	5 2	5 3 2 1
		2 3	2 1	2 3 2 1
		2 3	2 3	6 5 3 ② (Repeat)

Sléndro, loud-style  
(ngerchet on repeat, 1st note)  
fcan omit 1st note ④  
Bk: 66..556↑/66..556↑6523 653②

See  
P. 38  
for  
Bonang  
parts

Pangkur ⑤, sléndro

T	P	T	N
2 1 2 6	2 1 6 5		
6 5 2 1	3 2 1 6		
2 3 2 1	5 3 2 1		
3 2 1 6	2 1 6 ⑤		

folk song interpolation for  
"manjasew"

0.6.↑	65.3	23.5	63. " "	N G
0.6.↑	65.3	2 3 6 5	3 2 " "	②

Bk: T<sup>6</sup>.IT...T(N<sup>6</sup>)gong

Rdt Nārah ("the little man") Pelog

:3	T	P	T	N
	2	3 5	3 2	7 6
	6	6 7	5 7	6 5
	3 4	3 0	3 4	3 0
	2 1	2 3	6 5	3 ② :

: 0.5	5 7	6 7	6 5
6 .	6 7	2 3	5 6
7 6	5 3	6 5	3 2
6 .	6 7	6 5	3 ② :   (and)

Sri Matsūsanti ("sir peace of the pine-tree")  
sléndro, soft-style.

T	P	T	N
3 5	6 5	2 3	2 1
2 3	2 6	2 3	2 5

3 5 6 ↑ 6 5 3 5

5 6 5 2 3 2 1 ⑥

Bk. Gender:

5 | 0.6 ↑ . . 6 5 3 ⑥ gong  
1 | 2 1 2 3 2 1 . 6

optionally, finish with 2x or 3x of  
louder + faster, (nogerongan).  
Slentem following at 1/2 beat lag.

## Ger. + Pesinden : "Śrī Mātṛsāntih" Sléndro (16)

		T		P		T		N
B1)	3	5	6	5	2	3	2	1
Ger)	.	.	.	6 <u>1</u> <u>1</u>	.	2 <u>3</u>	2 <u>3</u> <u>2</u> <u>1</u>	.
				Be — ndu		kā — le	ce — ne	
sd)	.	.	.	6 <u>6</u> <u>1</u> 5 <u>1</u>	.	2 <u>3</u> <u>2</u> <u>1</u> <u>1</u>	.	.
				su lu — su lu		tā — nya		

2	3	2	6	2	3	2	5
.	0	3	3	2 <u>1</u> <u>2</u> <u>1</u>	.	5	3
				vi — duān		tā — nya	ya
.	.	.	3	3 <u>1</u> <u>2</u> <u>1</u> <u>1</u> <u>2</u> <u>1</u>	.	.	.
				tā — nya — tr — nila			

3	5	6	1	6	5	3	5
.	0	.	5	6	6	1	1
				Bā — ru	lyā — ru — ti	ta — sya	AU — dā — ya
.	.	.	.	6	1 <u>2</u> <u>3</u>	3 <u>2</u> <u>1</u> <u>1</u>	3 <u>5</u> <u>3</u> <u>2</u>
				Śrī	mā tsū	sā — nti	nu — nya
						6 <u>5</u> <u>6</u> <u>3</u>	
						(alternate form)	

5	6	5	2	3	2	1	6
.	3	5	.	0	.	3	5 <u>3</u> <u>2</u>
						Te — na — mā	tsū sānti sa — ha
.	.	.	.	6	6	6	1 <u>2</u> <u>1</u> <u>1</u> <u>2</u> <u>1</u>
				He Prabu Prabu mā — tsū	ni		
						3	3 <u>5</u> <u>6</u> <u>5</u> <u>3</u> <u>5</u> <u>6</u> <u>6</u>
						mā — ndu	ce — nu — nya

or: (spoken)

Tā — nya

tā — nya

⑥

# manjar Sewu slendro

BK  $\overset{\circ}{2} \cdot \overset{\circ}{3} \cdot \overset{\circ}{2} \overset{\circ}{6} \cdot \overset{\circ}{6} \odot$   
Bonang

$\hat{1} \ 6' \ \boxed{\hat{1}} \ 6'$   
 $\boxed{\hat{1}} \ 6^3 \ \boxed{5} \ \triangle 3^3$   
 $5 \ 3^3 \ \boxed{5} \ 3^3$   
 $\boxed{5} \ 3^5 \ \boxed{6} \ \triangle 5^5$   
 $6 \ 5^5 \ \boxed{6} \ 5^5$   
 $\boxed{6} \ 5^2 \ \boxed{3} \ \odot^2$   
 $3 \ 2^2 \ \boxed{3} \ 2^2$   
 $\boxed{3} \ 2' \ \boxed{\hat{1}} \ \triangle 6'$

Kempul  $\square$  damped

Bonang  $\overset{\circ}{6} \overset{\circ}{6} \overset{\circ}{6}$  etc

kenong plays superscribed numbers

stock Ladrang formula for Drums, using buka of  $\boxed{13}$  "udan mas" to illustrate entry:

$1 \ 1 \ 1 \ 5 \ 6 \cdot 1 \ 2 \cdot 2 \cdot 1 \ 6 \ 5 \ 6 \ 1 \ 6 \ \odot^6$   
 $\quad \quad \quad FF \ \underline{F} \ 1 \ 9 \ F \ 1 \ F \ 1$

	x		x		x		x
q	1	q	$\overline{1q}$	$\cdot 1$	$\overline{qF}$	$\overline{FF}$	1
q	$\overline{F1}$	1	1	q	$\overline{1q}$	$\cdot 1$	$\overline{q1}$
q	1	q	$\overline{F1}$	$\overline{11}$	$\overline{F1}$	$\overline{1q}$	1
$\overline{q1}$	$\cdot q$	$\cdot 1$	$\overline{q1}$	$\cdot q$	1	$\cdot q$	1 (gang)

F = L.H. of Ketipung

$\cdot$  = rest (can mark with tap of left forefinger)

1 = R.H. of Ketipung

q = R.H. of Kendang

(=U.C.L.A. notation)  $\left[ \overset{\text{grouping of}}{\overline{xx}} \text{ patterns off by } \frac{1}{4} \text{ beat} \right]$

Gangsaan Pattern: Count: (1 2 3 4 5 6 7 ⑧)								(Pelog or sléndro) ⑫	
Peking-Saron-Demoeng-	2	2	2	2	2	2	2	②	Strike "dead-on", no damping
slentem-Kenong-	.	2	.	2	.	2	.	②	(no damping) (but strike normally)
Bonang Panerus-	$\frac{2}{2}$	$\frac{2}{2}$	$\frac{2}{2}$	$\frac{2}{2}$	$\frac{2}{2}$	(etc)		$\frac{2}{2}$ ②	
Bonang Barung-	.	6	5	6	5	6	5	②	
Kempul ⑤	.	X	.	X	.	X	.		(play on X's - all damped) Pitch=6
gongs	.	.	.	.	.	.	.	②	First 3 cycles play Silem, 4th cycle play gong ageng

Bonang Panerus may use triplets also:  
( $\frac{2}{2}$   $\frac{2}{2}$   $\frac{2}{2}$  |  $\frac{2}{2}$   $\frac{2}{2}$  | etc)

✦ nitir (ostinato) for changing tuning-systems. Works the same, but use pitch 6, & Bonangs play only 6 (in octaves, with sarongs, or in triplets or quadrupling) |  $\frac{000}{266}$  in octaves

Wonggan - pelog (always)

3 2 3 1 | 3 2 3 1 | 3 2 3 1 | 3 2 3 ①  
5 | \* 5 | \* 5 | \* 5 | \* 5

Siem 1st 3 times  
gong 4th time

No kempul. Drum signals all tempo-changes. Loud at all times.  
Regular damping on all melody-instruments.

(\* = optional kempul pelog 12 = Javanese style only, not Javanese)

Rog Rag Asem — T P T N  
                  • 5 • 5 • 2 • 5  
Pelog —       • 5 • ⑤ • 2 • 5  
                  • 5 • ⑤ • 2 • 5  
                  • 2 • ⑤ • 6 • ⑤



"Bendhang" continued

(13b)

ritis: 6 6 6 6 6 6 6 6<sup>s</sup> (3 times)  
 transition: 6 6 6 6 3 5 6 7 6 5 2 3 (switch to pelog in 3rd bar)

ngelik: ||: 5 3 5 2 5 2 5 3<sup>s</sup>  
 5 3 5 2 6 3 5 6<sup>s</sup>  
 7 6 7 5 2 3 5 6<sup>s</sup>  
 7 6 7 5 2 3 5 6<sup>s</sup>  
 2 3 2 7 6 5 2 3<sup>s</sup> ||

Signal second time to go slow & soft

slow section with solants: 5 7 5 6 5 2 5 3<sup>c</sup> (many times)

transition: 5 7 5 6 5 2 5 3<sup>c</sup>  
 signal to go fast & loud

low ending: 5 3 5 2 5 2 5 3<sup>N</sup> 6 times

note: Bonangs play this way at beginning & ending;

Barung:  $\frac{6}{3} \cdot \frac{6}{3} \cdot \frac{6}{2} \cdot \frac{6}{2} \cdot \frac{6}{2} \cdot \frac{6}{2} \cdot \frac{6}{3} \cdot \frac{6}{3}$  B. Panerus plays mlampah at 4:1 speed





"Bimakorda" continued —

(14b)

T	P	T	N
(5)	5 7	5 6 7 6	
7 2 3	2	7 6 5	
(5)	5 7	5 6 7 6	
7 2 3	2	7 6 (5)	(no repeat on this section)

||: 6 3 5 2 3 5 6 5  
 7 6 5 6 3 5 3 2  
 6 5 6 7 6 5 3 2

⑦ 1 2 1 6 5 3 6 ⑤: || *then repeat entire Bimakorda.*  
*(Be ready for down signal to go quiet)*  
 signal very last time, to get suddenly loud.

• 5 • 5 • 2 • 5  
 • 5 • 5 • 2 • 5  
 • 5 • 5 • 2 • 5  
 • 2 5 6 7 6 ⑤

Rog<sup>2</sup> Asen:

T	P	T	N
5	5	2	5
5	5	2	5
5	5	2	5

① 2 • 5 • 6 • ⑤ 3 times

signal last time  
to accelerate.

Transition to gangsoan:

T	P	T	N
5	5	2	5 (accel)
5	5	2	5
5	5	2	5
2	5	3	②

gangsoan:

2 2 2 2 2 2 2 2 ②  
 etc

↑  
 sudden pianissimo, then  
 build up over 1 or 2 lines  
 to full force.

Bedog signals ending.

Gerongim " gondjang gandjing

15

Henggé Babo / madjéng māndrā/suksméng djānā/  
(qong)

Djagad nāta ..... Babo  
(gong)

Dj wala wŋgit / sātri-jāprā / meng niska<sup>ra</sup><sub>gong</sub> ← (ordal line)

..... Babo

Gerongan "Pangkajene" 6. — sléndro

3 2 3 1 3 2 1 6  
 3 3 32 1 23 35 2 3 1 21 6  
 Pa-ra-be sang (s)ma-rā Ba ngūn  
 qa-rwā sang sīn dū-rā pra bu

• 1̇ • 6 • 3 • 2 • 5 • 3 • 2 • 1  
• • • • 6 6 • 1̇ 2̇ 1̇2̇ 3̇ 2̇1̇6 3 • 3̇ 5̇3̇2̇ 1  
se-pat dombā \_\_\_\_\_ kã \_\_\_\_\_ li \_\_\_\_\_ o \_\_\_\_\_ jã  
wi-tjã- ra-mã \_\_\_\_\_ wã \_\_\_\_\_ ka \_\_\_\_\_ rã \_\_\_\_\_ nã

• 3 • 5 • 3 • 2 • 6 • 5 • 3 • 2  
 • • • 6 • 6 • 1 2 12 3 216 3 • 3 53 2  
 a - d;ä dö.lān ~~~~~ lan - wong ~~~~~ pri ~~~~~ ja  
 a - d;ä dö.lān ~~~~~ lan - wa ~~~~~ ni ~~~~~ ta

• 5 • 3 • 2 • 1 • 3 • 2 • 1 • ⑥  
• • 35 3 • 3<sup>^</sup> 532 1 • 2335 2 • 3 1 21 6  
go-ra — mel — no — ru pra — sa — dja  
Ta-nja — Ta — a — Sring Ka — tar — ka



# Ajak<sup>2</sup> medley (second part)

(16b)

Srepegan				Sampak												
H	6	5	6	↑	6	5	6	↑	2	1	2	1	3	5	6	△ <sup>5</sup>
N		1		1		1		1	1	1	1	1	5	5	5	5
P				1				1		1			5			
	5	6	5	2	1	2	1	△ <sup>5</sup>								
		2		2		6		6								
				2				6								
	↑	5	↑	6	↑	5	↑	6					3	2	1	△ <sup>2</sup>
		6		6		6		6					5	5	5	5
				6				6					5	5	5	5
	2	3	5	3	2	1	2	1								
		2		2		1		1								
				2				1								
	6	5	2	1	6	5	2	1					6	↑	2	1
		1		1		1		1					1	1	1	1
				1				1					1	1	1	1
	5	2	3	△ <sup>5</sup>	6	2	3	5					5	6	↑	△ <sup>6</sup>
		5		5		5		5					6	6	6	6
				.				5					6		6	6
	6	2	3	5	2	3	1	2					2	3	5	3
		5		5		2		2					2	2	2	2
				5				2					2	2	2	2
	3	5	6	△ <sup>5</sup>	6	2	3	5					2	1	2	① <sup>6</sup>
		5		5		5		5					1	1	1	1
				.				5					1			.
	6	2	3	5												
		5		5												
				5												
					(repeat "srepegan")											

(repeat "sampak")			
To end, go to "Gara" <sup>2</sup> (= page i)			

(repeat "sampak")

To end, go to "Gara<sup>2</sup>"  
(= page i)

(repeat "srepegan")



Bonang Barung Parts, Ajak<sup>2</sup> Medley (second page)

(16B)

Srepegan

⑥ ⑤ ⑥ ①	⑥ ⑤ ⑥ ①
6̇ 5̇ 6̇ 1̇	6̇ 5̇ 6̇ 1̇

⑥ ⑥ ⑥ ②	① ② ① ⑥
5 1 5 6 1̇ 1̇ 2̇	1̇ 1̇ 1̇ 6 1 6

① ⑥ ① ⑥	① ⑥ ① ⑥
1 5 1 5 1 6 1 6	1 5 1 5 1 6 1 6

② ③ ⑤ ③	② ① ② ①
2̇ 2̇ 2̇ 2̇ 3̇ 5̇ 3̇	2̇ 1̇ 2̇ 1̇ 2̇ 1̇ 2̇ 1̇

⑥ ⑤ ② ①	⑥ ⑥ ② ①
6̇ 5̇ 6̇ 5̇ 2̇ 1̇ 2̇ 1̇	6̇ 5̇ 6̇ 5̇ 2̇ 1̇ 2̇ 1̇

⑤ ② ③ ⑤	⑥ ② ③ ⑤
5 2̇ 2̇ 3̇ 5̇ 5̇	6̇ 2̇ 2̇ 3̇ 5̇ 5̇

⑥ ② ③ ⑤	② ③ ① ②
6̇ 2̇ 2̇ 3̇ 5̇ 5̇	2̇ 2̇ 2̇ 2̇ 2̇ 2̇

③ ⑤ ⑥ ⑤	⑥ ② ③ ⑤
3̇ 5̇ 5̇ 5̇ 5̇ 5̇	6̇ 2̇ 2̇ 3̇ 5̇ 5̇

④ ② ③ ⑤	(repeat Srepegan)
6̇ 2̇ 2̇ 3̇ 5̇ 5̇	

Sampak

② ① ② ①	③ ⑤ ⑥ ⑥
2̇ 1̇ 2̇ 1̇ 2̇ 1̇ 2̇ 1̇	3̇ 5̇ 5̇ 5̇ 5̇ 5̇

③ ⑤ ⑥ ⑥	③ ② ① ②
5̇ 5̇ 5̇ 5̇ 5̇ 5̇	3̇ 2̇ 2̇ 2̇ 2̇ 2̇

③ ⑤ ⑥ ⑥	③ ⑤ ⑥ ⑥
3̇ 5̇ 5̇ 5̇ 5̇ 5̇	5̇ 5̇ 5̇ 5̇ 5̇ 5̇

⑥ ① ② ①	② ① ③ ②
6̇ 1̇ 6̇ 1̇ 2̇ 1̇ 2̇ 1̇	2̇ 1̇ 2̇ 3̇ 3̇ 3̇ 2̇

⑥ ⑥ ① ⑥	⑥ ⑥ ① ⑥
5̇ 6̇ 5̇ 6̇ 1̇ 6̇ 1̇ 6̇	5̇ 6̇ 5̇ 6̇ 1̇ 6̇ 1̇ 6̇

② ③ ⑤ ③	② ① ② ①
2̇ 2̇ 2̇ 2̇ 2̇ 2̇	2̇ 1̇ 2̇ 1̇ 2̇ 1̇ 2̇ 1̇

(Repeat Sampak)

to end, go to Gara<sup>2</sup>  
(page 1)

(17)

# Bonangan Bendrong, Slow Section, Sléndro (for pelog, 508, 7 for 1)

Bl: ⑤ ① ⑤ ②

Bonang Barung 6 1 2 3̣ . 1 . 3̣ . 1 . 3̣ . 1 . • 6 1 2 3̣ . 1 . 3̣ 2̣ 1 6 3 6 1 6 2

Bonang Panerus 5 . 2 . 5 . 2 . 5 . 2 . 9 . 9 . • 5 . 2 . 5 . 2 . 5 . 2 . 8 . 8 .

[ $\frac{2}{3}$   $\frac{2}{3}$ ] ori: (• 9 . 9 •)

---

⑤ ② ⑤ ②

6 1 2 3̣ . 1 . 3̣ . 1 . 3̣ . 1 . • 6 1 2 3̣ . 1 . 3̣ 2̣ 1 6 5 6 2 5 3

2 . 5 . 2 . 5 . 2 . 5 . 8 . 8 . • 5 . 2 . 5 . 2 . 5 . 2 . 3 . 3 .

[ $\frac{2}{6}$  .  $\frac{2}{8}$  .] [ $\frac{2}{2}$  .  $\frac{2}{2}$ ]

## Misty Mountain Breakdown by Chris Patton 1971 Sléndro

BK: Rebab & Gender 1 2 • 0 2 mm 1 2 6 5 3 5 ②<sup>5</sup>

	T		P		T		N
6	$\frac{2}{x}$	6	5	6	$\frac{1}{x}$	6	5
3	$\frac{5}{x}$	3	$\frac{2}{x}$	1	$\frac{5}{x}$	3	2
6	$\frac{3}{x}$	6	$\frac{2}{x}$	6	$\frac{3}{x}$	5	6
↑	$\frac{6}{x}$	5	$\frac{3}{x}$	1	$\frac{2}{x}$	3	②

Bonanya play  
kembayangan in  
slow speed, melangkah  
in fast speed.



"the Unknown tune" pelog 14  
 from dictation by Barbara Benary, Wesleyan U. gamelan, June 1971 18  
 Bk. Bonang 1 | . 5 5 . | 5 6 1 2 | 3 3 5 3 | 2 1 2 <sup>N</sup> 6

	T	P	T	N
• 1 • 1	6 1 2 3	5 6 5 3	2 1 2 1	
• 5 5 •	5 6 1 <span style="border: 1px solid black; padding: 0 2px;">2</span>	3 3 5 3	2 1 2 1	
• 1 • 1	6 1 2 <span style="border: 1px solid black; padding: 0 2px;">3</span>	5 6 5 3	2 1 2 1	
• 5 5 •	5 6 1 <span style="border: 1px solid black; padding: 0 2px;">2</span>	3 5 3 2	1 6 3 <span style="border: 1px solid black; border-radius: 50%; padding: 0 2px;">5</span>	
6 5 6 •	6 5 2 1	3 5 3 2	1 6 3 5	
• 4 2 4	2 1 2 <span style="border: 1px solid black; padding: 0 2px;">1</span>	3 5 3 2	1 6 3 5	
6 5 6 •	6 5 2 <span style="border: 1px solid black; padding: 0 2px;">1</span>	3 5 3 2	1 6 3 5	
• 4 2 4	2 1 2 <span style="border: 1px solid black; padding: 0 2px;">1</span>	3 3 5 3	2 1 2 <span style="border: 1px solid black; border-radius: 50%; padding: 0 2px;">1</span>	

(19) Hathaway

(19)

BK:

5 5 5 4 3 2 1 1 2 1 3 2 1 1 2 1 1

4 3 2 1 2 1 3 2 1 2 1 1

[R]

1 1 2 1 2 3 1 1 2 1 2 3 4

1 1 2 1 2 3 1 2 1 2 3 4 5

[I]

1 2 3 4 5 4 5 3 4 5 4 5

2 3 4 5 4 5 3 4 5 4 5

[RI]

5 5 4 5 5 4 3 5 5 4 5 5 4 3 2

5 5 4 5 5 4 3 5 5 4 5 5 4 3 2 1

useful scales equivalent to 1 thru 5: (A) series 23 56 1 (B) pelog 12356 (C) pelog 23456 34567

= "Kain's series" (4 octa of 31 notes each) —

Ketawang "Kasatrijan" sl. Pt. Sangā 15

Bk: Bonang: 5. 6<sup>1</sup> 2̂ | 1<sup>1</sup> . 6. | 2̂ 3̂ 2̂<sup>1</sup> | 6 5 3 ⑤

A) ||: 1 2 1 6 3 2 6 ⑤<sup>N</sup>  
 1 2 1 ⑥<sup>P</sup> 2 1 6 ⑤<sup>NG</sup> ||

ngelik -

B) ||: 6 5 2 1 3 2 6 ⑤<sup>N</sup>  
 . ①<sup>P</sup> ⑥<sup>P</sup> ②<sup>S</sup> . 1 6 ⑤<sup>NG</sup> ||

C) ||: 1 1 2 1 3 2 1 ⑥<sup>N</sup>  
 3 5 3 ②<sup>P</sup> 1 6 3 ⑤<sup>NG</sup>

for ending,  
 change second  
 line d "c"  
 to:

3 5 3 ②<sup>P</sup> 1 6 2 ①<sup>NG</sup>

special parts — Djagung/Borangs //

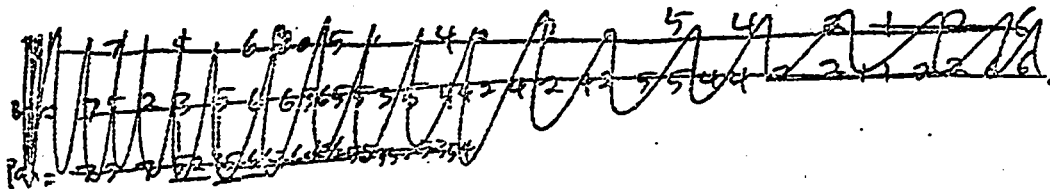
12

2/

Bl: . 6 . 3 . 6 . 5 . 6 . 3 . 6 . 2  
 Pan.  $\frac{3}{3}$  .  $\frac{3}{3}$  .  $\frac{5}{5}$  .  $\frac{5}{5}$  .  $\frac{3}{3}$  .  $\frac{3}{3}$  .  $\frac{2}{2}$  .  $\frac{2}{2}$  .  
 Bar.  $\frac{6}{3}$  .  $\frac{6}{3}$  . 6 5 6 5  $\frac{6}{3}$  .  $\frac{6}{3}$  .  $\frac{6}{3}$  .  $\frac{6}{3}$  .  
 Pan. 6 3 6 . 6 3 6 3 6 5 6 . 6 5 6 5 6 3 6 . 6 3 6 3 6 2 6 2  
 Bar. 6 3 6 3 6 5 6 5 6 3 6 3 6 2 6 2

Bl: 5 6 5 4 2 1 2 6 . 1 2 3 2 1 2 6  
 5 5 6 6 5 5 4 4 2 2 1 2 2 6 6 . 1 1 2 2 3 3 2 2 1 1 2 2 6 6

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



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

## mūṇiṣūre: "Sage in Darkness"

sléndra

(22)  
(a)

T	P	T	N
5	3 2 3	5	↑ 6 $\triangle$ 5
5	3 5 6 <sup>PS</sup>	↑	5 3 $\triangle$ 2
3	5 6 5 <sup>PS</sup>	3	2 3 $\triangle$ 2
3	5 3 2 <sup>PS</sup>	3	5 ↑ ⑥

Variation —  
play gong *sumatan*  
(= #2) on  $\triangle$ , and  
use gong 6 or 3  
at end.

