New composition for Javanese Gamelan.

Roth, A.R.

How to cite:

Use policy
The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a link is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the full Durham E-Theses policy for further details.
NEW COMPOSITION FOR JAVANESE GAMELAN VOLUME I

A. R. ROTH

SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY UNIVERSITY OF DURHAM JULY 1986
New Composition for Javanese Gamelan
A. R. Roth

ABSTRACT

The Akademi Seni Karawitan Indonesia, (ASKI), in Surakarta, Central Java, one of Indonesia's leading performing arts institutes, has in the last few years (1979-85) been the centre of a radical experimental movement exploring and extending the resources of traditional gamelan music (karawitan). The purpose of this thesis is to describe and analyse this development and resulting new works.

The term used for the creative process and the resulting compositions themselves is "komposisi", leading some observers to conclude that Western influence is a decisive factor. Closer investigation, however, raises important questions, e.g. Is the Western concept of "composition" compatible with traditional karawitan? Why are young Javanese musicians expressing their creativity in this way?

The context of the traditional music system and recent cultural change which form the background to the experimental movement are examined in five preliminary essays. Chapters 2 and 3 cover physical resources (gamelan) and conceptual resources (karawitan) providing the point of departure for the young composers. The very different creative role of the "composer" in traditional karawitan is then outlined in Chapter 4. Recent changes affecting the traditional arts are examined in Chapter 5; and in Chapter 6, the aesthetic and artistic goals of ASKI's Director, S. D. Humardani are discussed, together with the initial steps in putting these into effect.

In Chapter 7, the new creative process is examined, while in Chapter 8 twenty-one compositions are subjected to systematic analysis, making extensive use of written and recorded musical examples. Questions of form and structure are raised in Chapter 9; and in Chapter 10 six representative works are given in full, recordings being provided on cassette, and translated editions of the composers' original notations in an Appendix.

The problems of critical evaluation are raised in Chapter 11, which goes on to consider the implications of these new compositions in a wider context.
NEW COMPOSITION FOR JAVANESE GAMELAN

The copyright of this thesis rests with the author. No quotation from it should be published without his prior written consent and information derived from it should be acknowledged.
in memoriam

S. D. HUMARDANI
CONTENTS -- VOLUME I

List of Figures vii
List of Recordings xii
Preface xix
Acknowledgements xxiii
Preliminary Notes on Orthography, Terminology, etc. xxiv
The Kepatiihan Notation System xxvi

1. INTRODUCTION 1
   New composition for Javanese gamelan?

2. MATERIAL RESOURCES - GAMELAN 6
   The Javanese gamelan and its instruments
   Matters of tuning - laras - embat
   Instrumental configuration and playing style
   Acoustical properties and playing style
   Acoustical environment and ensemble layout

3. CONCEPTUAL RESOURCES - KARAWITAN 19
   Karawitan as a musical process
   Balungan gendhing and the concept of garap
   Melodic concepts - lagu
   Metrical and rhythmic organization - irama
   Structural organization - bentuk
   Pitch organization - pathet
   Group creativity - instrumental and structural garap

4. "COMPOSITION" IN THE CONTEXT OF TRADITIONAL KARAWITAN 34
   The penyusun - "composer/arranger"
   Variation as a basic compositional technique
   Working with and against the conceptual frameworks
   The requirements for being a composer
   The problem of innovation
   Micro-structures and macro-structures

5. CHANGE IN THE TRADITIONAL ARTS 48
   Recent social and cultural change
   New technology, commercialism and the influence of cassettes
   Attitudes to tradition - conservation/development/rejection
   New ways of learning - the specialist arts schools and academies
   Influences from Jakarta and the new festivals
6. NEW MUSIC AT ASKI SURAKARTA

ASKI Surakarta and its Director, S. D. Humardani
New creativity and the ASKI aesthetic
Initial experiments in dance and wayang
Rahayu Supanggah and Sri Hastanto
The 1979 Young Composers' Week
The effects of expansion at ASKI
Komposisi (composition) in the curriculum

7. THE KOMPOSISI PROCESS

7·1 Precepts and procedures
7·2 The process of composition - the development rehearsal
and the "mantap" state
7·3 Composers and compositions - questions of identity
7·4 Some practical considerations

8. NEW SOUNDS, NEW TECHNIQUES

8·1 Introduction - the materials of composition
8·2 New sounds from traditional instruments
8·3 New instruments
8·4 New vocal techniques
8·5 Metre, rhythm and texture
8·6 Tempo, volume and dynamics
8·7 Melody, harmony and tonality
8·8 Instrumentation and orchestration
8·9 The resources of instrumental garap and
alien styles and techniques

9. QUESTIONS OF STRUCTURE

9·1 New development of traditional forms and structural procedures
9·2 The influence of the new theatrical forms on musical structure
9·3 A new genre - the concert work
9·4 Structural implications of the new compositional process
9·5 New structural procedures - a summary and some examples

10. SIX NEW WORKS IN FULL

10·1 Introduction
10·2 DEBAH by Aloysius Suwardi
10·3 BONANG by Supardi
10·4 PELING by Sigit Astono
10·5 CINTA DAN TEKAD by Sutiknowati and Slamet Riyadi
10·6 KOMPOSISI II by I Nengah Muliana and Sukamso
10·7 PENGORBANAN DALAM KONFLIK by Mahdi Bahar and Sriyanto

11. CONCLUSION

The problems of evaluation and criticism
Wider perspectives

Postscript
Appendices:

I  COMPOSITIONS - Annotated list and index of the new works by ASKI composers used as the basis of this study. 226

II  COMPOSERS - Annotated list of the ASKI composers. 231

III  TRANSLATIONS - Translations from the Indonesian of three important texts:

  i  S. D. Humardani, "Fundamental Problems in the Development of the Traditional Arts."

  ii  Rahayu Supanggah, "The Creation and Realization of Karawitan Compositions Departing from Traditional Karawitan."

  iii  Sri Hastanto, "Some Experiments to seek Innovation in Karawitan."

IV  NOTATIONS - Translated editions of the notations of six selected compositions:

  i  DEBAH by Aloysius Suwardi

  ii  BONANG by Supardi

  iii  PELING by Sigit Astono

  iv  CINTA DAN TEKAD by Sutiknowati and Slamet Riyadi

  v  KOMPOSISI II by I Nengah Muliana and Sukamso

  vi  PENGORBANAN DALAM KONFLIK by Mahdi Bahar and Sriyanto

V  NOTATION - Two Songs from 'The Tempest' by Alec Roth 416

Notes  422

Bibliography of works consulted  438

Index of musical terms  453
# List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chronological List of the New Works by ASKI Composers Selected to Form the Basis of this Study</td>
</tr>
<tr>
<td>2</td>
<td>Extract from the notation of YANG MEMBANGUN Gegilakan</td>
</tr>
<tr>
<td>3</td>
<td>Extract from the notation of YANG MEMBANGUN gong and slenthem</td>
</tr>
<tr>
<td>4</td>
<td>Extract from the notation of PUTUS DAN TERHEMPAS Lagu Eling (suling gambuh and kecapi) (Recorded Example No. 4)</td>
</tr>
<tr>
<td>5</td>
<td>Extract from the notation of NAN TARASO Section IX (saluang and saron keys) (Recorded Example No. 5)</td>
</tr>
<tr>
<td>6</td>
<td>Extract from the notation of YANG MEMBANGUN Gerongan Bedayan Sasmito</td>
</tr>
<tr>
<td>7</td>
<td>Extract from the notation of PUTUS DAN TERHEMPAS Lagu Vokal</td>
</tr>
<tr>
<td>Figure</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>8</td>
<td>Extract from Pak Subono's rehearsal notes for <strong>OWAH-OWAH</strong>&lt;br&gt;Vocal section &quot;Jejer ...&quot;</td>
</tr>
<tr>
<td>9</td>
<td>Extract from Pak Subono's rehearsal notes for <strong>OWAH-OWAH</strong>&lt;br&gt;Vocal section &quot;hab hib hob&quot;</td>
</tr>
<tr>
<td>10</td>
<td>Extract from the notation of <strong>KEMELUT</strong>&lt;br&gt;Vocal Bomantara</td>
</tr>
<tr>
<td>11</td>
<td>Extract from the notation of <strong>KEN AROK</strong>&lt;br&gt;Lagu Awal</td>
</tr>
<tr>
<td>12</td>
<td>Extract from the notation of <strong>RUDRAH</strong>&lt;br&gt;Lancaran Rudrah</td>
</tr>
<tr>
<td>13</td>
<td>Extract from the notation of <strong>KEMELUT</strong>&lt;br&gt;Lagu Bayang-bayang</td>
</tr>
<tr>
<td>14</td>
<td>Extract from the notation of <strong>PUTUS DAN TERHEMPAS</strong>&lt;br&gt;Lagu Tekad</td>
</tr>
<tr>
<td>15</td>
<td>Extract from the notation of <strong>NAN TARASO</strong>&lt;br&gt;Section III&lt;br&gt;(Recorded Example No. 7)</td>
</tr>
<tr>
<td>16</td>
<td>Extract from <strong>BENDUNGAN WONOGIRI</strong>&lt;br&gt;Lagu Bendungan Wonogiri</td>
</tr>
</tbody>
</table>
17. Extract from the notation of YANG MEMBANGUN
Ada-ada Gumeder - Mungghah mudhun - "Dog"
(Recorded Example No. 8)

18. Extract from the notation of PUTUS DAN TERHEMPAS
Lagu Titik-titik - Lagu Lupatma - Lagu Bangun
(Recorded Example No. 9)

19. Extract from the notation of NAN TARASO
Section XIII
(Recorded Example No. 10)

20. Extract from the notation of KEN AROK
Lancaran Kirang

21. Instrumental Doubling in PENCORBANAN DALAM KONFLIK

22. Instrumental Doubling in PELING

23. Layout of the Ensemble used for OWAH-OWAH

24. Extract from the notation of PUTUS DAN TERHEMPAS
Jalinan demung - Gludugan pencon - Imbal bonang penembung
- Jalinan Gangsa Jongkok
(Recorded Example No. 11)

25. Extract from the notation of YANG MEMBANGUN
Palaran - Gangsaran 4
(Recorded Example No. 15)
26 Extract from the notation of KEMELUT
   Bedayan Ngantu-antu

27 Extract from the notation of KEN AROK
   Srepeg Bolo - Lancaran Malik
   (Recorded Example No. 16)

28 Extract from the notation of HARYA PENANGSANG GUGUR
   Geger

29 Extract from the notation of HARYA PENANGSANG GUGUR
   Ladrang Hadiri - Gangsaran Ribed - Lancaran Glagah
   Kanginan - Sekar Ageng Sardula Wikridita - Maskumambang -
   Ladrang Jipang Bala

30 Outline Sketch of the Structure of DANDANGGULA
   (Recording: Cassette Ia)

31 Outline Sketch of the Structure of GAMBUH
   (Recording: Cassette Ia)

32 Diagrammatic representation of three early stages in the
   structural development of a new composition by
   Prasadianto (1981)

33 Extract from the notation of YANG MEMBANGUN
   Gending Napak - Gending Sreg - Gending Nyot -
   Gending Theklug
List of Figures xi

34 Extract from the notation of PUTUS DAN TERHEMPAS 187
   
   Lagu Roluma
   
   (Recorded Example No. 17)

35 Extract from the notation of KEN AROK 188
   
   Lagu Kukuh

36 Extract from the notation of KEMELUT 190
   
   Lagu Boman - Sekar Macapat Maskumambang - Gembyungan
   
   (Recorded Example No. 18)
LIST OF RECORDINGS

CASSETTE Ia

(1) DANDANGGULA by Sri Hastanto
   Duration: 12'
   Source: Jakarta Arts Council Archive Recording
   Performance: Young Composers' Week 1979, Teater Arena,
               T.I.M., Jakarta, 19 December 1979

(2) GAMBUH by Rahayu Supanggah
   Duration: 13'
   Source: Jakarta Arts Council Archive Recording
   Performance: Young Composers' Week 1979, Teater Arena,
               T.I.M., Jakarta, 20 December 1979
CASSETTE Ib

RECORDED EXAMPLES 1 – 18

Example No.

1 Extract from NGALOR-NGIDUL
   Duration: 30"
   Source: Jakarta Arts Council Archive Recording
   Performance: Young Composers' Week 1982, Teater Arena,
                T.I.M., Jakarta, 3 March 1982

2 Extract from NGALOR-NGIDUL
   Duration: 1'04"
   (For details, see No. 1)

3 Extract from NGALOR-NGIDUL
   Duration: 49"
   (For details, see No. 1)

4 Extract from PUTUS DAN TERHEMPAS
   Duration: 26"
   Source: ASKI Archive Recording
   Performance: ASKI Examination, 29 December 1983
   (The notation for this extract is given in Fig. 4)
(CASSETTE Ib contd.)

5 Extract from NAN TARASO
   Duration: 29"
   Source: ASKI Archive Recording
   Performance: ASKI Examination, 29 December 1983)
   (The notation for this extract is given in Fig. 5)

6 Extract from ONDE-ONDE
   Duration: 42"
   Source: Copy of recording belonging to Al. Suwardi
   Performance: Festival IKI, Yogyakarta, March 1980

7 Extract from NAN TARASO
   Duration: 1'11"
   (For details, see No. 5)
   (The notation for this extract is given in Fig. 15)

8 Extract from YANG MEMBANGUN
   Duration: 51"
   Source: ASKI Archive Recording
   Performance: ASKI Examination, 13 May 1983
   (The notation for this extract is given in Fig. 17)

9 Extract from PUTUS DAN TERHEMPAS
   Duration: 1'52"
   (For details, see No. 4)
   (The notation for this extract is given in Fig. 18)
(CASSETTE Ib contd.)

10 Extract from NAN TARASO
   Duration: 35"
   (For details, see No. 5)
   (The notation for this extract is given in Fig. 19)

11 Extract from PUTUS DAN TERHEMPAS
   Duration: 1'
   (For details, see No. 4)
   (The notation for this extract is given in Fig. 24)

12 Extract from NAN TARASO
   Duration: 0'09"
   (For details, see No. 5)

13 Extract from PENGORBANAN DALAM KONFLIK
   Duration: 0'24"
   (For details, see CASSETTE IIIb)
   (The notation for this extract is given in Appendix IVvi)

14 Extract from NGALOR-NGIDUL
   Duration: 8'02"
   (For details, see No. 1)

15 Extract from YANG MEMBANGUN
   Duration: 0'38"
   (For details, see No. 8)
   (The notation for this extract is given in Fig. 25)
(CASSETTE Ib contd.)

16 Extract from KEN AROK
   Duration: 0'47"
   Source: ASKI Archive Recording
   Performance: ASKI Examination, December 1984
   (The notation for this extract is given in Fig. 27)

17 Extract from PUTUS DAN TERHEMAPAS
   Duration: 0'31"
   (For details, see No. 4)
   (The notation for this extract is given in Fig. 34)

18 Extract from KEMELUT
   Duration: 3'56"
   Source: ASKI Archive Recording
   Performance: ASKI Examination, 26 May 1984
   (The notation for this extract is given in Fig. 36)
CASSETTE IIa

(1) DEBAH by Aloysius Suwardi
   Duration: 15'
   Source: ASKI Archive Recording
   Performance: Examination, 8 September 1983
   (The notation is given in Appendix IVi)

(2) BONANG by Supardi
   Duration: 12'
   Source: ASKI Archive Recording
   Performance: Young Composers' Week, Jakarta, 23/3/85
   (The notation is given in Appendix IVii)

CASSETTE IIb

(1) PELING by Sigit Astono
   Duration: 11'
   Source: ASKI Archive Recording
   Performance: Examination, 12 December 1984
   (The notation is given in Appendix IViii)

(2) CINTA DAN TEKAD by Sutiknowati and Slamet Riyadi
   Duration: 17'
   Source: ASKI Archive Recording
   Performance: Examination, 29 December 1983
   (The notation is given in Appendix IViv)
CASSETTE IIIa

KOMPOSISI II by I Nengah Muliana and Sukamso

Duration: 20'

Source: ASKI Archive Recording

Performance: Examination, 26 May 1984

(The notation is given in Appendix IVv)

CASSETTE IIIb

(1) PENGORBANAN DALAM KONFLIK by Mahdi Bahar and Sriyanto

Duration: 18'

Source: field recording

Performance: rehearsal 27 November 1984

(The notation is given in Appendix IVvi)

(2) TWO SONGS FROM THE TEMPEST by Alec Roth

(i) "Come unto these yellow sands"

(ii) "Full fathom five"

Duration: 10'

Source: Durham University Archive Recording

Performance: The English Gamelan Orchestra, Van Mildert College, Durham, 22 October 1983

(The notation is given in Appendix V)
"... the isle is full of noises,  
Sounds and sweet airs, that give delight, and hurt not.  
Sometimes a thousand twangling instruments  
Will hum about mine ears; and sometime voices,  
That, if I then had wak'd after long sleep,  
Will make me sleep again: and then, in dreaming,  
The clouds methought would open, and show riches  
Ready to drop upon me; that, when I wak'd,  
I cried to dream again."

(Shakespeare, The Tempest, IIIii)

I first experienced Javanese gamelan at the 1979 Durham Oriental Music Festival in a performance by dancers and musicians from the Academy of Traditional Indonesian Music (ASKI) in Solo. I still find the profound effect which the experience had on me difficult to describe, although the words quoted above always spring to mind. Suffice it to say that my immediate reaction was that I had to hear more and had to learn how to play. My wish was granted through the generosity of the late Pak Humardani, Director of ASKI, who invited me to study there. Before departing for Solo in late December 1980 I had a year in which to prepare myself, raising the money to finance the visit and reading everything I could lay my hands on. This was plenty of time to build up a fanciful picture in my imagination of what I would hear on Prospero’s Isle.
As I collapsed in the sweltering heat of my Jakarta hotel room, the first music I was to hear in Indonesia came wafting its way through the roar of the traffic outside the window - Bing Crosby singing "I'm Dreaming of a White Christmas".

So it was that I quickly came to terms with the hard reality of modern Indonesia, a rapidly developing nation struggling to establish its place in the late twentieth century world. I soon began to realise that the traditional arts had also to come to terms with this fact in one way or another. Indeed my second big surprise was on arrival at ASKI, where I found that, while suitably engrossed in the traditional gamelan music which I had come to study, I was completely entranced by the extraordinary experimental works which were being produced there. Increasingly, on this and a subsequent longer study period in 1982/3, I became fascinated by these new compositions and by the creativity shown by the students and musicians in solving the immense problems they had set themselves. Particularly interesting was the compositional process by which a new work literally grew in rehearsal. Moreover, my own creative desire to compose was rekindled, having been stifled for several years by a feeling of alienation from much of what passes for composition in the West. This interest was compounded when I discovered the large number of new works being written for gamelan by Western (especially American) composers.

The idea grew that I should document some of what I had learned and observed, not just to clarify my own thoughts, but in the hope that it would be of some interest to Westerners composing for gamelan. Indeed, originally it was my intention to make a comparative study
of new compositions for gamelan by Javanese and Western composers. However, on my third visit to Solo in 1984 the full fruits of the experimental period at ASKI were appearing in abundance. (Of the twenty-one works considered in this study, no less than thirteen were produced after my previous visit in 1983.) These new compositions were of such great interest that they justified the dedication of the whole of this study to them. Moreover, there were signs in December 1984 that the experimental period itself was coming if not to an end, at least to a significant change in direction.

At times during my studies at ASKI I felt rather like a privileged observer at one of the great turning points of Western musical history - the Florentine Camerata, the Mannheim Court, etc. Whether the ASKI experimental period will be as significant in terms of the development of gamelan music remains to be seen, but it is certainly worth recording and holds many lessons for those interested in the future of composition.

This study is based on material collected during three periods of residence in Solo, on innumerable informal discussions with composers and musicians, and on my own observations and experiences of studying and performing both traditional music and new compositions at ASKI.

In the description and analysis of the new compositions, being aware of the dangers of ethnocentricity, I have tried not to let my own views impinge too much in what is still a highly debated and controversial area, involving questions of aesthetic viewpoint and
personal taste, preferring to cite the opinions, judgements and criticisms of Javanese musicians wherever possible. I am also well aware of my own limitations, and hope that I have not seriously misinterpreted or misrepresented the information and opinions which my informants have so generously offered. Any such errors are clearly my own and in true Javanese fashion I apologise unreservedly for them in advance.

In preparing this study, although making use of the invaluable writings of ethnomusicologists and other scholars working in the field of Javanese music, I must confess that my approach is essentially that of a composer. To paraphrase Robert Simpson's words (on writing about the music of Bruckner): I am no musicologist, nor biographer, nor (in the common meaning of the term) critic. It is my belief that the inner processes of music reveal themselves most readily to another sympathetic composer.
ACKNOWLEDGEMENTS

In England, my thanks are due to Professor Eric Taylor who first introduced me to gamelan; to Dr. Neil Sorrell who, as Director of the English Gamelan Orchestra, provided me with my initial practical experience of playing Javanese music; to Dr. Sri Hastanto who, during his period of study at Durham always found time to help and advise; and to my supervisor, Dr. Robert Provine for his unfailing wisdom and endless patience.

In Indonesia I have a debt of gratitude impossible to repay - to the late Pak Humardani, for his encouragement and great personal kindness, and to all the members of the great ASKI family - my teachers and fellow students - who entertained and instructed me with such patience and good humour.

My thanks are also due to the Jakarta Arts Council and to the various departments of ASKI, Surakarta itself, for providing me with invaluable materials in the form of recordings, notations and other documentation.

Finally, to the young composers themselves whose work is discussed in the following pages, for their generous assistance in answering questions, supplying notations and recordings and discussing their own work and that of others, I offer my admiration and affectionate thanks.
PRELIMINARY NOTES ON ORTHOGRAPHY, TERMINOLOGY &c.

(1) Indonesian words are spelled in accordance with the official orthography established by the Indonesian Government in 1972 (P.P.B.I. 1973).

(2) Javanese words are spelled in accordance with the official orthography established by the Indonesian Government in 1973 (P.P.P.B. 1977).

(3) Variant spellings (using the pre-1972 system, for example) are retained in the following cases:
   (a) personal names
   (b) titles of books, articles, etc.
   (c) quotations
   (d) untranslated technical terms retained in translated passages

Variant spellings are quite common in written sources and are inevitable in the case of Javanese words which have been taken up into Indonesian. Thus, for example, kendhang (Javanese) and kendang (Indonesian) are both found, as are gendhing/gending, kethut/ketuk, etc. (cf. Poerwadarminta 1983 and Prawiroatmodjo 1981).

(4) In the many cases of technical terms for which there is no direct equivalent English term or concept (e.g. gamelan, kethuk, irama,
seleh), or where commonly-used translations are considered inadequate or even misleading (e.g. "mode" for pathet), the original term is employed throughout, its meaning being explained on its first appearance. Such terms are underlined on their first appearance only.

(5) Titles of the twenty-one new compositions which form the basis of this study (as listed chronologically in Fig. 1 and alphabetically in Appendix I) are always given in block capitals (DEBAH, CINTA DAN TEKAD, etc.).

(6) Titles of other compositions and of traditional gendhing are underlined (e.g. Sangkuriang by Nano Suratno; Gendhing Gambirsawit, laras slendro pathet sanga).

(7) In all translations and editions of notations, any round brackets are part of the original text. Square brackets are used for editorial comment. In translations it is sometimes desirable to show the actual word or phrase used by the author in the original, in which case this is placed within single quotation marks in square brackets immediately after the translation of the word or phrase, e.g. "melodies in metrical rhythm ['berirama metris']".

(8) All translations are my own unless (a) otherwise stated or (b) they occur within a quoted passage.
ALL THE NOTATED MUSIC IN THIS STUDY IS WRITTEN USING THE STANDARD KEPATIHAN NOTATION SYSTEM.

The five fixed tones of the slendro tuning are numbered in ascending order of pitch - 1 2 3 5 6
The seven fixed tones of the pelog tuning are numbered in ascending order of pitch - 1 2 3 4 5 6 7
A dot over a note indicates upper octave: ı 2 etc.
A dot under a note indicates lower octave: 6 5 etc.
An undotted note indicates middle octave: 4 5 etc.
These lower, middle and upper octave designations are not absolute but refer to the range of the particular instrument notated. For example, 6 5 3 2 will sound an octave higher on the saron penerus than on the saron barung.