Buka on page 22B)  
can be used for starting in  
either fast or slow speed.  
or have *sléndra* play last line as Buka.

## Sūryakrodha: "the Sun's Anger"

pelog.

T	P	T	N
5	5 2 3	5	5 6 7
6	5 2 3 <sup>PS</sup>	5	5 4 5
5	4 5 5 <sup>PS</sup>	3	2 5 6
7	6 5 5 <sup>PS</sup>	3	2 5 ⑤

very loud.

(\* = cut short.)

note that this piece  
is its own retrograde.

## Sukhī māṅgūṣ "the Happy Mongoose"

sléndra

T	P	T	N
6	5 2 1	6	5 2 1
6	5 6 ↑	6	5 3 $\triangle$ 5
↑	6 5 2 <sup>PS</sup>	↑	6 5 2
↑	6 5 2 <sup>PS</sup>	3	2 1 ⑥

BK Barany .6.2/3.2 1 ⑥

Variation — can  
play *Siye-m* (#1)  
on  $\triangle$  if desired.

in slowstyle, [P] can  
double melody on the  
four boxed-in notes —  
use  $\triangle$  ("sleeping Bull") for 4th  
note, ⑥ at end of line

16

## vocal part to "Munitave"

22B

Bk:  $\hat{1} \hat{1} \underline{5} \underline{5} \underline{6} \underline{\hat{1}} \hat{1} //$  <sup>gender</sup>  $\underline{\hat{3}} \underline{\hat{2}} \underline{\hat{1}} \underline{\hat{6}} \underline{5} \underline{\hat{6}} \underline{10} \underline{10} \hat{1} //$   
 bāye ta-trā—pa-ni 3 2 1 6 5 6 10 10 1(+3)

3  $\underline{3}$   $\underline{3}$  2 1  $\underline{\hat{2}}$   $\hat{6}$  Gong  
 fo—ni-ni ca degodé

Dd:  $\hat{5}$   $\hat{3}$   $\hat{2}$   $\hat{3}$   $\hat{5}$   $\hat{1}$   $\hat{6}$   $\hat{5}$   
 , , , ,  $\underline{3} \underline{2} \underline{3}$  , 0  $\underline{\hat{1}} \underline{\hat{2}} \underline{\hat{3}} \underline{\hat{2}} \underline{\hat{1}} \underline{\hat{6}} \underline{\hat{5}}$   
 Ta—nyo Te—vu-ni nā—ye

$\hat{5}$   $\hat{3}$   $\hat{5}$   $\hat{6}$   $\hat{1}$   $\hat{5}$   $\hat{3}$   $\hat{2}$   
 0 , 0 5 3 5 6 5 3 , 5  $\underline{\hat{3}} \underline{\hat{5}} \underline{\hat{2}}$   
 r—di—ni gan—tum U—pa—ri

$\hat{3}$   $\hat{5}$   $\hat{6}$   $\hat{5}$   $\hat{3}$   $\hat{2}$   $\hat{3}$   $\hat{2}$   
 0 1 2 , 1 2 1 3 , 2 3  $\underline{\hat{2}} \underline{\hat{1}} \underline{\hat{2}}$   
 su—khi su—khi moy H<sub>2</sub>—dam vā—ne

$\hat{3}$   $\hat{5}$   $\hat{3}$   $\hat{2}$   $\hat{3}$   $\hat{5}$   $\hat{1}$   $\hat{6}$   
 0 , 0 , 0  $\hat{1}$  6 5 3  $\underline{\hat{3}} \underline{\hat{5}} \underline{\hat{2}} \underline{\hat{3}} \underline{\hat{1}} \underline{\hat{2}} \underline{\hat{6}}$   
 yā ——— tra ma—tā ——— dem pān.

TSŪRU<sup>2</sup> "Darkness of Darkesses" Pelog

(23a)

BK. Kendang:

[total part on page 36]

Handwritten musical notation for BK. Kendang, showing a sequence of notes (5, 3, 5, 6, 7, 6, 5, 4) with various accidentals and dynamics (W, N, P, N, P, N, P, N). The notation includes a Gong symbol and a signal to go to "gangsaran".

W N P N P N P N  
 • 5 • 3 • 5<sup>5</sup> • 6 • 7<sup>7</sup> • 6 • 5<sup>6</sup> • 4<sup>4</sup> (2x)  
 • 5 • 3 • 5<sup>5</sup> • 2 • 3<sup>6</sup> • 2 • 7<sup>6</sup> • 4<sup>(2)</sup> (2x)  
 ↑  
 signal to go to "gangsaran"

Bonang:

Handwritten musical notation for Bonang, showing two lines of notes (5, 3, 5, 6, 7, 6, 5, 6) with various accidentals and dynamics (3, 5, 3, 5, 6, 7, 6, 5, 6).

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

Bonang barung plays plain octaves as indicated.

Bonang Panerus goes thusly; 3 3 3 3

(Barung barung) 3 3  
 (nucleus) 5 3

Variant, for Bonang Barung;

or:

etc.

Handwritten musical notation for Bonang Barung, showing two lines of notes (5, 3, 5, 6) with various accidentals and dynamics (5, 3, 5, 6).

wheel: 5 3 5 6  
 Bon. Bar: 3 3 3 5 6 6 6 6 6 6

(23) b.

## "Dandanāṁgovena"

Sléndro

"the cow's revenge"

a)	$\begin{array}{c} T \quad P \\ \underline{2} \quad 5 \quad 3 \quad 5 \\ 2 \quad 5 \quad 3 \quad \boxed{6}^5 \end{array}$	$\begin{array}{c} T \quad N \\ 2 \quad 5 \quad 3 \quad 1 \\ 2 \quad 5 \quad 3 \quad \textcircled{1} \end{array}$
b)	$\begin{array}{c} \underline{2} \quad 5 \quad 3 \quad 5 \\ \tilde{3} \quad 3 \quad 1 \quad \boxed{\tilde{3}}^1 \end{array}$	$\begin{array}{c} 2 \quad 5 \quad 6 \quad \uparrow \\ 3 \quad 1 \quad 3 \quad \textcircled{2} \end{array}$
c)	$\begin{array}{c} \underline{6} \quad 5 \quad 6 \quad 3 \\ 3 \quad 5 \quad 6 \quad \boxed{3}^1 \end{array}$	$\begin{array}{c} 1 \quad 3 \quad \uparrow \quad 6 \\ 1 \quad 3 \quad \uparrow \quad \textcircled{6} \end{array}$
d)	$\begin{array}{c} \cdot \quad 6 \quad \cdot \quad 3 \\ 2 \quad 3 \quad \cdot \quad \boxed{3}^1 \end{array}$	$\begin{array}{c} 6 \quad 2 \quad 6 \quad 3 \\ \uparrow \quad 6 \quad 3 \quad \textcircled{2} \end{array}$

ngerchat for slow-style only.

In slow-style, 1<sup>st</sup>

line of d) may be interpreted as:

6 6 6 3 | 6 2 6 3

## Sukhīsūryah "the Happy Sun"

Sléndro

$\begin{array}{c} T \quad P \\ \tilde{5} \quad 5 \quad 1 \quad 2 \\ 6 \quad 5 \quad 1 \quad \boxed{2}^5 \\ 5 \quad 3 \quad \tilde{5} \quad \boxed{5}^6 \\ \uparrow \quad 6 \quad 5 \quad \boxed{5}^5 \end{array}$	$\begin{array}{c} T \quad N \\ \tilde{5} \quad 5 \quad 6 \quad \uparrow \\ \tilde{5} \quad 5 \quad 3 \quad 5 \\ 2 \quad 1 \quad 5 \quad 6 \\ 2 \quad 1 \quad \tilde{5} \quad \textcircled{5} \end{array}$
---	---

this is a sléndro transposition of "Sūryakrodha"



"Salutations to the White Birch Forest" Sléndro  
(gaurāṅvānāya namaḥ) Kathy Brand 1973

24

A) ||: T P T N  
5 2 6 5  
↑ 5 ↑ 5  
2 1 3 1  
2 6 3 ⑤: ||

B) ||: T P T N  
6 2 6 2  
6 2 6 2  
5 6 1 6 5 3 2 3  
5 2 1 ③: ||

Ribbit's Tune, Sléndro <sup>June 7</sup> (1973)

A) T P T N  
3 5 3 2  
3 2<sup>pe</sup> 1 6  
5 6<sup>pe</sup> 3 5  
↑ 6<sup>pe</sup> 5 ③ <sup>no repeat.</sup> <sub>Ends here</sub>

B) ||: 2 2 1 6  
5 ①<sup>pe</sup> 6 3 2 1  
2 3 2<sup>pe</sup> 1 ← ↑  
6 5<sup>pe</sup> 1 ③: || <sub>second time</sub>

Bonang:

A) 3 5 3 2  
3 2 1 6  
5 6 3 5  
1 6 5 3

B) ||: 2 2 1 6  
5 5 6 3 2 1 ← with Sarons  
2 3 2 1 1  
⑥ 5 2 1 2 3 : ||

upper 5<sup>pe</sup>  
second time

Buka: (x = kerplunk)

x T x T x T x ⑥  
sl. pl. sl. Gong

"The Case of the Swollen Foot" — pelog  
by Janet Kayor, 1973 (march)

(25)

	T		P		T		N
	5	2	3	5	6	5	6
	1	2	3	□	3	2	3
	2	3	2	1	<u>2</u> <sup>4</sup>	4	2
	<u>2</u> <sup>4</sup>	4	3	□ <sup>5</sup>	<u>4</u> <sup>5</sup>	5	3
	<u>4</u> <sup>5</sup>	5	3	□ <sup>3</sup>	<u>5</u> <sup>3</sup>	2	1
	3	1	1	□ <sup>6</sup>	3	2	3 ②
coda:	6	.	6	.	2	3	6 6
	3	5	5	□ <sup>6</sup>	2	6	5 ③

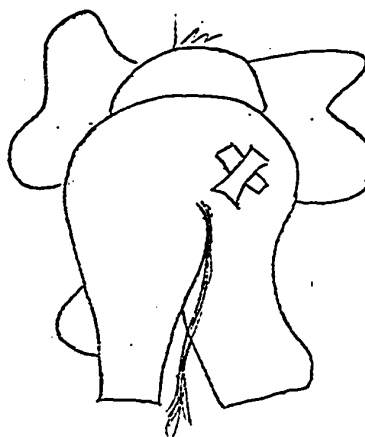
Ends full speed.

← saunas etc damp last note instantly.

"Song of the Wounded Elephant" — gléndro  
by Phil Wolf, 1973 (sept)

A) T P T P T P N  
||: 3 5 6 3 2 5 6  
6 3 5 2 1 3 2 :||

B) ||: ↑ 5 6 3 2 1 3  
5 3 1 2 3 5 2 :||



"Tune of the Broken Window"

felogy

(26)

or  
"the Empty Red Candy Bag"

by Kathy Brand  
March 1973

BK. Bonang: . 7 2 3 | 4 4 4 (5) ||

A)  $\begin{matrix} T & P & T & N \\ 7 & 2 & 3 & 5 \\ 6 & 7 & 5 & 6 \\ 5 & 3 & 3 & 1 \\ 2 & 3 & 2 & (5) \end{matrix}$

C)  $\begin{matrix} T & P & T & N \\ 1 & 2 & 1 & 3 \\ 2 & 3 & 2 & 4 \\ 3 & 4 & 3 & 5 \\ 4 & 5 & 4 & (6) \end{matrix}$

B)  $\begin{matrix} 6 & 4 & 7 & 4 \\ 5 & 4 & 7 & 4 \\ 2 & 3 & 2 & 4 \\ 2 & 5 & 4 & (3) \end{matrix}$

d)  $\begin{matrix} 5 & 6 & 5 & 7 \\ 7 & 6 & 5 & 4 \\ 3 & 2 & 1 & 2 \\ \underline{3} & \underline{4} & \underline{4} & (5) \end{matrix}$

27

Asmaradāna Stencho manjura ("Giving love")

Bk: . 3 . 2 . 3 . 2 3 1 3 2 . 1 5 6 1 6

nama I+II:

	T	P	T	N
	2	1	2	6
	5	3	2	1
	6	3	2	1
	5	3	2	1

nama III:  
(Tjiflon)

	T	P	T	N
	2	3	2	1
	6	1	3	2
	6	1	3	2
	5	3	5	3

Puspawang St. Manjura

Barang . 3 . 2 . 3 . 2 3 1 3 2 . 1 5 6 1 6

Bk: 3 3 2 2 1 5 6 1 6

	T	P	T	N
	1	5	6	1
	5	3	2	1
	1	5	6	1
	5	3	2	1

ngelik:

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

order: AB||AAB|AAB|etc

Kathya's alternate Baka: (barang)

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

(28)

## Tropangbang Pelog

BK: bonang:

3 1 3 2 5 6 1 2 1 6 4 5 (bk = double the nuclear tempo)

A) ||: 3 2 3 2 5 6 4 5: ||

B) ||: 1 6 1 6 4 2 4 5: ||

[P] Pelog = 5L [5]

Bon. Bon. A)  $\begin{matrix} \circ & \circ & \circ & \circ & \circ & \circ & \circ & \circ \\ 2 & 2 & 2 & 2 & 6 & 6 & 5 & 5 \end{matrix}$

B)  $\begin{matrix} \circ & \circ & \circ & \circ & \circ & \circ & \circ & \circ \\ 6 & 6 & 6 & 6 & 2 & 2 & 5 & 5 \end{matrix}$

Special pelog part, (2:1 ratio with C.F.)

A) ||: 3 1 3 2 3 1 3 2 5 6 1 2 1 6 4 5: ||

B) ||: 1 2 1 6 1 2 1 6 5 6 1 2 1 6 4 5: ||

eg:

3 2 ← BL.

2 . . . 2 . ← Bon. Bar.

2 2 2 ← Bon. Pan.

(29)

Ritjik<sup>2</sup> Sléndrodrum entry  
↓BK. Bonang:  $\hat{6} \text{ }_{35} \hat{6} \mid \overline{53} \overline{26} \overline{66} \mid \triangle$ 

A)  $\begin{array}{cccccccccccc} & W & & N & & P & & N & & P & & N & & P & & \triangle \\ & \textcircled{3} & & \textcircled{5} & & \textcircled{6} & & \textcircled{5} & & \textcircled{6} & & \textcircled{5} & & \textcircled{1} & & \textcircled{6} \\ T & & T & & T & & T & & T & & T & & T & & T & & \end{array}$   $2x$

Later:  $\begin{array}{cccccccccccc} \textcircled{5} & \cdot & \textcircled{5} & \cdot & \textcircled{5} & \cdot & \textcircled{5} & \cdot & \textcircled{5} & \cdot & \textcircled{5} & \cdot & \textcircled{6} & \cdot & \textcircled{6} & \cdot & \end{array}$

Later:  $\begin{array}{cccccccccccc} \textcircled{5} & \cdot & \textcircled{5} & \cdot & \text{etc.} & \end{array}$

B)  $\begin{array}{cccccccccccc} & W & & N & & P & & N & & P & & N & & P & & \triangle \\ & \textcircled{3} & & \textcircled{2} & & \textcircled{3} & & \textcircled{2} & & \textcircled{3} & & \textcircled{2} & & \textcircled{1} & & \textcircled{6} \\ T & & T & & T & & T & & T & & T & & T & & T & & \end{array}$   $2x$

Later:  $\begin{array}{cccccccccccc} \textcircled{2} & \cdot & \textcircled{2} & \cdot & \textcircled{2} & \cdot & \textcircled{2} & \cdot & \textcircled{2} & \cdot & \textcircled{2} & \cdot & \textcircled{6} & \cdot & \textcircled{6} & \cdot & \end{array}$

Later:  $\begin{array}{cccccccccccc} \textcircled{2} & \cdot & \textcircled{2} & \cdot & \textcircled{2} & \cdot & \textcircled{2} & \cdot & \textcircled{2} & \cdot & \textcircled{2} & \cdot & \textcircled{6} & \cdot & \textcircled{6} & \cdot & \end{array}$

form is AA BB etc. Ends suddenly on 1st A, following accel. to high speed.

in fast style, Bedug on kempul-beats (in addition to kempul)

in med. style, Bonang pindjalan, fast saron insal, handclaps (interlocked)

in slow style, enter gender, suling, gamoang, rebab, tjelampung, ges. + 2d.

this piece is used for dance accomp. and Wayang Kulit.

may be transposed to other pateta, + to pelog.

# Special Bonang parts for "majalilah"

30

A)

Bl: ② | ① | ② | ③ | ② | ① | ② | ② |  
 Bonang:  $\hat{3} \hat{2} | \hat{3} \hat{5} | \hat{3} \hat{2} | \hat{5} \hat{3} | \hat{2} \hat{3} | \hat{3} \hat{3} | \hat{2} | \hat{2} | 6$  (3x)  
 rest of section "A" = mlampah

B) 1st 2 kenangan in kembangangan

Bl: ② | ③ | ② | ① |  
 Bonang:  $\hat{6} \hat{5} \hat{3} \hat{2} | \hat{2} | \hat{2} | \hat{2} | \hat{2} | \hat{2} | \hat{2} | \hat{2} |$  (3x)  
 (6 5 3 2 | 1 2 | 1 2 | 1 2) ← in slow speed, this pattern may be played twice as fast, for a total of 6 times

alternate version:

$\hat{6} \hat{5} \hat{3} \hat{2} | \hat{2} \hat{5} \hat{5} \hat{2} | \hat{2} \hat{5} \hat{5} \hat{2} | \hat{1} \hat{9} | \hat{1} \hat{9}$   
 or:  $1 \hat{1} | 1 \hat{1}$

last 4 nuclear tones played mlampah

Srepegan, with sarong wayang part 31a



31b

# Srepegan-kempul and Kenong

 $\chi^{\uparrow}$  Kenong

 $\chi_g$  Kempul

$6^5 \quad 5_5^5 \quad 6^5 \quad 5_5^5 \quad 2^3 \quad 3_3^3 \quad 5^3 \textcircled{3}$   
 $5^3 \quad 3^3 \quad 5^3 \quad 3^3 \quad 5^5 \quad 2_5^5 \quad 3^5 \quad 5^5$   
 $\uparrow^6 \quad 6_6^6 \quad 5^6 \quad 3_6^6 \quad 6^2 \quad 5_6^2 \quad 3^2 \textcircled{2}^*$   
 $3^2 \quad 2^2 \quad 3^2 \quad 2^2 \quad 3^5 \quad 5_5^5 \quad 6^5 \textcircled{5}$

\*Sawuk -  $3^2 \quad 2_5^2 \quad 6^2 \quad 5_5^2 \quad 3^2 \textcircled{2}$

Sawuk begins after third line - when ending, fourth line is omitted

## (Signature-tune) Brāgadhārma sléndro, (fast)

(32)  
(2)

	T	P	T	N
	•	• 5 6	5 • 3 2	
Slentem's version of 1st line	2	3 1 2	1 • 3 2	
	6	5 2 5	6 5 2 1	
	5	2 3 2	6 5 2 3	
(peking 2)	1	2 1	3 5 6 1	← slentem plays low 1 here.

nov 16, 1973

## (Signature-tune) Kyaiḥ Bulnīdrendū

Handclaps 2:1

2 = sléndro ketuk  
6 = pelog ketuk  
(v)

ketuk:	• 2 6 •	2 6 •	2 6 •	2 6 •	2 6 •	2 6 •	2 6 •	2 6 •	2 6 •
a)	• • • •	Hā • é • o	• Hā • é	o • Hā!	• • • •	• • • •	• • • •	• • • •	• • • •
b)	Oh • • • •	• • • •	• Hā • é	o • • •	Hā • é	o • • •	Hā • é	o • • •	Hā • é

nov 16, 1973

More "Sleeping Bull" signature - Music  
(Nov. 24, 1973)

(32-b)

Slendro

	T	P	T	N
A)	2	3	5	2
	3	2	5	2
	3	5	6	5
	↑	6	5	③

B)	$\frac{x}{5}$	5	6	$\frac{\uparrow}{6}$
	$\frac{5}{3}$	$\frac{2}{3}$	$\frac{2}{1}$	2
	3	.	3	↑
	6	5	3	⑥

C)	$\frac{x}{5}$	5	6	↑
	$\frac{6}{5}$	$\frac{3}{2}$	6	• (N')
	↑	5	2	• (N <sup>6</sup> )
	6	5	3	⑥

D)	2	3	5	2
	3	2	3	1
	$\frac{2}{3}$	$\frac{\uparrow}{6}$	1	$\frac{2}{3}$
	$\frac{\uparrow}{6}$	1	$\frac{2}{3}$	$\frac{\uparrow}{6}$ ⑥

order: | A A B C D |

Can end in any section.  
#6 kept used throughout.

Bonang part:

A)	2	3	5	5
	3	2	5	5
	3	5	6	5
	1	6	5	3

B)	0	0	0	0
	5	5	6	6
	0	0	1	2
	3	3	0	0
	6	0	1	1
	3	3	0	0
	6	5	3	6

C)	0	0	6	1
	5	5	0	0
	5	5	6	6
	2	2	0	0
	1	5	6	6
	6	5	3	6

D)	2	3	5	5
	3	2	3	1

bl:	2	3	↑	6	.	1	2	3
	6	.	6	6	.	6	6	.

bl:	↑	6	.	1	2	3	↑	6
	6	6	.	6	6	.	6	6

(33)

Sri Saṅgañyeki

T	P	T	N
2 4 6	5	2 4 6 5	
2 3 2	6	5 4 6 5	
U	P		
2 3 2	1	3 2 6	5 Gong
U	P		Uak!
1 2 4	6	1 2 4	• (N6)
2 3 2	1	3 2 4	5 (Gong)
Ha!		Ho!	

Pelag

Saron & Demung on melody  
 Plus Drums, Keprak [##6]  
 (N) T P C (very heavy keprak whole)

rest of players do handclaps  
 (2:1) and vocal sounds.

Nov. 16 1973

Pāsūpari

Pelag • begins loud

A)

4	6	4	1	4	6	4	1	2	1	6	4	6	4	2	1
N <sup>6</sup>		N <sup>5</sup>		N <sup>6</sup>		N <sup>5</sup>		N <sup>5</sup>		N <sup>5</sup>		N <sup>5</sup>		N <sup>5</sup>	

Kempul  
damped

B) slow section, with Suling &/or Rebab.

2	3	7	2	3	7	2	5	4	5	4	2	1
N <sup>7</sup>		N <sup>6</sup>		N <sup>7</sup>		N <sup>7</sup>		N <sup>5</sup>		N <sup>5</sup>		N <sup>5</sup>

return to A) to finish.

Nov 16 1973

Dvau Dosai Chā ca

BK bonang: 2|2 6|6 3|23 5②

A)	T	P	T	N	Bonang	Part:
1	2	1	6		1	2
5	3	5	5		5	3
.	5	5	2		5	5
6	3	6	②		6	6
					3	3
					2	2
					2	2
					2	2
					2	2
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					2	2
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nov 14, 1973

34

Glendeng Pelog  
(fast) (amodem piece) 17

N	N
4	5
4	5
4	5
6	2
2	6

Tevu<sup>2</sup>

T P T N  
3 2 6 5  
3 2 6 5  
3 2 6 5  
3 2 1 1

Bonangs: (both)

T P T N  
1 3 1 2 1 6 1 5

ditt  
ditt

1 3 1 2 1 1 1 ① gang

Kyairi Mājalanūyāprasannah (Venerable sin planning - to - cats) (35)

Slendro				Slendro			
T	P	T	N	T	P	T	N
3	5	1	2	1	5	1	6 <sup>n3</sup>
3	5	2	1 <sup>6</sup>	2	3	5	2 <sup>n6</sup>
6	1	3	2 <sup>6</sup>	6	1	3	2 <sup>n5</sup>
5	6	5	2 <sup>5</sup>	6	5	3	5 <sup>n5</sup>

Slendro				Slendro			
T	P	T	N	T	P	T	N
3	5	1	2	1	5	1	6 <sup>n3</sup>
3	5	2	1	2	3	6	5 <sup>n6</sup>
6	1	3	2	6	1	3	2 <sup>n5</sup>
5	6	5	2	6	5	2	3 <sup>n3 or n1</sup>

Via Cosmic Radio, Nov. 1973

(=later rewriting)

Berdūjhāle ("on the Green Water")

Slendro				Slendro			
T	P	T	N	T	P	T	N
6	5	3	5	6	5	3	5
2	5	2	1	2	5	6	5
2	5	2	1	2	5	6	5
6	1	2	1	2	5	3	5
6	5	3	5	2	5	6	5

Via Cosmic Radio, Nov. 1973

optional  
special part for one

saon :

play each group of 4  
notes twice, at double  
speed :

eq: 6 5 3 5 6 5 3 5

(38)

"Prunes" — nuclear theme

pelog							
1	2	6	1	2	3	2	1
2	1	3	2	3	1	6	5
2	3	5	4	1	5	6	1
3	2	6	5	6	3	2	1
2	4	5	6	3	5	6	1
2	1	3	2	3	1	6	5
1	2	3	1	3	2	6	5
4	5	4	6	5	3	2	1

Feb '74

"Dum-dum" slendro

"x" = kerplunk

BK Bonang:  $1 \uparrow 6 | 5 3 1 \textcircled{2}$

3 1 1 0 2 6 3 2  
a dumb a silly thing,

3 1 1 0 2 6 3 2  
a dumb a dumb

3 5 5 0 6 5 3 2

6 5 5 0 6 1 3 2  
(you're)

no T or P

Feb '74

Vocals to "Tsuru" (gerangun)

(See page 23a)

• 5 • 3 • 5 • 6 • 7 • 6 • • 5 • $\Delta$	
A) • 5 • 3 3 • 5 • 6 • • • • • • •	
tsu ————— ru va ————— ne	
B) • • • 3 • • 2 2 • • 3 5 6 • • •	
ga ————— fa — bi hr — de —	
C) • • 3 3 • 5 6 6 7 7 6 6 • • 5 6	
su — be — na — Can — dream — ce — — — — —	

f) (tacet)

• 5 • 3 • 5 • 2 • 3 • 2 • 7 • $\Delta$	
C) • • 6 5 3 • • 5 6 • 3 3 • 3 5 6 6 • •	
fr — mi — — — — — — — — — — — — — — —	
D) • • • • • • • • • • • • • • • • • •	
ba — — — — — — — — — — — — — — — — —	

g) (tacet)

h) • • • • 5 7 5 6 • • • • 5 7 5 6	
tsu — — — — — — — — — — — — — — —	

Feb '74

## vocal parts to "prunes"

	T	P	T	N
Ed	1 w	2 matter	6 how	1 young
	2 a	3 prune	2 may	3 be
	1 his	3 (high) at ways	2 get	3 win
	2 mean	3 a	5 prune	6 like
	3 but	6 his not	5 win	6 kled
	2 0	4 5	6 3	5 6
	2 1	3 2	6 5	1 5
	1 0	2 3	3 2	6 5
Ger	1 no	6 what	2 you	3 low
	4 5	5 4	6 6	1 young
	3 a	2 prune	1 may	5 be
	5 3	2 2	6 2	1 1

we get wrinkles on our face  
a prune, a prune gets wrinkles every place

Feb '74



# ANNOTATIONS FOR THE WRITTEN MUSIC

General remarks on the music and performance-practice:

The notated music included here is reduced from the originals, which are a full eight and one-half times eleven inches sheet, printed via Xerox or IBM copiers from originals in my files.

I've been inconsistent in notating gender parts, generally writing them as if the nuclear note marked the beginning of a note-cluster, rather than the end. An example follows:

As we do it:	nuclear-	- - - - -	3	5	6	↑
	gender right-hand-	<u>23</u>	<u>56</u>	<u>↑</u>	<u>26</u>	↑
Correct way:			3	5	6	↑
		<u>.2</u>	<u>3</u>	<u>5</u>	<u>6↑.2</u>	<u>6</u> ↑

Obviously, the former (incorrect) notation is much easier to read. The sound is the same in either case.

However, in atypical pieces of my own composition, such as Sleeping Bull's signature tune, page 32-b, I've notated nuclear themes correctly, and the performers, while at first confused, adjusted quickly.

The circle to indicate gong ageng, triangle for gong suwukan or siyem, and square for kempul, are marks as used in the Tripp's gameian. To these I've added a diamond for kenong, and an inverted U under the number for ketuk. At other times, as will be seen, I simply write N, T, etc. as needed. Again, I use whatever makes for easiest reading.

Performance practice: Demung imbal. We sometimes get a good team for this, but not often. Once we managed to get demung imbal going at a ratio of eight to one with the nuclear theme, and simultaneous with this, saron imbal at sixteen to one. It was a glorious sound. We always use two players on one instrument, as this is visually much simpler for the players than is the use of two instruments.

Gender: We have some notated gender parts, and simply fake the rest, with fairly good results by Western standards. The lower octave of gender barung is not too useful I find, as it clashes with the slentem part.

Patetan: Kunst, on page 319ff, discusses patetan at some length, and it is evidently a most complex business. In our desire to have our own equivalent, we often add a brief improvised section at the end of a piece or between pieces, performed on gender and rebab, or gender and suling. Needless to say, it is "all wrong", but it fills the need, and I've long ago decided that incorrect music is infinitely preferable to no music. I am willing to correct, (and do) as I learn, but unwilling to wait until I know it all, as that day is unlikely ever to come. It is perhaps unnecessary to mention that my rebab playing is also "all wrong", and that I view it in the same light as our fake patetan.

Bukas: Where we don't know an appropriate buka, we use a drum pattern:

High drum: X . X . .

Middle drum: X

Low drum: X (gong)

or invent one.

Commentary on the pieces: (See handwritten numbers).

Page 1: Gāragāra - straight Javanese.

Page 2a and 2b: Straight Javanese. I add a suwukan (two) on the second kenong-stroke. Lately we've added suling to this piece, and it sounds very nice.

Page 3: Straight Javanese.

Page 4: All straight Javanese pieces. We use manjar sewu both as entry-music in shadowplay, and with the folksong interpolation on page nine (Hardjo Susilo's idea), which is played with the handle-end of the tabuhs, without damping. Apparently this is a sort of in-joke, poking fun at Balinese gamelan. I happen to like Balinese gamelan too, (though not as well as Javanese), but must admit the joke is valid. On page eleven is a better notation of this piece, added later in history. The haphazard way of numbering the pieces is the result of historical happenstance over a period of time. The saron buka for Tjlunntang slendro is my own idea, as I don't know the usual one, and got tired of the "drum buka". This saron buka consists of a swoop from left to right across the keys, then all notes but  $\hat{1}$  are damped, then the rest is played. The X marks mean staccato. We often perform Tjlunntang slendro, then switch via nitir on six to Tjlunntang pelog, then do

two or three times slowly, back to high speed and add "hollers",  
thusly:

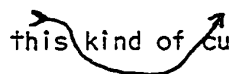
First three lines:

Nuclear: 2 3 2  
Voice: 2 3 2  
o e o

Last line of either section:

Nuclear: 3 5 6 5 3 2 3 2

"Spoken": . . . . . 'a 'e . 'a 'e . eooooooooop

This last is hard to notate, but follows  this kind of curve in pitch. Both of these are imitations from performances I've heard at Wesleyan and on recordings. I have no doubt that we do them "all wrong", but ...

The text for Gondjang Gandjing is given on page fifteen. I never did write out the melody, but people seem quite able to learn it by rote. Bawang ~~Se~~bunkul is useful as an exit-piece (bubaran) after a concert.

Page 5: . All straight Javanese. Mr. Prawoto's version puzzles me, because of the four on the kempul beat. I presume it is a very modern version. 18

The information on mbalung is from a hurried explanation by Susilo, and I never got the chance to straighten it all out. Again, I make a stab at this when I play bonang, but have no idea as to how Javanese my interpretation is.

Pages 6a through 8: All straight Javanese, and self-explanatory.

Page 9: Pankur five is straight Javanese, and is the version I learned in the Tripp's gamelan. We seldom play it.

Mājalalīlah is my own composition. The name is accidental. While writing this piece, one of my cats insisted on playing with the laces of my tennis-shoes, being unable to get at my toes, which he far prefers. This piece was an attempt to write:

- A.) Something in slendro two.
- B.) Something vigorous and happy, and
- C.) Something which would allow a bonang part different from a "legal" one, yet not so different as to be disturbing.

The buka probably was remembered from a Javanese piece, but I'm uncertain about this. Other features are:

- 1.) The first line is the same as Wiludjeng slendro, yet in this context it sounds much different. I was dismayed when I realized I'd unconsciously stolen a line, but have long since ceased worrying about it.
- 2.) The first three lines in the A section are identical. This is common enough in Javanese pieces.
- 3.) Quicker repeats near end of the B section.
- 4.) 6 5 3 2 is very final and straightforward way to establish two as the gongtone in B section. In A section, the 3 5 3 2 is less final, and one expects the piece to continue to new material.

Rdī Nārah is my own composition. I am unable to account

for the title. The zero means damp the previously-notated tone on the beat marked by the zero. This allows the kempul and kenong a brief moment of soloistic glory.

Śrī Matsūsānti: One of my compositions. The underlined five means play twice, staccato the first time (Ngentjot or Ngenchot). In other pieces, when an underlined number is followed by the same number again, both of the notes played on the underlined number are staccato. I very recently added both male and female vocal parts to this, and it's become one of my better pieces (see page ten). Kathy Brand does a very nice approach to Javanese women's vocal style.

Pages 11 through 16b: Straight Javanese and self-explanatory.

Page 17: Bonang parts for Bendrong are straight Javanese. Misty Mountain is interesting in that it was written to fit the buka, which I wrote first. The wavy line indicates a place for free improvisation. The piece proper was written by Chris Patton.

Page 18: Barbara Benary sang this to me from memory. There are approximately one-hundred-sixty pieces of information on this page, yet it is not at all unusual for a person to memorize such things musically, even though it would be a monumental task to memorize the numbers and letters as such. The piece is interesting from a structural standpoint, and will repay analysis.

Page 19: This is not a gamelan piece at all, but a mathematical exercise in symmetry and variation, which can be played if desired, by assigning sounds to each number. We have

played it on gamelan and on miscellaneous percussion instruments. It was dictated to me by Ken Maue, who got it from a friend. The title "Hathaway" is in honor of a very large cat who used to come to every gamelan rehearsal when the gamelan was in the basement of one of the dormitories. We have had several cat-mascots, who apparently were attracted by the music, and only by the music, for they would leave when the rehearsals ended. Since our move to the "music temple" on the other campus, we have had no feline visitors, to my sorrow. We have had plenty of canine visitors, however, and this irritates me, as dogs are simply not allowed in the vicinity of a Thoomese gamelan.

At any rate, the relationship of "Hathaway" or "Ken's Series" to serial music and change-ringing is apparent. When playing it on gamelan, we have a kempul or gong stroke on each accent mark. It's especially interesting when played in three speeds simultaneously, with low instruments playing slowly, most instruments twice as fast, and peking four times as fast.

Page 20: I first obtained this piece "via dictation", writing it down as it was played at an all-night wajang kulit performance at Wesleyan. Later I found it in print, so was able to add the buka and ending-formula. 15

Page 21: These are "illegal" bonang parts of my own invention. In practice, we do variations upon these parts, especially in the treatment of pitch four.

Page 22a-b: We often play this as a medley.

Sage in Darkness has a vocal part on page 22b, but we seldom use it, though it is nice enough. The peculiar kempul part is "just for fun". We have four gongs ageng, plus suwukan two and sijem one, so are able to play around with gongtones to our hearts' content.

The Sun's Anger is its own retrograde. The X means play staccato. This is a very violent-sounding piece, and is used in shadowplay whenever danger, anger, or evil is depicted. This is perhaps inconsistent, since in "Thoomism", Bhagavan Surya, the Sun, is a benevolent deity.

The Happy Mongoose is part of the continuing series of mongoose-jokes mentioned elsewhere. The first and second halves are approximate sequences of each other. The piece was written primarily to exploit the kempul-melody effect of Kasatrijan, which I had not been able to obtain at the time of the composition of Happy Mongoose.

Page 23a: I wrote this after the model of Ritjik<sup>2</sup>; vocal part on page thirty-six.

Page 23b: The Cow's Revenge. I have no explanation for the title, which arrived together with the music. On several occasions, students have suggested, independently of one another, that the title alone is enough to generate an interesting scene for a shadowplay. The kempul stroke in section b is especially noticeable as it is on a staccato nuclear note.

Page 24: Salutations was written by Kathy for one of her



own shadowplays. Ribbit's tune was written by me for the same play. The buka is quite humorous. As in other pieces in which the bonang part is given separately, a number with a circle over it is a "boopadeep", i.e., kembyangen, while unmarked notes are played in mlampah.

Page 25: Swollen Foot was written by one of my students (Jan) in order to exploit a pre-written bonang part. Only Jan knows the bonang part, which is so complex I was unable to write it in the time available before she left the state to practice-teach. I had two cases of swollen foot, and can't remember which this commemorates, but I believe it was the time I proved allergic to black-fly bites.

Wounded Elephant was written about the same time as Swollen Foot by my present drummer, who wanted to write something "in seven". The result is that we haven't yet figured out a reasonable bonang part.

Page 26: The Broken Window is yet another violent title, and a fairly violent piece, as it is Kathy's response to the traditional limitations on the use of pelog (tone four). Note, in the C section, ascending sequences. D section has one more sequence, then linear descent. This reminds me of the descending sequences of Pangkur.

Page 27: Asmarandana or Giving Love. (In Thoomese, this would be Marudanam). So far we have done only irama one, with the interlocking bonang part appropriate for it. Kathy Brand brought

this and Puspadjawang back from Seattle this past summer (A.S.E.A. summer school).

Page 28: Another piece Kathy brought back.

Page 29: I obtained this by copying from a recording.

Page 31a: From a second or third-generation Xerox, the original being by an unknown person, hence the unusual spelling of "saron".

Page 32a: One of my compositions. This is the closest I could come to a quotation of the "Halleluyah Chorus", with slentem taking the part of the basses. Unfortunately the resemblance is weakened by the fact that there is no slendro four. I thought the quotation very obvious, yet nobody in the gamelan got the joke until it was explained.

Kyaiḥ Buḥnidreṇḍū is another of my own compositions. It is the first part of a piece continued on page thirty-two-b. In fact, it scarcely is "a piece" until page thirty-two-b. Nevertheless, the part on page thirty-two-a is one of our favorites. It is a signature-piece for Sleeping Bull, one of the major gods of Thoomism.

Page 33: It is perhaps inappropriate to allow Saṅganyeki the title of Śrī (Sir), as he is a quite thoroughly loathsome character. However, because he is so dangerous and vile, a title seems necessary.

Paṣūparī is quite a frightening piece. I have developed a rather forlorn-sounding suling-style for it, and a proper perfor-

mance can be rather hair-raising. It is the signature-tune for the Great Avenging Bird of the North, another Thoomist deity, messenger of the Holy Thoom and the god in control of weather phenomena. He also is the one who punishes wrong-doers, as can be seen in Pāsugamana.

Page 34: Dvau Dosai Chā Ca. The title means Two Pancakes and Tea; and is a pun on the Latin American dance known as "Cha-Cha". The music reflects this.

Glendeng: A modern Javanese piece. 17

Tevu<sup>2</sup>: Literally Rock-Rock or Stone-Stone. A pun on Peter=Petrus=Stone. The **Bonang** part is Peter Peter Pumpkin Eater. The Nuclear theme is derived from the main tones of the bonang part, which was brought from Seattle by Kathy.

Page 35: See Journal entry of November ninth, for an explanation of the writing of these pieces. Many pieces of music have come to me this way. Shortly after writing these pieces, the name for the first piece "came through". It was several weeks until I got around to putting it on the printing-master. The scene in my shadowplay Pasugamana was written after this piece, in order to allow its use in the play; a peculiar but effective way of writing a story.

I do not understand On the Green Water, but simply copied it as it "came through". It is apparently a peculiar affair, intended for some specific purpose, since it emphasizes five and one so thoroughly, but as yet I don't know what it's purpose is.

Page 35: Prunes. This was written first as a vocal solo (see page thirty-seven) and is a setting of a poem dictated to me by Barbara Benary. The vocal part is stolen from the U.C.L.A. recording of Sri Redjiki, for the most part, and the nuclear theme was subsequently written to fit the vocal part. Thus it is not "a composition" at all, in the usual sense. Nevertheless, we find it immensely entertaining, and it is rather a good tune anyway.

Vocals to Tsuru<sup>2</sup>. This was written much later than the nuclear theme, and is a setting of the first Thoomese poem I ever wrote. The words read: "Darkness in the forest, brightness in the heart. Breaths of pine-tree-shadows begin to fall quietly by blessing of the moon. Oh, the darkness!"

SHADOWPLAY  
 BHOHDEVAPĀNASYAKAṢṢṢGONDŪ  
THE GREAT GOD PAN'S SKY JOURNEY

Gamelan: Monggan.

Monggan: Kayon twirl, up center. (A)

NARRATOR sings: (B)

Ekadā mahādevapān āṣolūti,

Tasya mahānāśukhīmā,

Tasya mahānāśukhīmē

Buḥnidreṇḍāyāgacat

Tam avadat ca:

(C) Katham mamamahāvānāya

Dezhumimṛṇḍatum

Bāhunyātmanabhyam iti.

Tenakaṣānirakhuṭa bujāya

Pānāya devathūmena ca

Kantum bhoḥsukhāya dattaḥ.

Sansa solo? (D)

NARRATOR speaks: (E) There was a time when the Great God Pan was alone. Great was his unhappiness. In his misery, he went unto the Sleeping Bull and he said unto him, "How may I be able to bring a multitude of living creatures to my

great forest?. Then the skies were broken open for the sake of Sleeping Bull and Pan was given the Song of Joy by the Holy Thoom.

(F) Kayon move to left.

(Pan enters) Flute and bowed drone. (walks about, stops). (G)

Munitsure: soft style.

PAN: (H) (slowly) And so ... My beautiful forest. My tall cool pines. My yellow meadows sleeping beneath the sun. Long blue rivers singing their rapid pathways to the sea. All these things, and many more, yet so few to share them with. Who shall sing and dance to the yellow moon among the willows? ...Alone. (stand facing left)

BEAR: (I) (enter, stand, scratch head) Keprak and cheng-cheng. (J)  
Hi, boss! (Pan flips) What's up? You got the miseries or sumpin? You look AWFUL. (K)

PAN: Good ol Bear! Tell me, Bear ... are you sometimes lonely?

BEAR: Me, Boss? Lonely? NAAH, I got YOU boss, an Sleepin Bull down in the meadow. I should be lonely? Wow, hey, looka them trees and flowers and mountains and all that, and ...

PAN: Yes, and not even one fish in a single brook. Not a gopher in the yard, not a mongoose in the garden. Almost NOBODY, Bear. (L)

Gamelan stops.

BEAR: Yeah, I know whatcha MEAN, I know whatcha MEAN, I KNOW ...  
Hey, Boss? Why not go ask Sleeping Bull what to do? I

mean, like, he's got great ideas now and then and I bet

he could help out some. Why not try? Hah? Hah? (M)

PAN: Good old Bear! What would I ever do without you? Off we go

to Sleeping Bull in the Southern Meadow. (N)

Gamelan: Djentik Manis. (Pan and Bear move back and forth, off right) (O)

(enter Sanganyeki from left) (P)

(enter Bragodharma from left, "hitching" with rear arm on butt from below left)

(Sanganyeki faces Bragodharma)

Gamelan stops: silence.

SANGANYEKI: Hail and well met, Bragodharma!

Keprak.

BRAGODHARMA: Duh, yeah, hail and well met, Sanganyeki. Hey, Boss, whatcha doing here, hey? Whatcha ...

SANG: (swat) Fool! I'm spying on the Great God Pan and his lumpy companion. May their hair fall out in patches! Oooh I'd like to drive that cat out of his gourd and I've nearly managed it. Why, I've kept his precious Sacred Forest nearly empty of living creatures for years and years. It's been simple, and it's been a PLEASURE. A matter of merely scaring off anyone who approaches too near the forest ... and as for those who can't run fast enough, and who are too weak to defend themselves, why they fatten our cookpot nicely! (R) But NOW that blasted Bear has to go

and get ideas, and they're off to see Sleeping Bull, and you know what THAT means! Sleeping Bull may be a pompous oaf, but he's a deity nonetheless, and he knows how to fix things up. Oooooh it makes my blood boil. It makes my teeth itch. Oooooh ... (swat) (S)

BRAG: Ow! Duh, LOOK, Sanganyeki. We can't go nuthin about Sleeping Bull but how bout dis ... we folla dem guys, and while dey're somewhere way far away from the magic protection of their forest, and dere ain't nobody around to help we STOMP 'em! I know where we can get a whole BUNCH of thieves and murderers together in a couple of hours. We could be ready for them, and when they're dead we could have the forest!

SANG: Hmmmm ... not bad planning ... for an idiot. Go at once and see to it then, and report back to me. I can hardly wait to fix them.

Suryakrodha. (T) (angry dance by Sanganyeki and Bragodharma)

(exit Bragodharma early, later exit Sanganyeki) End with keprak.

Gamelan: Misty Mountains. Loud until all characters on, then soft but same speed.

BULL: (U) (enter, twirl, sit, wiggle eyes) (snore a bit, slowly and loud, eyes move in rhythm with snores) (Pan and Bear enter)

PAN: Oh great Sleeping Bull of the Southern Meadow ... (Bull snuffles awake) Salutations to your name. I ask your aid, and this is my request. We are lonely and all alone,



and there is no pain so great as this. How may I bring  
a multitude of living creatures to the Holy Forest, so  
that we shall be no longer alone?

Gamelan fades.

BULL: Ah, yeh, well, ahhhhmmmmmmmm... well, I can't exactly give  
you a direct answer but I suspect that, given sufficient  
time and perseverance, and an attitude of humble request,  
of simplicity and directness, not indulging in vain speeches  
nor yet relying upon an excess of explanation, which in  
the circumstances could hardly be expected to do more than  
confuse the issue ...

PAN: GOOD old Bull! (V)

BULL: (quiet and mild) ...er, ah, um, yes, well ... you MIGHT  
enlist the aid of the Thoom? Yes, yes, most assuredly HE  
is the one to help you. I will call upon the Great  
Avenging Bird of the North, messenger of Thoom. He will  
guide you over the Mountains of Darkness, and through the  
skies above them, unto the Mountains of the Moon, wherein  
dwells the Holy Thoom. And I will go with you to tell the  
Thoom of your plight, and to help in asking his aid.

Gamelan: Sukhi mangus, medium, soft.

(all exit left, Bear lags behind, dances)

BEAR: (stopping a moment) Dis is a little number I call "The  
Happy Mongoose." (dances and goes "Dootchi-doo", etc.)

Gamelan end.

NARR: And so, guided by the Great Avenging Bird of the North,  
 messenger of the Holy Thoom, they set forth on the journey  
 toward Holy Pine Tree Mountain of the Moon, which is the  
 home of Thoom.

Djentik Manis, belog.

(W) (Procession: 1.) Pass by both directions at a time, bird  
 above. 2.) Kayon on center, slanted left, they climb. 3.) All  
 fly, no kayon, puppets up and further back. 4.) Come to rest,  
 sailing down, into place ... upright. Bird flies off.) Stop music.

Gamelan: Monggan. (enter Thoom, all bow, put on slant) (X)

PAN: (Y) He mahādevathūm, namaskṛta tavagānū. Mamarogvetat:  
 katham dezhumimṛṇḍatum mamamahāvānāya bāhunyātmanabhyam.

BEAR: (quietly, with namaste gesture) (Z) Oh yeah, Thoom. Tell  
 my Boss how he can get a lotta critters to come live in  
 the Sacred Forest. Please tell him, Thoom! We're awful  
 lonely!

BULL: Oh Holy Thoom, this humble one is Sleeping Bull, your willing  
 servant dwelling in the Southern Meadow, and with me is  
 the Kind One, the Great God Pan, offspring of your mind,  
 Dweller in the Standing Grove of the Hidden Garden of  
 Delight. Oh yes, I nearly forgot to introduce Bear. Bear,  
 Thoom, Thoom, Bear. (eye bit) Oh Great Thoom, I beg you  
 to grant the request of the Kind One, and show to us the  
 answer to our quest. (rimshot on gong) (A\*)

NARR: Then the skies were broken open for the sake of Sleeping Bull,

he who asked from kindness. And the Thoom gave the Song  
of Joy to the Great God Pan. (B\*)

Gamelan and vocal: The Magic Song. (Thoom moves about slightly  
during this) End song.