In the notation of the balungan (core melody of a piece), notes are usually grouped in fours (one such group being termed a gatra) in compliance with the metrical structure of the traditional music, the fourth beat being felt as the strongest. For example:

3 6 32 5 6 53 6 1 3 2 6 3 2 1
A dot in place of a note indicates that the previous note still sounds for that beat. For example: 3 3 · · · or · 6 6 · · ·
As in staff notation, a beam connecting two notes halves their value.

For example: \[ \bar{\text{\textfrac{2}{1}}} \text{\textfrac{6}{5}} \] or \[ \bar{\text{\textfrac{3}{1}}} \text{\textfrac{2}{1}} \text{\textfrac{6}{5}} \]

The standard symbols for the structural instruments are as follows:

- G or \( \bigcirc \) or ( ) gong and kenong
- N or ) or \( \sim \) kenong
- P or \( \vee \) kempul
- t or + kethuk

Repeated sections are indicated by // or ( )

A note with a slash (e.g. \( \sextay \), \( \sextay \), \( \sextay \)) in

(a) a vocal, rebab, or suling melody indicates a chromatic alteration (miring)

(b) a fixed-pitch instrument melody indicates that the note is played "stopped" (i.e. damped at the moment it is struck).
CHAPTER ONE

INTRODUCTION

New composition for Javanese gamelan?
In the chapter on "composition" in his study of variation in Javanese gamelan music, Sutton (1982, 64) identifies three main categories of new gamelan pieces - firstly, those which conform to traditional procedures and styles; secondly, those which are innovative, but in a way which might be described as evolutionary, pushing out the bounds of traditional practice; and thirdly, a new kind of composition which although making use of traditional resources, seems to be innovative in a quite revolutionary way.

The two particular works of this third type to which he refers are GAMBUH by Rahayu Supanggah and DANDANGGULA by Sri Hastanto, which were performed at the first Young Composers' Week (Pekan Komponis Muda) held in Jakarta in December 1979. Both these composers come from the heartland of the Central Javanese gamelan tradition - the city of Surakarta, more commonly known as Solo (the other major centre being the nearby city of Yogyakarta), and were at that time instructors at the Academy of Traditional Indonesian Music there (Akademi Seni Karawitan Indonesia, or ASKI).

What Sutton witnessed in the first performance of these two works was the birth of a new experimental movement in gamelan music, based at ASKI, which in the last few years (1979 - 1985) has deliberately set out to explore and extend the resources of traditional gamelan music (karawitan) in radically new ways, and has given rise to a series of extraordinary compositions. The purpose of the present study is to describe and analyse these developments and resulting new works.
The term used for both the compositional process of creating such new works and the resulting compositions themselves is "komposisi", and is clearly Western in origin. This has led several observers to the conclusion that Western influence is at work here in a big way. Closer observation, however, raises many important and searching questions: Is the Western concept of "composition" compatible with traditional karawitan? Does the use of the new Indonesian words "komposisi" and "komponis" imply the Western concepts of "composition" and "composer"? Why are young Javanese musicians expressing their creativity in this way? What are the real influences at work? How can the young "composers" develop new techniques and procedures to handle the new resources unleashed by their experimental endeavours? How are these new processes related to the traditional music system?

Before such questions can be approached in a detailed analysis of some of these new compositions, we must first examine the context of the traditional music system and the recent changes which form the background to the experimental movement. This will be dealt with in the five essays which comprise Chapters 2 - 6. Much of the ground covered in these preliminary chapters has already been the subject of published work (some in great depth) by both Indonesian and non-Indonesian scholars. The purpose here is to concentrate on those aspects of direct relevance to the central question of composition for Javanese gamelan.

Chapters 2 and 3 will examine from a compositional point of view the physical resources (gamelan) and conceptual resources (karawitan) which form the point of departure for the young composers.
To understand just how revolutionary the ASKI experiments are, we must also investigate the very different creative role of the "composer" in traditional karawitan - this will be discussed in Chapter 4. The question of why such developments should occur at all is a difficult one. Some of the answers have already been provided in Judith Becker's important work *Traditional Music in Modern Java: Gamelan in a Changing Society*. Becker's investigations cover the period before the experimental movement at ASKI got underway, and so the background material contained in Chapters 5 and 6 will largely be concerned with bringing the picture up to date. In this the major influences affecting the development of the traditional arts will be discussed, as will the formative ideas of the Director of ASKI during this crucial period, S. D. Humardani, in terms of aesthetics and artistic goals, together with the initial lead in putting these into practical effect taken by Rahayu Supanggah and Sri Hastanto.

To attempt an assessment of the results of the komposisi experiments, twenty-one representative works have been chosen (of both dance-accompaniment and concert-work genres) produced at ASKI between 1979 and 1985. In Chapter 7, the actual process of creating these new works will be examined, while in Chapter 8 they are subjected to systematic analysis in terms of their approach to musical content and technique. In this analysis, extensive use will be made of recorded musical examples which are provided on the three accompanying cassettes, and of extracts from the notations of the pieces which are given as figures in the text.

Their radical approach in exploring new sounds and techniques has presented the young composers with new problems of how to order
their materials—materials which are not compatible with the standard fixed forms of traditional karawitan. Such questions of structure are examined in Chapter 9; and in Chapter 10, in order to give a more satisfactory overall view of the new approach, six representative works are given in their entirety, recordings being provided on the cassettes, and translated editions of the composers' original notations in Appendix IV.

The problem of critical evaluation and assessment of the new compositions is raised in Chapter 11, which goes on to consider their implications in the wider context of Javanese gamelan as an aspect of traditional Javanese and modern Indonesian culture, and in its new role as a world music.
CHAPTER TWO

MATERIAL RESOURCES - GAMELAN

The Javanese gamelan and its instruments

Matters of tuning - laras - embat

Instrumental configuration and playing style

Acoustical properties and playing style

Acoustical environment and ensemble layout
Gamelan is a generic term for a set of instruments consisting primarily of tuned gongs and metallophones, with the addition of rebab (two-stringed fiddle), gambang (wooden xylophone), suling (bamboo flute), siter (zither), etc. In Central Java there are many kinds of gamelan differing in instrumental composition and function, but in contemporary practice, a "standard" gamelan (basically deriving from the court tradition) is generally acknowledged. This standard gamelan forms the basis of instruction at ASKI, and a starting point for development in new compositions. It is important to note, however, that although the notion of a standard gamelan is widely understood, there is evidence of considerable changes throughout history in terms of size and composition, instrumental construction, the admission of new instruments, etc. (see, for example, Appendix III, paragraph [1], and Kunst 1973, 281).

Throughout all such changes, however, the unitary concept of the gamelan remains intact. Thus when a new gamelan is commissioned, it is designed and built as a single entity, and all the sounding metal parts come from the same gamelan maker, giving consistencies of construction, bronze alloy, style, etc. It is thus generally not possible to mix instruments from two different gamelan (largely because of the question of tuning which will be examined below).

These bronze sounding parts are all forged, and are of two different kinds - the tuned knobbed gongs of various shapes and sizes called pencon, and the keys or bars known as bilah.

The vibrating part of a pencon is the surface (rai) surrounding the boss (pencu), and is made to sound by striking the boss. The
outer rim is nodal and does not vibrate, so the pencon can either be hung from strings passing through holes drilled in this outer rim (A), or can stand with the rim resting on cords stretched across a wooden frame (B):

![Diagram](image)

(A)  (B)

The hanging pencon instruments include the *gong* and *kempul*; the standing pencon instruments include the *kenong* and *bonang*.

Keys (*bilah*) are of two types, resulting in two groups of instruments - (1) the very thick curved keys (*bilah lugas*) found on the instruments of the *saron* family (the seven-keyed *saron barung*; the *saron penerus* pitched an octave higher; and the *demung* pitched an octave lower), and (2) the thin flat keys (*bilah blimbingan*) found on the *gender*-type instruments (the 14-keyed *gender barung*; the *gender penerus* pitched an octave higher; and the *slenthem* which duplicates the bottom octave of the *gender barung* in terms of pitch but is fuller in tone).

In the case of the pencon, the body of the pencon itself acts as a resonating chamber; but the keys have to be arranged over resonators - sharing a simple trough resonator in the case of the saron family, and with individual tube resonators for each key in the instruments of the gender family.
One important characteristic with far-reaching implications which is shared by all these bronze instruments is that they must be regarded as fixed-pitch. Tuning is possible, but it is a laborious and highly-specialised task, involving filing in the case of the keys, and filing and/or hammering in the case of the pencon. (A certain amount of pitch adjustment may be effected by the judicious application of wax, but this is essentially a temporary measure since the tone quality is affected.)

The ensemble of the "loud-playing" style (soran), consists entirely of fixed-pitch bronze instruments, with the addition of kendhang (drums); but the "soft-playing" style, while it may still in fact use all the soran instruments, is significantly different in that it adds elements which are not fixed-pitch, namely the voice and instruments whose styles have vocal characteristics, such as the rebab. The interaction between the "fixed" instrumental and "free" vocal elements and styles is a prime source of musical invention in traditional gamelan music, but the concept of tuning itself needs further clarification here, since it is quite different from that current in Western music, and has a direct bearing on how the music is perceived, and indeed on musical aesthetics.

The term used in connection with tuning is laras. It is employed in a general sense and in non-musical contexts in a similar way to "harmony" or "in-tune" in English, but is also used in a more specific way to refer to two kinds of scale structures applied to gamelan. Laras slendro is usually described as having five fixed pitches (numbered 1-2-3-5-6 in the kepatihan notation system) to the octave, whose intervals are of the same order of magnitude. Laras pelog
has seven fixed pitches to the octave, spaced by a mixture of small and large intervals (the pitches being numbered 1-2-3-4-5-6-7).

The two different laras, slendro and pelog, are mutually exclusive, and so each instrument of a standard "double" gamelan (gamelan seperangkat) has to be duplicated - necessitating, for example a slendro slenthem and a pelog slenthem. In such a double gamelan, the slendro and pelog versions of each instrument are placed at right angles to each other (one facing front, the other to the side) so that a shift through 90 degrees by the player effects a change from one lara to the other. Most double gamelan which are built as such, however, often have one note in common between the two laras. This is referred to as tumbuk. The most common case is where the slendro note 6 is the same pitch as the pelog note 6, when the gamelan is said to be tumbuk nem (nem = "six"), although other arrangements are possible.

An important difference from Western attitudes is that tunings are not standardised. Each gamelan has its own tuning in terms of both absolute pitch level and of scalic structure. Thus slendro and pelog are scale types, not absolute fixed standards, and the same piece will sound slightly different on two different gamelan.

The particular interval structure of a gamelan is called embat, and for musicians, performing on a different set of instruments is like making the acquaintance of a new personality (although this can be initially disconcerting for the vocalists and rebab player who have to adjust quickly to an unfamiliar embat):

"Differences in embat are considered to be one of the riches of karawitan, demonstrating the existence of different kinds of feeling and beauty. Artists and karawitan experts are of
the opinion that each gamelan should have its own character in order to fulfil its task, and this character is located in its embat."

(Sindoesawarno, 18)

Thus, in the Javanese aesthetic, the sounds and pitches produced by the instruments is not a matter for the musicians, but for the gamelan tuner working in consultation with the owner.

Even though there are seven fixed pitches in pelog gamelan, they cannot be regarded as a scale, but could be thought of as an ingenious conflation of two basic pentatonic modes, with the addition of an exchange tone (4) for further flexibility:

pelog bem scale: 1 2 3 5 6
pelog barang scale: 2 3 5 6 7

The thinking behind this is clarified in the following statement:

"First of all we must understand that the thing which has five notes is laras (scale), whereas the thing which has seven keys (bilah) is gamelan. Laras is not gamelan. Gamelan is a particular realization of laras."

(Sindoesawarno, 13)

This difference between concept and realization will arise again in other contexts, and must constantly be borne in mind when considering Javanese musical ideas which seem temptingly close to Western ones. Thus the concept of kembyang is easily translated as "octave" although for acoustical reasons the gamelan tuner stretches the octaves out of a regular 1200 cents (as, for that matter, does the piano tuner). Translating kempyung as "fifth", however, can lead to confusion, since although the concept (as seen
in the tuning of the open strings of the rebab) is similar, the realization of this interval on the fixed pitches of a gamelan can lead to many different kinds of sound.

From the foregoing, it can be seen why many of the melodic concepts of traditional gamelan music can be thought of in terms of movement and contour rather than pitch.

Due to its hybrid nature, the realization of the pelog lara on the gamelan involves a certain amount of compromise. The soft-style fixed-pitch instruments (gender, gambang) even require two separate instruments for the two modes (bem and barang). Thus the scale sequence of the keys on these instruments is pentatonic and directly comparable to slendro:

\[
\begin{align*}
\text{gender slendro}: & \quad 1 \ 2 \ 3 \ 5 \ 6 \ 1 \ 2 \ 3 \ &c. \\
\text{gender pelog bem}: & \quad 1 \ 2 \ 3 \ 5 \ 6 \ 1 \ 2 \ 3 \ &c. \\
\text{gender pelog barang}: & \quad 7 \ 2 \ 3 \ 5 \ 6 \ 7 \ 2 \ 3 \ &c.
\end{align*}
\]

Whatever its origin, this relationship is very important since slendro playing patterns can be transferred directly onto the pelog instruments - indeed it is usually said by Javanese musicians that for the gender there are no specifically pelog melodic patterns, only slendro ones transferred - another instance of the same concept (a melodic pattern) yielding totally different-sounding results when realized on the fixed pitch systems of slendro and pelog gamelan.

Thus, with the exception of the slenthem, the pelog soft-style fixed-pitch instruments only possess the five principal tones of each mode, but the rebab, suling, and voices are free to interpolate the exchange tones, as also happens in slendro with the interpolated miring tones. \(^{10}\)
The pelog loud-style melodic instruments (sarons, bonangs) plus the slenthem, however, have all seven fixed pitches available. Thus on the single-octave members of the saron family, the full pelog gamut is arranged in sequence: 1-2-3-4-5-6-7. In the case of the bonang, however, the positioning of the pencon on the instrument reflects the relationship between slendro and pelog performance practice as seen above in the case of the gender and gambang. The basic layout for both slendro and pelog is as follows:

<table>
<thead>
<tr>
<th>Upper octave:</th>
<th>6 5 3 2 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower octave:</td>
<td>1 2 3 5 6</td>
</tr>
</tbody>
</table>

In slendro bonang with a twelve-note range, this is realized as:

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

Although the pelog bonang has a fourteen-note range, the basic (central) layout of slendro is retained, and the less-used exchange tones (4 and 7 in pelog bern; 4 and 1 in pelog barang) are moved to the extremes of the instrument:

- **Pelog bern**: 4 6 5 3 2 1 7
  7 1 2 3 5 6 4
- **Pelog barang**: 4 6 5 3 2 7 1
  1 7 2 3 5 6 4

This raises the whole question of the physical configuration of an instrument and the particular playing style of that instrument. As in Western music, the two are inextricably related. Thus changes in the instrument may be in response to musical needs, or conversely,
new ways of playing may evolve in response to technological change affecting the physical properties of the instrument.\(^\text{11}\) (This question will become very important in later chapters when we consider how the ASKI composers have begun to explore new possibilities of the existing gamelan instruments.)

The layout of the pencon on the bonang, for example, with the ascending scale sequence reversed (i.e. right to left) on the upper octave, may have its origin in the ancient sekaten bonang which has two players, one sitting on each side of the instrument. This is pure conjecture, however. What cannot be denied is that current bonang playing techniques are closely related to the layout of the instrument. With a mallet in each hand, the musician finds that playing in octaves (a basic bonang technique) is very comfortable due to the symmetrical arrangement about the central note 3. Also, stepwise melodic movement between the octaves is facilitated by having the "upper octave" note 1 actually on the lower octave to the player's left:

Thus a sequence based on stepwise movement, for example, can be executed by alternating left (L) and right (R) hands, as in the following sekaran (a melodic flourish, lit. "flowering"):

\[
\begin{array}{cccccccc}
3 & 2 & 1 & 6 & 5 & 3 & 6 & 1 \\
L & R & L & R & R & L & R & L \\
\end{array}
\]

This layout of the the bonang pencon undoubtedly influences the basic
shape of many of the melodic patterns characteristic of the instrument.

The rearrangement of the pelog bonang according to the mode (and also the pathet, as in pathet lima gendhing bonang, for example, where the low 1 may be placed to the player's left) is made possible because the individual pencon are just resting on top of the cords of the bonang frame, and can be picked up and relocated at will. The keys of a saron cannot be resequenced because of the pegging mechanism, but they can easily be lifted off the case, unlike the keys of the gender which are threaded on a single cord, and so cannot be removed without dismantling the whole instrument. Such ideas do not arise anyway in traditional music, although substitution of gambang keys can be a way of changing from pelog bem to pelogbarang if two separate instruments are not available.12 The physical configuration and layout of instruments are clearly areas ripe for experimentation, but so too are their acoustical properties.

The quality of sound obtained from the various gamelan instruments is partly due to the richness in harmonics of the individual keys and pencon, but also depends on the type of resonator and the nature of the mallet used. Thus the instruments of the saron family produce a bright ringing sound of relatively short duration, due to the thickness of their bronze keys, their shallow trough resonators and the relative hardness of the wooden mallets (harder buffalo horn in the case of the very high-pitched saron penerus). The instruments of the gender family, however, are played with soft padded mallets, and each thin responsive key has its own individually-tuned tube resonator which acts like a closed pipe,
picking out only part of the harmonic spectrum to produce the characteristic sustained mellow tone.

The pencon instruments are even more rich in harmonics, and care has to be taken not to strike kenong or kempul too hard, for example, or the sound may be distorted from the fundamental tone. The most remarkable instrument of all is the gong ageng (great gong), which is so low in pitch and yet so rich in tone that it seems to gather all the sounds of the gamelan together into its deep resonant voice.\footnote{13}

The unitary concept of gamelan means that the individual instruments should not be considered in isolation. The composition of the ensemble with its interrelated families of instruments and the system of tuning the gamelan result in the sounds blending and reacting together in a living way to produce a rich and elegant acoustical balance. In terms of pitch, the gamelan range extends more than six octaves, from the deep vibrant tones of the gong ageng to the bright sparkle of the saron penerus and bonang penerus.

There is also a close relationship between the acoustical properties of the instruments and their playing styles. Thus the low-pitched, large-keyed slenthem is less active than the tiny, high-pitched (and fast-decaying) saron penerus. In the case of the gambang sounds, with their near-instantaneous decay, the mallets are made particularly flexible (consisting of a small padded disc at the end of a long thin stick of buffalo horn), enabling fast reiteration of notes to compensate for lack of sustaining power.

The colours of the non-bronze instruments such as the bowed-string sound of the rebab, the plucked-string sound of the sitar, the flute sound of the suling etc., are such a contrast that
they might be thought difficult to blend, but such is the relationship between the instrumental resources and the musical system with which they have developed, that the interaction between the various strata of polyphony, between the regularly pulsed instrumental elements and freer vocal and vocal-style elements, and between the different registers and timbres, achieves a perfect balance.

That the location and sonic environment of the gamelan play an important role in establishing the overall sound should not be overlooked. In the court tradition (continued in this respect at ASKI), the pendhopo (pavilion), with its cavernous double-pitched roof supported by columns, absence of side walls and hard marble or tiled floor produces a perfect acoustical environment for the gamelan. The instruments are usually placed at one side on a raised wooden platform, and the sounds are reflected up into the roof spaces giving a rich vibrant sound.

The way in which the instruments themselves are laid out within the ensemble is also of great significance.

At the back are the gong, kempul, kenong, etc. which articulate the underlying metrical structure and form of the music. Stretched across the centre is the group of instruments one of whose main functions is to play the skeletal fixed melody (balungan) of the given composition (gendhing). These are the instruments of the saron family which may be duplicated to form a large section, and also the slenthem, pitched an octave below the lowest saron (demung). At the front of the gamelan are what are sometimes termed the "elaborating" instruments which flesh out the slow-moving notes of the fixed melody. On one side are placed the elaborating instruments of the
loud style - the two-octave bonang barung, and bonang penerus (the latter pitched an octave higher than the former), and on the other side the elaborating instruments of the soft style - the gender barung, gender penerus, gambang etc., with the rebab player sitting in the centre-front as melodic leader of the whole ensemble and, behind him, in the middle of the entire layout, the kendhang player (drummer) who is the rhythmic leader. Also at the centre-front usually sit the vocalists.

Thus the layout reflects not only the acoustical characteristics of the ensemble, but also the functions performed by the various instruments and sections of the gamelan within the traditional music system associated with it - karawitan.
Karawitan as a musical process

Balungan gendhing and the concept of garap

Melodic concepts - lagu

Metrical and rhythmical organization - irama

Structural organization - bentuk

Pitch organization - pathet

Group creativity - instrumental and structural garap
We have seen how the layout of the gamelan reflects three major functions within the music: (1) an underlying formal structure which provides the framework for (2) a skeletal melodic outline which itself forms the basis for (3) interpretation, in-filling and embellishment by each instrument according to its individual playing technique and style.

The role of the "composer" in this musical system is therefore limited to providing the melodic skeleton - or balungan gendhing (balungan literally means "skeleton"; gendhing in its general sense means a gamelan piece) - which is then fleshed out at the moment of performance by the musicians. This musical process is clearly very different from that of Western orchestral music. (We must look to pre-Classical styles, or to jazz to find satisfactory parallels.) The diagrammatic representations of the two systems given overleaf, although crude simplifications, point up the most crucial differences.

At worst, the Western process has many of the features of a factory production line. All creative power is in the hands of the composer, interpretative power in the hands of the conductor, the musicians' role being merely recreative. The aim is to perform as accurately as possible the "finished work" of the composer. At every stage in the process, visual activity is of prime importance.

By contrast, traditional karawitan is essentially an aural system. The musicians have a creative as well as interpretative and executive role. Even the skeletal outline of a new piece will usually consist largely of an arrangement of conventional patterns and variations on established formulae which the "composer" knows will be interpreted by the musicians in a certain way according to
Western Orchestral Music Process

COMPOSER
  writes
  \rightarrow
SCORE
  \rightarrow
COPYIST
(PUBLISHER)
  \rightarrow
PARTS
CONDUCTOR
  \rightarrow
MUSICIANS
  \rightarrow
MUSIC

(the "finished work of art")
reads/interprets
gives verbal instructions
and visual signals
read
watch
translate
play

Javanese Gamelan Music (Karawitan) Process

TRADITIONAL MUSIC SYSTEM

conceptual "frameworks"

pathet

irama

bentuk

MUSICIANS
interpret
create
interact
play

PENYUSUN

"arranges/composes"

traditional repertory

BALUNGAN
GENDHING
(memorised)

KARAWITAN
the commonly-held principles and norms of the music system. The system itself is so supportive that often little or no rehearsal is required, unless a new piece is to be learned, and even then the process of absorption is very fast. A new piece might be taught aurally or by using notation (e.g. on a blackboard) and the balungan gendhing is quickly memorised. (Even when notation is used, the learning process is clearly aural.) Notation is never used in performance. The working-out of individual instrumental parts is usually left to the performers. There is no conductor or visual signals of any kind, only musical cues.

How can an orchestral music on this large scale (requiring 25 or more performers) hold together? To use Western terms such as "composition" and "improvisation" in this context can be misleading. For the process of creation which lies at the heart of traditional gamelan music we must use the Javanese term — garap.

The word garap means to work on or cultivate something, and in the context of karawitan has many applications which can be variously translated as realization, performance-practice, instrumental playing technique, treatment, interpretation, exploitation, development, etc. The two most important aspects of garap — how an individual instrumental part is realized (instrumental garap), and how a particular piece, or sequence of pieces, in its entirety is realized (structural garap) will be described below, but it is important to point out that in Javanese thinking, garap can be applied to every aspect of music. (This will become apparent when we come to consider the work of the young composers with their "garap of tempo", "garap of volume" etc.)
Clearly, in such a system, the prospective musician is not concerned with learning many different "original compositions"; his task, rather, is to learn garap - the processes of realization which can be applied to a huge repertory of traditional (and sometimes new) gendhing which, since they share similarities of form and vocabulary, may be subjected to such realization. The situation is neatly summed up by Hardja Susilo:

"In this type of musical culture, a student must learn the process rather than memorizing the product."