NARR: And Pan and the others gave thanks and left quietly, with  
joy in their hearts, and turned toward home. (they exit,  
one at a time, bowing first, and drop off base of screen)  
(rimshot, Thoom whirls off)

NARR: Now, when all had left the Mountain, the Bear went off from  
Pan, looking for acorns and mushrooms and other delicious  
things to eat for their evening meal. (C\*) But as he  
went his way he was met by an evil Rakṣasaḥ, and lured  
to a cave. And so it is that we enter the caverns of the  
evil ones, those who dwell in darkness, mouldering in  
their own hatred of life and light.

Gamelan: Sūryakrodha. (Bear and Demons up, Bear facing away from  
Demons)

Music up loud, cut suddenly.

SANG: Hey, you, Bear!

BEAR: (whirls around) Yaah?

BRAG: Hey, how do you STAND it, man? I mean, how DO you STAND it?  
Gettin ordered around all day by an overgrown billygoat?

SANG: Tell me, Bear, when did you last taste honey, let alone the  
sweet mead?

BRAG: Dah, yeah, and when was the last time you got a day off, huh?

BEAR: But but but the Boss is REAL good to me, and I don't WANT  
any days off, and he CAN'T give me any honey cause there  
aren't any bees out our way ... nor nobody else, neither.

SANG: NOW, my furry friend, we are about to offer you a far better  
bargain than you've yet gotten from your goatish master.

BEAR: But but but ... the Boss is my PAL! He treats me real nice,  
like, he's a great guy, and ...

SANG: Paah! DOLT! (D\*) WE offer you freedom! WE offer you  
three squares a day. Aren't you ashamed of yourself? It's  
YOU should be master. Do OUR bidding, and you'll get  
honey, all you want, and fish, and RAW RED MEAT! THINK  
of it! You have nothing to lose but your chains!

BEAR: Duhhh... welll ...

BRAG: Duh, yeah, shake off the shackles dat bind ya! (E\*)

SANG: Here's what we want you to do. Just lay out of tomorrow's  
fight, and maybe go around and tell everyone on Pan's side  
that things look BAAAAHHD, and that Pan will probably lose,  
and like that there. Then you'll see how WE treat you! (F\*)

BEAR: (scratches) Well ... (G\*)

SANG: Atta boy! (Demons off)

BEAR: (stands scratching head, flips, exits right, still scratching)

NARR: So when Bear returned to the Great God Pan, it was not the  
same Bear as he who had left. And in his weakness, he  
said nothing of the battle which was to come. Pan, Sleep-  
ing Bull, and Bear gave one another greeting, and ate their

supper quietly and went to sleep. Long time and long time slept the good folk, Pan and his companions, and so the night passed away. (H\*) In the morning they arose, and saluted Bhagayan Surya, the Sun, and went on their way, only to be attacked by the evil ones.

Gangsaran. (I\*)

NARR: Thoom, seeing their plight, sent an army of brave warriors to defend Pan and the others.

(fight of two armies, much cheng-cheng) (two good soldiers chased by Sanganyeki and Bragodharma)

PAN: (enter) Holy Thoom! We're taking a licking. (enter Sanganyeki) You! Sanganyeki! I might have known you were behind all this, you treacherous scum!

SANG: Why, Pan, old friend, is that any way to be? Did you expect me to take kindly to you after you threw me out of the Forest like you did? Or have you forgotten?

PAN: You got better than you deserved, you cannibal! You were exiled for killing defenceless creatures to satisfy your disgusting appetite. You and Bragodharma are lucky to have gotten away with your lives and your freedom. (J\*)

SANG: And you, my hairy friend, will live to regret it. Oh, we won't kill YOU, or even imprison you, no, we'll just kill any creature who sides with you, and put them into the stewpot! I want you to live and SUFFER!

Gangsaran louder. (skirmish, Pan chases Sanganyeki off left)

Music quieter.

BEAR: (enters) Gee, it's a pretty much one-sided fight!

BRAG: (enters) Sure! The overgrown billygoat is bound to lose.

BEAR: Why, you little mouse-fart! Watch yourself or I'll sit on  
ya! (K\*)

BRAG: Ah ah ah ... remember ... RAW RED MEAT! Hyuk, hyuk ...  
(exits) (Bear scratches head, exits)

Much keprak and cheng-cheng. (fight of gang-puppets) (L\*)

OLD WOMAN: (hitch in from lower right, stops and beckons) (M\*)

Come along dearie, this way. We're almost to the top.

Ah, here we are. We can watch the battle just swell from  
here! (fix in place, facing right)

DAUGHTER: (hitch in from lower right) Wait for me, Ma! Wait for  
me! Whoo-ieee! That sure is a climb! And I'm not getting  
any younger.

O.W.: You sure ain't! When are you gonna get a husband, I wonder?

DAUGH: As soon as some guy asks me! (guffaw)

O.W.: What are you talking about, kiddo? Freddie asked you last  
year, and you turned him down flat!

DAUGH: Oh, Ma! Who wants to marry a mongoose? I mean, they're  
cute and all, but do you know what they EAT? RAW EGGS,  
mostly. I mean, Yeaagh!

O.W.: Now, now, raw eggs ain't so bad.

DAUGH: No, but they open 'em by throwing them on the floor (imi-  
tates action). Bleagh! I want a guy with some couth!

Besides, Ma, I can be just as valuable a member of society  
without ever getting married!

O.W.: (pensive) Funny ... that's what your father always used to  
say ... but enough of that. I brought you here for a  
purpose. Maybe you can find a guy to suit you among the  
soldiers down there. Go ahead, look 'em over. After all,  
SOME of them are bound to be left after the fight. (N\*)  
So, look around. How do them there grab you?

DAUGH: Oooh! Ma! Wow! I really like them guys! Wow! (points)  
Look at that handsome cat down there ... I know him.

O.W.: Which one, dearie?

DAUGH: The real good-looking one, with the gray wash-pants and the  
navy-blue hooded sweatshirt and the imported Japanese  
rubber sandals. I mean, talk about elegantly dressed!  
Wow!

O.W.: Now now kiddo. Handsome is as handsome does. The question  
is, is he RICH?

DAUGH: Good grief no, Ma! He's a teacher at Goddard College.  
(they exit, fast)

Gangsaran. (back to fight, puppets in any order, total chaos, good  
guys always being chased by bad guys) (install two-piece gang-  
holder) (O\*)

BRAG: (enters) Oooo boyoboyoboy! We fixed THEM we did, hey!

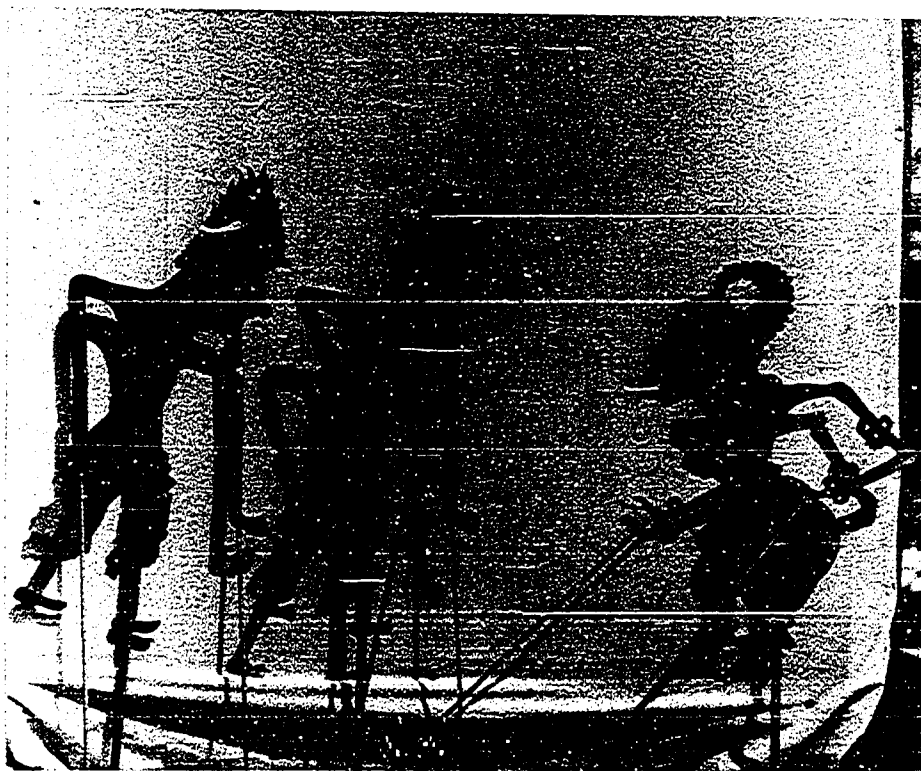
BIRD: (enters) Soooo ... Hey! You little wart!

BRAG: (looks up, shrinks) Oooooooooooooo! (fix, leaning back in  
(Text continued on Page 199.)

Puppets used in the shadowplays given in this paper:

These puppets were photographed outdoors on a children's practice-screen. The normal shadowscreen is several times larger.

The names of the puppets are listed from left to right as they appear in the photographs.



Balavan

Bhohkhaḍga

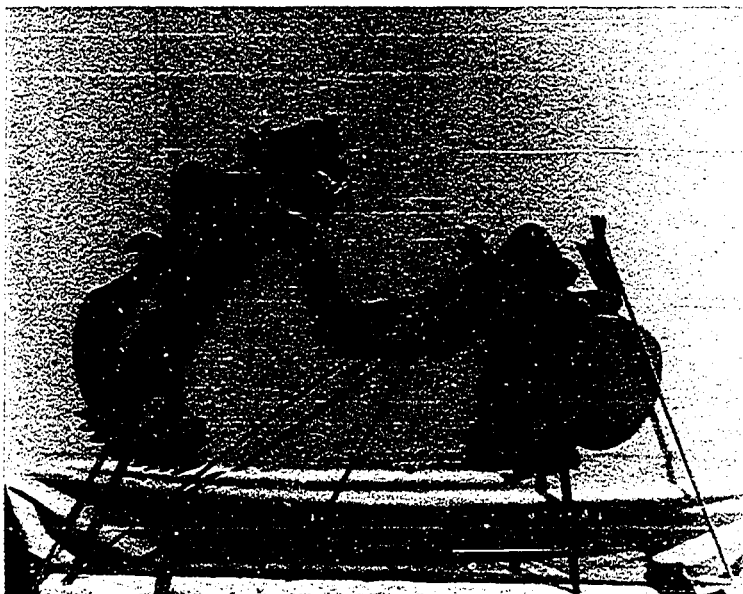
Ardjunā





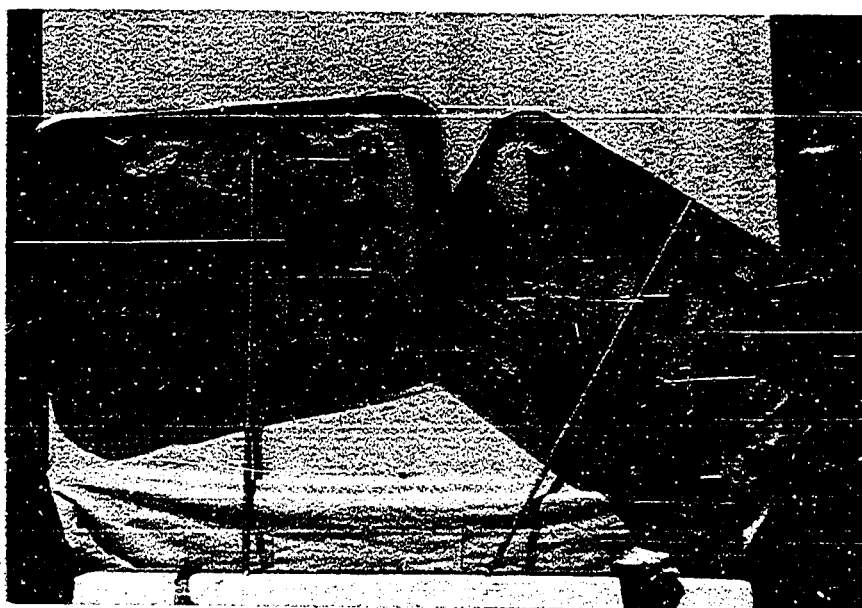
Above: Great Avenging Bird of the North

Below: Sammy Eddie Pan Sleeping Bull Bear



Sanganyeki

Bragodhārma



Bad Army

Good Army



Grandpa

Stove

Grandma



Monkey

Two Balinese Puppets

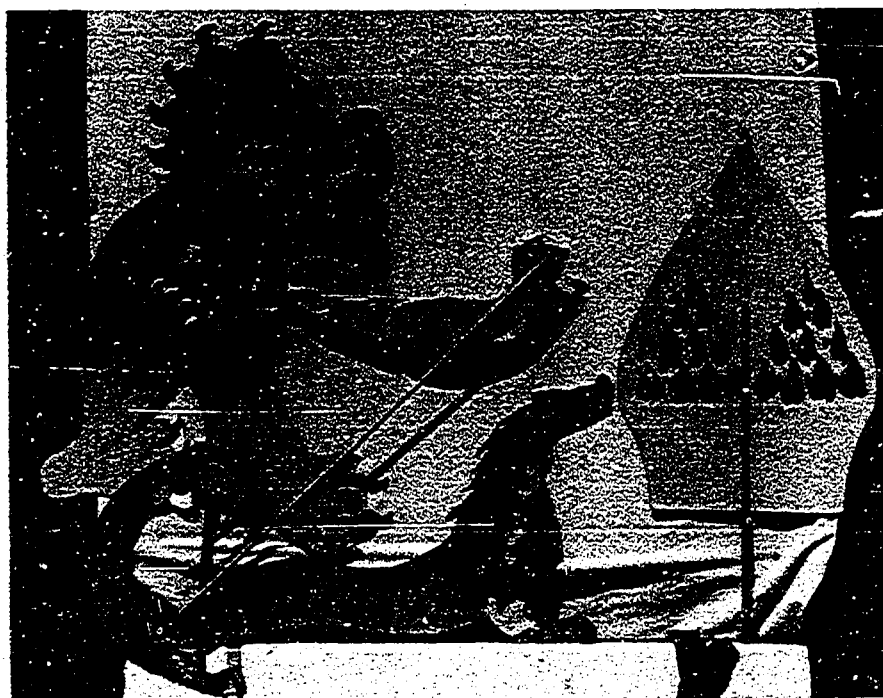
Monkey



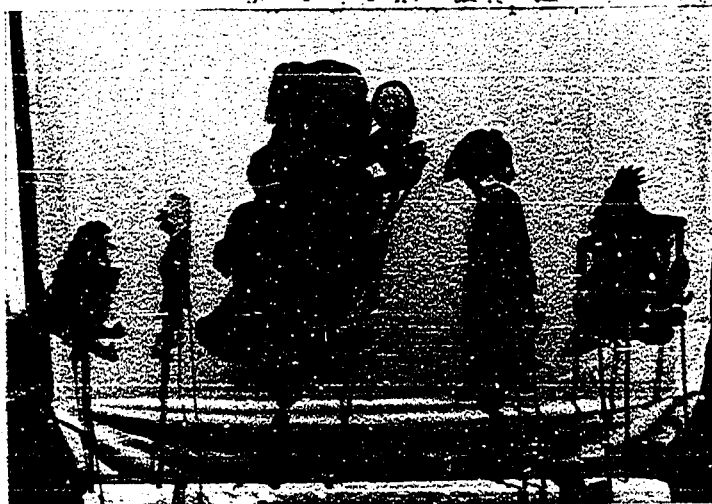
Djentik Monster

Tjakil

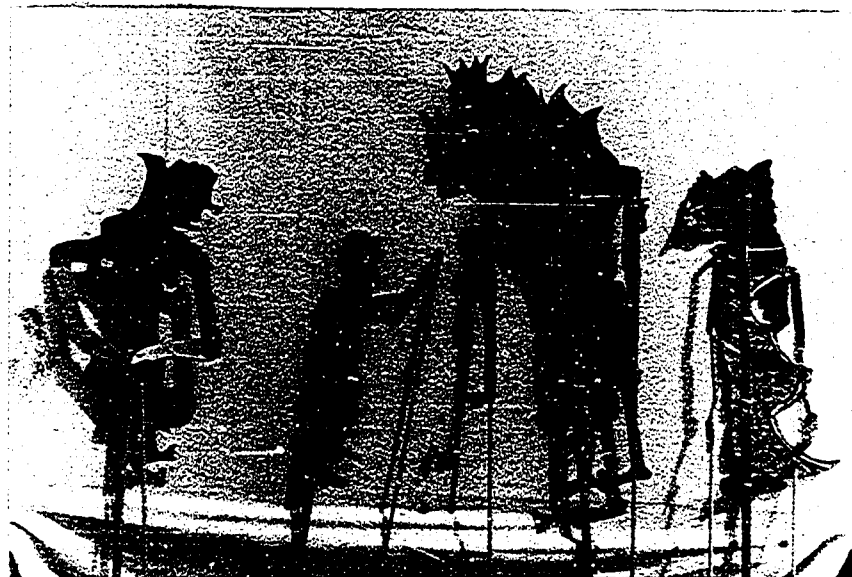
Snowmobile Giant



Yān Bān Boli      Rūgamagāla the      Fire-side of the  
Fire-Breathing Dragon      Good Kayon



Ma and Daughter      Limbuk and Ma      Eugene  
(Thoomese)      (Javanese)



Kitathaka

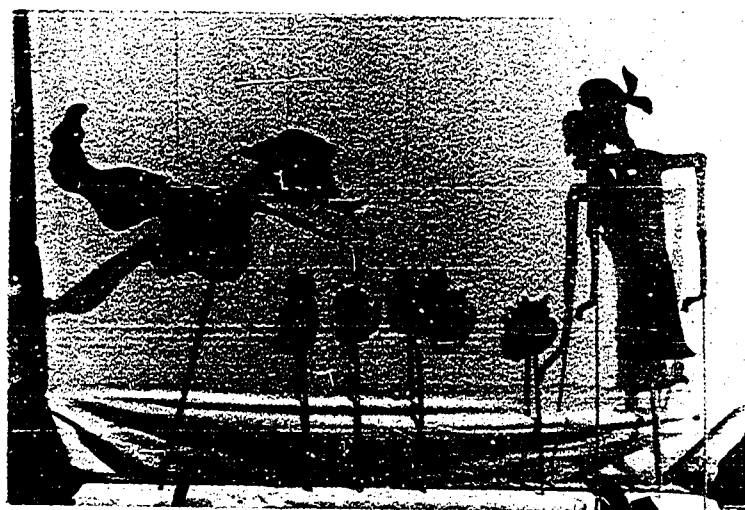
Young Advisor

King

Queen

Dāgumukha

Prābhūtaratnākara



Hissel

Cats

Venerable Sir

Pleasing-To-Cats

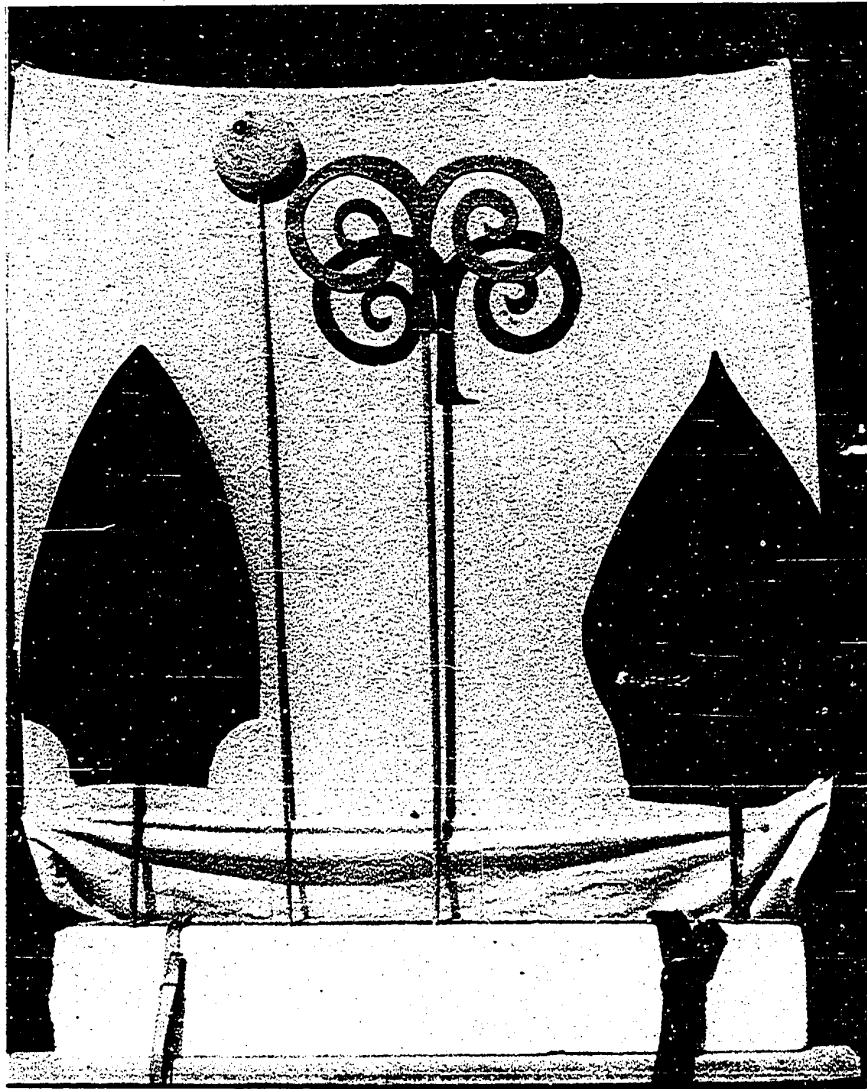


Servant    Old Advisor    Captive Lady    King Prābhuloka



Goputsam    Perya ('Big')    Dennis Murphy

("Cow's tail") (modeled after  
Balinese Twalen)



Bad Kayon

Moon

: Thicom

Good · Kayon



gang-holder) (waves arms) Oooie! Help help help ...

SANG: (enter, bluster, sink back, fix leaning back)

BIRD: Well, what have you got to say for yourself?

SANG: Ooh, heh, hem ...

BRAG: Such big eyes ...

SANG: And such fine strong wings ...

BRAG: And such nice claws on the feets, oh yesss ...

SANG: Such a handsome fellow ...

BRAG: Nice teeth ...

BIRD: (swoops) Raw Red Meat, hah?! (chases Demons off, they shriek)

NARR: Sanganyeki and Bragodharma at last escaped from the Great

Avenging Bird of the North, but long was their running  
and loud was their yelping and their terror most intense.

(Pan and Sleeping Bull on, then Bear, and two good soldiers)

And so Pan and his company lost the battle and went unto  
their night's rest defeated and downcast. Pan had not seen  
that Bear had with-held his aid. But Bear knew this, and  
long it was before he found his rest that night. (all but  
Bear planted facing down and left) (P\*) As the small and  
gentle things lay down to sleep, the moon slowly made his  
journey over them, and Pan dreamed the moon dream.

Padang Bulan. (Bear paces, finally falls exhausted with the others,  
characters slide off at bottom) (Q\*)

\* \* \* \* \*

The following section is an insert which is not present on the tape. (R\*)

\* \* \* \* \*

NARR: Now, the Bear wore, on a string about his neck, the Schapuy, which is a round disc of wood or clay or other material. A symbol also worn by Pan, and by all who call Thoom their god and better self. It is said by some that this circle will protect one from the influence of evil, and it is said by others that the symbol is only that ... a symbol ... but that those who wear it have in themselves the will to be protected from evil influences. Be that as it may, this symbol is the one known to all Thoomists throughout the universes. We will tell the story.

Gender solo throughout.

NARR: Hear now the story of the Small Cat Who Knows. How it was that he came to be enlightened, and how it was that the image of candra or soma, the moon, came to be the schapuy of those who follow the way of the Thoom, the Great God Pan, the Sleeping Bull, and the Great Avenging Bird of the North. As with all of us, there was a time when the Small Cat was alone, but he knew of his loneliness. He had looked for solace from this loneliness in the beauties of the earth, in the house which he had made for himself, and in the songs of joy which he would often sing for no apparent reason.

He had looked for it in his family, and in those moments when he felt peaceful, and in the warm fire that burned in his house, and he had found some of it in all these

things; not alone but together, and with many more things besides, that make one not alone.

The Small Cat, realizing his state of incomplete understanding, tried various kinds of penance in an attempt to reach enlightenment. He would go without food for days on end. He would deny himself the warmth of his fire. But always he felt he was being laughed at in pity for his plight.

The Small Cat wept bitterly, saying to himself, "How can I ever reach enlightenment in this way?"

So he learned that the Way is NOT the way of denial.

One night, the Small Cat began to sing to himself, singing a song of all the good things he knew; of the Fat Earth, of the Hidden Garden of Delight, of those he loved. Soon the Small Cat found himself outside in his yard, singing and as he sang, it seemed to him that he heard nearby the sweet voice of the *vīṇa* and the snap and throb of the *mṛdangam*. So he sang the moon-song, known only to the Cat:

White ...

Silver-white the moonlight

Home of the Holy Thoom.

My moon ...

My moon ... (S\*)

Then the Thoom came down as the moon. He was like a big round disc, thinner at the edges and fatter at the center. (T\*)

A beautiful silver-white. He had come to eat dinner with the Small Cat ...

The Small Cat could never afterward remember very much of what had happened that night, except that he was there in his home, and so were all those he loved, and so was the Thoom, and all were very happy.

After dinner was done, the moon went to bed, for it was very late, and Bhagavān Sūrya, the sun, would soon arise to stand his five stations in the sky:

The coming up,

The blue and hazy morning,

The noontime glory,

The long and happy afternoon,

And the going-down-in-gold. (U\*)

So the Small Cat was content. And when he got up in the morning, the Moon was gone. But in the bed he had given to the Thoom, there was a pool of liquid silver which, even as he watched, dwindled ... until there was only a small white disc left.

The Small Cat picked up the disc, and held it quietly for awhile. Then he put it in his pocket, and felt very good. From that time on, he always carried this little white circle with him.

Gender up loud, end on gongstroke.

\* \* \* \* \*

End of insert.

\* \* \* \* \*

NARR: As Pan and his companions slept the night away, Bhagavān  
Sūrya accomplished his five stations in the Other World,  
and night fled before him.

(kayon up) Ajak<sup>2</sup> medly. (kayon flourishes near end, place to right)  
(V\*)

NARR: Then came the dawn. (chorus ... ooohhh TCHAK!) (W\*)  
(chaotic fighting, puppets on in any order) (X\*) Music fade to  
quiet, but keep on playing. (enter two good soldiers, Eddie Squirrel  
and Sammy Mole, fix Squirrel, hold Mole)

SQUIRREL: Hey Sammy! Things are a bit different from yesterday,  
Hey? Hey?

MOLE: Yeah, Eddie, things are better. Looks as if we're barely  
holding our own, instead of getting creamed.

SQ: Whaddayamean? I clobbered a whole buncha little Demons. Aren't  
you doing your bit for Pan? Haven't you clobbered any  
Demons yet?

MOLE: Well I tell you Eddie, I keep trying. But they allus run  
away. And sometimes they laugh on me.

SQ: Cheer up, Sammy. It'll be OK.. You just keep trying. Give 'em  
the old one-two! (bounces around)

MOLE: (imitates) One-two. (falls on nose) Aw, it's no good,  
Eddie. I'm just too slow and clumsy. (both exit)

(enter Bragodharma and Sanganyeki)

BRAG: Duh, gee, Sanganyeki! We're still winning! I betcha we fix the old goat and his bunch real soon.

SANG: Yesss, Bragodharma, with the Bear out of it, they haven't a chance. What luck he was fool enough to fall for our promises and give in to his hidden lust for Raw Red Meat!

BRAG: Dah, ya know, Sanganyeki ... ? That reminds me ... I mean, like, now we got kicked outta da forest, and we can have Raw Red Meat and all that? Well, I discovered somethin. I don't LIKE Raw Red Meat. I wisht I was a vegetarian again. I mean I don't like killing people, and I really dig carrots and all that there. (Y\*)

SANG: Fool! (swat) How can you be so stupid?!

BRAG: Ow! Duh, maybe it's cause you keep belting me in the head, Boss?

SANG: Aah! You're hopeless. Get back into the fight and we'll mop 'em up! (exit Sanganyeki, Bragodharma stays)

MOLE: (enters, slowly) Hey, are you a good guy or are you a bad guy?

BRAG: Duh, dat all depends on which side you're on. (Z\*)

MOLE: I knew it ... you're a bad guy. I'm gonna give you the ol' one-two. One-two! (falls flat) Woops! (bumps Bragodharma, who falls on face. Bragodharma gets up, holds nose, and yells)

BRAG: Ow! My NOSE my NOSE my NOSE! Oooh you made me whang my NOSE! Oooh! (runs off howling) (A\*\*)

MOLE: Gosh! Is Eddie ever gonna be proud of me! (exit)

Gangsaran, up loud. (more chaotic fighting)

(enter Bear) Gangsaran fade out, to silence.

BEAR: (B\*\*) What's going on?! We're losin! I musta been NUTS.

I can't let da Boss lose! What am I gonna DO? I don't want nuttin to do with those guys and all their trouble. I gotta help the Boss! Hey ... maybe the Song? The one the Boss got from the Thoom? It's supposed to bring good critters, but maybe it'll get rid of bad critters too? I gotta try it, anyway.

Gamelan: Magic Song of Joy. (Bear sings, bad guys run by in terror, smallcritters gather around Bear, Bragodharma runs by, but stops and listens a moment) (C\*\*)

PAN: (enters) Good ol' Bear! (Bear covers face and bows, enter Sleeping Bull and soldiers)

BULL: So, Great Pan, your purpose is accomplished. The evil ones are scattered and the good are gathering around even now. Sanganyeki must be content to eat carrots, and Bragodharma still nurses his whanged nose. So it is that a multitude of living creatures shall inhabit your lands forever. Come friends ... to the Southern Meadow and the Sacred Forest! (Sleeping Bull heads off)

Gamelan: Happy Mongoose. (parade to forest, all move left to right in any order, several times) (near end, Bragodharma humps across left to right, yelling)

BRAG: Duh, hey! Wait for me! (D\*\*)

(kayon up, twirl, slap, lights out)

Music up and end.

END



ANNOTATIONS FOR "THE GREAT GOD PAN'S SKY JOURNEY"

N.B. "Narrator" simply means a speech by the dalang himself, i.e., not giving a voice to a character.

These annotations were written long before the writing of my play "Pāṣugamana", and some of the problems mentioned herein have since been solved as can be seen in the script of the latter play.

A.) Kayon at first is sitting in the center, upright. Removed from center. Much flourishing, replaced slowly as piece ends (one-handed, as other hand is striking keprak).

B.) Not "sung" exactly. I used a three-note chant pattern borrowed from the standard method of reciting the R̥g Veda.

C.) These three lines are spoken, very quietly.

D.) No sansa ever used; it didn't fit.

E.) Translation to vernacular. I was afraid people might not understand that this was a translation of the foregoing, but apparently everyone did. This is the very first part of "The Book of the Thoom", equivalent of Genesis, chapter one, verse one. It is also what the shadowplay will be all about. Ironically this is the ONLY Thoomese writing with a definable place in the Book of the Thoom, although other similar writing exists. Presumably, the Book will take definite form at a later date.

F.) The kayon is used whenever necessary as a "prop"; see use later, in this play, as a mountain and as the Sacred Forest. We have not yet built up a set of conventions regarding its use beyond this (eg., direction of slant, etc.). Presumably such conventions will come about as we perform more shadowplays.

G.) The flute mentioned is of the shakuhachi type. The player had trouble with it, as may be heard on the tape.

H.) Pan holds a set of panpipes, attached to a stick which is held parallel to the arm-stick. He enters from the right because he is one of the "good guys". His speech is stiff and ceremonial, reinforcing the serious tone which has already been set.

I.) Bear, in true sidekick fashion, holds the same values as his master, but is not so dignified; he's much more "human". The audience will admire Pan, but identify more easily with Bear.

J.) Cheng-cheng; term is borrowed from Balinese gamelan (where it is a very different instrument). Here it refers to the assembly of metal plates, operated by the dalang's foot. I've never been able to remember the REAL (Javanese) name for this, no matter how often I've looked it up, and my confusion has been compounded by Mr. Oemartopo's practice of calling it "keprak". I've used an oblong wooden box without lid, struck on the large surface, as a keprak. Recently, I have designed a new type, consisting of a hardwood bar tuned to "six" over a wooden resonator.

K.) For the second night's performance I interpolated an extra line for Bear, after "You look awful": "Want a little red

candy? ... it'll make you feel better." This, of course, broke up the audience and the gamelan even more, as we had performed the "Little Red Candy" song earlier in the evening's entertainment. The song will be further explained later in this paper. I would like to do more of this sort of improvisation, but am still so new to the medium that I don't dare. Given enough time with wayang tholi, I'll get to it and the plays will be better for it.

Kathy (about whom more later) has identified Bear as the wayang equivalent of ME, and I'm inclined to agree. While the Great God Pan is the Thoomist deity to whom I feel closest, and who represents the ideal Person to me, I must admit I think and act (and even look) a LOT more like Bear.

L.) Mongoose jokes have come to be part of the "gamelan subculture" at Goddard, mostly because of my gamelan composition "The Happy Mongoose", which I wrote in honor of my sister-in-law, who has taken the mongoose as her totem (indeed it is a good choice, as she looks much like one).

The very mention of a mongoose strikes many (most?) people as humorous, perhaps because while most people are aware that it is in no way a "goose", they don't quite know what it is. In actuality there is nothing particularly funny about a mongoose. It's a nice sort of weasel, rather cat-like in some ways.

M.) A good deal more could be made of this part, and WOULD be in a Javanese wayang. The brevity of this and similar scenes is a concession to the comparative impatience of our culture

in matters theatrical.

N.) Sleeping Bull in Thoomism is the guardian of the open spaces, such as meadows. His colors are red and brown, his direction is south. It is Sleeping Bull who copulates with Mātā Bhūmih (Mother Earth) in the springtime, thereby regenerating the world for another year. In Thoomist pictures and charts, etc., Mātā Bhūmih is represented as a cow, or as a white nannygoat, depending on circumstances.

O.) Pan and Bear do a good deal of passing both ways across the screen. This is to indicate passage of time in walking to the Southern Meadow, and to actually pass time while the gamelan plays. It is, however, OK if the screen remains blank at times, or if the figures remain silent and static, while the gamelan plays, as the music is just as important as any other aspect of the performance.

P.) Sanganyeki is a thoroughgoing meanie most of the time. It's hard to imagine anyone feeling any kindness or pity for him. In this respect, he is a completely Western character, a Javanese villain would have some redeeming virtue; and so important a villain as Sanganyeki would likely be almost as noble as "the good guys".

The design of this puppet is mine, as are almost all the puppets used in this play and in Chris Pattons' play, but the name is Chris's. This and other names came to him from some unknown inspirational source, and I think they're quite good. Sanganyeki's

name and character, etc., have been previously set in Chris's play "Ardjuna Re-awakened".

Q.) Bragodharma was also named by Chris and designed by me. As with Pan and Bear, the sidekick is more human than the boss, and as will be seen, Bragodharma became almost lovable in this play. This was a development of character, as he was little more than a fool in Chris's play. Further development took place in Kathy's play, where he became a deliberately illogical borrowing, and thus could be cast however desired. It was as if he were a real person acting a new part, no longer obliged to be what he was in my play or Chris's. The "hitching" entry of Bragodharma is hard to describe, but can be seen in the videotape. I THINK I borrowed this from something I dimly remember from a Javanese play, but I'm not certain. It gives the impression of uncouth scratching. The "bad guys" enter of course from the left. Usually all characters will enter from below the screen, often slowly, and often with a hand-gesture as if pulling themselves onto the scene. Note again that the master's speech is more formal than the sidekick's, though Sanganyeki must not be allowed to approach the verbal dignity of Pan, his good-guy equivalent. Sanganyeki's constant swats at Bragodharma's nose are standard slapstick routine, and quite inevitable, I think.

R.) Here we have the first hint of the pro-vegetarian propaganda which sometimes subtly and sometimes blatantly permeates the entire wayang. It is the dalang's privilege to preach as much

as he likes, and I must say the audience accepted it with good humor.

S.) The idea that Sleeping Bull might be both a deity and pompous struck the audience (and the gamelan-members) as immensely funny; and it is one of the more unusual features of Thoomism; but the unapproachable God of Perfection is not by any means a world-wide concept.

T.) "Suryakrodha" is an excuse for a violent dance by Sanganyeki, who must work himself into a lather, so as to be as evil as he can be.

U.) The original images of the Thoomist deities are linear designs, hence they do not adapt to ordinary wayang puppets. Pan was no problem, as he is not directly represented in Thoomist iconography, being represented as bamboo, grass, leaves, blue flowers, and other appropriate symbols. Hence I was able to invent a more ordinary visible form for him; in this case a sort of dignified billygoat (not at all contradictory, as those who have known goats can attest), having the thin refined look possessed by such Javanese characters as Ardjuna. Since Sleeping Bull is so abstract in shape and since it was necessary to have some part of him move, I had to make his eyes movable. Defects in the design of the mechanism to do this turned out to be an advantage. I found I could not only move the eyes left to right, but could get a comic bobbling effect, which everyone enjoys. The snoring and pomposity of speech are also funny, but Sleeping Bull is not quite as silly as he may seem, nor as sleepy.

V.) Pan's "good old Bull!" is immediately understood by the audience as also meaning "good old bullshit again", but Pan avoids such direct vulgarity, and brings Sleeping Bull back to the point.

W.) This procession is the "sky journey" of the title. While they begin by climbing quite earthly mountains, represented by the greatly-slanted kayon, they must pass into Another World in order to arrive at the place of Thoom, who is the governing deity of the entire system. This passage into the Other World is symbolized by flying, which can be very nicely depicted with a shadowscreen. It is uncertain if Thoom lives on the moon, or if he IS the moon, or if he lives in some undefined nether plane; and the ambiguity is an important part of it. Thoom may be approached, but only because of, and by means of, extraordinary events and procedures, and great mystery surrounds it all.

X.) I must work out some standard way of spacing sticks, pivots, etc., so that it is easier to get the puppets to do a graceful "namaste-gesture". At the moment, it is somewhat difficult to do smoothly.

Y.) Pan addresses Thoom in Thoomese, a literary language used by the gods in addressing Thoom, and by mortals in addressing ANY of the gods. It is not a vernacular, nor is it the True Language of Thoom, but only a kind of interlingua.

Z.) Bear must paraphrase what Pan has said, so that the audience will understand. This is like the standard Balinese

practice of lower-caste characters translating the Kawi of the upper-class characters, via paraphrasing.

A\*.) Sleeping Bull is stuffy again, but it is as much through his intercession, and through the Great Avenging Bird's guidance, that Thoom produces the solution to the problem. Sleeping Bull's concern is an essential ingredient for the solution.

B\*.) Pangkur was used almost arbitrarily. I'd written a verbally appropriate song, in Thoomese, but it was musically unsatisfactory. Frankly, it is hard to cast Thoomese into a basically Javanese melodic style, without doing violence to the proper speech-rhythms. However, it seems that Javanese texts are also wrenched out of rhythm, at times rather badly, so perhaps I should be less fussy. At any rate, the problem of Thoomese Gerongan remains to be solved.

To the amusement of the gamelan, "mushrooms" kept coming out as "mushworms" in rehearsals, a piece of idiocy which has somehow worked its way into my everyday vocabulary. I finally gave up worrying about it, and don't remember which happened during performances. Here we have more vegetarian propaganda.

D\*.) Note that while Sanganyeki calls Bear "dolt", much as he would address Bragodharma, he is not so incautious as to attempt a nose-swat.

E\*.) The lines about shackles and chains really broke up the audience.

F\*.) "Baaahd" is delivered like a goat's bleat. Hardly



anyone caught this, and I still don't know why. A few gamelan members finally caught it after numerous rehearsals, and thought it immensely funny, but for some reason it isn't at once obvious. Who can explain such mysteries?

G\*.) The head-scratch is a gesture peculiar to Bear, an essential part of his total personality, like Bragodharma's rump-scratch, Sanganyeki's "swat", and so on. These gestures happened as if by accident, and there was no conscious thought of having them be part of each character, yet obviously this is of great importance. It is a "theatrical inevitable".

In an early draft of this play, I had written something (near the end) explaining that all bears were condemned to be somewhat carnivorous but with vegetarian leanings, as a result of Bear's temporary fall from grace. I quickly removed this as being much too near to the Christian Fall From Grace, and smacking too much of silly tales of "how the leopard got his spots" and so on. It is also not good Thoomism. Bear never ate anything non-vegetarian, and never will. He was merely tempted, or perhaps only confused.

H\*.) Little interludes by narrator SHOULD be chanted somehow, but this idea never got off the ground. It would have to be done in English to be of any use, and we just aren't accustomed to using English this way. It is a rather formidable obstacle.

I\*.) Gangsaran for fight is here done in pelog for maximum tension. Later during the battle in which the "good guys" win, gangsaran is played in slendro as an indication that all will be

well. We have a feeling of familiarity with slendro, lacking to our ears in pelog. Indications are that the Javanese perceive the two scale systems as tense (pelog) and relaxed (slendro) also.

J\*.) Blatant vegetarian propaganda. Note that we never see anyone killed, a Thoomist vegetarian refinement, or perhaps merely over-reaction to the deluge of TV violence.

K\*.) "Mousefart" is the one and only obvious vulgarity allowed in this play, and I thought myself frightfully imaginative to have come up with it. Later I learned that "sparrowfart", which is much better, has been in use at least since Elizabethan times.

L\*.) The "gang puppets" representing the armies were designed some time ago by a gamelan member now forgotten. I find them excellent, and intend to copy them forever as our stock design. They were ~~designed~~ after I described a rather hazy memory I had of the Javanese type. As a result, they have much the flavor of a Javanese "army-gang," but also have their own flavor. I particularly like the smokestacks in the background of the bad army. Concern over pollution was at this time just reaching the college population.

M\*.) Old woman and daughter. I must have gotten the idea for these people, and for the "getting a husband" routine, from having read about the Javanese equivalent. However I don't remember it, and I honestly thought it my own invention. It may have been, but the fact remains that it parallels the Javanese wayang tradition. Much later I saw this scene done by Oemartopo. Here the daughter was huge and pig-like of face, and the mother tiny and thin, and it

was the daughter who was anxious to get a husband, rather than the Mother anxious to marry her off. [As in my play, the Javanese Mother and daughter, though ugly physically, are sympathetic characters. I was surprised to see Oemartopo link this scene to people in the gamelan. In my play, the "handsome cat" near the end of this scene is the dalang, i.e., myself. I am something of a "character" at Goddard, mostly because of my passion for navy-blue hooded sweat-shirts and rubber zorii.

N\*.) This brought a grim and bitter laugh from the audience; just what I'd hoped for, but I was surprised that the anti-war bit came across in a "throw-away" line like this.

O\*.) Proved too hard to do with bird and both bad guys, so I did it with bird and Bragodharma only. A silly and pointless routine, perhaps, but fun nonetheless. I should have had an assistant to do the bird, as there was a good routine of Bragodharma grabbing Sanganyeki and sort of riding out piggyback as they escaped, but this required two hands (at least) for the Sanganyeki and Bragodharma puppets alone.

P\*.) Puppets, standing at right of screen, slanted to face down and left to indicate sleep. Bear paces in insomnia, to show that he is in mental conflict.

Q\*.) Moon travels very slowly to the right. Eventually the moon touches Bear's head, indicating onset of sleep. The moon exits as Bear goes to sleep.

R\*.) The insert, accompanied by solo gender barung.

This is not on the videotape, and I had not planned to do it in either of this year's performances, as I had no gender player. It was done the second night, since Chris Patton showed up to see the play, and offered to play gender if I'd do the insert.

Historically speaking, the first performance of this consisted of my making a tape-recording of the text, accompanying myself on the four original gamelan instruments (see "kitten on the keys" photo). This happened many years ago. Somehow, the interlude wandered into the first performance of this shadowplay, as a sort of excuse for change of mood both musically and dramatically.

The interesting thing to me is that even though it is only very weakly linked to the main plot, and even though it has almost no literal meaning, a fair number of people told me afterward that they had found it to be the "best part", or "very moving", etc. The entire insert would seem to be pure Dada, and packed with internal contradictions, which is how it was originally conceived. I like it too, but I can't account for its evidently strong effect on some people. Strange and wondrous are the workings of Thoom.

S\*.) The "moon-song" wasn't sung, just recited. It should be sung.

T\*.) The "moon" is turned slowly to show its shape. This requires a wooden three-dimensional moon.

U\*.) The five stations in the sky were done by starting at left of screen with clenched right hand, and moving in an arc across to the right, opening hand gradually toward "moon" and re-

closing on the way down. I caught a pleased "ooh!" from the audience on this. The puppets for this interlude are abstract shapes, except for Small Cat, and there is no dialog. Thus the whole thing has a different feeling from the main story.

The Small Cat<sup>1</sup> is a Thoomese literary convention for the ordinary person looking for "enlightenment" (or whatever it is) and part of the way there, but still somewhat confused.

V\*.) I wanted to do the entire Ajak<sup>2</sup> medley, but didn't know if the audience would be bored and settled for gara<sup>2</sup> only.

W\*.) Fake monkey-chorus (vague imitation of Balinese) for general excitement. The two lines of Thoomese mean:

1.) "Conflict is coming to the Nayas" (those people characterized by basic integration, stability, kindness, sanity; hard to describe, but important in Thoomism). Naya is also the name of a sort of "earthly paradise", somehow geographically overlapping the ordinary world, but distinct from it; not by any means a "never-never-land", but something RIGHT HERE; yet a considerable mental readjustment is necessary if one is to be IN this place.

2.) "Let the battle begin."

X\*.) This begins the "blossom battle". We all know the Good will win.

Y\*.) The conversion of Bragodharma. Chris wasn't so sure this was a good idea. I thought it was inevitable, and still think so.

Z\*.) Pointing up the good guy/bad guy thing is basically

silly in some ways, although the entire shadowplay revolves around it. Bragodharma's "that all depends ..." line got a roar of laughter. I thought it mildly amusing when I wrote it. One never knows what audience reactions will be.

A\*\*.) Much improvisation after "whang my nose". In the performance a final speech for Sammy; "Gee, I did it, I did it! sort of ..." got a big bellylaugh from the audience.

B\*\*.) Just after Bragodharma realizes his error, Bear realizes his.

C\*\*.) The "little critters" who come on (after the bad guys run away) are simple cutouts, very small, on a central dowel of the smallest available size. After entry, their sticks are fitted into holes in a block of wood, which in turn has a larger dowel at the base, inserted in the rail. Thus they can be moved off at the end as a unit, without giving up the possibility of bringing them in separately.

One or two audience-members afterward told me they liked these four "critters" a lot, even though they did nothing but stare at Bear and follow him off. This is the central climax of the play, and is simply a dramatized statement of the power of music. I wish I could have used a different text, as this one is unsuitable, even though the music itself is extraordinarily beautiful. Hopefully, I will write an appropriate Thoomese text to substitute for the original.

D\*\*.) The proof of Bragodharma's conversion. Presumably

everyone expects it, but its' nice to have this as a secondary climax  
in addition to the main one.

SHADOWPLAYPĀṢUGAMANATHE ADVENT OF THE BIRD

Introductory dalang-song, invoking Thoom's protection.

Gamelan: Suryakrodha. (open two kayons, do a few flourishes, plant good kayon at right, but slanted left, bad kayon off)

(enter Prince Balavān from left and flip)

(enter Prince Bhoḥkhaḍga from left)

Stop music.

BHOHKHADGA: Balavan my brother! I got your message and hastened here to you.

BALAVAN: Bhoḥkhaḍga! Well met, brother. (extend four hands)  
(spy servant sneaks up to hear behind kayon)

KAD: I take it something special is afoot? As you know, I have been on shipboard these ten months, and only yesterday did we touch shore, so I have but a faint idea of what may have come to pass in my absence.

BAL: Brother, it is not so much that EVENTS have come to pass, but that my mind has ever darkened with the thought that King Dagumukha, old Sheep-face, has got the Holy Mountains and the Sacred Forest, and innumerable other beautiful and awesome places within the bounds of his kingdom. And



brother, it is my intent to TAKE these, and you shall share them equally with me. DAMN King Dagumukha and damn his big fat Roman nose too!

KAD: But is it not true that Raja Dagumukha has often said that anyone is welcome to visit these places and walk in them to his heart's content? And that no person shall be denied free passage through these lands, nor shall he be denied the privilege of living peacefully there? Is it not said that the King allows all to come and go in his lands as they will so long as they do no harm? Really, I'd thought him quite generous.