(Susilo 1984, 143)

The process of learning to play gamelan itself gives many insights into how the music system works. The contrast with Western orchestral musicians could not be greater. From the first day the student plays in the ensemble. As in so many things there is an elegant balance of skills within the gamelan, ranging from instruments which are very simple to play both technically and conceptually, to very difficult instruments requiring years of practice. Thus gamelan reflects the ideals of Javanese social organisation - the range of tasks matches the range of skills and abilities from the most humble to the most complex, yet all are equally important and interdependent like a large close-knit family. There is no "soloist", no concept of the "virtuoso".

Thus a beginner will start on a simple instrument, such as one of the saron barung, playing the balungan gendhing melody. By playing in the ensemble, the new player learns by a process of absorption how the instrumental parts relate to the balungan, to each other, to the whole. He is soon ready to move on to other instruments and begin the process of learning their garap. The experienced performer
is at one with the music in a way which the Western orchestral player can never hope to emulate, for at each moment he is aware of what all the other instruments are doing, having at some stage played them himself. Most musicians thus acquire a proficiency on at least all the "tutti" instruments before specialising on one or two of the more difficult soft-style instruments such as rebab or gender.

Even though restricted by the constraints of a conservatory-style course structure and timetable, practical instruction at ASKI still adheres to these traditional principles. Over several two-hour sessions a particular piece is worked on, and after each play-through the students move round to another instrument, playing them all in rotation.

For such a music system to work, it must be based on well-established principles and concepts as well as a common vocabulary and system of rules and standards. One of the prime requirements of such concepts and norms is that they must enable the musicians to play together, for this is an orchestral music.

The basic impulse of Javanese music is melody - lagu. In terms of the gamelan, lagu may be described as "an ordered arrangement of tones that sound pleasant when played" (Martopangrawit 1984, 11). However, as in the West, instrumental music has developed hand-in-hand with vocal music and derives from it many of its ideals and aspirations concerning melody, such as breath-related phrasing and contour, movement by step etc. The vocal element itself is a very important component of the gamelan texture, in the form of the male chorus (gerong) and female vocalist (pesindhen), but Javanese music also has a purely vocal tradition in the unaccompanied solo singing
of poetry - tembang/sekar.\textsuperscript{16}

Many of the traditional melodies associated with such singing have been used as the basis for the creation of gamelan pieces (gendhing sekar),\textsuperscript{17} and the transformation which they undergo in the process reveals much about how melodic concepts are realized in instrumental terms. Tembang, being an unaccompanied solo vocal form is by nature free in rhythm and flexible in terms of pitch. Such a melody must be structured with regards to both time and pitch, if it is to be treated in ensemble, especially an ensemble of fixed-pitch instruments. The conceptual bases of temporal and pitch organization in gamelan melodies are called irama and pathet respectively.

In its widest sense, irama means tempo and implies a regularly pulsed metrical structure.\textsuperscript{18} The metre is conceived of as a hierarchy of binary subdivision, which at its most basic level consists of a light "upbeat" pulse followed by a heavier "downbeat", as can be seen at its simplest in the rocking two-note melodic cells of srepegan form:

\texttt{3 2 3 2 5 3 5 3 2 1 2(1) 2 1 2 1 3 2 3 2 etc.}

This preparation/resolution kind of dichotomy expands to all levels in the structural hierarchy, providing the basic patterns of phrasing, labelled by the theorists padhang - ulihan (antecedent - consequent), and also underlying the anticipatory nature of melodic embellishment - all the instrumental lines moving towards a strong beat as a point of coincidence (seleh).

The conceptual basis of structure is illustrated in the way notation is written. The notes of a balungan gendhing are grouped in units of four (called gatra) with the strong beat felt on the
fourth (usually a seleh point), and a subsidiary strong beat on the second of each gatra:

\[
\begin{align*}
2 & 1 & 2 & 3 \\
2 & 1 & 2 & 6 & 3 & 3 & \cdot & \cdot & 6 & 5 & 3 & 2
\end{align*}
\]

In its more precise usage, irama refers to the tempo at which the balungan is moving relative to the basic pulse. (To avoid confusion, the word *laya* is now often preferred to irama for the more general meaning of the tempo or speed of the basic pulse.) Bearing in mind the binary subdivision principle, the balungan gatra written \(6 5 3 2\) may thus be played with one, two, four, eight, or sixteen basic pulses per note, referred to as *irama lancar*, *irama tanggung*, *irama dados*, *irama wiled*, and *irama rangkep* respectively. With a dot representing the basic pulse, this can be shown diagrammatically as follows:

- **Irama lancar**: \(6532\)
- **Irama tanggung**: \(6532\)...
- **Irama dados**: \(6532\)........
- **Irama wiled**: \(6532\)................
- **Irama rangkep**: \(6532\)................................

The "elaborating" instruments then have to fill in the spaces between the balungan notes. It is useful to observe the saron penerus in this respect since its striking rate is that of the basic pulse. So in *irama tanggung*, the saron penerus would have to play two notes to every one of the balungan, for example:
balungan: 6 5 3 2
saron penerus: 6 6 5 5 3 3 2 2

whereas in irama dados, the balungan is moving at half the speed it did in irama tanggung, requiring the saron penerus to play four notes for every balungan note, for example:

balungan: 6 5 3 2
saron penerus: 6 6 5 5 6 6 5 5 3 3 2 2 3 3 2 2

It will be noted from the above that a different irama implies a different playing pattern – a different instrumental garap – for the saron penerus (and the other instruments; in some circumstances even the balungan instruments themselves). Thus a change in irama (as frequently happens, executed via a transitional accelerando or rallentando) is not just a change of tempo for the balungan melody but also implies a metrical and textural modulation and also changes in instrumental garap.

The "structural" instruments also operate within the binary heirarchy, but at a level above that of the balungan. Thus strokes on the kethuk, kenong, kem pulp, gong etc. make audible the metrical structure, the largest unit of all being signalled by the gong, to which everything else seems to lead:

| gong (G): | G |
| kempul (P): | P |
| kenong (N): | N |
| kethuk (T): | t t t t |
| kempyang (Y): | Y Y Y Y Y Y Y Y |
| balungan (o): | o o o o o o o o o o |
Each gamelan piece is built using one of a small number of fixed forms (bentuk) defined by the garap of the structural instruments. The one given above is for ketawang form, and all pieces in this form are therefore constructed using the above basic structural gong cycle. Such cyclical structures are highly characteristic of traditional Javanese attitudes to time.

As mentioned above, the "upbeat"/"downbeat" principle extends to the structural level also, and so for each fixed form there is a hierarchy of phrase construction comprising padhang (antecedent) and ulihan (consequent), the highest level being the kalimat lagu (musical sentence). This balance of phrasing is implied in the structure, and the melodic line of the balungan thus usually (but by no means always) conforms to it. For the ketawang form, for example, the padhang (P) - ulihan (U) structure is as follows:

Thus the first gatra is balanced by the second, the third gatra by the fourth; and at the higher level the first two gatra are balanced by the second two. A particular ketawang will therefore consist of several such gong sections according to the overall form, which is dependant on the melodic content.

If irama provides the temporal framework which allows the musicians to play together, pathet is the underlying concept of pitch organisation which ensures that what they play actually sounds well
together. Pathet is possibly the most discussed and written-about aspect of karawitan, and it is perhaps unfortunate that so many of the earlier Western studies translate the term as "mode", for it follows from the above description of its function that one of the prime functions of pathet is harmonic - not meaning harmonic in the technical sense of Western classical harmony, but in the general sense of sounding together. Perhaps it would be better to say that pathet is the equivalent to the "tonality" (in the widest sense) of a piece in that it guides both melodic and harmonic movement and sets up a hierarchy of tones of greater and lesser degrees of consonance.

Any melody, by virtue of its shape and contours possesses harmonic implications in that certain tones are stressed and thus persist. The interaction between melody (lagu) and a regularly-pulsed metrical structure (irama) with its own hierarchy of weak and strong beats and padhang-ulihan implications, enables further stressing of particular pitch levels. If the tones so stressed are the important tones of a particular pathet, then the feeling of that pathet will be aroused.

At the points in the structure where all the instruments come together (seleih), the harmonic rules of pathet are most clearly seen in operation. For example, if the gender player is confronted with the balungan gatra \( \cdot 2 \cdot 1 \) and the pathet is slendro manyura, he will choose a pattern which harmonises the seleih note (1) with a gembyang ("octave"), ending on the dyad 1/1, whereas if the pathet is slendro sanga, he will play a pattern ending on the dyad 1/5 (i.e. a kempyung or "fifth").

In the case of the gatra 6 5 3 2 the final dyad would be the
kempyung 6/2 in both pathet sanga and manyura, but the preceding pattern would be different, stressing different pitches along the way. Thus in pathet sanga, the mid-point stress confirms note 5 (an important note in pathet sanga), whereas in pathet manyura at this point the gender would stress 6 (a strong note in pathet manyura, note 5 being the "non-note" of the pathet).23

Some balungan phrases are clearly in a certain pathet, whereas others are ambiguous and depend on their context. Thus questions of interpretation arise. Modulation from one pathet to another is common, especially in large-scale gendhing.

As in Western music where melodic lines often have harmonic implications, it is the dynamic of the melodic parts themselves in inter-action with the underlying metrical structure which creates a kind of harmonic or tonal field, different for each pathet. Such a concept lies behind the statements about pathet by Javanese musicians which I personally find most illuminating (but which are dismissed by Western scholars as unscientific), such as: "Pathet is the couch or bed of a melody",24 and "The pathet allows the gendhing to sit down".25

In considering instrumental and structural garap we are again confronted with the difference between concept and realization met in the last Chapter. In performance, the outline concept of a piece - its balungan gendhing - is often thought of as an instrumental abstraction of an underlying melody, often of a vocal kind.26 (Most balungan gendhing have a vocal range - conceptualised as a central octave with extensions to lower and higher octaves.) This "inner
Chapter 3

melody" is not played directly by any one instrument. As we saw in Chapter 2, each instrument has its own physical and acoustical properties with attendant playing style, and thus has to "garap" its part. The abstraction of the inner melody of the piece, the balungan gendhing, ensures that the garap is guided along a common path. In the case of the so-called "balungan instruments", their part is often very closely related to the balungan gendhing, having just to accommodate it into their one-octave range. For example:

balungan gendhing: \( \begin{array}{cccc}
3 & 5 & 6 & 1 \\
3 & 2 & 1 & 6 \\
\end{array} \)

saron: \( \begin{array}{cccc}
3 & 5 & 6 & 1 \\
3 & 2 & 1 & 6 \\
\end{array} \)

Some instruments have a garap which can be closely related to the balungan, as in the mipil style of bonang playing where the melodic line is derived from pairs of balungan notes played in anticipation, for example:

balungan gendhing: \( \begin{array}{cccc}
6 & 5 & 3 & 2 \\
\end{array} \)

bonang barung: \( \begin{array}{cccc}
6 & 5 & 6 & 5 \\
3 & 2 & 3 & 2 \\
\end{array} \)

Other instruments, particularly those of the soft-style ensemble, must "improvise" their parts, choosing from a repertory of pre-learned melodic patterns (cengkok)\(^{27}\) particular to each instrument a sequence which will fit the given balungan, but constrained by the requirements of the pathet. The skill of playing an instrument such as the gender lies in interpreting the given balungan, choosing appropriate cengkok, joining them together in a seamless flow, improvising variations and embellishments (wiletan), and, in all this, responding to the
playing of the other performers. In terms of interpretation, the rebab is regarded as the melodic leader of the ensemble (the bonang barung in the case of the loud-style ensemble). The rhythmic leader, the kendhang player, also has the responsibility for the structural garap of the piece or sequence of pieces. By means of aural signals and cues he can determine such matters as which irama a certain section will be played in, how many times a section will be repeated, when to proceed to the next section or transition to another piece etc. In some genres (e.g. sampak) he can even "edit" the micro-structure of a piece in performance.

Thus it is usually only necessary for the composer of a new piece in traditional style to give the barest of essentials. In the following piece by Pak Martopangrawit, for example, the notation of the balungan gendhing together with the information contained in the title about the form (ladrang), laras (pelog), and pathet (nem) is sufficient for it to be realized by any competent group of musicians:

**Ladrang NALA DAHANA pelog nem**

Buka: 3 6 5 3 2 1 6 5 6 1 2 3 5 3 (2)

( Martopangrawit 1971, 5)
At its best, karawitan exemplifies interactive group creativity in action; it is communal music par excellence:\textsuperscript{31}

"In this system of [simultaneous] melodies, the performers need not worry that they will be obscured by their colleagues, or go unnoticed by the listener. Moreover, each performer "plays" his sentence as well, and as beautifully as possible, according to his own individual skill, understanding and artistry. Here, each player becomes a composer, becomes a creative artist, becomes a poet in sound, an improvisor. Such composed sounds may be referred to as lyricism. The competition to attain a more beautiful lyricism becomes like family humour in ensemble playing. The personality of an individual becomes a source of refreshment in this melodic process. In essence, we do not just listen to the melody, but also to the creator of the melody, that is the artist or musician."

(Sindoesawarno, 45)

But if each player is a "composer", a creative artist, what is the role of the person who creates or arranges the balungan gendhing? Can he be called the composer of that gendhing? Indeed, can we use the words "composer" and "composition" at all in relation to traditional karawitan?
CHAPTER FOUR

"COMPOSITION" IN THE CONTEXT OF

TRADITIONAL KARAWITAN

The penyusun - "composer/arranger"

Variation as a basic compositional technique

Working with and against the conceptual frameworks

The requirements for being a composer

The problem of innovation

Micro-structures and macro-structures
The central role of garap, both instrumental and structural, in traditional karawitan means that the balance between what is pre-composed and what is realized at the moment of performance is very different from that found in Western music. Gamelan performance is a creative act in which all the musicians share, with a greater or lesser degree of responsibility. But what of the pre-composed element - the balungan gendhing - the skeleton which the performers flesh out with their garap? Is it possible to speak of the person who creates the balungan as a composer? The term in current use to describe this task is menyusun, which means to arrange or to put in order, i.e. "compose" in the general sense of the word. Consequently, a musician engaged in this activity is referred to as a penyusun. Unlike the Western composer, the penyusun does not seek to create something entirely new or unique - originality is not a requirement. The Western concept of the highly-specialised composer as artist, detached from the performance process, most certainly does not apply. Most of the great classic gendhing of the Javanese court repertory are anonymous, or attributed to the occupant of the throne at the time of creation, although they were most likely composed by court musicians. Because of the aural transmission of the music culture, many standard repertory pieces are to be found in variant versions. This does not mean that one is "correct" and the others "incorrect"; such variation is an acceptable indeed desirable condition. Moreover, there are to be found many similarities between pieces, whole phrases and even gong-sections recurring in different contexts. As Sutton remarks, "the learning process in Java depends on this similarity between pieces. One is expected to have to learn each piece not as a discrete new entity, but as a rearrangement of extant patterns." (Sutton
1982, 44). The significance of the word menyusun, in the sense of "arrange", thus becomes clear. The penyusun or "arranger/composer" is just as constrained by the rules of the traditional music system as the performers, and indeed is operating in a very similar way in that he "garaps" the existing vocabulary of balungan gendhing to produce a new arrangement of traditional patterns: "Javanese compositional process can be seen essentially as an act of creative recombination - of variation on extant musical pieces." (Sutton 1982, 33). In his analysis of this compositional process, Sutton identifies variation as the central technique. Whereas the variation is simultaneous in the garap of a piece by the musicians, in the composition of a new piece it is used sequentially. Thus, for example, a balungan gendhing realized in irama wiled is moving so slowly that it is often subjected to a melodic transformation in order to fill in the gaps between the notes, the new version thus being a variation of the original, as, for instance in the inggah section of Gendhing Kutut Manggung slendro manyura:

\[
\begin{align*}
\text{irama dados:} & \quad 3 \quad 2 \quad 5 \quad 3 \quad 6 \quad 2 \quad 3 \quad 1) \\
\text{irama wilet:} & \quad 3 \quad 6 \quad 3 \quad 2 \quad 5 \quad 6 \quad 5 \quad 3 \quad 6 \quad 1 \quad 3 \quad 2 \quad 6 \quad 3 \quad 2 \quad 1) \\
\text{irama dados:} & \quad 3 \quad 2 \quad 5 \quad 3 \quad 6 \quad 2 \quad 3 \quad 1) \\
\text{irama wilet:} & \quad 3 \quad 6 \quad 3 \quad 2 \quad 5 \quad 6 \quad 5 \quad 3 \quad 6 \quad 1 \quad 3 \quad 2 \quad 6 \quad 3 \quad 2 \quad 1) \\
\text{irama dados:} & \quad 3 \quad 2 \quad 5 \quad 6 \quad 5 \quad 1 \quad 5 \quad 6) \\
\text{irama wilet:} & \quad 3 \quad 6 \quad 3 \quad 2 \quad 6 \quad 3 \quad 5 \quad 6 \quad 3 \quad 5 \quad 6 \quad 1 \quad 6 \quad 5 \quad 1 \quad 6) \\
\text{irama dados:} & \quad 3 \quad 2 \quad 5 \quad 3 \quad 6 \quad 2 \quad 3 \quad (1) \\
\text{irama wilet:} & \quad 3 \quad 2 \quad 3 \quad 2 \quad 5 \quad 6 \quad 5 \quad 3 \quad 6 \quad 1 \quad 3 \quad 2 \quad 6 \quad 3 \quad 2 \quad (1)
\end{align*}
\]
Similar variation techniques can often be seen at work in the relationship between the two major sections of gendhing form. The second section, inggah, which is usually realized in a lively way, often makes use of a spaced-out type of balungan (balungan nibani) which gives the players more scope to improvise. In gendhing of the minggah kendhang type, this inggah section is in fact a variation of the first section (merong). Sometimes the relationship is very clear, as in the following example from Gendhing Gendreh laras pelog pathet nem:

Gendreh, gendhing kethuk 4 kerep minggah 8 laras pelog pathet nem

Comparison of the 3rd and 4th kenongan of the merong with the 3rd and 4th kenongan of the inggah:

merong: * 3 5 2 * 3 5 2 5 6 5 4 2 1 2 6
inggah: * 3 2 * 3 2 5 4 1 6

merong: * * 6 5 * 3 3 5 6 3 3 * * 6 5 3 2)
inggah: * 1 6 * 1 6 * 3 6 * 3 2)

merong: 5 6 5 4 2 1 2 1 6 5 3 * 3 5 1 6
inggah: 5 4 * 2 1 * 5 3 * 5 6

merong: 3 5 6 * 3 5 6 1 * 3 2 * 1 6)
inggah: 5 6 * 2 1 * 3 2 * 1 6)
Sometimes the relationship is not immediately apparent, being in terms of the large-scale harmonic outline of the piece as seen in the major structural points such as the kenong and gong strokes. In the case of Gendhing Gambirsawit laras slendro pathet sanga, even the harmonic plan is simplified in the inggah section. Here, the balungan note at the third kenong stroke is 2, whereas in the merong the equivalent note is 3 (a "dissonant" tone in pathet sanga) treated rather like an "accented passing note" which "resolves" onto note 2 (*). In both versions the kenong actually plays note 2.

Gambirsawit, gendhing kethuk 2 kerep minggah 4 laras slendro pathet sanga

Comparison of merong and inggah:

**merong:**  
2 3 5 6 2 2 2 2 3 2 1

**inggah:**  
2 2 2 2 3 2 1

**merong:**  
1 2 6 2 2 2 2 3 2 1

**inggah:**  
2 2 2 2 3 2 1

**merong:**  
1 6 5 5 6 1 6 5 3

**inggah:**  
1 6 5 3

**merong:**  
3 2 5 3 2 1 3 5 3 2 1 6 (5)

**inggah:**  
3 5 3 2 1 6 (5)

It must be remembered that a composer working in a particular fixed form such as gendhing kethuk 4 kerep, for example, is not working with a "form" as such, but with a structural groundplan defined by the irama and the kethuk/kenong/gong strokes in a cycle.
of 32 gatra (128 balungan beats). The skillful composer works against these restrictions and expectations. Such an approach may be seen in the following example:

**Damarkeli, gendhing kethuk 4 kerep minggah B lara slendro pathet manyura**

(the second gongan of the inggah)

The melodic figures used here are all quite common and may be found in many other pieces. However, in their arrangement, the structural implications of the melodic sequence are at odds with the padhang-ulihan structure implied by the form. This enables the composer to resolve the displacement of figure A at the gong by extending the B phrase on its third appearance (B').
The above extracts from Gambirsawit and Damarkeli are very simple examples, but demonstrate how the composer can use the "couch" of pathet and the framework of padhang-ulihan structure to make his manipulation of what are quite common melodic patterns into something distinctive and satisfying.

An examination of some of the large-scale gendhing composed at the courts, as preserved and published in notation form by ASKI itself,35 shows that the "composers" of such works were capable of using highly sophisticated methods to give form and continuity to their works. All manner of techniques are to be found including the use of large-scale structural tonality and pathet modulation, all manner of variation techniques, motivic manipulation and melodic development. Consider, for example, the motif which opens the Gendhing Bonang Babar Layar laras pelog pathet lima:

\[
\begin{array}{c}
\cdot 6 \frac{5}{3} \frac{4}{3} \frac{4}{3} \frac{3}{2} 1 \\
\cdot 6 \frac{5}{3} \frac{4}{3} \frac{4}{3} \frac{3}{2} 1
\end{array}
\]

This figure is not heard in the long central section (inggah) but a transformed version of it recurs towards the end of the piece (some 20/25 minutes later) in the motif which opens the final sesegan (fast section):

\[
6 \frac{5}{3} \frac{4}{3} \frac{4}{3} \frac{3}{2} 1 6 \frac{5}{3} \frac{4}{3} \frac{4}{3} \frac{3}{2} 1
\]

Clearly, to be able to manipulate the vocabulary of the traditional music system to produce extended compositions of this sophisticated kind demands a thorough intuitive knowledge and understanding of the system, the underlying concepts of irama, pathet
and form, and the mechanics of garap. Pak Martopangrawit lists the
requirements for being a composer of gendhing as follows:

1. You must be familiar with the proper performance practice
on all the instruments (of the gamelan), so that the gendhing
you compose will not have sections that are awkward to play.

2. If the gendhing you compose is to include a vocal part
(gerong), both the instrumental and the vocal sections must
be given equal consideration, so that neither one is over­
emphasised. In this way, both elements will go well together.

3. You must understand the direction of the melody (arah nada),
for this is what determines pathet.

4. You must understand which tones can emphasise or de-emphasise
the seleh tones, for if this is not understood, the pathet can
be altered unwittingly.

5. You must understand the function (fungsi) of each of the
tones in each pathet, for these are what serve to determine
the pathet.

6. You must understand melodic phrasing (kalimat lagu), for
this serves to determine the form of the gendhing.

7. You must understand the rules of sindhen (solo singing),
for these are closely related to melodic phrasing.

8. You must understand the structures of gendhing in order
to avoid any discontinuity in the course of the gendhing.

9. You must understand the features of melody, since these
will determine the character of the gendhing - whether dignified,
pitiful, gay, excited, lively, etc.

10. You must understand the cengkok mati (fixed cengkok) so
that in either pelog or slendro you can avoid an awkward balungan.

11. You must understand lagu mati (fixed melodies) because they serve to determine the basic irama of the gendhing.

12. You must be able to change the density of the balungan (lakuning balungan) - for instance from balungan mlaku to balungan nibani, or to balungan ngadhal, and back again - so that the atmosphere of the gendhing can be manipulated.

13. You must understand the natural embat (embat alam = natural intervallic structure) of each mode or tuning, so as not to cause the vocalists and the rebab player to play out of tune.

14. You must understand mode and tuning, for this will help the performers.

15. Finally, you must know how to transpose a gendhing in slendro to pelog and vice versa.

(Martopangrawit 1984, 227-28; translation by Martin F. Hatch)

With such a formidable list of restrictions the question arises of how innovative a composer can be. There are many gendhing in the traditional repertory which cannot be realized in standard ways - which are said to require garap khusus (special garap). The problem is that the essence of any aural tradition is change, and so the common perceptions of the musical system which a composer took for granted when he arranged a gendhing a hundred years ago, for example, are not necessarily the same as those shared by today's musicians. Thus a gendhing only the balungan of which was notated at some time in the past may prove difficult to realize without knowing the special garap required. Contemporary composers working in the traditional
style, such as Pak Martopangrawit himself, therefore often append quite detailed notes about the required garap to the notation of their pieces. 36

It is the central position of garap within the music system and the total interrelationship and interdependence of its elements which provide the creative strength of traditional karawitan, but also the most problems for the composer. If he starts to tinker with just one element, there will be immediate consequences which will echo and rebound like a chain reaction throughout the system causing practical difficulties of realization for the performers.

Some of the new-style popular pieces by such composers as Nartosabdho and his imitators come in for criticism in this regard:

"There has arisen another kind of lancaran, which includes a vocal part, and whose melodic phrases are even more chaotic, because the vocal part has obviously been composed first and the balungan rather arbitrarily tacked on afterwards. The function of the balungan in these pieces is not to serve as a point of reference, but merely to accompany the vocal part. Such a compositional process is unfortunate since it gives no thought to the form of melodic phrases which must be used in the composition of gendhing. It also tends to violate traditional instrumental practice."

(Martopangrawit 1984, 72-73; translation by Martin F. Hatch)

Hastanto cites a similar kind of transgression of the rules in his criticism of Lancaran Daniel by the American composer Lou Harrison:

"Superficially, indeed, this example suggests lancaran form (the kenong and kempul pattern does, but the gong ageng pattern does not). Melodically (from the padhang-ulihan point of view), however, it is not a lancaran at all. The first and second
lines have a ketawang padhang-ulihan structure (two gongan), the third and fourth lines together tend to be a ladrang. Because of the padhang-ulihan structures, the appearance of kenong and kempul strokes throughout is not appropriate to Javanese ears. Even in Java, amateur composers often make mistakes of this kind."

(Hastanto 1985, 54)

Such problems may be partly overcome by the simple expedient of avoiding titles which include terms or names (such as lancaran, ladrang, etc.) which have definite associations and implications in the traditional system. Hastanto himself proposes this solution (1985, 65 note 10), and the approach of the ASKI composers to this question will be considered in Chapter 9. However, the use of a non-traditional name or title does not alter the fact that innovations of this kind which violate traditional rules of form, structure, pathet, etc. may raise practical problems in terms of garap.

There is another aspect of the word "menyusun" applied to karawitan which would not really be considered an aspect of "composition" in the Western sense, and that is the arrangement of sequences of pieces.

Gendhing are rarely played as isolated pieces. In an informal musical performance (uyon-uyon) a sequence of pieces would be arranged as a suite. For example:


2 Suite: Pathetan Wantah, bawa Wegangsulanjari, gendhing rebab,
Gendhing Onang-onang, kethuk 2 kerep minggah 4, Ladrang Maskentar, Ketawang Sitamardawa, Kemuda with Palaran, Pathetan Jugag, pelog nem.

This arrangement represents the first two items (out of four) in the second major part of a typical day-time klenengan programme using a full slendro/pelog gamelan, suggested by Sri Hastanto (1985, 221). Not only does each suite have to be suitably balanced and well structured (with its progression from large to small-scale forms), but the whole programme with its alternating slendro and pelog suites and individual pieces is given an overall shape - divided into three major parts (corresponding to the use of structural tonality in the three divisions - nem, sanga, manyura - of the all-night wayang kulit, or shadow-puppet theatre, performance).

A much more common task for the penyusun is to arrange a sequence of pieces to accompany one of the theatrical forms such as wayang kulit, wayang wong or dance.

For example, Vetter (1984, 196-205) lists the sequence of pieces used to accompany a performance of the story Senggana Obong ("Hanoman at the Stake") in the theatrical genre langen mandra wanara. As with the music for wayang kulit performance, the choice and arrangement of such sequences usually follows well-established traditional lines with specific pieces being associated with particular characters, situations, moods, etc.

Even in more "abstract" dance forms such associations may be put to good use by the arranger of the musical accompaniment. For example, the following sequence is intended to accompany the dance Gathutkaca gandrung, and uses music from the wayang repertory associated with the character Gathutkaca. The design of the sequence,
whilst responsive to the requirements of the dance, clearly demonstrates an overall sense of structure and form:

Accompaniment for the dance Gathutkaca Gandrung
(version recorded on commercial cassette Lokananta ACD 114)

A 1. Ada-ada slendro manyura wantah
B 2. Sampak slendro manyura
C 3. Sendhon tlutur slendro manyura jugag
D 4. Ketawang Kinanthi Pawukir slendro manyura
A' 5. Ada-ada manyura wantah (different text than 1.)
E 6. Lancaran Bendrong (without ngelik)
F 7. Ladrag Pucung Rubuh, slendro manyura
E' 8. Lancaran Bendrong (extended version with ngelik/kiprahan)
B 9. Sampak slendro manyura

Similar feeling for overall structure and form may also be seen in more abstract dance styles, not related to wayang sources, such as the following sequence used to accompany the Mangkunagaran version of the Gambyong dance:

Sequence of the Musical Accompaniment for the dance Gambyong Pareanom Mangkunegaran

A 1. Pathetan jugag pelog nem
B 2. Ayak-ayakan pelog nem
A 3. Pathetan jugag pelog nem
C 4. Merong and ngelik Gendhing Gambirsawit pelog nem
D 5. Kebaran Pareanom pelog nem
E 6. Inggah Gendhing Gambirsawit Pancerana pelog nem
D 7. Kebaran Pareanom pelog nem
E' 8. Inggah Gendhing Gambirsawit (garap menthokan)
A 9. Pathetan jugag pelog nem
B 10. Ayak-ayakan pelog nem
A 11. Pathetan jugag pelog nem
Thus the traditional "composer/arranger"'s task at both the micro-structural level of creating new balungan gendhing and at the macro-structural level of arranging sequences of pieces into larger entities, can be seen in terms of assembling and arranging suitable pre-existing material.

However, many of the more recent changes in traditional karawitan have seen the task of the "composer" developing on radically new lines. To understand the reasons for this we must first examine the larger question of the nature and causes of change in the traditional arts of Indonesia.
Recent social and cultural change

New technology, commercialism and the influence of cassettes

Attitudes to tradition - conservation/development/rejection

New ways of learning - the specialist arts schools and academies

Influences from Jakarta and the new festivals
"Beginning in the twentieth century and reaching a climax with independence in 1949, Javanese society underwent a vast emotional upheaval in trying to restructure a king-centred, stratified society in order to become a modern state. One of the pursuits of the nationalists was rapid, innovative economic development, an activity that rated very low on the traditional scale of values. Public education for all meant an elimination of the monopoly of knowledge by an elite. The use of the Indonesian language in official life lessened the status-reinforcing aspect of the Javanese language, with its carefully controlled and manipulated levels of speech. The new spirit of dynamism and change, and the growing importance of the individual also combined to undermine the ethos of the traditional arts.

These changes came so suddenly and were so cataclysmic that the traditional arts could not adjust nor evolve slowly in accordance with oral traditions. The result is a complex of traditional arts that continue to remain popular, but in a curious way are out of phase with the thrust of the culture as a whole. All these changes have occurred within the lifetimes of mature Javanese, and among the intellectuals they have created a painful ambivalence."

(Becker 1980, 101)

Change is an essential part of any lively musical culture, and traditional karawitan is no exception. The more stable cultural environment of the Javanese past allowed such change to proceed at an evolutionary pace. Today, however, karawitan finds itself in a very different world. The impact of the forces of Indonesianisation, modernisation and concomitant Westernisation; the huge growth of the towns and a new urban culture; the consequences of mass education, its institutions, methods and implied values derived from Western models - all these have led to great social and cultural ferment
and to a very unstable situation for the traditional arts. The problem is neatly summarised in the quotation given above which is taken from Judith Becker's book *Traditional Music in Modern Java: Gamelan in a Changing Society*, published in 1980. The two composers, Ki Nartosabdho and Ki Wasitodipuro, whose work was examined by Becker, were clearly responsive to the changing social, political and cultural climate, as, for example, in their use and development of *dolanan* (children's ditties/play songs) as the basis for a new style of popular gamelan-accompanied songs with dancing rhythms and catchy tunes. "For Ki Nartosabdho dolanan are one way to reach the younger generation which seems to be drifting away from gamelan culture" (Susilo 1984, 152).

The problem of the alienation of many present-day young urban Javanese from their cultural heritage is an important one for the traditional arts. The young are trained in the national language, Indonesian, which (along with English) is associated with development, progress and the future, Javanese being relegated to the status of a "regional language" *(bahasa daerah)* and associated with the past. In a very similar way, gamelan music seems totally irrelevant to their social and cultural aspirations, being linked so closely with a bygone age, whereas their upbringing on the national songs of Indonesian *musik* (which is diatonic) frequently leads them on to follow the fashions of Indonesian (and Western) pop music.

One of the most significant developments in the short time since Becker's work was undertaken has been the increasing impact of electronic technology in terms of radio, television, and, especially, the cassette player, and the attendant trend towards commercialisation:
"Every morning the calm is shattered and torn apart by the clatter of music and pop songs which breaks out. Noisy neighbours turn on their radios and cassette players with the volume turned up to maximum. A veritable battle of noise... City and village people alike are becoming more experienced and more used to receiving something ready for consumption. They have been spoiled by technology... their only labour is to turn a knob. The people are slaves to a culture machine always at the ready... Initiative, perception and creativity are pushed aside and so is born a tendency to be easily receptive and accommodating - becoming a faithful consumer of marketed cultural produce... The individual is dizzy, gripped by the current between inherited culture, national culture and new culture which is basically kitsch, sold to obtain material profit and popularity."

(Ngeljaratan 1980)

Even the rural areas, where traditional culture has retained its strongest roots, are not immune from such influences. It is increasingly common to find a village festivity which would in the past have employed gamelan musicians now reduced to hiring the man with the public address system and cassette machine. In aesthetic terms, the crass effects of commercialism are not difficult to find - in the cavalier treatment of classical repertory, for example. One widely-sold cassette boasts no fewer than four different gendhing bonang (each of which, properly played, should last around 20-30 minutes) crammed onto one 20-minute side. The result is grotesque, and also quite alarming when the perpetrators are no less a group than that of the Radio Station (RRI) in Solo who already enjoy great prestige and a large following through their regular broadcasts and extensive output of cassettes. Is it possible that a particular style, such as that of RRI, or of Nartosabdo, made popular by
commercial exploitation, may have a damaging influence on other styles, and on stylistic plurality itself?  

Fears that the kind of phenomena described above will inflict lasting damage on the traditional arts may prove unfounded, as to a large extent have the fears expressed by Becker (1980, Chapter 2) about the effects of the use of notation, only time will tell. What is clear is that the forces of commercialisation are unstoppable and that the "pop" styles of gamelan music which they have encouraged are quite able to take care of themselves. But what of the inheritance of the court tradition? Unbridled commercialism is certainly one of the factors which has led many traditionalist teachers "to accept the idea that karawitan can be equated with 'classical music' in the sense that 19th and 20th century practice represents a point at which karawitan must be frozen until other social developments in Java change for the better." (Hatch 1979a, 142).

The conservative position is certainly a major force in the Javanese arts, endeavouring to preserve the traditional forms in their classical purity. Paradoxical as it may seem, however, this approach itself owes much to Western influence (and, dare one suggest, ethnomusicologists) with its ideas of conservation and a museum attitude towards culture.

An alternative approach is taken by those who try and face up to the challenges of the modern-day situation by attempting to introduce changes.

The third approach, of course, is the one taken by those who reject the inheritance of the traditional arts completely, regarding them as inextricably associated with old-fashioned Javanese ways.
of thinking incompatible with the aims of a modern Indonesia. Instead they introduce new art forms, often based on Western models. At one level this has led to the considerable achievements of Indonesian literature, theatre, film, etc., but in musical terms the results are rather depressing.

Although the debate about the place of the traditional arts in contemporary Indonesia is still as active today as in the past, the three basic positions outlined above are now well established. The two composers whose work was studied by Becker - Ki Nartosabdho and Ki Wasitodipuro - belong to a generation which lived through the period of greatest upheaval and readjustment; through the struggle for independence itself, and through the Sukarno years, when the arts were pressed into the service of politics in a direct way; through the vagaries of conflicting state policies on the arts and the debates about nationalism and internationalism, about regional arts and national arts in a pan-Indonesian context. In their compositions, as analysed by Judith Becker, can be seen a conscious effort to adapt their use of traditional Javanese karawitan to the new values, conditions and aspirations of the new Indonesia.

For the younger generation of composers, born in the 1950s and 1960s, it is not a question of adapting, for they themselves are different. They do not have to adjust to the new situation for they are products of it, growing up as young Indonesians, going to schools at which the medium of instruction is not Javanese but the new national language, Indonesian, and most significantly of all, continuing their formal education at secondary and tertiary level institutions specialising in musical training.
The first such establishment (at secondary level) was the Konservatori Karawitan, or "Kokar" (now known as the SMKI), founded in Solo as early as 1950. The success of Kokar led to the demand for a similar institute at tertiary level, and in 1964 the Akademi Seni Karawitan Indonesia (ASKI) was established in Solo. Similar academies were also opened in other centres, such as ASTI Yogyakarta, ASTI Bandung, ASKI Padang Panjang, and ASTI Denpasar. One of the main purposes behind this development was the Indonesian government's desire to make the great artistic traditions of the courts available to a wider society. If these arts were to continue, new institutions would have to be provided, because the courts themselves (Solo moreso than Yogyakarta) were bound to lessen in influence due to their post-independence decline in power and importance.

Thus the academies were seen basically as educational institutions, often employing ex-court musicians as teachers (e.g. Pak Martopangrawit and Pak Mloyowidodo at ASKI), but the essentially practical basis of the courses offered and the artistic atmosphere they provided meant that they soon began to establish themselves as centres of performance and of new developments.

Another institution destined to play a vital role in artistic developments was the DKJ (Dewan Kesenian Jakarta = Jakarta Arts Council) which was founded in 1968. Its responsibilities were centred at the new arts complex Taman Ismail Marzuki (TIM) which consists of studios, exhibitions halls, theatres and concert halls and also has on site Jakarta's tertiary level arts academy, the Institut Kesenian Jakarta (IKJ).
Jakarta, being the nation's capital city, naturally has a cosmopolitan outlook. In the arts, as in everything else, it is the gateway through which foreign ideas and influences arrive. The staff of the music department of the DKJ includes several composers who have studied in European conservatories, such as Frans Haryadi and Slamet Abdul Sukur, who, although basically trained in the Western tradition, have experimented with composition for gamelan.

In 1975, the Arts Council called a symposium to which leading figures from the various regional centres were invited to give papers and discuss the future development of traditional music in Indonesia. As a result of this and similar meetings covering other branches of the arts, it was decided to hold a Young Choreographers Festival (Festival Penata Tari Muda) at TIM in 1978. So successful was this that in the following year it was repeated with the addition of a similar festival devoted to new music - the Pekan Komponis Muda, or Young Composers' Week. The format for these two festivals was basically the same. Young composers and choreographers were invited from various centres to present a work in performance, to read a paper on it, and to engage in discussions with their fellow artists and an invited panel of prominent artists, critics, etc., all sessions being open to the public. In the case of the composers, the variety of traditions represented was quite wide - Western-style classical, avant-garde and electro-acoustic, Javanese gamelan and Balinese gamelan - but no distinction was made between them - they were all komposisi (compositions) and their creators were all komponis muda (young composers).
The thinking behind these festivals was spelled out by Professor Dr Haryati Soebadio, the Director General of Culture in the government Department of Education and Culture, in his message to the participants included in the programme booklet for the 1979 Young Composers' Week:

"In the development of the Arts, we do not only attach importance to the various forms of traditional art. We also need the development of new growth which may guarantee the continuity of existence and value of our arts, which in the past achieved a level of which we are still proud today."

The success of the Jakarta festivals led immediately to the arts academies themselves getting together to organise an annual festival to be hosted by each institute in rotation, and at which the participating groups could present the best of their work. The first such Festival IKI (Institut Kesenian Indonesia = Indonesian Arts Institutes) was held in May 1980 at ASTI Yogyakarta, and subsequently at ASTI Bandung (1981), ASTI Denpasar (1982), and ASKI Solo (1983). The IKI and the Young Composers' and Young Choreographers' festivals have provided a valuable forum for all the participants and have undoubtedly been a major influence in the dissemination and development of new concepts and ideas.
CHAPTER SIX

NEW MUSIC AT ASKI SURAKARTA

ASKI Surakarta and its Director, S. D. Humardani
New creativity and the ASKI aesthetic
Initial experiments in dance and wayang
Rahayu Supanggah and Sri Hastanto
The 1979 Young Composers' Week
The effects of expansion at ASKI
Komposisi (composition) in the curriculum
In addition to the teaching of karawitan implied in its name, the Akademi Seni Karawitan Indonesia (ASKI) in Solo also has departments of dance (tari) and shadow-puppet theatre performance (pedhalangan). The range of ability within the student intake is very wide. Each year there are a number of new students who have already studied karawitan formally at the specialist High School for Traditional Indonesian Music (Sekolah Menengah Karawitan Indonesia, or SMKI) in Solo, some have studied informally with village or other amateur groups, while others have little previous practical experience at all. It is significant that a very high proportion of the students (usually over 85%) come from the villages and rural areas. For many such young people, from poor families, study at ASKI may represent the only possibility of tertiary-level education and for this reason fees are much lower than at comparable institutions such as state universities. It also provides a possible route towards the coveted goal of becoming a state employee (pegawai negeri), with attendant status and security. ASKI graduates who find work often become teachers, some enter the government regional arts development (Pembinaan Kesenian) programme, while some find work outside the arts field. (It is still very rare for even a highly-skilled musician to earn a living as a performer - even those employed at RRI or by the Sriwedari Wayang Wong troupe have to find other work to make ends meet.)

The teaching of practical karawitan at ASKI is organised in group sessions and extensive use is made of graduate students as teaching assistants (asisten). In addition to basic gamelan performance specialisation (tabuh khusus) and traditional vocal music
(tembang), other practical training is offered, for example in Balinese gamelan, and the timetable is completed with various academic subjects such as theory (pengetahuan karawitan), languages (Indonesian, English), anthropology, philosophy, civics, etc., the balance of the timetable being about 60% practical to 40% academic. There is a minimum three year period of study for the first degree qualification (sarjana muda) and a further two year minimum for the higher degree (seniman karawitan - abbreviated to S. Kar.).

In addition to its activities as a teaching institution, ASKI also functions as a research centre of great importance for the collection, documentation and publishing of notations of the traditional repertory and of theoretical and research writings on karawitan. It has also gained from sharing premises and some staff with the PKJT (Pusat Kesenian Jawa Tengah = Central Java Arts Centre) which gives it a central role in performance as well as teaching. 46

In 1972 a new Director was appointed to head ASKI whose influence on the subsequent developments there has been all-important - the late S. D. Humardani. 47

Pak Humardani had very firm views on both the role of ASKI and on the role of development in the traditional arts. Karawitan may be thought of as having evolved along two parallel though interdependent paths. The village or folk tradition, communal in nature and integrated into the fabric of everyday life was balanced by the court tradition which concerned itself with conscious artistic development, cultivation and refinement, employing specialist personnel. As in the case of the European courts the two traditions
inter-reacted, each stimulating the other in terms of content and style.

With the greatly changed circumstances of the contemporary Indonesian context, Pak Humardani saw that ASKI had to assume the refining role previously undertaken by the court in order to preserve this balance. His ideas about how the traditional arts should be developed, however, meant that this refining role was going to have quite different philosophical and aesthetic bases than had been prevalent in the courts.

The crucial nature of Pak Humardani's philosophy in establishing the aesthetic foundation of all the experiments which took place at ASKI in the decade 1975-85 cannot be underestimated. For this reason the extended paper in which he expounds his ideas on the development of the traditional arts is presented here in translation in its entirety (Appendix IIIi).

It is clear from this document, and indeed from all his writings, that Pak Humardani believed that karawitan, along with the other arts, must develop in a very radical way if it is to survive in a meaningful form. He rejects with some scorn the decadent conservatism of those who try to preserve or even resuscitate the old traditions of the courts, and has even harsher words for the unthinking commercialism of those who pander to public taste in the new mass markets of cassette sales and broadcasting.

The need for change, however, is more than just a matter of accommodating the requirements of a new social situation; it comes from within the artists and musicians themselves and is a search for a new creativity. So it is that Pak Humardani's argument for change is couched in terms of creativity. The kind of creativity
which traditional karawitan provides for is not necessarily that which is needed or sought by the young Indonesian musician in his new cultural context.

The development mentality underlies the whole intellectual climate in Indonesia. Koentjaraningrat (1982, 36), in his penetrating analysis of the incompatibility of many of the "negative" aspects of traditional culture such as excessive conformism, deference to authority, etc., with the requirements of the development mentality, characterises the latter as an increased orientation towards the future, a desire to explore and heighten the capacity for invention, an orientation towards achievement through work and a mentality of self reliance, self confidence and self-responsibility. For Pak Humardani, these are the kinds of qualities which a new creativity must serve and foster.

In another paper, specifically on the development of karawitan, Pak Humardani contrasts old and new ideas of creativity as follows:

"Creativity is not a monopoly of the present day, but is a characteristic of all productive periods of history . . . It is important for us to stress this because it becomes the basis of interpretation of the potency of traditional art. Traditional art is alive because of the potency of its creativity at each moment, although the form and result of this creativity will certainly differ in each period because of the element of change in culture . . . As long as the rules of laras, pathet, and the like may not be violated then present-day karawitan is not a product of the creativity of the present, but a product of the creativity of the past - meaning that it is not the karawitan we can call our own, but "old" karawitan."

(Humardani 1975, 38)
The initial experimental impetus at ASKI in the period 1975-79 came not from karawitan itself but from "theatrical" forms. The new genre of dramateri (dance drama) had begun around 1961, and developed at the annual Ramayana Festival at Prambanan (the style of which is strongly criticised by Humardani - see Appendix III paragraph (26)). The subsequent ASKI development of this form was based on Pak Humardani's "presentative" concept of the arts, and concerned to strip away any unnecessary padding to leave a form in which every moment was meaningful and which would communicate itself to the observer in a direct and powerful way. Such aesthetic aims also became the basis of the experiments in wayang kulit, producing the new genre pakeliran padat ("concise" wayang performance). These developments are clearly influenced by new dramatic ideas (not surprising in a generation brought up with with Western-derived genres such as film and theatre), and the demands which they make on the accompanying music are equally new.

The most extraordinary product of this early period was the Wayang Budha which combined elements of dance, wayang kulit and music in a most imaginative way.

One reason why karawitan lagged behind the theatrical forms in speed of development was possibly due to the fact that Pak Humardani himself was not a musician, but a dancer. Although the presence at ASKI during this period of Pak Martopangrawit, a distinguished and innovative composer of the older generation, was very influential, it was left to two younger members of staff, Rahayu Supanggah and Sri Hastanto to show how the more radical aspects of the Humardani philosophy might be put into effect. In October 1979,
both presented their ideas in papers at a seminar on musical composition, and two months later showed how those same ideas could be realized, in their compositions GAMBUH and DANDANGGULA performed at the first Young Composers' Week in Jakarta. These two papers are of such importance to the understanding of subsequent developments at ASKI that they are given here in translation in Appendix IIIii and IIIiii, and recordings of the two compositions are presented in full on Cassette 1.

Both these composers see the existing physical resources (gamelan) and conceptual resources (karawitan) of the tradition as their starting point, and as material for experimentation and development, albeit with differences in emphasis.

The participation in the 1979 Young Composers' Week of Supanggah and Hastanto, along with their colleagues who performed their two works, was of great significance. It established ASKI Solo as the centre for the most radical kinds of innovation in traditional Javanese music, but it also exposed the ASKI musicians themselves to new influences which were to have a significant impact on subsequent works.