BAL: Yessss! He has said "Come ... look on my lands ... see what I have, and desire it. You may look, you may even stay forever, but you may not HAVE this. Well I SHALL HAVE IT! I shall have my desire! My will shall be done!

KAD: Alas, my brother. I have ever been unable to understand such things. Perhaps that is why you are ruler of this kingdom, while I wish only to travel about and SEE things and be among different peoples. Well, no doubt you know best, for though we are both princes of this realm, I am really but a simple man, and I bow to your superior judgement. Truly I will face any peril for your sake. Only tell me what you wish me to do and I'll do it at once! For by the God of Swords, you are well nigh the only one in the universe who can command my entire respect and devotion,

and my whole being. For YOU, my brother, are the very embodiment of manly strength.

BAL: What could one want more than to have as his own brother a man so brave and faithful?! Come, dear brother. We will go to the inner chambers, there to consult with our advisors on how best to accomplish our purpose: to wrest Raja Dagumukha's lands from him!

Gamelan: Suryakrodha, softly. (the princes go out)

SERVANT/SPY: Oh what evil news! Yet now is my purpose accomplished.

I must stand near the door of the inner chamber to hear the rest, then go to my true king, Raja Dagumukha, and tell him what is afoot. (tears his hair and paces back and forth) O woe! O misery! Tonight, this very night, I GO TO THE KING!

Music up loud. (he exits) Then stop music.

NARRATOR: Now morning comes, and we see King Dagumukha in his palace, peacefully contemplating the beauties of this world.

Dalang-song B.

Gamelan: *Rdī Nārah*. (enter king, enter servant) Stop music.

SER: (bowing and staying leaned forward) O your majesty, great Raja Dagumukha! I come in fear and trembling and great distress. Well you know that I, your humble servant, have dwelt for many years in the court of Prince Balavan and his brother Prince Bhohkhadga. And well are they named, for, as your majesty no doubt knows, "Balavan"

means "the strong one", and "Bhohkhadga" means "great sword". They are mighty princes, and are of strong will, and they have united their purposes into one, and their plan ... ( I know not how to tell you of such an awesome thing!) ... their plan is to attack your fair land, which is MY true homeland as well and to wrest from us the lands which contain the Holy Mountains and the Sacred Forest with its music (king rears back, astonished at this), and they even DARE to make an attempt upon the Hidden Garden of Delight!

KING: (loudly) What MADNESS is this?! Folly it is, most extreme folly, to attack us, and to have designs upon the Holy Mountains and the Sacred Forest. But it is madness beyond all comprehension to even THINK to set foot within the Hidden Garden of Delight without the blessing of the Only One who may say it is his ... the Great God Pan! (quietly) Blessing be upon his name. (both bow) The Hidden Garden of Delight they may not wrest from me, for though it is at the center of our kingdom it is no more mine than it is Prince Balavan's. As for the remainder of my lands, (loudly) how DARE they think of it!

SER: Your majesty, they say that it is for the desire of the BEAUTY of these lands and mountains that they must have them, and that they WILL have them.

KING: Have I EVER forbidden that they should go into the Sacred

Forest and find the peace and wholeness of the music there? No! I have proclaimed that ALL people may enter the Forest, so their intent is good. And the Holy Mountains: they are full of many mysteries, and in all of our long history we mere human beings have seen perhaps one one-hundredth of what is there, and we understand not even a tenth of THAT. Though I claim these mountains as mine, as they were my father's, and HIS father's, and so on back through time, have I not OFTEN proclaimed throughout the known world that any person of worth may traverse these places and learn what he may, and tell what he will of what he has learned? Verily, I am exceedingly wroth with this Prince Balavan and his brother Bhahkhadga, and most of all with their grasping and presumption! (pause, breathes heavily) But YOU, my good and faithful servant and friend. I thank you for the news, though it is hard news indeed. And I thank you for so long living in that land so far from this your own land. Now do I release you from your self-imposed exile, and set you among the highest princes of this land, for you have borne the heaviest burden of all, which is the burden of living far from one's own true home. Furthermore I do release you from any obligation to take part further in the struggles which now must inevitably occur, for you have done enough for ten men in giving so much of your life's TIME

to watch and guard in a far-off land.

SER: (Bows even lower and stays) Your majesty, I thank you for this praise and kindness. But I would serve you more and beg to be allowed to act as an advisor to your generals, for I know much of the lie of the land in your realm, and of the structure of Prince Balavan's palace, and other such matters, and it would ill befit me to retire now; for though I am advanced in years, yet am I advanced in knowledge and common sense, and I MUST help! (touches forehead to king's feet)

KING: So be it ... and well done, thou good and faithful servant.  
Go now, and our thanks go with you.

(Servant gets up, bows, exits)

Gamelan: Manjar Sewu. (enter Queen: Rani Prabhutaratnakara)

Stop music.

KING: Ah, my beloved Queen. How happy I am to see you.

QUEEN: Oh George, I've been listening outside the door ... and it's just AWFUL! Whatever shall we DO?

KING: Do? Well, a rather nasty battle or two or three seems inevitable, and we really aren't set up very well for that sort of thing. Humpf! Well, if I'm to be a PROPER king, I'll have to do the kingly sort of things, won't I? Well, here goes. (passes queen, facing out, cups hand to mouth)

Stop music.

KING: (loudly) Now let our advisors come and counsel us in this  
dark hour of our direst need.

Gamelan: Entry of the Advisors ostinato. (king returns toward left  
of screen, flips facing right, queen exits, advisors  
enter, young advisor first, old advisor second)

Stop music.

KING: O wise advisors, it has been told to me that Prince Balavan  
and his brother, Prince Bhohkhadga, design to come upon  
us and wrest our lands from us by force.

OLD ADVISOR: Heh, heh, heh. Foolish little men they are! They  
know this land is yours ... but they also know that much  
of it is owned together by you and King Prabhuloka, father  
of Prince Ardjuna. Do they think that Prabhuloka and  
Ardjuna will stand idly by? Heh, heh, heh.

KING: Hmmm! Perhaps I should speak with Prince Balavan and tell  
him that we know of his intentions. Perhaps when he con-  
siders that King Prabhuloka and Prince Ardjuna are with  
us, he will be less eager to attack.

YOUNG ADVISOR: (saluting) Your majesty sir, it would be most  
unwise to speak with those evil princes. Better to attack  
them at once and wipe them off the earth, for surprise may  
gain what strength will not.

O.A.: Heh, heh, heh. This young fellow has a hot temper, doesn't  
he? Well, it hardly seems right to attack THEM before  
THEY attack US, does it? Maybe they'll think better of

the whole affair before it gets underway. And in any event, it is all foolishness ... heh, heh, heh ... flies buzzing over carrion. When we are gone, what will we care about such things? And how can evil people hope to take the Hidden Garden of Delight while Pan is there? When he is in his own land, evil ones may not even LOOK upon him and survive. That place, at least, is safe forever, so long as Pan abides there. And what does it mean "to OWN" a place? When you are gone, will you still OWN it?

KING: As usual, you gentlemen have advised me and I am none the wiser. CONFOUND it, why must everything be so COMPLI-CATED?! Well thank you both. I'll do what I can.

Gamelan: Entry of the Advisors ostinato, quietly.

Y.A.: Very good sir! Good day, your majesty. (salutes and goes out)

O.A.: Heh, heh, heh. Goodbye, George (bows) and good luck. Whatever you do, it won't make much difference in the long run, will it? Heh, heh, heh. (exit)

Music louder, as old advisor exits right. (king leaves right)

(here is an appropriate place for an insert)

NARR: We enter the palace of King Prābhuloka and his son the great Musician Ardjunā.

Gamelan: Monggan.

Dalang-song C. (enter King Prabhuloka, plant facing right)

(enter Ardjuna)

Stop music. Dalang-song D.

PRABH: Ardjuna, my son!

ARDJUNA: Greetings to you my father, great King Prabhuloka.

PRABH: Is it well with you, Ardjuna? Does Thoom smile kindly upon you? Does Pan bless you with a multitude of goats? Does Sleeping Bull grant you peaceful hours in warm meadows? Does the Great Avenging Bird of the North give you strength and wisdom and gentility?

AR: O my good father! Were it only so fine and good! Would that the world were so simple ... so much in order!

PRABH: What, then?! What has made you so unhappy?

AR: While in the garden just now, tending to some trees and rocks, messengers came from Raja Dagumukha. They said that Prince Balavan designs to take King Dagumukha's lands and mountains from him by force. They say that our aid is asked, as you and the King Dagumukha hold many of these lands jointly.

PRABH: Great Thoom! I would aid him in ANY event. Long have I suspected Prince Balavan of evil purposes, and now my suspicions are verified. This will mean dreadful battles, I fear, and I am greatly saddened by this thought.

AR: But, father, can you so arrange things that YOU will direct all aspects of this conflict? For indeed, poor old King Sheepface scarcely seems suited to such a task.

BRAPH: (gently rebuking) My son! Though the king's name does



indeed mean "sheepface", don't you think it sounds

NICER In Thoomese?

AR: Father, I am humbled!

PRABH: Besides, George is not so silly as he may appear. Perhaps he lacks the skills of ceremonious speech and gesture which common folk have come to expect of a king, but he often sees matters more clearly than other men, and he is above all a GOOD man; and THAT may balance a large number of defects in lesser matters; such as, for example, a comparatively limited stock of well-turned phrases in his speech.

AR: It is so to be sure.

PRABH: Let us retire now to the council-chamber, and call our advisors.

Gamelan: Monggan, softly.

PRABH: And you, my son, will have a great part to play in this battle, though the knowledge grieves me. Your proper tools are not swords and daggers and spears, bows and feathered shafts of death; but rather are they the flute, the vina, the sweet-sounding viols, the lute, the noble peroonavet ... but these are hard times.

Music loud. (they exit) Stop music.

Gamelan: Manjar Sewu.

(enter King Dagumukha from right, flip to face right, enter Queen Prabhutaratnakara from right)

(Brāgodhārma sneaks in from left, singing "doot doot doodah, etc.)

BRAGODHARMA: Ooh! (signals back) Psst ... come on ol' giant!

Sumpin's goin on in da palace here! Come look in da winda!

KING: And now, my dear, the time has come when I must leave you,  
and go into battle. Oh how it pains me to depart from  
you, knowing I may never see you again. Forth I go into  
battle, never flinching, ever true blue! But frankly I'm  
scared silly.

QUEEN: (patting his hand) There, there dear, I'm sure everything's  
going to be all right. After all, we're on Ardjuna's side  
and he's on ours, so what can go wrong? Right will  
ALWAYS win.

KING: Mmmmm yes, but it can be jolly uncomfortable while it's  
getting there. Oh well, I suppose there's no way out of  
it. One's duty MUST be done. Farewell, dearest, and may  
Thoom guard you while I'm gone. (exits fast to right)

QUEEN: (waving and looking after him) Farewell! Farewell!  
(SOFTLY, WRINGING HANDS) Oh DO be careful George. (exits  
to right)

Brāgodharma and Giant giggle and laugh, go to center)

BRAG: Duh, parting is such sweet sorrow!

GIANT: Ush!

BRAGO: Farewell, dearest lil ol sweet-heart o' mine! (kisses the  
giant loudly)

GIANT: WAGH! (wipes his mouth)

BRAG: C'mon ol' monster ... we gotta cream dem creeps! (exit to left)

GIANT: Wagh! (pulls self off screen to left) Ush!

Music up loud and end.

(enter Snowmobile Giant from left, much vroom-noise, he runs back and forth, comes to a stop)

SG: Ah! Snort! (oinks like a pig) Now that hunting season's over, there's nothing like getting out the ol' snowmobile and takin er round the trailer a few times!

(enter big giant)

GIANT: Wagh! Ush! Hey, YOU! Gee, you're da ugliest thing I ever saw, and I REALLY know about ugly! Wagh! ALL that noise! Hey, you know? You could be real handy in da fight! You could drive Ardjuna and all dat bunch right up da wall!

SG: (oink) Great great great (oink) Where do I start?! Wow! I can buzz their tents! I can throw beerbottles all over da place! Oboyoboy I can't wait! (goes off left, with much vrooming)

GIANT: (gazing after Snowmobile Giant) Wagh!! (pronounced as if ready to throw up) (exit)

NARR: (in best radio-voice) Meanwhile, back at King Prabhuloka's palace ...

Gamelan: Manjar Sewu, softly.

(enter King Prabhuloka, flip to face right)

(Enter Ardjuna and Kitathaka together) Stop music.

PRABH: It's time now, Ardjuna, my son. We must go to do battle.

AR: Father, I welcome it, for I would crush the evil ones.

PRABH: How young you are, though you have lived this life for  
thirty years! You have heard tales of glory in battle,  
but you have never seen death by violence. You will see  
it now. If you live, the lute will seem the sweeter and  
the sword more bitter for the experience. But I wish I  
could spare you that experience. Still, though I fear  
for your life, I do not fear for yourself. I know you  
well, Ardjuna, and know you are the embodiment of both  
justice and goodness. You will do no wrong in battle.  
And if you die, and if I die, we will have done well at  
least, and no good deed can be lost at the end.

AR: I wish you would not speak so, Father. I wish it were all  
clean and clear. The blood of the evil-doers to run  
sparkling in the sunlight, the good to march away trium-  
phant. Alas! I know it is never so, nor is it ever half  
so simple. What should I do? How can I do RIGHT when I  
must do the WRONG of killing? What is the answer?

PRABH: There IS no answer. But can one be mistaken in attempting  
to be as merciful as he may?

AR: Thank you, Father, for this advice of mercy.

PRABH: I assume that Kitathaka will bring a drum?

AR: Yes, Father. For at night, after a day's battle, we may cheer

ourselves somewhat with music. I shall take but one  
flute, but that will suffice.

KITA: Yeah, man, I wouldn't go ANYWHERE without my axe!

AR: (turns right) Kitathaka, my good friend and fellow musician.  
It will be a perilous experience.

KITA: I dig, man ... but giants and demons and all that don't  
worry ME. I'll just give 'em the old araichapu, and then  
a couple of tarigidus and a thom or two!

PRABH: But we must go. Time, precious TIME is passing!

Gamelan: Manjar Sewu. (King exits, Ardjuna exits, Kitathaka  
dances a bit to right and left center, then exits) Stop  
music.

NARR: And so King Prabhuloka and Prince Ardjuna and all the rest  
left to join battle. It was not long till the armies met.

Gamelan: Gangsaran pelog. (chaotic fighting of two army-puppets,  
or two kayons) STOP.

DALANG: (spoken) He Nīyagi gamelan nāzhavādu Śrī Sanganyeki  
tasya gending.

(enter Balavan and plant at once, facing left)

Gamelan: Sri Sanganyeki signature-tune. (Sanganyeki enters,  
dragging a captive lady and laughing obscenely, flips  
from left) Stop music.

SANG: O noble Prince Balavan, see THIS! I bring you a captive  
woman. She's even prettier than her sister. In fact,  
she's the prettiest woman we've captured, so I brought

her to YOU, O noble Prince, for you should have the BEST.

(turns and tickles woman under chin, she recoils)

Ah, my pretty one, lovely as you are, you truly belong to Prince Balavan. I shall have your sister, and she is beautiful enough to suit MY fancy. Heh heh! You'll fare better than your sister, for when I'm done with her my soldiers shall have her ... and then we'll see how she likes a little torture!

BAL: NO! (Sanganyeki flips to face him) You foulness. May Deva-nāśanam destroy you, and forgive me for having to make use of such slime as yourself. Hear this! The captives will be treated well. They will eat the same food as our soldiers, though that's bad enough. Kill Ardjuna's troops and Ardjuna himself if you can. For I will have what I will! But if I hear the slightest rumor of wanton cruelty on anyone's part, that person shall die at once. Now go! Relieve me of the stench of your soul! (Sanganyeki backs up, hisses, and flees) Come lady. I will put you in the care of the ladies here in my palace. Although your people shall pay dearly for attempting to thwart us, and although you must yourself suffer the pains of captivity, I will allow no one to practice willful cruelties. Please believe me when I say that I deeply regret the necessity of slaying all your people. (slow and loud) But I will have my way!

(they go out, lady first, covering face with hands, leaning toward left)

NARR: Now we come to a meeting of Sanganyeki, chief of the demons,  
and Rūgamagāla, the fire-breathing dragon.

(enter Sanganyeki and Rugamagala) (masonite "bwoop"-noises)

SANG: So, my fine dragon-friend. How goes the battle in YOUR neck  
of the woods? Have you burnt our foes to a crisp with  
your firey breath?

RUGA: Haaah! I've done my best, but nowadays that's little enough.  
I must conserve my fire for the direst need.

SANG: How so, o hot-lips?

RUGA: It's this damn gas-shortage! You don't think all that fire  
just happens, do you? No, I must drink gasoline ...  
gallons and gallons of the nasty stuff; and it's hard  
enough to get gas sufficient for a Volkswagen, let alone  
a dragon. (wanders off left) Oh! That I should live to  
see such hard times!

(exit Sanganyeki left)

Gamelan: Brāgodhārma's signature-tune.

(Bragodharma enters from left, dances about, sings "Bra-go-dharma"  
at appropriate spot) Then stop music.

BRAGODHARMA: (still dancing) Doot doot dee-doot ... boyoboy we'll  
fix 'em. I'm gonna clobber dem guys. I may be a LITTLE  
giant, but I'll clobber 'em. They'll find out SIZE ain't  
everythin'. Duh, A SHARP MIND is where it's at!

SANG: (enters briskly) Heh heh heh! (sings) I love me a bushel  
and a peck, a bushel and a peck and I'll break your  
bloody neck. Out of my way sonny. I've got business to  
attend to!

BRAGO: Yeow! (shivers) Duh, who are you?

SANG: I am Sanganyeki, chief of all demons. I am the most intelli-  
gent, the wickedest, the most EVIL demon of them all!

BRAGO: Duh, oh yeah? Well if you're so smart, let's hear ya say  
sumpin' in algebra! Gwan gwan! (jumps up and down)

SANG: Very well, my little dummy. Ahem ... (loudly) The square  
of the hypotenuse of a right-angle triangle is equal to  
the sum of the squares of the two remaining sides!

BRAGO: (softly, impressed and admiring) Wow! Gee! You really  
CAN speak algebra. Wow! Hey, you're awful smart! Hey,  
do you need like a HELPER, sort of? I could go along  
witha an help ya out ... like I could carry your algebra  
books and keep your dagger polished. I may not be as big  
as dem other giants, but I'm REAL FIERCE. WAGH!! USH!!  
(jumps around)

SANG: Heh heh heh. Very well then You shall be my assistant.  
You'll be a useful fellow (softly) and STUPID enough to  
do anything I tell you to do, no matter how risky. (loud)  
Come on then! (they exit)

Gamelan: Glendeng. (enter Maw and Paw, start rocking) End Music.

MAW: I had the television on this morning, Paw.



PAW: Oh yeah? How'd it fit? Haw haw haw! (slaps knee and rocks harder) Ehh that war a doozie!

MAW: O Paw, you and your awful jokes! That one was old when I was in grade school. I meant I heerd they's alot of fightin goin on, and the land's jes gitting INFESTED with giants and demons with big teeth and wild hair and black beards.

PAW: Daggone hippies!

MAW: Now Paw, you got no call to go talking that way about the young folks. They ain't demons no more nor you nor I was when we was young. Other times, other customs. Besides, you'd look mighty handsome if YOU grew a beard.

PAW: Hmmm, y' don't say. Well, beards nor giants nor fighting and stirring up a ruckus don't git the garden weeded, and that reminds me ... (points and leans forward) You ever see these youngsters nowadays doin their gardening RIGHT? Oh, there's them what gardens, but they don't plant by the moon, and you never hear 'em pray to the Great Pepper! Nosiræ bob! Fancy trying to garden THAT way. Hah!

Gamelan: Glendeng. (they exit)

(Plant kayon center) Stop music.

Gamelan: Dumdum. Vocals on third and fourth times. (enter Bragodharma from left, hide behind kayon, enter Kitathaka from right) Stop music.

KITA: Wow, what a mess! I gotta get off for a smoke! (walks back

and forth and leans on tree) There! Everything's kinda cool here. We'll just roll up a joint and ...

BRAGO: (jumps out) Wagh! Ush! I gotcha! Duh, o cheese, YOU again! Duh, you're da guy wit da funny-lookin cigarettes!

KITA: Yeah man, alright, ya GOT me. Far out! I'm just as glad anyway. I was gettin tired of fightin and all that. I mean like it's real BORING being a soldier, especially after dark when you're in the barracks and there's nothing to do but put bandaids on all your wounds ...

BRAGO: Duh, yeah ... but we got a swell GAME we play in da barracks when the fightin's done for da day. It's called "cat's cradle" and it's a sorta thing you do wit a piece o string. Dig dis! (he goes at it with a piece of string)

KITA: Hey neat, man! Lemme try that! (goes at it) Far out! Hey, I got a GOOD one. Hold your hands out. (Brago-dharma does)

KITA: (sings) Now ya put this one in, and this one out, doo dat, rabbidoot, do dat (etc.) There! That's a game we call "dumdum". Hah! (laughs) Ta ta now. (exit right)

BRAGO: Hey, no fair! I'm all tied up! (staggers off left) I din't even get no funny-lookin cigarette, this time.

Gamelan: Gangsaran pelog. (fight) Stop music.

(enter King Dagumukha)

KING: Confound it! Of all times for the well to go dry! As if

we hadn't enough trouble with giants and all. And that damned Sanganyeki! He has all the common decency of a whole pack of snowmobilers. Now we have to dig at the bottom of the idiotic well and HOPE for water. With my luck we'll all dry up and blow away. Oh WHY couldn't I just have run off to Canada or something?

(Enter Ardjuna)

AR: Great King Dagumukha, I've come to tell you that I have been praying to Mātā Bhūmih from yesterday's sunset til today's sunrise. Praying that she will release the waters under the earth so that the well will be filled again. And I just KNOW that my prayers will be answered!

KING: Excuse me, Ardjuna my boy, but who is Mātā Bhūmih?

AR: Why, Mother Earth, O King!

KING: Ah, so. I know of her and of her greatness and power, of course. But I only know her as "Mother Earth". You see, folks assume that just because a chap has a Thoomese name he's got to know the whole bloomin' language. I certainly TRIED hard enough when I was a lad in school, but I'm afraid the classical studies weren't for me. (My Father was horribly disappointed, poor man). I studied Thoomese like all the rest of the university chaps, but never got beyond "Ke moy mahāmāto mājalah" myself ...

AR: Pardon me, your majesty, but doesn't that mean ... ?

KING: "Where is the cat of my grandmother?" Quite! Well, there

you are. Some of us have the gift of tongues and others don't. But here comes one of the fellows from the digging crew ... oh, it's good old Eugene.

EUGENE: (entering from right) Dah, good MORNIN yer majesty!

KING: GOOD morning, Eugene. Is the well done, thou good and faithful servant?

EUG: Dah, ya know? It's funny. We only dug maybe a foot or so and da water started conin in, and so we got out fast, and now da well is FULL!

KING: Praise be to Thoom! And thanks to Mata Bhumih! Prince Ardjuna, your prayers indeed are answered! (all exit to right)

Gamelan: Gangsaran pelog, loud. (fight of two gang armies, or two kayons, good guys lose) End music.

NARR: So the armies of King Dagumukha, King Prabhuloka, and Prince Ardjuna retreated to their camp, defeated and downcast. They fell into exhausted sleep, and the moon, who is the Holy Thoom, made his night time journey over them all, good and evil alike, and his radiant face shone upon the land and the waters.

Gamelan: Padang Bulan, two choruses. (moon travels center to right, slowly ... at one point, much twirling and looming of the Thoom) Stop music.

Gamelan:  $\text{Gara}^2$ . (good kayon up center, then dance and replace to right; bad kayon up center, then dance, and replace to left,

then two dance together, parallel and mirrorwise, no actual fighting) (near end, remove bad kayon, good one does fast and fancy stuff; at end replace good one at right, slanted right)

Gamelan: Asmarandānā. (Enter Lumbuk and Her Mother) Stop music.

LIMBUK: Oh Ma! Ma! Help me, Ma!

MA: What's the matter dearie?

LIM: O Ma, I'm getting OLD before my time.

MA: Why do you say THAT, dear? Why you're a mere willowly slip of a thing, barely out of your teens.

LIM: O Ma, I looked in my mirror this morning, just to brush my hair, and straighten my teeth, and guess WHAT ...