The most obvious of these influences are Western-derived terminology and avant-garde concepts such as were contained in the work by Otto Sidharta presented at the same festival - Kemelut (a title - meaning "crisis" - which itself was to recur in an ASKI composition a few years later). This piece was constructed entirely from the sounds of water amplified and electronically treated:

"The conceptual basis of this composition is to try and make use in a musical way of the achievements of technology in
the acoustical field, using water as the raw material . . .
In the creation of this composition, the arrangement of sound
is more concerned to project movement and colour from the general
soundscape"

(Orto Sidharta 1979, 1)

Another possible influence from the 1979 Festival was the
composition Sangkuriang by the Bandung composer Nano Suratno, in
which in addition to a salendro-pelog gamelan, he made extensive
use of a whole range of Sundanese instruments including kecapi,
suling, tarawangsa, rebab, and a bewildering array of bamboo folk
instruments including calung, angklung, kepyar, kohkol, bumbung,
etc. resulting in a highly virtuosic piece in which each player
doubled on several instruments.50 He also drew extensively on folk
styles for his musical material, and it is perhaps interesting that
when I discussed the piece with him in 1983, he commented that he
thought Sundanese composers were less inhibited when making new
compositions because to them karawitan means all forms of music,
whereas the Central Javanese are still haunted by the legacy of the
court styles, and to them, karawitan means gamelan. 51

The nature of the changes which have taken place at ASKI itself
over the past few years have had direct musical consequences in the
works of the young composers. The biggest changes are as a result
of the huge expansion — in 1980, for example, there were only about
300 students in the whole of ASKI, whereas by 1982 there were 380
in the dance department alone. The expansion has not just been in
terms of numbers but also in the curriculum. By 1984 there were
not only students from all parts of Java, from Bali and even Sumatra,
but also instructors, so that the range of course grew to include
practical instruction in not only the major gamelan traditions of Central Java (both Solo and Yogya styles), Sunda and Bali, but also regional Javanese styles such as East Java, Banyumas etc., and also Minangkabau music of West Sumatra. The most recent expansion has been made possible by the move to a new purpose-built campus on the southern outskirts of the city (Kampus Kenthingan).

Following the initiatives of Supanggah and Hastanto, 1979 saw the beginning of a period of intensive exploration at ASKI. A large proportion of the energy of the music department was now directed towards experimental activity, for both students and staff. Indeed it became compulsory for all students taking final examinations for the S. Kar. degree to create a new-style composition, and the first fruits of this policy in terms of examination works started to appear in 1983. As a consequence of this requirement, "Komposisi" appeared on the timetable for senior students - for example in the July-December semester 1984 the 4th year students (semester VII) undertook two two-hour sessions per week. These classes which provided valuable opportunities for experiment were taught by Supanggah until he left to study for a doctorate in ethnomusicology in Paris in 1981, and subsequently by Pande Made Sukerta. It is significant that Sri Hastanto was also absent from ASKI during this period, also studying abroad for a Ph. D., at the University of Durham.

The new works which the students had to create for their final S. Kar. performance examination could take one of two forms - either a purely musical composition of the concert-work type (komposisi), or the accompaniment to dance or dance drama (iringan tari or iringan
dramatari). In the latter case, this would represent a collaboration with a student or students from the dance department whose choreography and performance would also form the final examination of their course.

Apart from student works of this examination type, the opportunity for new composition might also arise by participation in a local, regional or national festival of the type already mentioned above.

Of the many new works produced at ASKI during the period 1979-85, I have chosen twenty-one to form the basis of this study (listed chronologically in Fig. 1 overleaf, and alphabetically in Appendix I), and it is a detailed analysis of these works on which the following Chapters are based.
<table>
<thead>
<tr>
<th>DATE</th>
<th>*</th>
<th>TITLE</th>
<th>COMPOSER(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979 (Dec)</td>
<td>K</td>
<td>DANDANGGULA</td>
<td>Sri Hastanto</td>
</tr>
<tr>
<td>1979 (Dec)</td>
<td>K</td>
<td>GAMBUH</td>
<td>Rahayu Supanggah</td>
</tr>
<tr>
<td>1979 (Dec)</td>
<td>IT</td>
<td>RUDRAH</td>
<td>Wahyu Santosa Prabowo</td>
</tr>
<tr>
<td>1980 (Mar)</td>
<td>K</td>
<td>ONDE-ONDE</td>
<td>Rustopo/Al. Suwardi</td>
</tr>
<tr>
<td>1980 (May)</td>
<td>IT</td>
<td>HARYA PENANGSANG GUGUR</td>
<td>Rustopo</td>
</tr>
<tr>
<td>1982 (Mar)</td>
<td>K</td>
<td>NGALOR-NGIDUL</td>
<td>Al. Suwardi/Rustopo/T. Slamet Suparno</td>
</tr>
<tr>
<td>1983 (Mar)</td>
<td>IT</td>
<td>BENDUNGAN WONOGIRI</td>
<td>Al. Suwardi</td>
</tr>
<tr>
<td>1983 (Mar)</td>
<td>K</td>
<td>OWAH-OWAH (SWARA PENCON)</td>
<td>B. Subono/Santosa</td>
</tr>
<tr>
<td>1983 (May)</td>
<td>IT</td>
<td>YANG MEMBANGUN-YANG MERUSAK-YANG KASIH</td>
<td>Panggiyo/Darsono</td>
</tr>
<tr>
<td>1983 (Sep)</td>
<td>K</td>
<td>DEBAH</td>
<td>Al. Suwardi</td>
</tr>
<tr>
<td>1983 (Dec)</td>
<td>IT</td>
<td>CINTA DAN TEKAD</td>
<td>Sutiknowati/Slamet Riyadi</td>
</tr>
<tr>
<td>1983 (Dec)</td>
<td>IT</td>
<td>PUTUS DAN TERHEMPAS</td>
<td>Waridi/Joko Purwanto</td>
</tr>
<tr>
<td>1983 (Dec)</td>
<td>K</td>
<td>NAN TARASO</td>
<td>Asri M. K.</td>
</tr>
<tr>
<td>1984 (May)</td>
<td>IT</td>
<td>KOMPOSISI II</td>
<td>I Nengah Muliana/Sukamso</td>
</tr>
<tr>
<td>1984 (May)</td>
<td>K</td>
<td>KEMELUT</td>
<td>Dwiono Hermantoro/Supardi</td>
</tr>
<tr>
<td>1984 (Dec)</td>
<td>K</td>
<td>PELING</td>
<td>Sigit Astono</td>
</tr>
<tr>
<td>1984 (Dec)</td>
<td>IT</td>
<td>PENGORBANAN DALAM KONFLIK</td>
<td>Mahdi Bahar/Sriyanto</td>
</tr>
<tr>
<td>1984 (Dec)</td>
<td>IT</td>
<td>KEN AROK</td>
<td>Rusdiantoro/Suroto</td>
</tr>
<tr>
<td>1985 (Mar)</td>
<td>K</td>
<td>BONANG</td>
<td>Supardi</td>
</tr>
<tr>
<td>1985 (Mar)</td>
<td>K</td>
<td>SITER</td>
<td>Joko Purwanto</td>
</tr>
<tr>
<td>1985 (Mar)</td>
<td>K</td>
<td>VOKAL</td>
<td>Sukamso</td>
</tr>
</tbody>
</table>

* K = Komposisi (Concert Work)  
* IT = Iringan Tari (Dance Accompaniment)
CHAPTER SEVEN

THE KOMPOSISI PROCESS

7.1 Precepts and Procedures
7.2 The Process of Composition - the Development Rehearsal and the "Mantap" State
7.3 Composers and Compositions - Questions of Identity
7.4 Some Practical Considerations
7.1 Precepts and Procedures

"I do not restrict myself to a standard gamelan, reserving the right to introduce equipment or instruments from other gamelan, or even other resources which are non-gamelan or non-musical.

I do not restrict myself to existing patterns, forms and structures, nor to existing musical performance practices (from existing karawitan, for example). Moreover, I intend to bring into being something which is new (patterns, forms, structures, garap) as a means of achieving the sonic ideas which I have imagined."

(Panggiyo 1983, 8)

In all the documentation and notations required to be submitted in connection with examination works, and even in commentaries or papers read at discussions on festival works, the two maxims given above are always stated, either directly or reworded. As basic precepts, these two statements clearly enshrine both the underlying Humardani philosophy and ASKI aesthetic, and also the practical application of the latter as expressed by Supanggah (Appendix IIIii) in terms of the development of physical resources and conceptual resources, and the exhortation to experimentation.

There are two radically new aspects to this. The first is clearly stated in the final sentence. Creative responsibility appears to have passed into the hands of a single person. Does this represent the acceptance of the concept of "the composer" in a Western sense? The second is the apparent abandonment of any kind of restriction whether physical or conceptual. Is anything then possible?

Like most manifestos, the reality is somewhat different, but as a
concise expression of the point of departure, these two statements are of great significance.

The aesthetic position of total freedom is, of course, a nonsense - most composers in the West on being given total freedom in a commission would immediately start inventing restrictions against which they could work. The biggest problem for the ASKI students is to cast off or, at least, relax the conceptual bonds of traditional karawitan which, in an aurally-based and highly self-contained music system, are ingrained into the consciousness of Javanese musicians in a somewhat deeper way than in the West, where notation plays a central role. Equally problematic, to be cast in the role of sole creator is a concept at odds with the traditional ways of the karawitan system.

So what are the new restrictions which will give our brave new komponis something to work against? And how will he come to terms with his new central creative role?

The actual procedure of creating a new work at ASKI itself provides many of the answers to these questions; and some of the new working procedures which have evolved have themselves very important implications for both the content and structure of new works:

"The first step, before work on the music could begin, was for us (Sukamso and I Nengah Muliana), as the composers, to meet the choreographers (S. Pamardi, Setyo Widyawati and Dewi Kristiyanti) to obtain an idea of what the work was to be about. S. Pamardi, speaking also for his colleagues, conveyed their ideas about the choreography, including the different scenes and sections, and an idea of the situations to be developed, after which it was decided to divide the work into five parts."
After obtaining an idea of the overall shape of the work, the two of us then agreed to divide the five parts between us as follows: Section I, II and the first part of section III were allocated to Mr I Nengah Muliana, while I was to be responsible for the second part of section III and section IV.

The choreographers and dancers then held unaccompanied preparatory rehearsals which we observed. We then tried to interpret the ideas and situations given to us by the choreographers. Thereupon, we undertook exploratory work, with experiments using the gamelan and other resources. From the various possibilities, we then chose those elements which we considered best fitted the atmosphere we wished to create. In this preparatory work we were helped by our fellow ASKI students. After a number of exploratory sessions, we then attempted to rehearse with the dancers.

At the start of the joint rehearsals, we still found many discords, deficiencies, incompatibilities, so that each time we had to change, substitute etc., until the piece reached its present form."

(Sukamso 1984, 8)

The basic procedure outlined in the above quotation has become standard at ASKI. The creation of a new work is undertaken in three stages: (1) preparatory work; (2) experimentation and development of the work in rehearsal; (3) rehearsals to improve the execution of the piece before performance.

The work referred to above by Sukamso is, of course, a dance accompaniment (KOMPOSISI II - see Appendix IVv). For a concert work, stages (1) and (3) are slightly different in that the questions of liason with choreographers and coordination with dancers do not arise. Al. Suwardi describes the initial stages in the composition of DEBAH as follows:

"The first step prior to creating this composition was for me
to prepare the core ideas as a basis or mould to give shape to the overall pattern of the work.

After the outline was formed, then followed the preparation of the instruments and other equipment which were to be used.

The next step was exploration by seeking and trying out sounds or noises produced by the instruments, sound sources and voices.

From the results of these discoveries, the sounds or noises were worked on or otherwise assembled, then tried out in rehearsal with the help of ASKI students and teaching assistants ...

(Suwardi 1983, 7)

The dance composer's task is to some extent easier in that questions of both structure and content are determined by the requirements of the dance. However, dance composition has its own particular problems, especially, given the ASKI aesthetic, in the sphere of creative collaboration:

"Further, I have striven to develop a unity with the dance which I am accompanying. For it is not just a question of "the dance" and "the music" - rather the music and dance represent a single entity."

(Panggiyo 1983, 8)

The composer of a concert work has no external requirements to direct the form and content of his work in this way. The idea that a composition should be a product of, indeed sometimes express, the imagination, thoughts and emotions of an individual is something rather new in the Javanese context. The ASKI aesthetic tends towards the abstract, and the composers of the first concert works preferred to explain their approach in terms of working the medium:

"I shall limit my explanation [of DANDANGGULA] to the points of departure for the whole composition, and the aspects of sound or physical aspects which we can observe during the performance."
I shall not discuss the matter of content and expression in this work, because we all have different perceptions according to our own individual natures. By the aspects of sound referred to above I mean such things as instrumentation, form, vocal texts, irama, etc."

(Hastanto 1979b, 1)

More recently, some composers have given an indication of the kind of thinking which underlies their exploration of the medium. The composer of DEBAH, for example, states his basic ideas in the following terms:

"The composer wished to exploit several human spiritual phenomena including anxiety, bewilderment, prayer, grandeur, tension, loneliness, unrest, humour, etc.

In using the above-mentioned phenomena, the composer did not restrict himself to the standard gamelan . . ." [there then follows a restatement of the two maxims given at the beginning of this chapter]

(Suwardi 1983, 5)

The tone of the above is still very Javanese in character. The following, from the preface to the notation of NAN TARASO, is rather more direct:

"The Central Idea of the Composition

In the course of life man undergoes many kinds of experience. Such experiences give rise to a spiritual flame which is fanned by feelings and thoughts. These feelings (rasa) cannot be free of the influence of the surroundings. Rasa (feeling), for the composer, represents a burden which must be borne, and this burden feels almost tangible.

Based on all of this, the composer attempts to express such feelings through the medium of sound, to produce atmospheres of noises and sounds in this composition. These feelings of
mine give direction to the whole sonic content of this composition."

(Asri M. K. 1983, 6)

NAN TARASO was one of the most unusual works for Javanese gamelan to be produced at ASKI up to that time, its composer being both Sumatran and female.

Such thinking (redolent of the Western romantic notion of the suffering artist) is also to be found in the approach of some young Javanese, and the language in which such ideas are couched suggests the influence of Indonesian writers and poets such as Rendrah.

Others are content to let the music speak for itself.

Whatever the initial impetus of a new work, whether of the dance or concert genre, there can be no doubt that the most formative part of the creative procedure is in fact the second stage in the three mentioned above - the stage when the musical material is formed and shaped not in the composer's mind, or on paper, but in rehearsal.
7·2 The Process of Composition - the Development Rehearsal and the "Mantap" State

During my three periods of study at ASKI, I have spent a large proportion of my time observing the growth of new works. Those which I followed through every stage, attending all rehearsals, include in 1984 PENGORBANAN DALAM KONFLIK and PELING; in 1982/83 OWAH–OWAH and YANG MEMBANGUN; and in 1981 Babad Pajang (a reworking of HARYA PENANGSANG GUGUR) and the untitled piece by Prasadianto which will be analysed, in terms of its structural changes over a number of rehearsals, in Chapter 9.

Naturally, the precise nature of the development process varies from piece to piece, but in every case the central development rehearsal procedure follows the same pattern:

The composer arrives at the first session with a certain amount of material already prepared and certain decisions already taken - in matters of instrumentation, for example.

Some composers, usually the more experienced, may have substantial sections already well mapped out. For the initial rehearsals of OWAH–OWAH, for instance, Pak Subono arrived with a four-page outline notation (Subono 1983a). Of the seven sections contained therein, three survived substantially unchanged in the final form of the work, one and a half were retained after considerable modification, while the remainder were abandoned. Most composers, however, arrive with rather less prepared material, and the more usual way of presenting this is either by verbal instruction,
or by use of the blackboard.

As the creative process gets under way, the given material is played through, alterations and/or additions are made, whereupon it is played through again. On each repetition further additions, subtractions and alterations ensue, and slowly the piece grows and develops in an almost organic way.

The changes and additions may be made by the composer himself but equally might come from the musicians. Each suggestion can be tried out immediately as it arises.

After a number of such development-rehearsals, the composer and his group of musicians are often so involved with the material that a spontaneous creative atmosphere is generated. New ideas or developments may arise not just from the deliberate experimentation, but also from the inventive interplay between the musicians, or from chance occurrences or even "mistakes", which are then taken up for further development.

Given good circumstances and high-calibre musicians, the work created is in some senses almost a "group composition" with the "composer" distinguished by his responsibility for choosing what to accept, reject and develop, and for guiding the overall shape of the piece. On the other hand, circumstances may require the composer to take a much stronger lead in establishing his own individual ideas; and indeed some composers, again usually the more experienced (or "strong-willed") ones, prefer to take this approach.

After each rehearsal, the composer will do further work by himself (or possibly with the choreographer in the case of a dance
work), bringing the results to the next rehearsal.

A very important characteristic of the process is that after each modification, the whole piece (or major section) is played through again. In this way the overall shape develops as the work grows and establishes itself in the perceptions of the composer and performers. It is not a question of "memorising the product"; the finished composition already exists within the very being of the performers because it has grown there. Notation is just not necessary, nor is it used, except fleetingly as a tool during rehearsal where a new section is to be taught or modifications noted by the composer. The notations presented as a requirement for examination purposes are just that, and compiled when the piece is already formed.

To see this process at its best in action, especially the speed at which new material is taken up, memorised and developed is a totally fascinating and very humbling experience for the observing Western composer.

The ultimate goal in this process is for the work to achieve a state referred to as mantap, meaning steady/stable/constant. When this happens is not possible to define in precise terms, being a matter of feeling. When a work is considered sufficiently mantap, it then proceeds to the third stage of the process - the final series of rehearsals during which fine adjustments are made, but the main purpose of which is to polish the execution.

The mantap state might then be thought to relate to the Western concept of "the finished work", but things are not so simple in Java.
Of the new compositions listed in Fig. 1, some are credited to one and some to two composers (in one instance, three!). This is the case for both examination and non-examination works, and is largely a result of practical considerations. The preparation of a new piece is very demanding in terms of instrumental resources, personnel, rehearsal time and, not least, financial outlay. Having two composers share a particular work is a way of making more economical use of the resources available and thus allowing more people the opportunity to compose. This is particularly the case with dance works, for reasons which will be explained below (7.4). In practical terms, this system means that a work is divided into several sections shared between the composers. Even such a simple solution is not without its ticklish problems:

"The three of us, (1) T. Slamet Suparno, (2) Al. Suwardi, and (3) myself [Rustopo], were unanimous in wanting to compose a piece which departed from the tradition. Our method of work was as follows: Initially we worked separately. Then the results of that work were combined into one. The method of combination was simply to join one part up with another, by trying several possibilities of ordering. Initially we tried $1 + 2 + 3$ then $3 + 1 + 2$ we then tried $2 + 3 + 1$ and $1 + 3 + 2$ Finally, we chose the arrangement: $1 + 2 + 3$ for the performance at this Festival.

(Rustopo 1982, 1)
In a dance work where the overall structure is largely determined by the scenario, a simple division into two halves is possible, as in the case of Sukamso's description of the procedure adopted for KOMPOSISI II quoted above in section 7.1. Sometimes, however, in an attempt to achieve a more balanced mixture of style, the composers deliberately dovetail their contributions (imbal-fashion). This was the procedure adopted in CINTA DAN TEKAD (Appendix IViv):

"After establishing an overall conception of the work, we decided to divide the composition between us so that Scene I and the first part of Scene III were allocated to Sutiknowati, while I was responsible for Scene II and the second part of Scene III."

(Slamet Riyadi 1983, 6)

As might be surmised from the description of the compositional process given in section 7.2, such divisions are not so clear in practice, especially among student composers who work particularly well together. This was very much the case during the composition of PENGORBANAN DALAM KONFLIK; and of the creation of KEN AROLK, one of the joint composers, Rusdiantoro, explains the position in the following terms: "Initially this work was composed by Mr Djoko Purwanto and myself together, without there being any clear division into sections . . . ."

But this raises a different question. Surely in Fig. 1, Suroto, not Joko Purwanto, is listed as the co-composer of KEN AROLK?

Rusdiantoro goes on to explain: "but eventually I re-worked this composition with Mr Suroto, whereupon it was divided up into sections as follows . . . ." (Rusdiantoro 1984, 6)

So the dance work KEN AROLK by Rusdiantoro and Joko Purwanto, which was performed at a teachers' conference in Semarang in October
1984, was completely re-worked two months later as the examination piece KEN AROK, now by Rusdiantoro and Suroto, although a substantial amount of Joko Purwanto's original contribution remains. This is not an isolated occurrence. HARYA PANANGSANG, for example, is an extensive reworking of Babad Pajang by Supanggah. Sometimes a piece may be reworked by the same composer and reappear under a new title. The dance work Gotong Royong with music by Al. Suwardi which was performed in January 1983 at the Central Java Province Dance Drama Festival in Solo, was resurrected in March of the same year as BENDUNGAN WONOGIRI, an occasional work performed at the celebrations to mark the commissioning of the huge Wonogiri Dam civil engineering project on the Solo river.

The nature of a new composition is so bound up with the nature of the particular group of musicians who brought it into being, that any revival with even a partially-different set of performers is bound to involve a certain amount of re-garap, and the character of the piece will inevitably change, even if only slightly.

Clearly, the "mantap" state cannot be equated with the "finished" work in the Western sense.
7.4 Some Practical Considerations

The working arrangements at ASKI which have enabled this compositional process to evolve are also responsible for many of the problems and difficulties which beset the young composers, and such practical considerations can have a considerable impact on both the form and content of a new composition.

The preparation of a new work demands a large number of musicians - usually about twice as many for dance as for concert works. In examination pieces the performers are mostly the composers' fellow students with some teaching assistants (typical examples are shown in Fig. 21 and Fig. 22); whereas prestige works prepared for outside festivals may use all teaching assistants and staff, with perhaps some senior students.

Because of the process of creating a work, a huge number of rehearsals is required. A fairly typical dance examination work, KEMELUT, for example, required over 20 development sessions which were then followed by a further 25 rehearsals with the dancers. Rehearsals last for a standard two hours, so it can be seen that the second and third stages in the process of creating KEMELUT required over 90 hours rehearsal for 29 musicians.

The problem of arranging rehearsal schedules in an already crowded academic timetable are horrendous. In November 1984 no less than ten different groups were rehearsing examination works. The allocation of personnel can have important implications - a composer working with a high proportion of inexperienced students, for example,
can hardly expect the same level of creative input as that described above in section 7.2. Other organisational problems can also affect the creative atmosphere:

"Problems were caused by the musicians arriving late, being absent without reason, or without permission, because of other commitments. Confronted with such a situation . . . both ideas and motivation have to be forced out and sometimes this leads to results which deviate from what the composer wishes to express."

(Sigit Astono 1984, 12)

Such problems do not just affect student works, as the composers of NGALOR-NGIDUL explained to their Jakarta audience:

"In conclusion, we should explain that preparatory rehearsals began in January, but intensive rehearsal only started at the beginning of February, and lasted until our departure for Jakarta [at the beginning of March]. Because of the many other demands on our time, we have only been able to hold nine two-hour rehearsals per week."

(Rustopo 1982, 3)

Financial questions are often of decisive importance. The performers do not generally receive payment (never, in the case of examination works), but the composer is responsible for providing refreshments during each rehearsal, and indeed a meal if the hour is appropriate. In view of the large number of rehearsals involved, this can result in a considerable financial outlay in addition to all the other expenses. Thus the dance works, having two composers to share the burden can afford twice as many musicians as the sole composer of a concert work.

It is not exceptional for a student to go into considerable
debt in order to complete his examination requirements.

Despite all the difficulties, the new work continues, and one of the great advantages of such a labour-intensive system is the extensive experience which the students acquire by taking part in the creation and performance of the new compositions; experience which they can put to good use when their turn to become a komponis arrives.

The influence of the komposisi process itself on both the content and form of the new works will stand out clearly as the results of all these labours are examined in the next three chapters.
CHAPTER EIGHT

NEW SOUNDS, NEW TECHNIQUES

8.1 Introduction - The Materials of Composition
8.2 New Sounds from Traditional Instruments
8.3 New Instruments
8.4 New Vocal Techniques
8.5 Metre, Rhythm and Texture
8.6 Tempo, Volume and Dynamics
8.7 Melody, Harmony and Tonality
8.8 Instrumentation and Orchestration
8.9 The Resources of Instrumental Garap and Alien Styles and Techniques
8·1 Introduction - The Materials of Composition

In his paper "The Creation and Realization of Karawitan Compositions Departing from Traditional Karawitan" (Appendix IIIii), Supanggah makes it clear (paragraphs [6] - [8]) that both the physical resources of the gamelan itself and the conceptual resources of traditional karawitan are equally to be regarded as raw materials for experimentation in the process of creating a new composition. He goes on (paragraph [9]) to propose a number of areas ripe for development (sonority, tempo, volume, instrumentation, etc.).

It is this, Supanggah's own categorisation of the elements of music, which forms the basis on which this Chapter has been subdivided (with the addition of Melody, Harmony and Tonality in section 8·5). In practice, of course, it is not possible to isolate individual musical characteristics such as dynamics, rhythm, colour, etc., since they are interrelated and interdependent one with another. Any such division is highly artificial and done purely as a means of facilitating analysis and discussion of the music.

Since any musical effect is dependant on its context, some of the illustrations given in the form of Recorded Examples or Figures in the text are rather extended, and thus may show features not directly related to the matter under discussion. They may, however, illustrate points raised in other sections; a certain amount of overlap is inevitable.
Chapter 8.2 New Sounds from Traditional Instruments

As indicated in Chapter 2, the gamelan, as an acoustical phenomenon, is enormously rich in potential. Given that the instruments may now be regarded as a resource to be exploited in terms of sonority, the way is open to the discovery of countless effects. How such effects can be used in a musical way is a question which will be raised later, but first let us examine some of the fruits of the period of sonic experimentation unleashed at ASKI since 1979 - experimentation with not only how sounds are to be produced, but also the effects of stopping them.

In traditional karawitan, a note is damped when, or immediately after, the next note is sounded, the ideal being an unbroken but clean legato line. Specification of if, when and how sounds are to be damped has opened up a new range of sonorities for the composer, making possible not only staccato-type effects, for example, but also the compositional use of silence. Amongst the most widely-adopted effects, found in almost all new works, are those obtained by damping the instrument at the moment it is struck, the "stopped" sounds so produced being short in duration and quite different in tone colour from the "open" sounds of the instrument. There are precedents for such stopping in the traditional Yogyakarta loud-style saron technique ngenchot (see Kunst 1973, 167), and also in Balinese gong kebyar techniques, but now they are applied to almost all instruments, in a wide variety of ways.
In the case of the keyed instruments, the term usually used for such stopping is *dipetet*, where the key about to be struck is gripped firmly using the left hand. The different sonority obtained by treating saron keys in this way is clearly demonstrated in the first part of Recorded Example No. 1. Sometimes other methods of damping must be resorted to, as in a very fast stopped slentem passage in DEBAH where the player is instructed to use his arm to damp all the keys at once (see Appendix IVi, section VI·2). In notations, the stopping is usually indicated by a dash (/) through the note concerned. Fig. 2 (overleaf) shows a heavily Balinese-influenced passage from YANG MEMBANGUN in which, for a while, the entire musical interest lies in the contrast between the stopped (I) and unstopped (1) sounds.

In the case of pencon instruments (gong, kempul, kenong, bonang etc.), the term usually used for "stopped" is *dipekak*, the effect being achieved either (a) by not allowing the mallet to rebound having struck the boss but holding it down, giving a dull unresonant sound (this technique is well suited to the bonang, where the player has both hands occupied with mallets); or (b) by physically holding the body of the instrument so that it cannot vibrate freely when struck. Such effects are often specified in detail in the notations as, for example, in the following, from KEN AROK: "The *kenong japen* is played with repeated strokes in a fine tremolo while the body of the instrument is held (damped)" (Rusdiantoro 1984, 26).
**Fig. 2 Extract from the notation of YANG MEMBANGUN**

<table>
<thead>
<tr>
<th>Gegilakan pelog</th>
<th>Gending Gegilakan is played in irama tanggung, beginning with the demung, followed by the other instruments, using garap similar to normal lancaran but without kendang.</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ + + + 5 6) 5 3 5 3 2 (1)</td>
<td>[† = stopped note ]</td>
</tr>
<tr>
<td>+ + + + 5 6) 5 3 5 3 2 (1)</td>
<td>[+ = ketuk ]</td>
</tr>
<tr>
<td>6 5 3 5) 6 3 2 1</td>
<td>[) = kenong ]</td>
</tr>
<tr>
<td>6 5 3 5 6) 6 3 2 1</td>
<td>[ = kempul ]</td>
</tr>
<tr>
<td>7 + 7 5 7 + 7 5</td>
<td>[(1) = gong ]</td>
</tr>
<tr>
<td>+ + + + 7 6 5 6) 7 + 3 2 (1)</td>
<td></td>
</tr>
<tr>
<td>+ + + + + + + 1 1) + + + + 1</td>
<td></td>
</tr>
<tr>
<td>+ + + + + + + (1) + + + + 1</td>
<td></td>
</tr>
<tr>
<td>+ + + + + + + (1) + + + + 1</td>
<td></td>
</tr>
<tr>
<td>6 + 3 2 1) 4 + 3 2 1</td>
<td></td>
</tr>
<tr>
<td>6 + 3 2 1) 4 + 3 2 1 (1)</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Darsono 1983, 24*
Among its many uses of damping techniques, OWAH-OWAH has a particularly interesting effect obtained from a large bonang penembung pencon using two mallets:

![Diagram](pencon_damping.png)

The first (A) is used to strike the boss in a fast tremolo while the second (B) is pressed against the boss, starting in a horizontal position and then being levered up, keeping pressed against the boss, thereby effecting a change in the pitch and colour of the note produced.

Alongside experiments in damping techniques, the effects of not damping, often for the purpose of building up tone clusters or sound masses, have also been explored. Thus the directions tanpa ditutup ("undamped") or diumbar ("let ring") are used, as in the following example from KEMELUT: "The pelog and slendro slentem are struck with Balinese mallets, and allowed to ring ['diumber']." (Dwiono Hermantoro 1984, 19).

The nature of the wood from which the head of a saron mallet is made can have a considerable effect on the colour of the sound produced, harder wood favouring the upper harmonics, thus eliciting a more brilliant, harsher tone. Such differences have always been recognised, and are even said to form one of the elements in distinguishing Solonese from Yogyanese style (Kunst 1973, 165), so it is not surprising to find that the ASKI composers, in addition to consid-
ering the instrument to be struck, have turned their attention to
the striking implement itself: "[We used] different methods of
striking to produce different sound colours ['warna suara']. Also
we tried striking the instruments with objects other than the normal
mallets, for example, using mallets of buffalo horn to obtain a more
brilliant sound." (Rustopo 1982, 2)

One obvious line of experimentation was to play an instrument
with the mallet belonging to a different instrument. Thus we find
the gong played with a kenong mallet (in PELING) or even a gambang
mallet (in DANDANGULA). The mallet itself may be used in an
unconventional manner - in KOMPOSISI II the saron are played by
hitting the keys with the side of the mallet head so that two notes
are struck at a time; and in several cases the functional parts of
the mallets are reversed, the handle part being used to do the
striking, as in NAN TARASO: "The small bonang [is] played with the
handles of gender mallets" (Asri M.K. 1983, 15). Mallets may also
undergo some kind of modification, such as gender mallets which have
the padding removed, leaving just the wooden disc to produce a very
bright clanging sound rather than the usual soft, round sustained
tone.

Many of these effects seem to be in search of a louder, more
penetrating sound (nyaring), and here the influence of Balinese
gamelan is clearly felt. In fact, as Supanggah points out (Appendix
IIIii, paragraph [4]), the use of the much harder Balinese mallets
on Javanese saron and gender had been pioneered in the works of Ki
Wasitodipuro and others (see also Becker 1980, 65), and many ASKI
works make use of such mallets, as in the case of KEMELUT already
mentioned above. There are instances, in KOMPOSISI II for example,
of Javanese gender being played "using Balinese Mallets and Balinese
playing techniques" (Muliana 1984, 5), although in YANG MEMBANGUN, Panggiyo neatly turns this on its head by including in his Javanese gamelan a Balinese gender "played with Javanese gender mallets".

On occasions, existing mallets are found wanting, and other objects are pressed into service. Loose saron keys lying on top of a demung when it is struck produce the crashing metal-on-metal effects heard towards the end of Recorded Example No. 1, conjuring up visions of a Javanese Nibelheim; but such metallic contact is also capable of producing effects of great delicacy as demonstrated in NAN TARASO (see below, Fig. 5).

An enchanting effect involving the most unusual kind of "mallet" was achieved by Al. Suwardi in NGALOR-NGIDUL in the section where the gambang keys are tickled using a product of Western technology which, I am reliably informed, may be loosely classified as a "marital aid". The (aural) charm of this effect is greatly enhanced by the way in which the sounds seem to grow out of the preceding buzzing noises (bamboo "kazoo"), and then develop into the succeeding gamelan section with its delicate use of stopped sounds. This sequence can be heard in Recorded Example No. 2.

The possibilities of producing sounds from the traditional instruments in ways other than by striking them have also been explored. Perhaps the most successful of these have been bowing techniques, sometimes using a rebab bow, but more often, and more effectively, a violin bow. The instruments which respond most readily to bowing are the gender (e.g. in DEBAH) and slenthem (in BONANG), with their thin keys and individual resonators, but in BONANG we also find bowed gong and bowed pencon.

Apart from this use of the bow, a number of other "scraping"
techniques have been tried using materials ranging from cork (on gambang keys in PELING) to tin cans (scraped around the inner rim of a gong in NAN TARASO). The squeals of a bonang pencon scraped with the end of the wooden handle of a bonang mallet are heard to nerve-jangling effect in OWAH-OWAH, while in BONANG we even have a case of the instrument itself (a bonang pencon) being scraped on a floor-mat.

Many experiments appear to have been directed towards overcoming the gamelan's deficiency in sustained sounds, as complained of by Supanggah (Appendix IIIii, paragraph [7]), and this might also account for the extensive development of tremolo effects which are found in almost all new pieces. The traditional kenong nitir (reiteration) style as used in sampak form has been developed into a wide range of tremolo techniques, and such effects, usually described by the terms nitir or geter (tremble/vibrate) occur in many new compositions. Even tremolo effects on sarons are to be found, some, as in KOMPOSISI II (see Appendix IVv, section A), clearly influenced by Balinese techniques. On pencon instruments such as bonang, two mallets may be used (on one note, or across two notes) to achieve a smooth tremolo sound (in OWAH-OWAH, PUTUS, etc.). Gong tremolos are widely used (e.g. in DEBAH, KEN AROK, etc.), the gong often being beaten on its surface (i.e. not on the boss), enabling a more gradual build-up, and a more even tone to be sustained.

Striking an instrument in a different place than usual is an obvious area for experimentation, and, in addition to the gong effect mentioned above, has produced some extraordinary sounds, especially when combined with unconventional mallet or damping techniques.
Thus RUDRAH, for example, features a kenong "struck on the edge, not on the boss, with the mallet reversed" (Prabowo 1980, 18); and equally remarkable instructions can be seen in the extract from YANG MEMBANGUN given in Fig. 3 below:

![Fig. 3 Extract from the notation of YANG MEMBANGUN](image)

**Explanation of the garap:**

The gong is struck on the face [i.e. not on the boss], fast, and varying in volume. The exact execution is left up to the player. The slentem is struck with two bonang mallets on the ends of the keys, quickly, the exact execution being left to the performer.

Source: Panggiyo 1983, 18

One of the interesting acoustical properties of pencon is that if they are inverted and struck on the rim, they function no longer as gongs but as bells, producing a characteristic bell-tone rich in harmonics, the fundamental frequency (sometimes difficult to determine) of which is not the same as that produced when the pencon is struck normally as a gong. These inverted-pencon bell sounds, already used by Supanggah in GAMBUH were further developed in PELING, DEBAH, etc.; while PUTUS DAN TERHEMPAS has a "kenong turned upside down and scraped with a kenong mallet which is also held inverted" (Waridi 1983, 11).
A part of an instrument which is not normally a sounding part might be exploited. For example, there are several instances of the tops of the wooden cases of saron and demung being struck with a mallet. A particularly effective and amusing use of this occurs in YANG MEMBANGUN where, in playing a rigidly applied ascending and descending melodic sequence, the mallet runs out of keys, "falling off" the end of the instrumental range onto the wooden case - an effect which gives the piece its onomatopoeic title "doak". (The notation for this is given below in section 8.7 - Fig. 17, and the effect will be heard later in Recorded Example No. 8.)

In the pursuit of new sonorities an instrument may be modified or even dismantled so that its constituent parts can be used in new ways. One quite common idea is to take individual pencon from the bonang and to distribute them amongst several players who are usually doubling on other instruments. Individual kempul and even gong suwukan may be treated in this way. Thus in YANG MEMBANGUN, for example, we find a "gong suwukan held in the lap upside down and struck" (Darsono 1983, 20); and in OWAH-OWAH the interesting effect of a kempul laid flat on the floor, struck on the boss while the face of the kempul is damped with the hand, this damping being released immediately after striking.

Keyed instruments may also be taken apart, as in NAN TARASO where individual saron keys are hung from strings and struck with a metal beater, producing a brilliant crotale-like effect (this will be encountered later in Recorded Example No. 5, Fig. 5); while KOMPOSISI II even has gambang keys distributed amongst the performers (Appendix IVv, section [W]).
The acoustical importance of resonators has not been overlooked and several interesting experiments have been tried. One of the most fascinating of these to perform is the use of the mouth as a resonator by positioning it over a sounding gender key and mouthing different vowel sounds, but the results are too subtle to be of much practical use. Bamboo tubes are employed as resonators for vocal sounds in DEBAH (see Appendix IVi, section II·4), and gamelan instruments themselves have undergone a change of function becoming resonators for other sound sources, such as in KOMPOSISI II, where kenong are used a resonators for blown lengths of plastic pipe (see Appendix IVv, section A).

Instruments may be directly modified in some way, thus a subtle and quite magical effect can be obtained by taking pencon, turning them upside down, and partly filling them with water. Held by the rim, the pencon are struck underneath on the boss with an ordinary bonang or kenon mallet and then tilted, producing a glissando. This effect, first exploited by Al. Suwardi in NGALOR-NGIDUL and further refined by him in DEBAH (Appendix IVi, section V·3), can be heard in Recorded Example No. 3 (from NGALOR-NGIDUL) where it is followed by one of this innovative composer's most high-risk techniques - a siter bowed with a saw!
8·3 New Instruments

"New" in this context means new to the usual gamelan instrumentation, although, as has already been pointed out, the present standard line-up represents a stage in a continuing evolution. In this connection it is interesting to note that due to close cooperation with the gamelan builder Pak Resowiguno, 56 ASKI personnel have been involved in new gamelan design. Thus, for example, one gamelan commissioned for ASKI was given a rather novel embat (scale structure) devised by Pak Supanggah, and more recently (1984), a new gamelan built for Jakarta was designed by Pak Al. Suwardi with an extended range on all the balungan instruments. From Pak Reso's workshop also came the replicas of the ceremonial court gamelan (gamelan pakurmatan), and it is significant that of these, the gamelan sekaten (originally commisioned by PKJT) was constructed so that its tuning was compatible with that of other ASKI gamelan, leaving the way open to a wider experimental use as we shall see below. 57

It is natural that the search for new sonorities should also be expressed in a desire to bring new instruments into the gamelan ensemble. As mentioned in Chapter 2, such additions are not unprecedented. The difference now is that the ASKI composers are willing to investigate the sonic possibilities of literally anything that comes to hand, and this includes musical instruments from other types of Javanese gamelan, instruments from other gamelan traditions, instruments from other Indonesian musics including village and folk
traditions, and even the use of noise-making and other innocent
objects. As will be demonstrated below, such new instruments may
bring with them their associated playing techniques and styles with
attendant compositional consequences, or may be treated purely as
sound sources and used in new ways.

**Instruments from other types of Javanese Gamelan**

The replicas of the ceremonial court gamelan mentioned above,
which are used for teaching purposes at ASKI, have been regularly
plundered for use in new works. In 1984 Al. Suwardi was working
on a new piece, *Bima Suci*, in which he used one such ensemble,
the gamelan sekaten, in its entirety (with the addition of rebab,
suling and voice); but it is more common to find individual
instruments being borrowed. Particularly attractive in this respect
are the very large low-pitched pencon found in the gamelan sekaten
bonang, which are usually taken off the frame and used individually
(e.g. in PUTUS DAN TERHEMPAS, KEN AROK, BONANG, PELING), but also
sometimes left intact as a bonang panembung (OWAH-OWAH, CINTA DAN
TEKAD). Other such "antiquated" instruments pressed into use include
the gambyong (in NGALOR-NGIDUL) and penontong (in HARYA PENANGSANG)
from the gamelan carabalen, the kecer from the gamelan monggang (in
YANG MEMBANGUN), the kenong japan (PUTUS DAN TERHEMPAS, HARYA
PENANGSANG) and gambang gangsa (DEBAH).

**Instruments from other gamelan traditions**

The ensembles from the other major gamelan traditions of Bali
and Sunda in use at ASKI have similarly been a source of borrowing.
Balinese instruments so employed include jegogan (in PENGORBANAN
DALAM KONFLIK), gangsa jongkok (PUTUS DAN TERHEMPAS), cengceng (HARYA PENANGSANG), gender wayang (CINTA DAN TEKAD) and numerous instances of Balinese suling; while Sundanese examples include gamelan degung pencon (in DEBAH) and ketipung Sunda (PUTUS DAN TERHEMPAS).

The following extract from PUTUS DAN TERHEMPAS (Fig. 4) shows a Javanese composer working with a Balinese suling and Sundanese kecapi (zither) using a mixture of traditional and experimental techniques. The vibrato effect on the strings of the kecapi was the composer's invention, the technique is not native to the instrument nor was he at that time aware of Japanese koto or similar styles. The effect may be heard in Recorded Example No. 4.

<table>
<thead>
<tr>
<th>Lagu Eling</th>
<th>Lagu Eling begins with the sound of the suling gambuh, which is played according to the requirements of the dance, the actual melody being left to the discretion of the performer with the proviso that there should not be too much ornamentation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suling Gambuh</td>
<td>The suling gambuh plays against a background of kecapi, the strings being plucked at one end while the other end is pressed down irregularly. The player should match the tempo to the requirements of the dance.</td>
</tr>
<tr>
<td>Kecapi</td>
<td></td>
</tr>
</tbody>
</table>

Source: Joko Purwanto 1983, 18-19

Instruments from other musical traditions

With the arrival at ASKI of students and instruments from Sumatra, a new area of possibilities was opened up, although, not surprisingly, the most extensive use of such instruments and
associated styles has come from Mahdi Bahar (PENGBORBANAN DALAM KONFLIK) and Asri M. K. (NAN TARASO), both of whom come from W. Sumatra and studied at ASKI Padang Panjang before coming to ASKI Solo to undertake postgraduate work. Direct contact with Sumatran, and particularly Minangkabau music has been an influence on the Javanese composers at ASKI, and such instruments as suling Minang (in PUTUS DAN TERHEMPAS) and saluang (in CINTA DAN TEKAD) have been used in a gamelan context.

In the extract given in Recorded Example No. 5 and shown below in Fig. 5, Asri M. K. employs an imaginative combination of traditional saluang (bamboo flute from W. Sumatra) and saron keys suspended from strings:

<table>
<thead>
<tr>
<th>INIUSTMENT</th>
<th>SYMBOLS/NOTATION</th>
<th>EXPLANATION OF THE GARAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>saluang</td>
<td>================</td>
<td>When the gong tremolo becomes quiet, the sound of the saluang appears.</td>
</tr>
<tr>
<td>saron keys</td>
<td>o o o o o</td>
<td>After a few moments, the sounds of several saron keys [individually hung on strings] appear, struck softly, one by one in alternation, using metal beaters.</td>
</tr>
</tbody>
</table>

Source: Asri M. K. 1983, 15

The use of musical instruments of Western origin is basic to Indonesian diatonic music, but little attempt has been made to incorporate such instruments in ASKI compositions. This is primarily due to a lack of availability of instruments (and players), and also because the most common instruments (piano, electric organ, guitar)
are incompatible in terms of tuning; but it may also reflect distaste at the dubious results obtained elsewhere - the "pop" cassettes Gamelan Disco, and Gipsy by Guruh, for instance. Some experiments have taken place, however, notably in the use of violin (biola) by Al. Suwardi, but of all the compositions which form the basis of this study, the only one which features a Western "instrument" is YANG MEMBANGUN, with its prominent part for metronome.

Although Western instruments have not had much impact on the gamelan, the new attitude towards sound has led composers to regard resources more readily to hand in a new light. Thus several instruments of regional styles such as Banyumas, and of folk music have been exploited, as in the use of angklung (in PENGORBANAN DALAM KONFLIK, YANG MEMBANGUN etc.), and a host of other bamboo instruments.

**Noise-makers and other objects**

The aesthetic of "sound" as a musical resource has naturally led to the investigation of noise-making objects which are not usually considered as instruments. The proliferation of such objects as signalling devices, bird-scaring mechanisms, toys etc. in Java is an indication of a natural inventiveness and innate propensity to play with sound, so it seems quite natural in the context of new compositions to find employed such "instruments" as gentha (cowbells) in KOMPOSISI II, gangsingan (bamboo humming tops) in GAMBUH, gongkeri (small knobless signalling gong) in RUDRAH, kik-kik (toy squeaker) in PELING, and many more.

Of course, such creative exploration for new sounds, once
unleashed, knows no bounds, and may lead to such exotic new "instruments" as *kelereng dalam kaleng* (marbles rolled round in a tin can) in *PENGORBANAN DALAM KONFLIK*, *lesung* (rice-pounding block) struck with bamboo tubes in *BENDUNGAN WONOGIRI*, *potongan pipa plastik* (lengths of plastic pipe) blown, using *kenongs* as resonators, in *KOMPOSISI II*, *bancik* (the wooden platform on which the gamelan stands), struck with saron mallets in *PUTUS DAN TERHEMPAS*, and even the floor itself, scraped with paper ("*kertas yang digosok-gosokkan pada lantai*") in *NAN TARASO*.

Finally, the subject of new instruments cannot be left without further mention of the extraordinary inventive genius of Al. Suwardi. His hybrid "gender-vibraphone", whose beautiful sounds can be heard in *DEBAH* (Cassette IIa; Appendix IVi), was developed in 1982/3, since when, in addition to his output of conventional rebab, suling etc., he has produced a whole range of unusual bamboo flutes, new types of ocarina, and a Heath-Robinson contraption involving bamboo pipes, rubber tubing and an earthenware pot containing water, perhaps best described as a bubble-flute. In 1984 he was talking enthusiastically about making a double-bass-sized rebab.
Chapter 8.4

8.4 New Vocal Techniques

The vocal element is of great importance in traditional karawitan, not only in terms of feeling and meaning, but also sonority. In addition to the use of traditional and experimental techniques with regard to either melody or text or both, the ASKI composers have extended to the vocal medium the same kind of experimentation which they have applied to instrumental sounds.

Even outside the confines of ASKI, the use of the vocal element in gamelan is one of the areas to have undergone most rapid change in the recent history of karawitan (see, for example, Hatch 1976). One such development, as Becker (1980, 71-74) points out, is the influence of the Western choral tradition, apparent in the application of contrapuntal, antiphonal and chordal techniques in the gamelan masses of the Catholic Church in Yogyakarta, and spreading through the influence of the popular works of Ki Wasitodipuro and others. It may be significant in this respect that the only regular practical activity in diatonic music at ASKI has been the choir (paduan suara or koor), performing mostly Indonesian part-songs and arrangements. Similar "part-writing" is now to be found in the vocal sections of many gamelan compositions and, as will be seen later, the "chordal" approach has even made some inroads into instrumental parts. The extract from YANG MEMBANGUN given in Fig. 6 shows a traditional macapat melody developed by the addition of a second vocal part to form the opening section of a bedaya dance sequence.
Gerongan Bedayan Sasmito, pelog
[chorus part only]

Group I: 3 5 6 1 6 5 5 5 3 5 6 5 3 2 1 6
Group II: 3 5 5 5 6 \(\ldots\) 1 \(\ldots\)

Sas-mi-to kon-dur ngedhaton pu-ni-ka ta Sri Narendra

I: 4 2 4 \(56\) 3 2 1 1 1 2 1 5 5 5 1 2
II: 4 6 4 \(12\) 1 6 5 5 6 5 3 2 1 2 3 2
tedhak saking singangsono ing a-yap sa-gung ing wadya

I: 3 5 6 5 3 2 \(321\) 1 \(\ldots\) 2 3 1 65
II: \(1\ldots2\) 6 5 \(635\) 5 5 5 5 5 3 3 3 \(21\)
bi-yo-do ba-do-yo srim-pi kang endah e-di war-na-nya

I: 3 3 \(35\) 3 2 1 1 6 1 1 1 3 2 3 1 \(65\)
II: 1 1 \(12\) 1 6 5 5 6 5 5 5 3 6 2 3 2 1
Kang bu-sa-na e-di mi-nulya a-mrih a-rum ingkang ganda

I: 3 6 3 5 6 5 3 2
II: 1 2 3 1 2 3 5 6
yayah ja-ua-ta tu-me-dhak

This bedaya chorus is performed by the singers divided into two groups.
The tempo is regulated by one of the singers (giving signals with his hand).