MA: What?

LIM: I found a WRINKLE on my face.

MA: What?

LIM: A wrinkle!

MA: Where?

LIM: Right here. (points)

MA: Where?

LIM: Right here. (points)

MA: I don't see anything.

LIM: Right here. (points) Lemme look in YOUR mirror. Maybe I've only got a wrinkle in MY mirror. (she looks long and hard in Ma's mirror) Nope, there it is ... a WRINKLE.

MA: Where?

LIM: Right here. (points)

MA: I think it's all your imagination dearie. (pats her hand)

But maybe we can cheer you up. (loud) Hey, young feller!

YOU ... on the drum over there!

GAMELAN DRUMMER: Yes, Mam?

MA: Have you nice folks got a tune to play for my daughter Limbuk?

Something that might cheer her up?

DRUMMER: Yes mam. We could play "Prunes".

MA: Oh, goodie! THAT ought to do it! (quieter, to daughter)

"Prunes" was a real hot number when I was your age,

dearie. I can still sing it, I think ... ahem! Ahem!

It goes like this: (she recites the poem) (loud) OK

gamelan, let 'er rip!

Gamelan: Prunes.

1.) Fast instrumental, slow down at end.

2.) Slow, female soloist (Ma sings, Lumbuk enters on geronggan at end).

3.) Slow, female tutti (Ma sings, Lumbuk sings on geronggan again).

4.) Fast, instrumental, and end.

MA: There, dear. Did that cheer you up some?

LIM: Yeah, Ma. It always helps when you hear how bad off other folks are. Guess I'll NEVER have the problems a prune has.

Gamelan: Asmarandāṇā. (they go off right) Stop music.

(Kathy's second insert, routine about "Evaline")

DALANG: He gamelan, Śrī Mājalanyāyaprasannah tasya gending tat  
ucchitam.

Gamelan: "Cosmic Radio" version A. If possible, the light source  
is color slide of trees in sun.

(Enter Sage, enter cats, Sage paints awhile)

SAGE: There! The picture is done. Look, friends (to cats), is it  
not beautiful?

(Kitathaka and Ardjuna enter at right) Stop music.

KITA: Hey boss ... dig the crazy cat with the babushka on his  
head! He's gotta be two-hundred years old. How about  
that! We go off to get a breather from the fight and  
what do we get? Some crazy hermit and a bunch of cats!

AR: Is it not possible my good friend that this is one of the true  
Holy Men of whom the Thoomist scriptures tell? Perhaps  
he is wise in proportion to his years, and may give us  
good advice, or at least ease our sorry hearts.

KITA: Well, we'll find out soon. He just spotted us.

SAGE: Ah! What do I see? Why, it's Prince Ardjuna the great  
musician, and Kitathaka, the best drummer in the world!  
Welcome, friends, to the small comfort you may find here  
in my mountain-forest. (cats gather at Ardjuna's feet)  
Oh you are indeed a great man, Prince, for my cats do not  
give their affections lightly, yet look how they greet  
you!

(one cat goes and sits near Kitathaka and says "yow?" loudly)

KITA: (pats his head) Nice kitty ... yeah, man, like, nice kitty!

AR: Good sir, forgive my boldness. But would you be so kind as to tell us how you come to know our names?

SAGE: Certainly. A hermit is not necessarily ignorant of the broad outlines of things, and how could the most retired of recluses be unaware of the great Prince Ardjuna, who is the only mortal who can play every existing raga upon the flute? And Kitathaka, the only human besides great Ardjuna who knows every tāṭa which ever existed and ever will exist! Yet for all your musical perfection, my friends, you seem disturbed. Nay, I might say you seem in MISERY.

AR: O great Sage, I beg you to tell us your name, so that we may remember you and do you honor always, if we should live so long. For though I am only thirty years in this life, I can even now tell perfection when I see it, and surely, great Sage, you are an embodiment of perfection.

SAGE: Heh heh heh. I am called, by the few men who have seen me throughout the centuries past, "Kyaiḥ Majalanyayaprasannah", which, as you will know, means "Venerable Sir Pleasing to Cats". I don't know how "Venerable Sir" I may be, but the cats seem to like me well enough, don't they?

KITA: Yeah, well pleased to meet you, like. We didn't mean to barge in on you like this. We were just running off to



cool our knuckles a bit. Been in a big row down in the valley, and ...

SAGE: (interrupting) Yes, yes ... I know all about it, and a sorry business it is too. Oh the MISERY of everyday life!

AR: But how could you have known what is happening so far below, down in the common middle world, while you live here on the Heights of Enlightenment?

SAGE: The pictures! I paint pictures, you know. Or I write pictures, perhaps I should say (mumbling), or maybe I paint stories? However it is, the pictures and the words and symbols come to me ... Thoom perhaps sends them? ... and I let them flow out through my fingers and through the brush or the pen or whatever I hold, and suddenly there they are! Right on the paper, or the flat stone, or the water-pool, or whatever gets in the way when THE PAINTING comes on me! (quiet) I do not ASK for the painting. I do not ask for the knowledge. Nor for the cats, nor for the rest of it. It all is as it will be, and it's right and correct. That is all. And I am happy with my life and this is my limitation. Not that I'm happy ... nothing wrong in that ... but that there is still a little bit of "I" left which is aware of being happy. When only the happiness is left, then all will be as it will be. (cheerfully) It is coming.

KITA: (slaps his forehead and turns away) Cheess!

AR: Great Sir Pleasing to Cats, I beg you to forgive my sidekick,  
for though he knows tala, he does not yet TRULY know  
rage, and ...

SAGE: Heh? Yes, it is well. I KNOW. It is coming to him TOO,  
you know. Now! May I paint a picture for you?

(Ardjuna and Kitathaka move in and watch; Sage paints awhile,  
humming and muttering and whistling; the cats rub around  
his legs)

SAGE: There! (holds it up) Now I wonder what THAT means? (brings  
it down to look) Hmmm ... well ... oh, my! My friends,  
the picture says a lot of things. Above all, it says  
your lands shall not be taken from you. The picture says  
many shall die, and of these, some shall die most horribly.  
It isn't a very NICE picture, I'm afraid. And it says  
that almost anything can happen so far as Prince Balavan  
is concerned. But you may seek aid from a giant named  
Yǎn Bǎn Boli, who lives ten leagues in THAT direction  
(points), in the dark caverns of Mount Barubhaga. Though  
he is a giant, he is allied neither with the forces of  
evil nor with the forces of good, and his power is great.  
(quietly, to Ardjuna) I suppose you think of Prince  
Balavan as a thorough-going rotter, don't you? Well,  
young man, things are not so simple usually. Look at my  
friends the cats; most people think cats must be nasty

carnivores. Not THESE cats! They live on herbs they find among the rocks, and on milk from the goats. Look at all the pretty goats! (Ardjuna and Kitathaka turn to look as he points) It's so peaceful up here. Just me and the cats and the goats and the pictures. Oh, the PAINTING! (he is lost in a reverie of some kind)

KITA: (turns to Ardjuna) Gosh, boss, does Thoom REALLY send pictures to this cat? I mean, is he some kind of a nut, or is he really what I think he is?

AR: Who can tell, Kitathaka? But could one so joyful be mad? Or anything other than truly attuned to the Way? I think not. No, dear friend, here is a man of perfection. Or perhaps no longer a man at all; for are men ever perfect? Thoom has blessed him so, perhaps because he has so blessed Thoom. I think I know what you think he is, and I think that this is so.

(a Nubian nannygoat comes up to Sage, from right; he pats her head)

SAGE: Ah, the little dear! Look at this one. This is a Nubian. Look at her big Roman nose ... just like King Dagumukha! Heh heh heh. (goat goes off to right, looking once or twice over her shoulder)

AR: Venerable Sir Pleasing To Cats, before we go, which soon we must, have you any further advice for us, or any words of comfort?

SAGE: What comfort can there be when people will hurt one another.

But this much I'll say to you: when you are struck, perhaps you must strike. When you NEED NOT strike, DO NOT.

This is a SIMPLE wisdom, is it not?

(Ardjuna and Kitathaka bow)

AR: Great Sage, salutations be unto your name! We beg permission to leave you, for our doom calls us below in the valley.

Gamelan: "Cosmic Radio", version B.

SAGE: Farewell. We'll meet again soon. You, Ardjuna, I will see within the year. But YOU, Kitathaka, I will see within a matter of days, and though I know not why or how, our meeting shall be both joyful and sad, and there will come another with you. Farewell to you both!

(Ardjuna and Kitathaka bow, Sage bows; Ardjuna and Kitathaka exit right, Sage and cats off to right) Stop music.


(Insert: dialog of Goputsam and Perya)

Interlude: (Blank screen or a colorslide or so)

Music: Tsuru<sup>2</sup> with vocals. End with a few times fast, go to Gangsaran, stop.

NARR: Ardjuna and Kitathaka found themselves in the caverns of Yan Ban Boli, searching for this giant so as to ask his aid. (Enter Ardjuna, and then Kitathaka)

KITA: Hey, man, this place is real spooky ... I mean like this is wierdsville!

AR: (turns right) Shhh! Kitathaka ... not too loud. Thoom only knows what evil LURKS in the heart of these caverns. 

'Tis said they go for miles back into the mountains, and some say they have no end at all. I should not like to arouse unknown beings hastily, nor to venture in so far as to become lost forever to the world of light. (faces left)

KITA: (walking to left) Yeah, it freaks me out just to think of it. Hey, dig the crazy stalactites. Or is it stalagmites? I can never remember (mutters). Say, boss, just how much do you know about this Yan Ban Boli cat anyway? (faces right)

AR: Only what the Sage told us: that Yan Ban Boli is a giant, but that there is a legend that he is allied with neither the forces of evil nor the forces of good. And this is why I seek him out, for he could be a powerful ally if he would, and a dire foe should he give his loyalty elsewhere. He is not stupid like your everyday run-of-the-mill giant, but is wily and tricky. He is not to be ignored.

KITA: I dig. But if he comes on strong, I'll make like his head is my drum ... kitathaka tarigidi thom! Oooh, we'll see who's boss! (with actions)

AR: There is an aphorism, given to us by a wise man, which tells us that "the strong man MAY win if he provokes trouble ... the wise man ALWAYS wins, for he keepeth his coolth". And there is this; though this is certainly a place to

frighten an ordinary person, I sense there is no evil  
here; only a dark mystery.

(Yan Ban Boli jumps out and bellows "WAGH!" Kitathaka yelps and  
grabs Ardjuna, then sort of crawls around behind him)

YAN BAN BOLI: (booming voice) Strangers in my caverns! What are  
you seeking HERE, oh peculiar ones? I see a noble warrior,  
not even afraid of me, Yan Ban Boli the Awesome! And I  
see a little man who quivers enough to shake trees a mile  
away. An ill-assorted pair! I wonder ... can you have  
come looking for ME?

AR: Yes, we have indeed come looking for you. Hail and well-met  
oh great Yan Ban Boli. And was it really necessary to  
make poor Kitathaka soil his garment? (to Kitathaka)  
There, old fellow, I believe you have a change of clothing  
in the gubbage-sack we left outside? Why don't you just ...

KITA: (quietly) Yeah, thanks, boss. I'll be right back. (exit)

AR: Now ... I came on the advice of the great Sage, Sir Pleasing  
To Cats, who lives on the next mountain but one, ten  
leagues from here. He suggested you might well be sympa-  
thetic to our cause, and might therefore aid us, and so ...

YAN: (interrupting) Yes, yes, I know all about your quarrels.  
News travels fast, even to my remote caverns. I have  
certain CREATURES who LISTEN. Well, I can't say as I care  
whether you win or lose, but I do have a bone to pick  
with that damned Sanganyeki and his foul-breathed dragon-  
friend, Ragamagala! They cheated me out of some gold we

found long years ago, and I don't forget such treachery.  
 WASH! USH! So i'll help you, just to see them squirm.  
 If you'll bring half your army to my cavern-door here,  
 I'll show them the way through the tunnels; and they can  
 come out behind your foes, while your other people are  
 attacking from in front. But be quick, or even this won't  
 save you. (loud laugh) A ... ha ... ha... ha ... ha ...

(exits left; Ardjuna off right)

Gamelan: Gangsaran, slendro. Then stop music.

(plant kayon left center, enter King Dagumukha from right)

KING: Well, there it is, the great volcano of the Forest of the  
 Snakes. Great firey thing scares a chap silly. Well,  
 must go on. Got to find old Hissel and ask him to help.  
 Thoom knows we need all the help we can get. (climbs  
 kayon, which descends down and left til only tip is  
 showing) There, at the top at last. Oooh! Bloody great  
 fire in there. I shouldn't care to get too close!  
 (flips back and forth, hands cupped to mouth) Oh great  
 King of the Snakes! Oh mighty Hissel, ruler of the thin  
 people, I, King Dagumukha, in my hour of need, ask you to  
 come forth.

(King facing left now, Hissel enters at right)

~~HISSEL~~ HISSel: Yessssssssssss? (King jumps)

KING: Oh! Humpf ... yes, well ... I wanted to say that we're  
 having a simply dreadful time, don't you know, and since

the Dwellers-in-the-Rivers have agreed to help us, and since you seem to be on very good terms with the Dwellers-in-the-Rivers ...

HISSEL: Yessssss! Nice fssssshhhhhh!

KING: Er, yess, quite so. Well, as I was saying, we thought perhaps you folks could and would help us.

HISSEL: We would be only too happy to help you, oh King ... but what can we do? We are but harmless serpents, not poisonous vipers. Of course, we could SCARE the bad guys! (lunges, King rears back) THAT might help. And if bad comes to worse, while we can't really BITE them we could GUM them most terribly, I suppose.

KING: Oh THANK you, cold chap! (flips) Ooh, great scot, here comes one of the big b-b-b-bullies right now! I'll just run off behind that tree there and ... (exit fast to right) (enter giant)

GIANT: WAGH! USH! I saw old King sheepface up here. Where IS he?

HISSEL: (lunges at him) Hissssssssssss-.

GIANT: WAGH! (leaps back and falls with a bellow) AAAAAAAAAAAGH!

(enter King again)

KING: Oh I say, that WAS rather awful! Poor devil fell right into the bloomin volcano! Well, nothing less would've saved my skin, I suppose. Hissel, I must thank you for saving me. That hideous giant is now well done, thou good and fateful serpent!



Gamelan: Dumdum, no vocals. (enter Bragodharma from left, flip)

Stop music.

BRAGO: Oboyoboy! Lookit all the fancy necklaces and diamonds and stuff I found in ol' sheepface's tent! Serves him right for not bein' here doin his job! Hey, Boss, dig THIS!

(enter Sanganyeki)

SANG: AHA! What have we here? You've found some goodies, I see.

Hummmmm ... very nice, verrry nice. They must be SHARED, of course.

BRAGO: Duh, but I found ... (swat) OW!

SANG: Fool! Would you try to cheat ME?

BRAGO: Ok ok ... share it is. (quietly) Gees you pack a mean right!

SANG: Very well! I'll count it all out:

One for you and one for me.

Two for you and one-two for me.

Three for you and one-two-three for me.

Four for you and one-two-three-four for me.

There! That does it. All even-steven. Heh heh heh.

(picks it up, exit left)

BRAGO: (scratching his head) Duh, I ain't dumb enough not to know I bin cheated, but I'm dumb enough I don't know HOW I been cheated. (exit left, scratching)

Gamelan: Dumdum as he goes off. Stop music on signal.

Gamelan: Berdūjhāle. (enter Ardjuna and Kitathaka) End music.

AR: Well Kitathaka, so much for that. We've brought half the army to Yan Ban Boli's caverns, and they have emerged behind our foes, and even now are causing great consternation among the evil ones.

KITA: Yeah, boss, but it isn't ENOUGH! We're still getting CREAMED.

AR: True, only too true. But I know not what we may do next to improve our chances. Raja Dagumukha, for all that some may think him ineffectual, has a brilliant mind. My father told me this earlier, and now I see that it is true indeed, for most of our battle-plans have been made by King Dagumukha, and it is thanks to him that we have held out as long as we have.

(vrooming noises)

KITA: Oh, no! Here comes that character on the snowmobile again! He's been drivin' me outta my gourd! Scuse me a second, Boss. (Snowmobile Giant vrooms in, Kitathaka smacks him on top of head ... vrooming changes to raspberry-sounds, coughing, pit-pit sounds, etc.; slowly and drunkenly he weaves off to left, saying "wagh" and "ush", slowly and sickly)

KITA: Now, where were we?

AR: I was about to say that King Dagumukha has told us that despite his deepest thought, and the advice of his excellent Queen, Rani Prabhutaratnakara, who is known throughout the land for her wisdom and insight, they see no possible way for

us to avoid disaster. We are simply badly outnumbered.

Only a miracle from Thoom can save us now. (they go off  
to right, slowly and sadly)

(Enter King Dagumukha from right, slowly; flip to face right, descend,  
raise hands in namaste-gesture)

KING: Oh Holy Thoom, look on our plight. The evil ones will des-  
troy us. We beg you to send us aid! Without you we  
cannot survive!

Gamelan: (softly) Great Avenging Bird signature-tune (Pāṣupatī)  
(King slowly slips off at base of screen, Bird enters and  
swoops)

NARR: And the Great Avenging Bird of the North, messenger of the  
Holy Thoom, went among the evil ones, and his awful vengeance  
was fallen upon them ...

Music: crescendo. (much swooping, then off)

Music: diminuendo but keep playing, signal for B section.

(Enter Ardjuna from right, enter Bhoḥkhaḍga from left)

AR: Stop, Prince, and make an accounting of your evil deeds!

KAD: Prince Ardjuna! A brave man indeed, but you are foolish to  
pit your strength and skill against me. Don't you know  
my name?

AR: Yes, it is "Bhoḥkhaḍga".

KAD: And do you know the MEANING of that name?

AR: Yes, it means "great sword". But though you are said to be  
the greatest swordsman in the world, I fear you NOT!

KAD: Then you are a fool, and will die for it! I shall kill you  
with my bare hands!

(they fight) Music up loud. (at some point, Great Avenging Bird  
of the North swoops in, carries off Bhohkhadga, and drops  
him from a great height; he screams as he falls) Music  
up to deafening, and end suddenly.

NARR: (as Ardjuna slowly goes off to right) So Prince Bhohkhadga  
fell to his death and Prince Balavan saw the manner of  
his brother's death, and HIMSELF fell ... into the black  
pit of despair. (softer) The army of the evil ones  
faltered. The battle was over.

Gamelan: Tevu<sup>2</sup>, loud, then soft. (enter Maw and Paw and the stove)

MAW: Well, I guess all the ruction's over at last.

PAW: Yep, I reckon so, Maw. But that don't make no nevermind when  
it comes to weedin' and milkin' and hayin'. Them fellers  
can do what they like so long's they keep their big feet  
offa my radishes and corn. I guess we got about the only  
steady thing there is ... no matter what kind of a mess  
the bigshots make of things, the garden goes on. (rocks  
silently a bit) Yep! Them fellers can say all they  
want about Thoom bein the Big Good God, and Devanasanam  
bein the Big Bad God, but I reckon the real important one  
is the Great Pepper! (off screen) Yessiree bob ...

Music up loud, then end.

Dalang song G.

Gamelan: Berdujhale, very quietly.

(enter Prince Balavan from left ... paces a bit; enter Prince  
Ardjuna from right) Stop music.

BAL: (quietly) So! I have lost, and you have won. It is as  
simple as that. NOW what? I presume my life is forfeit.  
But whatever else I may think of you and yours, I know  
at least this; that you will perpetrate no vile acts upon  
those of our people who survive.

AR: If you knew me better, Prince Balavan, the possibility would  
never be mentioned. Nor is your life forfeit ... since  
it is yours, how could I take what is not mine, now the  
threat is gone? And how could you attempt to take what is  
not yours? This land; the Holy Mountains, the Sacred  
Forest with its music, and above all, the Hidden Garden  
of Delight, which can belong to no man but only to the  
Great God Pan. But now I offer you this ... come and  
live in our land, in peace. No one will harm you. There  
is greatness in you, though you were our bitter foe.

BAL: Noble Prince Ardjuna. If only things could have fallen out  
differently, we could have been as brothers. But what is  
there for a man once his cause has failed, and when his  
true brother is killed horribly in battle? I scarcely  
care if I live now or die. I only wanted beauty ... all  
I got was destruction and sorrow. Is it so wrong to want  
to have this beautiful land? Yet now it is offered to me

yet again at second hand, I will not have it, for it no longer calls to me. All is over ... done ... finished.

AR: Great Prince, there is a place not far from here, in a land filled with many strange things. In that land is a wooded mountain, where lives a great Sage named Khyaih Majalanyayaprasannah. Go to him and ask his aid. He will not turn you away. And perhaps he will paint a picture for you, showing how you may have peace at last. (extend four arms, then hands down; Prince Balavan bows and steps back a bit; enter Kitathaka at right, passes Ardjuna, flips to face him) Here is my drummer, Kitathaka. Good friend, I beg a favor of you.

KITA: Sure, Boss, anything.

AR: Please go with Prince Balavan and show him the way to the mountain Sage, Sir Pleasing To Cats.

KITA: Far out! Hey, Boss, can I stay a day or two when we get there?

AR: Certainly; please stay as long as you like ... but WHY?

KITA: Well ... I kinda dig that cat ... and all his cats.

Gameian: Sri Matsūsāntih, with soft vocals, or Pleasing to Cats.

KITA: But Boss, what's up? Like you don't look happy at all ... aren't you glad we WON?

AR: Oh my good friend and companion, I'm only glad we didn't lose. But I'm saddened that anyone had to win. Whatever else may be said, we have killed real people in these past few days.

Look. There are the surviving people of both armies.

They're carrying away the slain in their coffins ... back  
to their homelands for the last time.

(now the music becomes a little louder, the last three people exit)

(Kitathaka and Prince Balavan together move slowly to the right, then

Ardjuna exits to right, very slowly)

After gong tone, accelerate; go to fast and loud instrumental  
version.

(dance of the two kayons, brief, end music as the kayons come  
together slowly; crossed at center, good kayon over bad  
one, to end the story)

Gamelan: exit music, Bubaran; something cheerful, like Udan Mas  
slendro, fast and loud. Could arrange a medley of exit  
pieces if desired.

END.

### DALANG SONGS AND SPEECHES

The following are the Dalang songs and speeches used in the shadowplay "The Advent of the Bird". The identifying letters refer to cues in the play-script.

Accompaniment is improvised gender barung, plus gong suwukan, pitches one or two, as appropriate; marked by numbers in triangles, with gong ageng (and tjempala) at the end of each song. An idiomatic English translation of the Thoomese text follows each song or speech. Due to the nature of Thoomese, a literal translation would be confusing, if not actually misleading.

Invocation: This night we will tell a grand story, with great warriors and with demons, with happiness and with sadness. May the protection of the Holy Thoom be upon us.

A.) Here is the palace of the Evil Ones ...

Thoom's curse upon it!

B.) The King enters in his brightness.

All make salutations to him.

The palace is filled with jewels,

But the Queen shines above all these.

C.) See King Prabhuloka ...

If there be any better, who could it be?



D.) Here is Ardjuna.

Kind and good is his face.

He comes in quietude and peace,

But great is his strength.

E.) O musicians, let the gamelan sound "Sanganyeki's  
tune".

F.) O gamelan, the piece called "Sir Pleasing-To-Cats"  
is appropriate.

G.) Now the story is nearly told.

The Circle is completed.

Can anyone say

"Here is the ending", or "there is the beginning"?