Source: Darsono 1983, 14
Unlike gerongan which is metrically-pulsed, macapat and other kinds of traditional tembang, originally being unaccompanied vocal forms, are in free rhythm. Unison choral singing of such melodies is now frequently to be heard — often (as in the case of dance accompaniments) this is to aid audibility over a gamelan background — and requires the use of visual coordination, as demonstrated in the instructions given in Fig. 6. A group of singers being discreetly "conducted" by one of their number is now a common sight at ASKI. The opening of BENDUNGAN WONOGIRI, for example, has the Sekar Ageng Wegang Suldjar sung (unaccompanied) in unison by all the performers.

The extract from PUTUS DAN TERHEMPAS in Fig. 7 might at first glance look like a traditional macapat, but the text, which is newly composed and in modern Javanese, is not constructed in one of the standard forms in terms of number of lines, syllables per line, line end vowels etc. The melodic outline, however, is traditional in origin, being a broken-up form of a megatruh melody transposed from the original pelog barang. The method of performance is untraditional, the vocal line being sung freely by unison chorus over a gamelan background to which it is not related in any way, and the third line is shouted unpitched very loudly. These unusual effects are created by the composer to support the dramatic requirements of the dance being accompanied.
Fig. 7 Extract from the notation of PUTUS DAN TERHEMPAS

<table>
<thead>
<tr>
<th>NOTATION</th>
<th>EXPLANATION OF THE GARAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. Lagu Panglipur laras pelog</td>
<td></td>
</tr>
<tr>
<td>* 3 5 3 5 5 6 5 3</td>
<td></td>
</tr>
<tr>
<td>* 3 5 3 5 5 6 5 3</td>
<td></td>
</tr>
<tr>
<td>* 3 5 3 5 5 6 7(5)</td>
<td></td>
</tr>
<tr>
<td>Lagu Panglipur begins with a bonang penerus introduction ['buka'], and is played in slow tempo ['laya tamban']; on reaching the gatra before the gong, the vocal part enters, at which the volume is reduced. After two gong cycles, continue on to Lagu Genderan [not given here].</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lagu Vokal laras pelog</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 2 1 6 1 2 3</td>
</tr>
<tr>
<td>A- ti kang bi- ngung</td>
</tr>
<tr>
<td>5 5 1 6 5 5 6 5 3</td>
</tr>
<tr>
<td>Ki-nu- rung ing dak- si- ya</td>
</tr>
<tr>
<td>[Datan tuk pangapurane (shouted)]</td>
</tr>
<tr>
<td>5 5 1 6 5 3 2 3</td>
</tr>
<tr>
<td>De-ning ra- tu- ni- ra pu- tri</td>
</tr>
<tr>
<td>3 2 1 2 6 5 3 5 6</td>
</tr>
<tr>
<td>Jro-ning a- ti pe- rih</td>
</tr>
<tr>
<td>3 3 6 5 2 3 1 2 3</td>
</tr>
<tr>
<td>Mu-rih bi sa ing- gal lu- ar</td>
</tr>
<tr>
<td>Explanation:</td>
</tr>
<tr>
<td>The third line is unpitched.</td>
</tr>
<tr>
<td>[Translation (by Sri Hastanto):]</td>
</tr>
<tr>
<td>A troubled heart</td>
</tr>
<tr>
<td>Caged in injustice</td>
</tr>
<tr>
<td>Unpardoned</td>
</tr>
<tr>
<td>By that Queen</td>
</tr>
<tr>
<td>A bitter heart</td>
</tr>
<tr>
<td>Struggling to be free</td>
</tr>
</tbody>
</table>

Source: Waridi 1983, 12
In the extract from OWAH-OWAH given in Fig. 8, both the melody and the text are new, although the latter is a combination of traditional phrases in poetic Javanese (lines 1, 2, 3 and 6) and modern everyday Javanese (lines 4 and 5). The cumulative effect of text and the extraordinary tortured melodic line with its non-traditional contours, abrupt leaps and angular phrases, creates a powerfully disturbing, almost expressionist feeling.

Fig. 8  Extract from Pak Subono's rehearsal notes for OWAH-OWAH

\[
\begin{align*}
\text{Jejer} & \quad \text{janna} & \quad \text{jan-jane} & \quad \text{amelang-} & \quad \text{melang} \\
1 & 2 & 3 & 5 & 5 & 5 & 5 & 5 & 3 & 2 \\
\text{Gagab-} & \quad \text{gagab} & \quad \text{gesange} & \quad \text{sangsaya} & \quad \text{sampyuh} \\
5 & 2 & 6 & 5 & 5 & 4 & 2 & 4 & 5 & 6 & 1 & 2 & 5 \\
\text{Andelarung} & \quad \text{sinurung} & \quad \text{anggung} & \quad \text{bebingung} \\
\text{Uripku} & \quad \text{aku piye} & \quad \text{uripku} & \quad \text{aku piye} \\
\text{Uripku} & \quad \text{aku piye} & \quad \text{uripku} & \quad \text{aku piye} \\
\text{Dhadhal} & \quad \text{dhuwal} & \quad \text{duwal} & \quad \text{dhadhal} \\
\end{align*}
\]

[Translation (by Sri Hastanto):

To be human is always to know fear
Groping along, one's life increasingly crushed
Desire itself is driven by hidden confusion
My life, what is to become of me . . .
What is to become of me, my life . . .
Broken, torn, torn, broken ]

Source: Subono 1983a, 1
Although traditional poetic language is still used for texts (with varying degrees of success—see Chapter 11) especially where a traditional association or atmosphere is required and precise meaning is of little or no importance, modern Javanese is often pressed into service, especially for dramatic effect or to express individual emotions and feelings in a direct, modern way which may reflect the influence of contemporary Indonesian and Javanese dramatic forms. However, it is interesting to note that of the 21 new compositions under consideration, only one (KEN AROK) uses Indonesian, and that is for a dramatic declamation by one of the dancers, the heading given to this section in the notation clearly indicating the above-mentioned influences: "Narasi untuk Monoloog [Narration for the Monologue]" (This sequence is given in Fig. 35).

Such dramatic declamation (as might be imagined at ASKI) is not immune from parody, as in the following from YANG MEMBANGUN: "All the musicians shout out the names of their instruments loudly. For example, musician A shouts 'gambang', musician B shouts 'rebab', etc." (Panggiyo 1983, 21)

The most common use of voices in a traditional gamelan context—the gerong and sinden—might almost be regarded in terms of just two more lines in the overall texture. The actual words sung are of minor importance, consisting of standard poetic texts in courtly language, the precise meaning of which might not even be clear to the performer. In his note on "Ga", the final section of DANDANGGULA, Hastanto gives evidence of an interest in vocal sonorities: "I wish to place the melody to the fore, and so the text of the song is not important. Nevertheless, by singing the text, clearly there is a different sound colour as compared with sounds such as 'em-em-em'
or 'na-no-na-no'" (Hastanto 1979(a), 6). The ASKI composers were not slow in taking up the idea of text and word manipulation as an area of experimentation.

In the extract from OWAH-OWAH shown in Fig. 9, Subono makes no use of melody or of meaning, achieving his effect by playing with the sounds of the words themselves, by manipulation, extension, repetition and transformation.

<table>
<thead>
<tr>
<th>Fig. 9 Extract from Pak Subono's rehearsal notes for OWAH-OWAH</th>
</tr>
</thead>
<tbody>
<tr>
<td>voice: <strong>hab</strong> . <strong>hib</strong> . <strong>hob</strong> . . . <strong>ih hab ih hub ih hob</strong> . . .</td>
</tr>
<tr>
<td>. . . <strong>sos sos</strong> . . . <strong>sosos ngisas ngisus ngisos</strong></td>
</tr>
<tr>
<td><strong>Kamprung</strong> . <strong>mumbrung ngambrang-ngambring ambregundung</strong></td>
</tr>
<tr>
<td><strong>ing jres</strong> . . . <strong>song jres</strong> . <strong>go</strong> . <strong>bras</strong> . <strong>ga</strong> . <strong>bres</strong></td>
</tr>
<tr>
<td><strong>druh</strong> . . . <strong>druh</strong> . . . <strong>druh druhun</strong> . . .</td>
</tr>
<tr>
<td><strong>sruwal</strong> . . . <strong>gombal gedibal</strong> . . . <strong>bal bal</strong></td>
</tr>
<tr>
<td><strong>bras</strong> . . . <strong>brus</strong> . <strong>bras</strong> . <strong>brus</strong> . <strong>bras</strong> . . .</td>
</tr>
</tbody>
</table>

Source: Subono 1983a, 3

Texts may also be used purely for their rhythmic potential, as seen in the extract from KEMELUT given in Fig. 10.

<table>
<thead>
<tr>
<th>Fig. 10 Extract from the notation of KEMELUT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NOTATION</strong></td>
</tr>
<tr>
<td><strong>H. VOCAL BOMANTARA</strong></td>
</tr>
<tr>
<td>Bomantara kasika</td>
</tr>
<tr>
<td>Goyang giyang hana bijang</td>
</tr>
<tr>
<td>Bijang kara mahuriyan samalikana</td>
</tr>
<tr>
<td>Yuham yuhamantara</td>
</tr>
<tr>
<td>Dirham dirhamantara Sambana</td>
</tr>
</tbody>
</table>

Source: Dwiono Hermantoro 1984, 20
Although the aesthetic context in which it is used is new, such playing with words is very much a development of a traditional preoccupation. The Javanese language is alive with onomatopoeia (as demonstrated in the naming of instruments, mentioned in Chapter 2) and word-play is an important element in poetic forms and in the wayang (see, for example, Susilo 1984, 129-31; Heins 1970, 109-25). Words are also used extensively in the learning process of traditional karawitan - in the Javanese "sol-fa" system for pitch names ("ji", "ro", "lu", etc.) for example, and in the onomatopoeic names given to the drum strokes ("tak", "dlang", "dhung", etc.). It is quite common to see a student practising the gender, for instance, while his voice provides an impression of the sounds of the rest of the gamelan. The traditions of the courts exploit vocal effects quite unlike "normal" singing, in the form of swooping vocal cries and interjections (senggakan, alok, etc.), and such vocal sounds are an even more vital element of village and folk traditions.

Given the ASKI aesthetic, it is a short step to regarding the voice as yet another sound source to be exploited to the full. Just such an approach was taken by the composers of NGALOR-NGIDUL:

"The other sound source used in this composition . . . is the human voice. Its use departs from the tradition. What I mean is that it departs from existing forms such as macapat, palaran and gerong, with or without text. The words which we have used here have absolutely no connection with the content of the piece. We also use shouts which already exist in traditional music and especially the kinds found in popular performances (folk music). Vocal style in traditional gamelan music is always executed with a smooth refined melody and flow. We also make use of this for part of our composition, but mostly we adopt
a different style, for example, by the placing of prominent
accents, by singing out of tune, by not using words but just
making noises." (Rustopo 1982, 2-3)

(Some of the results of this approach may be heard in the extended
extract from NGALOR-NGIDUL given as Recorded Example No. 14 - see
below section 8·10.)

Subsequent ASKI compositions exhibit a quite astonishing range
of vocal effects. Performers are required to vocalise, move between
pitched and unpitched sounds, hum, howl, hiss, shout, laugh, scream,
cough, mumble, moan, mutter and click their tongues. Vocal sounds
are modified by external means, such as by singing into gongs and
pencon of various sizes (in OWAH-OWAH), singing into resonating tubes
and bamboo kazoos (in DEBAH), and singing while striking the throat
with the hand to induce a pronounced, if alarming, vibrato (KOMPOSISI
II).

Recorded Example No.6, an extract from ONDE-ONDE, has voices
entering in imitation of, and then developing, the sound of the
twanging of massed zithers.

Some of the most outrageous of these vocal techniques have been
devised by Sukamso, initially in KOMPOSISI II (see Chapter 10,
Appendix IIIv and Cassette 3) and subsequently developed further
in his composition VOKAL, a veritable tour-de-force for voices only,
performed at the 1985 Young Composers' Week in Jakarta. This is
a truly amazing piece, quite able to hold its own against anything
comparable from the Western avant-garde.
8.5 *Metre, Rhythm and Texture*

The piece whose notation is given in Fig. 11, as its title suggests, opens the dance composition KEN AROK:

**Fig. 11 Extract from the notation of KEN AROK**

<table>
<thead>
<tr>
<th>A. Lagu &quot;Awal&quot; laras pelog</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 2 3</strong> - <strong>6 6</strong> - <strong>4 6</strong> - <strong>4</strong></td>
</tr>
<tr>
<td><strong>1 2 3</strong> - <strong>6 6</strong> - <strong>4 6</strong> - <strong>4</strong></td>
</tr>
<tr>
<td><strong>1 2 3</strong> - <strong>1 2 3</strong> - <strong>1 2 3 1 2 3</strong></td>
</tr>
<tr>
<td><strong>1 2 3</strong> - <strong>1 2 3</strong> - <strong>1 2 3</strong></td>
</tr>
</tbody>
</table>

**Explanation of the garap:**

Lagu Awal is played using the following instruments: (2) demung, (4) saron, saron penerus, bonang barung, bonang penerus, kenong, ketuk, kempul and gong.

Realization: The demung, saron, and saron penerus are played according to the balungan notation given, while the bonang barung, bonang penerus, ketuk, kenong and kempul are played at the places marked by the symbols, by striking two notes of different pitch simultaneously. Lagu Awal is played once, loudly, starting rather fast and becoming very fast.

Source: Suroto 1984, 13

The explosive dynamism of *Lagu "Awal"* is a far cry from the refined flow of traditional Javanese karawitan, but very much in keeping with the modern spirit. If the rhythmic fervour of this piece suggests the influence of the general trend towards the greater noise, speed and dynamism of late twentieth-century Indonesian urban
life, on a more technical level it also clearly demonstrates the major musical influence exerted by Balinese gamelan. Such influence has already been mentioned in terms of sonorities and instruments (8·2, 8·3) and further aspects will be discussed below (8·9), but the syncopations and cross-rhythms of the melody and the irregular explosive chord-clusters on the pencon instruments (parodying the reyong) of Lagu "Awal" indicate that the great appeal of the Balinese style lies in its rhythmic excitement.

For a musician trained in traditional karawitan it is extremely difficult to shake off the ingrained conceptual framework of regularly-pulsed binary subdivisions of structure and metre, with the associated feeling of movement towards a point of arrival (seleh). An attempt to escape this overbearing domination lies behind many of the experiments with metre and rhythm at ASKI.69

The consequence of even the most tentative changes in metrical structure, of course, is to bring down the whole conceptual edifice defined by the interdependence of irama, bentuk and garap, which supports traditional karawitan. To take a simple example, if the composer devises a balungan melody in triple metre, how is it to be realized? Where do the kenong, ketuk and kempul strokes fall? And what elaborating patterns are the bonang to play? The traditional processes of structure and realization are rendered inoperable, and the composer must specify what each instrument is to do. The particular problem cited, that of triple metre, is not a new one. The approach of Nartosabdo in his song Aku Ngimpi, as analysed by Judith Becker (1980, 70-71) makes an interesting comparison with the more recent efforts of ASKI composers. Of Aku Ngimpi, Becker remarks: "Even though this meter is a direct borrowing from the
West . . . a gamelan-type formal structure has been superimposed". Lancaran Rudrah from RUDRAH, the notation of which is given overleaf (Fig. 12), adopts a similar approach as the piece by Nartosabdo cited above, but is more probably influenced by Pak Martopangrawit's piece Parisuka. The required structural pattern for kenong etc. is specified, as are embellishing patterns for the bonang. Of greater interest, however, is that Lancaran Rudrah undergoes a metrical transformation during performance. The relationship between the two versions is very clear:

First version : 5 3 3 2 3 1 2 3 2 3 5 (6)

Second version : 5 3 2 1 3 2 1 (6)

Use of triple metre in the later, more experimental, ASKI works can be found in Lagu Kukuh from KEN AROK (see Fig. 35), Kawit from CINTA DAN TEKAD (see Appendix IViv, section [1]) and Lagu Konflik from PENGORBANAN (see Appendix IVvi, section 14). The radical difference of the later ASKI approach is that it no longer automatically takes for granted the traditional instrumental functions of structural punctuation and in-filling elaboration. The example from KEMELUT given in Fig. 13, although still showing traces of traditional structural thinking, uses no elaboration at all. The strange, dream-like atmosphere (which, as its title suggests, is what the composer was trying to create) is achieved by having all the heavy bronze instruments (including those customarily thought of as structural - kenong, and embellishing - bonang) playing very softly the same slow melody (in four octaves) in rhythmic unison.
Fig. 12 Extract from the notation of RUDRAH

Ketawang Sundawa is followed by Lancaran Rudrah, which employs special garap, as follows:

- In this lancaran form, each gatra consists of only three beats.
- The Kempul plays on the third beat of the first and third gatra.
- The Kenong plays on the third beat of the second and fourth.
- The Kendang pattern is not the usual one for lancaran form.
- The garap of the Bonang Barung, Bonang Penerus and Ketuk use the same patterns as in gangsaran form.

This is made clear in the notation below:

Lancaran Rudrah

\[
\begin{pmatrix}
5 & 6 & 3 \\
2 & 3 & 1 \\
2 & 3 & 2 \\
3 & 5 & (6)
\end{pmatrix}
\]

Kendang:

\[
\begin{array}{cccc}
p & p & b \\
p & p & b \\
p & b & p \\
p & b & b
\end{array}
\]

Bn. Br.:

\[
\begin{array}{cccc}
\frac{2}{6} & \frac{3}{6} & \frac{2}{6} & \frac{3}{6}
\end{array}
\]

Bn. Pr.:

\[
\begin{array}{cccc}
\frac{2}{6} & \frac{2}{6} & \frac{2}{6} & \frac{2}{6}
\end{array}
\]

Ketuk:

\[
\begin{array}{cccc}
\cdot & \cdot & \cdot & \cdot
\end{array}
\]

In this form, the Lancaran is played "soran" (loud), then sirep [soft] as a contrast (very weakly), the instrument which is rather prominent in this soft section being the ketuk.

In the soft section, the form of the Lancaran changes to the following:

\[
\begin{pmatrix}
\cdot & 5 & \cdot & 3 \\
\cdot & 2 & \cdot & 1 \\
\cdot & 3 & \cdot & 2 \\
\cdot & 1 & \cdot & (6)
\end{pmatrix}
\]

- The drumming pattern becomes that for normal lancaran.
- The Kempul and Kenong also play as for normal lancaran.
- The Bonang Barung, Bonang Penerus and Ketuk still play as in the above notation.

[N.B. \(\cdot\) = Kenong, \(\cdot\) = Kempul]

Source: Prabowo 1980, 14-15
In the new compositions, where metrical structures are employed, a preference for duple or quadruple metres is still evident, although unconventional phrase structures, irregular placement of stress and accents may conceal this. Old habits die hard, and for the purposes of written notation and maybe even for ease of memorisation, a melodic line may still be grouped in units of four notes looking like traditional gatra, but the rhythmic stress may be irregular, as in Gending Liang from KOMPOSISI II (Appendix IVv, section G). Other composers reflect such irregularities in their notation, and groupings of one, two, three, four, five, six, and even seven-note units are to be found, suggesting something approaching an additive conception of rhythmic structure.
In Lagu Tekad from PUTUS DAN TERHEMPAS (Fig. 14), it is the context of a conventional four-square metrical pulse (and also the emphatically strong tonality) that makes the irregular rhythmic groups at the end of each section so powerful, throwing enormous weight onto the gong notes. The effect sought by the composer (clearly indicated in the title) is brilliantly achieved by relatively simple means.

Possibly the most striking innovations have been made in the combination and juxtaposition of different metres and tempi, of which many examples will be encountered in Chapters 9 and 10; and, even moreso, in the use of free rhythms. In the traditional gamelan context, of course, there are free-rhythmic elements (as in the techniques of the pesindhen and suling), but these are, of necessity, individual lines. However, since it is now not uncommon to hear a chorus singing a unison melody in free rhythm, it is not surprising
to find this idea taken up in the instrumental domain, and in several new works the whole balungan section (slenthem, 2 demung, 4 saron, saron penerus) is required to play together in free rhythm. As in the case of the chorus this requires visual coordination, although the influence here is not from the Western concept of conducting, but from the use of the visual lead given to the gangsa section by the giying player in Balinese gong kebyar. Such passages in the new compositions are usually led by one of the demung players. Panggiyo (1983, 24) is one of several composers who actually go to the trouble of making the procedure clear in their notation: "The playing of Gending "Nyot" (D) and Gending "Theklug" (E) is led by one of the demung players who also gives the signal to stop by lifting up his mallet." (The notation of the two pieces in question is given in Fig. 33).

In some cases rhythmic freedom in the form of free improvisation is given to the performer, sometimes with the express purpose of countering any traditional feelings of regularity, for example: "In Gending 'Sreg' the kempul part is to be improvised by the player, with the proviso that it should not be too loud or prominent, but must be irregular in rhythm ["tidak ajeg"]." (see Fig. 33)

Sometimes individual rhythms are not specified where the intention is to combine separate sounds to produce an overall texture, colour or sonority, and this approach is very much tied in with the exploration of new sound resources described above in sections 8·2 and 8·3. However, such techniques may equally be seen as a development of traditional Javanese principles when they make use of individual lines or ostinato patterns which come together in an interlocking texture (jalinan). Imbal is the simplest example of such
a technique, dove-tailing two gapped lines into one continuous line. Indeed, the further development and invention of such interlocking rhythmic textures has been a favourite preoccupation of ASKI composers - a good example being the opening section of BONANG (see Appendix IVii). In such a texture, the individual elements have a pulsed rhythmic identity of their own, as does the resultant composite texture. As implied above, many composers have gone on to explore the possibilities of textures which are unpulsed and arhythmic, the individual elements being either completely free thus forming a scatter of random events, or having little or no perceptible rhythmic component at all, only duration, as in the building up of sustained and tremolo sounds.

**Fig. 15 Extract from the notation of NAN TARASO**

<table>
<thead>
<tr>
<th>INSTRUMENT</th>
<th>SYMBOLS/NOTATION</th>
<th>GARAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>gong</td>
<td>--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.--.</td>
<td>As the dialogue becomes louder, the gong enters, played fast but not loud. The talempong then enter one by one, followed by the saron, demung, ketuk, gender - all gradually becoming louder (tremolo sounds). When the above-mentioned instruments are loud, the talempong come together to form a melodic line. The other instruments then become softer as the talempong become louder. The other instruments then grow louder again until the sound of the talempong is lost; the other sounds themselves then grow quiet and fade out.</td>
</tr>
<tr>
<td>slentem</td>
<td>= = = = = = = = = = = = = = = = = = =</td>
<td></td>
</tr>
<tr>
<td>saron</td>
<td>- - - - - - - - - - - - - - - - - - -</td>
<td></td>
</tr>
<tr>
<td>demung</td>
<td>$ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $</td>
<td></td>
</tr>
<tr>
<td>ketuk</td>
<td>x x x x x x x x x x x x x x x x x x x x</td>
<td></td>
</tr>
<tr>
<td>gender</td>
<td># # # # # # # # # # # # # # # # # # # # #</td>
<td></td>
</tr>
<tr>
<td>Talempong</td>
<td>1 1 2 1 2 3 4 4 3 4 3 4 3 4 3</td>
<td>2 1 2 1 2 3 4 3 2 3 2 2 2 2 2 2</td>
</tr>
</tbody>
</table>

Source: Asri M. K. 1983, 11
Recorded Example No. 7, an extract from NAN TARASO, the notation for which is given in Fig. 15, demonstrates an imaginative manipulation of both types of texture described above, the pulsed rhythms of the talempong appearing to grow out of, and ultimately be absorbed back into the random texture of the other instruments. The young ASKI composers seem to have discovered an Indonesian equivalent of Ligeti's world of "Clocks and Clouds".
8.6 Tempo, Volume and Dynamics

As in matters of metre and rhythm, the restrictions of the classical tradition in terms of tempo and volume are very much felt by the young composers, and the overall trend towards a more dynamic musical expression has led to a general increase in volume of sound in addition to the quickening of pulse. As noted in Chapter 3, in traditional karawitan, tempo and volume are automatically adjusted according to what is traditionally appropriate for a particular set of performance circumstances - ensemble type, style, form, garap etc. In general, slow (tamban) is equated with quiet (lirih), fast (seseg) with loud (keras), and more specific terms referring to matters of tempo and volume are usually unnecessary. Soran (loud) refers to a style and instrumentation as much as to volume; sirep (soft) - with its negator, udhar or wudhar (loud again) - is originally a direction to the musicians accompanying a wayang performance for the music to be reduced to background level during the dalang's narration.