# Invocation

2 | 2 →  
 0 | mahākvām vādūmah eṣarātre, mahākṣātryani-

rākṣasañyena ca, | sukhiṭhādūhkhite ~~~~~ na ca. |

6 | 6 6 6 1 5 6 1 3 6 5 3 3 3 2 1  
 0 | mahāde ~~~~~ va bhum mahāya nazharākṣnūti |

2...1 6...1 2 1^ 6 ||  
 0

⑥ Gong

Song A:

1  $\hat{1}$  |  $\hat{2}$  | 2  $\overline{3\ 1\ 5\ 2\ 3\ 5}$  5  
 Hī banabhavanam | 0 būmā ~~~~~ Sya

$\overline{6\ 1\ 5\ 3\ 3}$   $\hat{1}$  |  $\hat{2}\ \hat{1}$  |  $\underline{\underline{2\ 1\ 1}}\ 6\ 5\ 3$  ⑤ gong  
 Bā ~~~~~ navacanaḥ Tañyāya | 0 ~~~~~ ||

Song B:

$\hat{1}$  |  $\hat{1}$   $\hat{1}$   $\hat{1}$   $\overline{5\ 6}$   $\hat{1}$   $\hat{1}$  ( $\hat{1}$ )  $\hat{1}$   $\hat{1}$   $\overline{2\ 3\ 2}$   $\hat{1}$   $\hat{1}$   $\hat{1}$   $\hat{1}$  |  
 o | benuti rā~jah tasyagau~ra bye |

6 |  $\hat{1}$   $\hat{1}$   $\hat{1}$   $\overline{2\ 1\ 2}$   $\hat{1}$  6 6 3 1  $\hat{5}$  |  
 todīni tam nama~ste kurvante |

$\hat{3}$  | 3 |  $\hat{1}$  |  
 o | rājabhavanam ratnīyena~kṛnuta |

3 2 |  $\overline{3\ 1\ 5\ 2\ 3\ 5}$  |  
 teṣad rāniḥ todyā~ya gaurate

$\hat{1}$  |  $\overline{5\ 6\ 5\ 1\ 3}$  | 2 1 6 5 3 1 2 1 6 |  $\text{Gong}$   
 ūpari~ o |

Song C:

<sup>2</sup> <sup>△2</sup> | <sup>2</sup> <sup>3^1 5</sup>  
 rājāprabhulokambidū | kim yadī preṇu,

⑤ Gong

<sup>2</sup> <sup>1</sup> <sup>6</sup> <sup>1</sup> <sup>5</sup> ||  
 0

Song D:

$\hat{6}$  | 1  $\overline{12}$  2  $\hat{2}$  | 2 3 3 3  $\overline{3\vee 2}$  2 |  $\hat{6}$  |  
 0 | hī ārjūnā | yāya tasya mun-kha | 0 |

6  $\overline{6\ i\ 5\ 6\ i\ i}$  | 3 3  $\overline{6\ \underline{565}\ 3}$   
 benuti cennuni | parantu mahā

3  $\overline{53}\ 2$  | 2 . 3 . 2 . 1 .  $\hat{6}$  | ⑥ Gong ||  
 Tasya bālam | 0

Speech E:

He nīyāgī | gamelannāḥavādū

śrī sanganyeki tasya gending||

speech F:

he gamelan | śrī mājalāñyāprasannah

tasya gending tat ūcchitam ||



Song G:

2  
kvāḥtsīrguvādūtā' 2 3 1 2 1 1 1 1 |  
ro ndukṛta |

2  
2 3 2 3 5 5 ,  
kimpūṛṣavādusā ~~~~~ kṛtaiva

6 1 6 5 3 3 ' 3 6 5 3 2 2 2 2 |  
eṁsa finu tat pe hu iti |

(slowly) ⑥ gong  
3 5 2 3 5 3 2 1 6 ||  
0

NOTES ON THE SHADOWPLAY, "PASUGAMANA"

Here, as in the rest of this dissertation, I have been inconsistent in the use of diacritical markings in Thoomese words. Each Thoomese word occurs at least once with the proper markings. These may be interpreted (for the most part), exactly the same as the marks used in Roman transliteration of Sanskrit. The few remaining marks which do not correspond to said transliteration are peculiar to Thoomese, and can be learned only via personal teaching. Since Thoomese is scarcely liable to become an important literary language, I think we may safely dispense with any great attempt at exactitude in its rendition into Roman script.

In this play, unlike the other, there IS an actual death scene, and a rather horrible one at that. I thought long and hard about this, and often felt it should be left out, especially since Prince Bhokhadga is nowhere near so guilty of wrongdoing as is his brother, and it seems to me unfair that he should be killed. Nevertheless, this particular idea "arrived on cosmic radio", i.e., was written via so-called "inspiration", and I've learned to trust this particular creative mechanism as being USUALLY a good thing and INVARIABLY powerful. Hence I have left it in, despite my aversion to the depiction of unpleasant or violent events.

This is only one of several items in this story which

puzzle me. Since much of the story was written as if dictated from an outside source, I am almost as much "outside" the story as anyone in the gamelan or in the audience, and I do not by any means understand everything in the play. Perhaps Thoom sends the stories to me, much as he sends the pictures to the Sage, Sir Pleasing-To-Cats. Perhaps it's all nonsense, and Thoom is as much a literary convention as the Sage. Perhaps there are no pictures or stories except as we make them up ourselves. Perhaps the "cosmic radio" is a silly explanation of an especially awkward, unreliable, and inefficient creative method ... but I doubt it.

When referring to my own and my students' shadowplays, I use the term "Dalang" as the term for "puppet-operator, voice-provider, and gamelan-director". We have no English equivalent, and "Dalang" has the virtue of brevity and familiarity. I am aware, however, that a Javanese Dalang is much more than this, and by no means do I ascribe the meaning of the word, in the original Javanese sense, to myself or others who have performed shadowplays at this college.

I've used very florid English for the speeches given in formal circumstances, and "ordinary" English for the scenes between married couples and groups of friends. Hopefully this will give the sense of equivalent Javanese wayang scenes.

### CARL ORFF'S "SCHULWERK"

A very large body of material has been written about Carl Orff's "Schulwerk", yet I've found it very difficult to obtain any of this.

While Carl Orff's "Schulwerk" bears a superficial connection to gamelan, in that some bar-type gapped-scale instruments have been devised for use in this discipline, there is no real connection. The Schulwerk is primarily a training-method, intended to lead eventually to proficiency in Western "art music". To a lesser extent it is sometimes a thing in itself and Orff (and other composers) have occasionally used some of the xylophones in their orchestral music. Nevertheless, I was fascinated to read, in Orff's article "The Schulwerk - its Origin and Aims", certain phrases which are equally applicable to my Thoomese gamelan. I quote the beginning of this article:

"The nature of the Schulwerk, its aim and purpose, can perhaps best be explained by describing how it came into being. Looking back, I am tempted to call it a wild flower (being a passionate gardener I am given to such comparisons). Just as wild flowers grow wherever they find suitable conditions, so the Schulwerk grew and developed, finding nourishment in my work. It was not the result of a preconceived plan -- I never would have been able to plan so far ahead -- it simply arose from a need which I recognized. We all know from experience that wild flowers thrive in abundance while carefully tended garden flowers disappoint us sometimes; they lack the strength of natural growth. Such natural growth has advantages and disadvantages.

Those who look for a method or a ready-made system are rather uncomfortable with the Schulwerk; people with artistic temperament and a flair for improvisation are fascinated by it. They are stimulated by the possibilities inherent in a work which is never quite finished, in flux, constantly developing."

Not an exact parallel, but a fascinatingly similar attitude to my own.

Orff was quite familiar with Indonesian instruments (as well as instruments of many other cultures), and borrowed ideas freely from all cultures. The Schulwerk involves the use of standard Western instruments as well as Orff's own semi-inventions. As a by-product of his development of the Schulwerk, Orff was to some extent responsible for the modern recorder revival.

Historically, the Schulwerk began as music for performance by teachers of music and dance. Only later did a children's branch of this come into existence, and here too movement is an important part of the total activity. It continues to branch out into other areas, such as music therapy, and the written materials, "Music for Children", are available in several languages.

In all cases, though there is written music, improvisation is an important aspect.

### IDIOCY OR "IN JOKES"

Over the years, a large number of in-jokes have occurred in connection with our musical activities. It would be impossible to tell of all of them, but a few examples will give the flavor of the thing.

Most interesting, I think, are the "boopadeep jokes". The syllables "boopadeep" are used in singing bonang-parts in gembyangan (octave) style when training players. Thus they are like drum-syllables, in a manner of speaking. However, "boopadeep" soon became the name of a character (a frog) in Kathy's shadowplays, and engendered a number of very bad jokes ... for example:

Question: What do you call a bonang-player with a foul personality?

Answer: A boopadeep creep.

Question: What sound is made by an underwater bonang?

Answer: A knee-deep sploopadeep.

And so on, ad nauseam; funny only to the perpetrators.

There was even an example written on the bathroom wall at the college's pottery studio. Later there were offshoots from this ... for example:

Question: What do you call a guy who steals a flat kettle?

Answer: A ketuk crook.

Question: What do you call a person who steps over a gamelan instrument?

Answer: A gender offender.

At the end of a rehearsai, one student was heard to sing in slendro, as she left through the door: "6 5 2 1, thank God I'm done". Later we added; "6 5 3 2, thank Thoom I'm through", and "6 5 2 3, thank Pan I'm free". There are many more, all equally bad, but we will let these suffice.

We also developed, as a group, a very lengthy song about little red candies, cinnamon-drops, to which I am addicted, and which I often distribute to my students. Verses are still being added.

A number of Western tunes have been arranged for gamelan, for use in shadowplays, movies, video-tapes, and often just for fun. Among these are full gamelan arrangements for "East Side, West Side", complete with oompahs; and "Way Down Upon the Swanee River", in both slendro and pelog. Also arrangements for two genders in Balinese gender wayang style, eg: "Shortnin' Bread", the Bridal march from "Lohengrin", and "Camptown Races". This last was used for a clown-scene in one of our recent shadowplays.

I felt a little odd about this until I found that Javanese musicians perpetrate similar jokes, without hesitation. I have recently received two settings of "Prunes" by Mr. Prawoto ... one each in slendro and pelog (see music notation, page 36, for my own version . This appears on pages 165-6 in this paper.)

### PSYCHOLOGICAL ASPECTS OF GAMELAN MUSIC

The following are the more interesting bits of a mass of rather confusing material which I've collected over several years, and which I here label as "psychological aspects", for want of a better term.

It is apparent that gamelan music, like all music, can have profound effects upon a person's mind and body.

Often I have mentioned at the beginning of a term, that it is appropriate to burn incense for the gong ageng on thursday nights, and that this is a Mosiem custom. Usually, one or more students will decide that this is a nice idea, and undertake the job of burning incense for the gong. Generally it becomes an occasion for a mini-rehearsal, with the incense-burner and one or two friends playing music on some of the instruments. I've never witnessed one of these sessions, but it affords me great pleasure to think of them, for as I have mentioned elsewhere, I think of the gongs as having quite definite "personalities", since I have been so intimately connected with their making, and it pleases me to have other people recognize their individuality.

A friend of ours (Marianne), once remarked to me that she found gamelan music to be very soothing, and that it had once helped her to overcome a bad mental state.



I suspect that much of the evident "healthfulness" of gamelan music is due to the four-square aspect of the rhythms. One can think of the typical gamelan piece as consisting of sixteen tones, four horizontally and four vertically. Interestingly, long before I knew of the gamelan, in fact far back into my childhood, the numbers four and sixteen were the numbers of perfection in my philosophy. This is apparently true of a large percentage of humanity, and I think it must be so on a physiological basis, i.e., the bilateral symmetry of mammals, and the four-coordinate concepts of front-back-right-left, front-back-up-down, etcetera. Ultimately these are six, but we tend to THINK of them in groups of four for some reason. We also tend to confuse forward with up, and backward with down, which is probably due to our as yet incomplete adaptation to upright stance.

That this four-square thinking is no more "natural" than some other way may be seen by considering the starfish and it's relatives, wherein the essential number is five, or the complete family of insects, whose number is six. Nevertheless, our mammalian numbers are two, four, eight, sixteen, thirty-two, sixty-four, etcetera, and we think of them as representing stability and completion. This is not to say that it is unnatural or illogical when we make music in five-beat units, etcetera. It is just that this music is not as stable in its feeling as is music in four-beats, etcetera.

Although I have experienced distortions of time-sense

when performing or listening to many kinds of music, I am most aware of this effect in connection with gamelan music. Usually this distortion takes the form of being totally UNAWARE of time, which is an unusual state indeed. On other occasions, I am aware of the passage of time, but a half-hour of actual time may go by in two or three minutes of subjective time. A very large percentage of my students and friends have mentioned experiencing similar states. I have no idea of the cause of this distortion. Perhaps it is simply a function of extreme mental absorption in the activity of making music.

Playing gamelan music involves a strange mixture of restriction and freedom; the fixed nuclear theme, with various degrees of freedom in improvisation upon the theme, the necessity for the individual to be very much in touch with what other individuals are doing, and so on. This is why I often say that the gamelan is the ultimate encounter-group.

I have collected quite a few students' written evaluations of their experiences, and find them all fascinating. However, three paragraphs from one of them will suffice here to show the profound effect that the experience has on many people. I reprint this with the permission of the student, exactly as she wrote it, complete with the almost inevitable misspelling of "gamelan":

"Waking up to a cold fall day, sun just beginning to warm the Earth. Radio comes on--as if to push me out of bed--the alarm doesn't come on to finish the job: the

damn radio's broken again. I get up laughing. There's nothing better to keep one feeling secure than a radio that breaks down regularly. On gamelan days I arise early although the class isn't held until 10:00. I feel I have to get awake, get some rhythm going through my soul, start thinking about music. Alone in the kitchen at 7:30 I drink coffee and think of the forthcoming rehearsal. By 9:00 I start getting jittery, tired of waiting, I leave the dorm and start walking to the Music Temple. On mornings when neither rain nor snow falls I sit or stand outside the Temple and listen to the voices of the people in the South Indian Music class swell and flow, pour out from within. About 10, I go inside, take off my shoes and sit among the kempuls and gong. Inside each instrument lives a small person who creates the sounds which we hear. I respect them and very sincerely wish them good morning and beg a thousand pardons for asking them to work. Others have come in and we are ready to begin ... "

JOURNAL EXCERPTS

I've kept a fairly complete record of gamelan activities since the summer of 1972. While I find it all very interesting, it seems best to present here only a few excerpts, to fill in the historical picture.

1972:

June 5th: First experiments with bonang bars having central bumps.

June 12th: Made gender panerus for high-pitch gamelan.

June 16th: Made two new sarons for low-pitch gamelan, using one-eighth inch metal.

October 15th: Tuned two kempuls made previous spring. Both came out on pelog two, despite radical difference in diameter.

1973:

October: Heavy enrollment in gamelan, not enough instruments to go around. This often happens, but attrition takes care of it fairly soon. After six or seven months of waiting our vegetarian conga drum arrived. Welded a ring to allow use of plastic head, and found that the tone could be made much less metallic by putting two strips of masking tape on the head in a certain place.

This removes some of the high frequencies.

October 17th: Tried welding tiny gongs to use as bonangs.

Made slendro two and three for lower rank of bonang barung.

Sound much like the real thing. Great excitement.

October 24th: Further bonang experiments prove that anything above the lowest octave of bonang barung can't be built, at least with our present skills.

October 27th: Helped Kathy with her puppet-making marathon. Tried making punches to use for perforating cardboard puppets. This works well enough except near edges of the puppet. We're still having to do much with gouges used as punches. Kathy introduced me to Balinese moving-mouth puppets.

November 3rd: Made second saron for high-pitch gamelan.

November 8th: Visit by Chuck Milazzo, teacher of music at a high school in northern Vermont, plus about thirty of his students. We did about an hour of concert and lecture, and they've decided to build a gamelan of their own. We never played worse, but it didn't seem to dampen anyone's enthusiasm.

November 9th: Remembered flat wooden puppets I once saw ... used for wayang klitik. Did much planning for one-eighth inch cherry and thicker carved cedar types.

Wierd experience: I was doing some paper-work when suddenly two new gamelan pieces "came through", as if

dictated from an outside source. I just heard the tunes being played, and set them down as fast as possible. They were unclear in spots, so I had to fill in by guesswork afterward. Later, while examining the more usual of the two, I got an idea for rewriting it somewhat, and did so. I think "my" version is better, but will try all three next week at rehearsal, and we'll see.

This kind of thing has happened before, both music and verbal material, often more involved and with better "reception" than this time. It's always a surprise, and there's never any warning. Very odd!

November 11th: Concert on high-pitch gameian for all-day Festival of the Arts at Goddard.

November 18th: Wrote vocal parts to Śrī Mātsūśānti; first Thoomese piece with vocals.

November 23rd: Tried making welded kenong. No luck.

This appears to be a dead end.

December 5th and 6th: Supposed to have one-hour concert followed by Kathy's new shadowplay. Due to incredible incompetence in certain places, we had to cut to one hour, and do only the shadowplay. A very bitter experience for all concerned.

Finished reading McPhee's A House in Bali, with an interesting blend of fascination and horror.

We made plans to have Great Boiled Thoom sweatshirts made

up for our next concert.

Finally admitted temporary defeat on welded bonangs and kenongs. Will next try a circular plate with central bump and strings attached at four places on the nodal circle.

1974:

January 25th: Began writing "Pāṣugāmana", made an attempt at carving rubber stampers of wayang figures, with separate stampers for arms; with the idea of printing up a sort of comic book, for duplication via I.B.M. copier machine. Each figure requires right-facing and left-facing forms, plus separate upper and lower arms for each position. I found it impossible to get accuracy in this size, i.e., the length of a gum-eraser, but it's a good idea.

Perhaps better would be to photograph posed scenes from the shadow side of a screen, using the actual wayang puppets. Perhaps this summer I'll be able to do this.

February 9th: Shadowplay-writing finished. Wrote more vocal parts and instrumental pieces. Twenty-five people enrolled in gamelan; about twice too many.

February 18th: Enrollment dropped to sixteen players, to everyone's relief.

March: The vegetarian conga was stolen. Decided to use a drum I once made of a porch-pillar section, with tuning

pegs for tightening head. But in order to get necessary volume, it needed a stronger head than the Mylar we've been using. This forced me to do an experiment I'd planned for a long time but never gotten around to: I stretched a piece of very thin polyester cloth, and soaked it with varnish. When dry, put it on the drum. It works beautifully.

April 2nd: Many weekends of puppet-making, using one-eighth inch plywood, acrylic paint, much perforation, and fancy saw-cuts using a jeweler's saw. We finally got the job done, but even now, two weeks after the last puppet was made, I'm still recovering from the exhaustion of the "puppet marathons".

Have been making many changes in the shadowplay; all minor things, mostly the addition of clown-scenes. Far from being dismayed by this, I think it shows our use of shadowplay to be a lot more free and easy than hitherto ... a lot more "alive".

April 18th: Did videotape tonite of play and concert. The total is nearly four hours, I think. Three cameramen, three technicians in dressing room, plus a fourth man elsewhere for sound. Wow! Looks good.

Was in odd position of high level of association with the puppet-characters at times tonight. Still "myself" but looking on at another "me" closely identifying with



the characters ... result of exhaustion? Consequently, VOICES were much improved tonight, some sounding unlike any I've ever produced before.

We're wearing a combination of costumes from an old play and Thoom-sweatshirts and T-shirts.

April 21st: We've done both performances. Very small audience on first night, large audience on second night, Very receptive audiences, and lots of people stayed for the whole thing.

This was an incredible amount of work for only two performances, but I've checked up and found that eleven of us will be able to do a repeat this August, when the Bread and Puppet Theater people put on their "circus". Kathy made a "Dennis" puppet ... caricature of me. I was the operator thereof. This was one of the most schizophrenic experiences imaginable, and I was at first unable to do a convincing performance of myself.

# BIBLIOGRAPHY

This is a list of books and articles likely to be of interest and use to those who are concerned with the matters discussed in this paper. Most bear rather directly upon such matters, A few are less directly related, yet nonetheless important and interesting.

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# ADDITIONS AND CORRECTIONS

1.) It is actually incorrect to call this the nuclear theme. Mr. Sumarsam says that this is a Western misnomer, caused by a basic misunderstanding. What is notated might better be called "the saron part" (which it generally is). The nuclear theme actually exists in the minds of the musicians, and can cover a good two and a half octaves. For example, the first four tones of the nuclear theme of Gondjang Gandjing are 2 1 6 5.

It is worth noting that in some pieces the Kempuls and Kenongs may have very busy parts, which might perhaps be considered "melodies" rather than "punctuation". "Srepegan" is an example of this.

2.) Mr. Sumarsam suggests that the drums would be better considered as a separate group, since their primary functions are not those of the gongs, etc., but rather are to indicate iramã and to keep the tempo steady.

There are five basic categories of iramã, and three speeds within each of the categories. "Iramã" is a concept which only secondarily deals with matters of tempo. Primarily it is a matter of degree and type of elaboration. From the least to the most elaborated, the names of the five categories are: 1.) Lancar. 2.) Tanggung. 3.) Dadi. 4.) Wilet. 5.) Rangkep.

Iramã 4 and 5 actually involve a change in the basic melody,

the "new" melody being twice as "thick" as the melody of rama dadi, for example. That is, one would see twice as many numbers (and prolongation dots) in the wilet version. This version is not improvised from the other, but is learned as an entity.

3.) Actually I am speaking here only of the three simplest sounds of the Kendang-Ketipung set, and I've given syllables which illustrate their sounds to my ear. These are not the syllables used by Javanese drummers, and it should be noted that a very wide variety of sounds is available in Javanese drumming.

It is also interesting that many Eastern and some Central Javanese musicians play with the large head of the Kendang to the left. Most Central Javanese have it on the right.

4.) These are the substitutions I was once taught. However, Mr. Sumarsam informs me that modern Solonese practice is to use Kempul 5 when melody is 5, Kempul 1 when melody is 1, and Kempul 6 for all other tones. The same holds true for Kenong. (See page 29 for the way I learned earlier.)

5.) At the time of writing "The Book", I was unaware that these bonang-parts are those used for training purposes.

The following examples show the two styles as actually performed:

bonang  
 barung: 2 1 2 . . 1 2 . 6 5 6 . . 5 6 .  
 bonang  
 Panerus: 2 1 2 . 2 1 2 . 2 1 2 . 2 1 2 . etc.

bonang  
 barung: 1 1 <sup>0</sup> . 1 1 <sup>0</sup> . 1 1 <sup>0</sup> . 1 1 <sup>0</sup> . 1 1 <sup>0</sup> .  
 (bonang Panerus same, double speed)

6.) The English translation is in error. "Manjar" (now spelled "manyar") is a small and very noisy bird. The word for peacock is "merak".

7.) This is not a Javanese pattern. I often use this when I want to begin a piece as quickly as possible (for dramatic reasons) in shadowplay. It is also useful for a few pieces where I never learned the correct bukas and have not written substitutes.

8.) In line with modern Solonese practice, the Kempul of the third kenongan of "A" should be 6, as should that of the third kenongan of "B".

9.) Very recently I have changed my mind about all this, and would now recommend using 1/8 inch metal for everything except bonangs. My new opinion is based not on my own experience, but on that of several other people, who have found thin metal to be very uncooperative, and likely to produce two or three tones per bar. Perhaps I was lucky in my first experiments with thin metal.

Mr. Sumarsam tells me that "bump-bar" bonangs in iron gamelans in Java are made of quite thick metal - perhaps 1/8 inch thick. My experiments with thick bonang bars have not been satisfactory, but Mr. Sumarsam's information makes me inclined to keep experimenting.

Mr. Sumarsam also says that while it would be quite possible to make bonang kettles of iron, shaped just like the bronze bonang kettles, the makers prefer the bump-bars.

10.) Mr. Sumarsam says that wherever the "ping-pong" style of Ketuk playing comes from, it isn't Solo. In fact, he has never

heard of it at all.

The Ketuk-strokes are marked incorrectly. It should go like this:

T		T	P	T		T	N
1	6	1	6	2	1	3	2

11.) This buka is our own. Mr. Sumarsam has provided the correct one (for bonang):

5 . 5 6 . 1 6 5 . 2 3 2 ①

12.) Mis-spelled title. Should be "Djagung<sup>2</sup>", (Jagung<sup>2</sup> in new spelling).

13.) For "Ladrang" read "Bubaran".

14.) This piece is "Ladrang langenbranta". It is in pelog pt. lima.

15.) "Kasatriyan" is the name of the elementary and junior high school of the palace. Mr. Sumarsam taught there for several years. This piece was written especially for the school.

The line labeled as an ending puzzled me a great deal. However, Mr. Sumarsam says this is really a transition for going to Ayak Ayakan. If you wish to end the piece itself, stop on the gongstroke of section "C".

16.) Here, as in "Cat's Play", is an example of something a Javanese musician would not do. The first and last tones of the piece are the same. I had my suspicions of this, and Mr. Sumarsam also feels this is a weak effect, to be avoided. It is probably less weak in sound to a Westerner, but I intend to avoid it in the future. This feature is also present in "The Sun's Anger", but here it makes

sense, at least if the listener is aware of the "mirror" structure of the piece.

17.) I was misinformed. Mr. Sumarsam assures me that this piece is by no means modern, and that there are several old pieces with just this sort of rather frantic saron part.

18.) This is not a modern piece.