The ASKI compositions not only demand greater dynamic extremes, they also display increased sensitivity to shades of volume, and considerable skill in the use of volume and changes in volume as a compositional tool. As a simple example, the extract from NAN TARASO given above (Fig. 15, Recorded Example No. 7) shows a musical effect being achieved solely by the manipulation of the relative volume of simultaneous and overlapping "steady-state" textures. The novelty of such thinking is perhaps indicated in the terminology employed, the word "volume" itself being most common, although the
Balinese ngumbang-isep and Javanese/Indonesian keras-lirih are occasionally used. In the notation for DEBAH (Appendix IIIi), Al. Suwardi employs no fewer than nine different directions concerning volume:

- volume keras: loud
- volume keras sekali: very loud
- mengeras: becoming louder
- volume sedang: medium volume
- volume lirih: quiet
- volume sirep: soft
- volume lemah: weak
- menipis: becoming quieter
- menghilang: disappearing/fading away

It is significant that the term volume is more common than dinamika (dynamics), even though the latter is taught in the classes on Western music theory at ASKI. It would seem to suggest that the influence at work here is not that of Western music, but of modern electronic technology in the form of the volume-control on electrical sound equipment. That fade-in/fade-out effects should have become such a well-developed feature in the range of new compositional techniques tends to confirm this, although it might also reflect the traditional Javanese penchant for smooth transitions. The traditional avoidance of abrupt changes is, however, no longer a limitation in the ASKI style, and the possibilities of dynamic contrasts have been explored to the full, whether the contrast is between consecutive passages for the whole ensemble, or between different sections within the ensemble, or even individual instruments. Moreover, the use of dynamics to accentuate individual
notes, phrases, lines or textures becomes possible.

Even the traditional fast=loud, slow=soft implication can no longer be taken for granted. In YANG MEMBANGUN, Panggiyo reverses this traditional expectation in Gending Sreg (the notation of which is given in Fig. 33): "Gending 'Sreg' is played again (for the second time), once through, using the kendang introduction: t · d d (6). As the tempo becomes faster and faster, the volume decreases, the sound finally disappearing altogether." (Panggiyo 1983, 17). Due partly to the ingrained faster=louder association, this is rather difficult to achieve in terms of playing technique, but the effect is quite remarkable.
8.7 **Melody, Harmony and Tonality**

The melody of *Lagon Bendungan Wonogiri* from *BENDUNGAN WONOGIRI* by Al. Suwardi (Fig. 16) demonstrates the kind of thematic construction using short motifs and irregular rhythmic displacement which Judith Becker (1980, 71) found in several of the popular compositions of Ki Wasitodipuro such as *Modernisasi Desa* and *Orde Baru*, and which she considered "uncharacteristic of traditional gamelan pieces". Suwardi's melodic line is certainly nothing like the gerongan of the traditional court style, but neither does it have the Western influences which Becker cites. Its origin is more in village or "folk" music and, when performed with its Banyumas-style accompaniment, the effect is as delightful and as "catchy" as anything by more famous names, and demonstrates that the most avant-garde of ASKI composers has no difficulty turning out something in popular style should the need arise.

Although both the text and melody of *Lagon Bendungan Wonogiri* are new, the melody is still *runtut* - acceptable to traditional ears, and thus well within the limitations of the pathet system. In this respect, Becker (1980,89) concluded that "The majority of the new compositions by Ki Wasitodipuro and Ki Nartosabdho are traditional in style [and] do not violate the rules of pathet." In a small number of pieces, however, she did discover innovation in the pelog system in terms of "the use of a diatonic scale structure and in the introduction of melodic patterns outside of the traditional modes" (1980, 98). Becker considered such innovations again to be largely
Lagon Bendungan Wonogiri, slendro sanga
[First of four verses - vocal part only]

le-kas-e

du-ngan ing Wa-na- gi- ri gi?

na-wi a-wit pra-kar-sa-ne

pa- ma ren-tah yek-ti

sa-lah si- ji-ne

pro-gram pem-ba- ngu-nan

sa-meng-ko wus te- ko-ta-

hap ingkang ka-ping te- lu

mi-neng-ka mu-jut- ke ma-

sya-ra-kat a- dil mak-mur

["Thus the Wonogiri dam was built on the initiative of the Government: a development programme which has now reached its third stage, representing our labours to achieve a just and prosperous society."]

Source: Transcription from a recording made during rehearsals 26 February 1983

the product of Western influence, and possibly only used for special effect.

It comes as no surprise to find the young ASKI composers taking a much more radical approach. If the traditional relationships between irama, bentuk and garap are no longer necessarily to be taken for granted, nor indeed the traditional instrumental functions, then it must follow that pathet, the tonal basis of traditional karawitan,
no longer automatically holds sway. As will be seen from numerous instances in the six complete works examined in Chapter 10, the ASKI composers are still capable of working within such traditional limitations if they choose to do so (albeit some more successfully than others). They are also well acquainted with the various melodic compositional techniques, such as motivic variation, to be found in the tradition - although even their traditional-style melodies often exhibit the trend away from old-fashioned smoothness and towards greater dynamism in terms of intervals and contours.

It is the pelog system which most clearly demonstrates the meaning of pathet in the sense of "mode"; as we have seen, the two basic scales (pelog bem: 1-2-3-5-6 and pelog barang: 7-2-3-5-6) necessitate two separate instruments in the case of gender, gambang etc. The balungan instruments, however, have all the available pitches, including the "exchange" tone 4, arranged in sequence and providing a range of seven notes 1-2-3-4-5-6-7. If the sonorities of a traditional instrument may be explored to the full, then why not the pitches? Such an attitude lies behind the passage from YANG MEMBANGUN given in Fig. 17, and which can be heard in Recorded Example No. 8.

The composer seems to be saying: these are the notes I have in front of me and I intend to make full and equal use of them! The balungan instruments enter imperceptibly beneath the very traditional pelog pathet barang atmosphere of Ada-ada Gumeder, and, gradually increasing in volume, wind their way up through the pelog gamut until swamping the voices completely. The technical means is simple - the rigid application of a process of successive stepwise transpositions of a repeated ascending and descending scalic figure
Ada-Ada Gumeder, pelog

7 2 2 2 2 2 2 3 2 7
Gu-me-der dre-dah ing la-ga

7 6 7 6 5 6 7 2 3 2 [sarons dha-sar ge-bag de-deg i-ra enter]

5 6 6 5 6 7 2 3 5
a-du ka-ro-san-ing ka-su-di-ran

6 7 2 7 2 7 6 5 6 7 2 6
da-tan mun-dur yen du-rung tu-me-keng le-na

Munggah mudhun [rising and falling], pelog

saron barung, saron penerus and demung:

A: 1 2 3 4 3 2 1 2 3 4 3 2 1
B: 2 3 4 5 4 3 2 3 4 5 4 3 2
C: 3 4 5 6 5 4 3 4 5 6 5 4 3
D: 4 5 6 7 6 5 4 5 6 7 6 5 4

"Dog" laris pelog

// 1 3 2 4 3 5 4 6 5 7 6 *(dog)

7 5 6 4 5 3 4 2 3 1 2 *(dog) //

[The saron barung and saron penerus begin on the first line; the demung begin on the second.]

Explanation of the garap:

Ada-ada Gumeder begins with the word "gumeder" being shouted by all the musicians, fast and unpitched.

Thereafter it is sung in irregular tempo by the chorus.

After the words "dedeg ira", the instrumental section "Munggah mudhun, pelog" begins.

When Siwa and Nilarudra pass one another, the balungan "Dog" begins and is played until the male and female groups of dancers walk in normal fashion.

Gending "Dog" begins slowly then becomes rather fast, faster, and then very fast, the volume increasing accordingly - starting soft, rather loud, increasingly loud, and stopping when the dancers of the female group get up.

Source: Darsono 1983, 26-27
- but the effect is extraordinarily disturbing and disorientating. An even more obvious mechanical pattern follows in "Dog" - applied so dogmatically that it "falls off" the end of the instruments thus producing the "dog" sound already remarked upon in section 8.2.

The sequence from PUTUS DAN TERHEMPAS presented in Recorded Example No. 9 and Fig. 18 was intended by the composer to "reinforce the rasa (feeling/atmosphere) of the dance" which it accompanies, and does so in a quite sophisticated way.

In this particular section, the principal character, Laksamana, is inwardly troubled and afraid, but, on being challenged by Anggun, he comes forward and puts on a great show of bravado. The sparse texture of the opening music is remarkable not only for its imaginative instrumentation, but also for its simultaneous use of slendro and pelog to create a static yet unstable, apprehensive mood which is shattered by the interruption of the bonang penembung. The initially halting response of Lagu Lupatma (literally "three-four-five" - a sequence of notes not allowed in traditional pathet and so rather disturbing) suddenly transforms into the boldness of Lagu Bangun, in which Laksamana's vigorous display of gagah (robust-style) dance is well supported by the strong stable rhythm. The strangeness of the tonality and flamboyant yet directionless melody, however, arouse a feeling of instability powerfully suggestive of the conflict between outer display and inward fear.

As music for dance, this sequence is brilliantly effective, but can equally stand as a remarkable piece of musical invention. The strange tonality of Lagu Bangun was in fact the result of the composer's experimentation with a mode which deliberately avoids
Fig. 18 Extract from the notation of PUTUS DAN TERHEMPAS

[A] Lagu Titik-titik

bansi

gender penerus laras pelog

\[
\begin{align*}
&7 6 7 5 6 7 2 2 3 2 6 3 3 \\
&6 6 7 5 6 7 2 2 3 2 6 3 3
\end{align*}
\]

vokal slendro

\[
\begin{align*}
1 & 2 2 2 2 2 2 2 2 \\
A- & tu- re ka- li- wat li- wat
\end{align*}
\]

\[
\begin{align*}
2 & 2 2 3 2 1 6 1 \\
Ang- go- ne & a- mrih be- cik-e
\end{align*}
\]

\[
\begin{align*}
2 & 3 5 6 5 6 1 5 \\
Pan i- & ku no- ra a- nga- wak
\end{align*}
\]

\[
\begin{align*}
5 & 3 2 3 2 3 2 2 \\
Ma- tur & u- jar- ing ce- tho
\end{align*}
\]

Lagu Titik-titik [A] is begun by the bansi accompanied by the gender penerus, gender barung, slentem and kenong note 3 (slendro), followed by the vocal part in slendro.

N.B. xxxxxxx = the sound of the suling - a single unbroken tone.

[B] Imbal Bonang Penembung

I: 3/1 · · 3/1 · · 3/1 · · 3/1 · ·
II: · 5 6 · 5 6 · 5 6 · 5 6

[C] Lagu Lupatma laras pelog

\[
\begin{align*}
&3 4 5 3 4 5 3 1 3 4 3 \\
&4 5 3 4 5 4 3 4 5
\end{align*}
\]

When the vocal section is under way, and at the moment when Anggun turns around at stage area A4 and is about to proceed to A5, the bonang penembung imbal [B] enters loudly, followed by Lagu Lupatma [C], which starts fast but soft, gradually becoming louder.

When Laksamana strikes, Lagu Lupatma goes into Lagu Bangun [D].

[D] Lagu Bangun laras pelog

\[
\begin{align*}
&7 5 4 3 5 4 3 (1) \\
&3 1 3 4 5 4 3 (7) \\
&1 7 4 3 1 3 4 (5)
\end{align*}
\]

Lagu Bangun is played loudly in irama lancar. When the group of male dancers surrounds Laksamana at A1, play softly (sirep). Laksamana and the king leave A1, play loudly (wudar). As Anggun reaches A6, Lagu Bangun becomes fast and stops when the male group of dancers reaches A2.

Source: Joko Purwanto 1983, 16-18
pitches 2 and 6 (constituent notes of all the traditional pelog pathet), and it is felt all the more strongly because of the traditional four-square rhythmic structure. The latter is itself made to feel even more determinedly stable by following the irregularities of Lagu Lupatma, whose eponymous 3-4-5 motif lies in a different metrical position on each of its five appearances. 72

The above example from PUTUS DAN TERHEMPAS is a typical exploration of the tonal resources of the slendro and pelog systems in order to discover new areas of feeling. This is something which the composers find difficult to discuss in a technical way, the general term rasa usually being pressed into service, as above. Suasana = atmosphere/mood, and warna = colour, are also occasionally used. Such new areas of feeling achieved by manipulation of the pitch material can hardly be called new pathet, since that term is too bound up with the tradition, carrying as it does implications of instrumental garap. It is for this reason that the very general term "new tonalites" is used here in relation to such new tonal or harmonic fields being explored outside traditional pathet.

A typical attitude (and one with which many Western composers would sympathise) was expressed by Pak Subono when asked about his approach to such matters in the composition of OWAH-OWAH:

Q: Do you use pathet in your composition?
A: I never think about this when composing.
Q: When listening to your composition, does it arouse feelings of traditional pathet?
A: Sometimes yes; sometimes no.
Q: Can you say that this section feels like pathet A or that section feels like pathet B?
A: Some parts have the feeling of traditional pathet – for example, some are clearly in pelog barang; but some parts have a very different, new feeling. I like contrasts! 73

With the more limited tonal resources of the slendro system the difficulties of avoiding associations or echoes of traditional pathet are more acute than is the case with pelog, and it may be for this reason that composers are more drawn to the latter. 74

The melody given in Fig. 19 might at first glance look not so radically new as many other experiments in slendro with their angular contours and irregular rhythms and phrase structures and yet which still seem to taste of traditional pathet.

Fig. 19 Extract from the notation of NAN TARASO

Section XIII (balungan instruments)

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

+ = slentem

Source: Asri M. K. 1983, 16
On first hearing, (Recorded Example No.10), however, there is no mistaking its different flavour, which possibly suggests the Minang origins of its composer. I have heard several Javanese musicians express their admiration for it, one commenting (perhaps with just a hint of envy in his voice) that he was sure that he could never have composed such a melody, as there was no traditional Javanese feeling about it at all. I suspect that this is due as much to the stress pattern (made clear by the slenthem) and consequent feminine endings of its short phrases as to its manipulation of the tonal material.

In discussion of the extract from PUTUS DAN TERHEMPAS (Fig. 18) above, attention was drawn to the simultaneous use of slendro and pelog, and this is a feature of much experimentation in other new works. Such tonal mixes can occur in several ways. Individual notes may be chosen from the two systems and combined sequentially to form a new scale for melodic use. This occurs, for example, in PENGORBANAN DALAM KONFLIK (Appendix IVvi, section 24b). Actually there seem to be very few examples of this kind of use (even the one cited is done for a rather special reason), possibly due to the physical difficulty of dividing a melody between two instruments. The two systems may be used in juxtaposition, for example where a slendro "foreground" is presented over a pelog "background" (as seen in the extract given in Fig. 33), or vice versa. They may also be regarded as tonal colours which can be mixed in different proportions to give new colours and harmonies, as in the example from PUTUS DAN TERHEMPAS cited above.
In their explorations of new tonalities and tonal colours, whether using pelog, slendro or both, the ASKI composers have employed a wide variety of methods, encompassing both the development of traditional techniques and the invention of new ones. One of the most interesting aspects of this is evidence of increased harmonic thinking. There seem to be three sources of this:

The first, and in many respects most superficial, is the sort of Western influence cited by Becker, and already noted in the "part-writing" used in vocal sections (section 8.4 above). Such procedures are now also applied in instrumental composition, and balungan sections in two, three, and even four parts are to be found. Fig. 20 exhibits two-part composition for balungan, using rather traditional melodic material.

---

**Fig. 20 Extract from the notation of KEN AROK**

C. Lancaran "Kirang" laras pelog

[introduction: ] 1 2 4 (5)

I 6 1 2 1 6 5 (3)

5 3 5 6 2 4 5 (4)

5 4 6 5 3 2 1 (2)

3 2 3 1 2 3 (5)

II 6 5 6 1 3 5 (6)

2 3 5 3 2 1 2 (4)

2 1 2 5 3 6 3 (2)

3 5 6 4 6 7 (5)

This lancaran is played using the following instruments: (2) demung, (4) saron barung, saron penerus, bonang barung, bonang penerus, slentem, ketuk, kenong, kempul, [gong] and kendang.

The bonang barung, bonang penerus, (1) demung, (2) saron barung and saron penerus play the notes written in balungan notation I, while (1) demung, and (2) saron barung play the notes given in balungan notation II.

The notes 1 2 4 5 (at the beginning) are played loudly, whereas the notes of parts I and II are played quietly.

Source: Suroto 1984, 16
Secondly, development of the important harmonic aspects of traditional Javanese karawitan mentioned in Chapter 3, rather than any Western influence, is the most likely origin of the widespread use of punctuating chords and tone-clusters (as seen, for example, in the kenong 3-5-6-1 clusters of the strange "palaran" in Fig. 25), although reyong effects from Balinese gong kebyar are almost certainly making their influence felt here also.

Thirdly, the ASKI experiments with sustained sounds and textures per se, when given the added consideration of their pitch components, have, by means of such technical devices as pedal notes, tremolos, ostinati, random textures etc., led to extensive exploration of new territories of harmonic colour.
8.8 Instrumentation and Orchestration

In traditional karawitan, there is an automatic relationship between genre/realization and instrumentation/orchestration. The idea of wilfully tampering with which instruments play what, and when, in order to obtain a particular effect is an alien concept and would provoke the kind of reaction referred to by Humardani as "those sort of complaints such as why is there a rebab present but not being played?" (Humardani 1975, 39). As should be clear from the examples already presented, such constraints are no longer valid for the ASKI composers who are concerned to specify instrumentation in detail and to exploit orchestration as a compositional tool.

As demonstrated in section 8.3 above, many "new" instruments have been added to the gamelan ensemble in the search for new colours and sonorities, but there are other factors which also impinge upon the question of instrumentation. In this respect, there is a major distinction in the new compositions between the dance accompaniments and the concert works. The former tend to use very large ensembles based on a full slendro/pelog gamelan together with singers, extra instruments and effects, whereas the concert-work ensembles tend to be smaller in size. One simple reason for this is that the music for dance has to have a generally higher dynamic level in order to accompany the dancers satisfactorily. In the usual performance conditions at ASKI (i.e. the large pendhopo), the musicians are customarily placed either to one side (see, for example, the layout given for KOMPOSISI II in Appendix IVv), or, more likely, at the
back of the performance area, as for CINTA DAN TEKAD (plan given in Appendix IViv):

![Diagram](image)

whereas performances of concert works have the closer and undivided attention of the audience:

![Diagram](image)

and can therefore make do with fewer instruments - especially in terms of the balungan section, one demung and two saron barung being adequate where a dance accompaniment would use two and four respectively.

However, the deciding factor at work here is more likely to be the one of cost which was discussed in Chapter 7.4. Such restrictions have had interesting musical consequences as the composers, and especially the composers of concert works, have sought ways of making full use of limited resources, particularly by the use of doubling. This is a quite natural development, since a training in traditional karawitan involves competence on practically all the instruments of the gamelan, yet, because of the nature of the music, such versatility is not exploited during the course of a traditional performance (except rather peripherally where a shortage of personnel might lead the kenong player also to play the ketuk, for example).
Fig. 21 and Fig. 22 show the way in which the instruments were divided among the players for two of the compositions given in Appendix IV - the dance accompaniment PENGORBANAN DALAM KONFLIK, and the concert work PELING:

**Fig. 21** Instrumental Doubling in PENGORBANAN DALAM KONFLIK

<table>
<thead>
<tr>
<th>[Name]</th>
<th>[Status]</th>
<th>[Instruments]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wahyudi Sutrisno</td>
<td>teaching assistant</td>
<td>kendang, voice</td>
</tr>
<tr>
<td>Nyaryanto</td>
<td>student</td>
<td>bonang barung, tin can</td>
</tr>
<tr>
<td>I Nengah Muliana</td>
<td>teaching assistant</td>
<td>demung, talempong</td>
</tr>
<tr>
<td>I Nyoman Sukerna</td>
<td>teaching assistant</td>
<td>demung, talempong</td>
</tr>
<tr>
<td>Slamet Riyadi</td>
<td>teaching assistant</td>
<td>gender, slentem, voice, talempong</td>
</tr>
<tr>
<td>I Wayan Puriyata</td>
<td>student</td>
<td>slentem, gender wayang</td>
</tr>
<tr>
<td>I Made Sukanda</td>
<td>student</td>
<td>saron penerus, gender wayang</td>
</tr>
<tr>
<td>I Made Yastina</td>
<td>student</td>
<td>saron barung [I], voice</td>
</tr>
<tr>
<td>Saptomo</td>
<td>student</td>
<td>saron barung [II], large angklung</td>
</tr>
<tr>
<td>Warkim</td>
<td>student</td>
<td>saron barung [III], large angklung</td>
</tr>
<tr>
<td>Sugino</td>
<td>student</td>
<td>saron barung [IV], large angklung</td>
</tr>
<tr>
<td>Suraji</td>
<td>student</td>
<td>kenong, ketuk</td>
</tr>
<tr>
<td>Sumarno (a)</td>
<td>student</td>
<td>voice, pencon, small angklung</td>
</tr>
<tr>
<td>Saryoto</td>
<td>student</td>
<td>bonang penerus, tin can</td>
</tr>
<tr>
<td>Sumarno (b)</td>
<td>student</td>
<td>kempul, gong</td>
</tr>
<tr>
<td>Suyoto</td>
<td>student</td>
<td>voice, pencon, small angklung</td>
</tr>
<tr>
<td>Joko Wasisto</td>
<td>student</td>
<td>voice, pencon, small angklung</td>
</tr>
<tr>
<td>Joko Sarsito</td>
<td>student</td>
<td>voice, talempong, small angklung</td>
</tr>
<tr>
<td>Sri Nartuti</td>
<td>student</td>
<td>voice, small angklung</td>
</tr>
<tr>
<td>Endang Sadarmi</td>
<td>student</td>
<td>voice, small angklung</td>
</tr>
<tr>
<td>Muriah Budiarti</td>
<td>teaching assistant</td>
<td>voice, small angklung</td>
</tr>
<tr>
<td>Istri Kurniatun</td>
<td>student</td>
<td>voice, small angklung</td>
</tr>
<tr>
<td>Azrul Jama'an</td>
<td>student</td>
<td>saluang, talempong, small angklung</td>
</tr>
<tr>
<td>Arnalis</td>
<td>student</td>
<td>voice, small angklung</td>
</tr>
<tr>
<td>I Made Lasmawan</td>
<td>teaching assistant</td>
<td>gambang, large angklung</td>
</tr>
<tr>
<td>Mahdi Bahar</td>
<td>composer</td>
<td>bansi, minang rebab, voice, saluang</td>
</tr>
<tr>
<td>Sriyanto</td>
<td>composer</td>
<td>jegogan, large angklung, voice</td>
</tr>
<tr>
<td>Hanefi</td>
<td>student</td>
<td>Reserve</td>
</tr>
</tbody>
</table>

Source: Mahdi Bahar 1984, 2-3
In the dance work (Fig. 21) there is a player to each of the instruments of the standard gamelan line-up, plus a large group (nine) of vocalists, and so the doubling is mainly for additional "special effects" such as the angklung, pencon and tin cans, which are distributed amongst the musicians. With the exception of the incursion of a few Balinese instruments (gender wayang, jegogan) into the gender/slentem area, a standard gamelan layout is used.

In the concert piece (Fig. 22), with only 13 performers available, a specialist vocal section is out of the question, and doubling is a more basic consideration in the compositional process. This involves not only players moving between different instruments,
but also the same instrument being visited by two or more different musicians. To put such flexibility into effect, the gamelan has to be set out in an unconventional way, the instruments being grouped around the performers, rather than vice versa as is normal. In this particular example, the composer prefaces his notation of the piece with a ground plan of the layout of the ensemble (see Appendix IViii). This procedure, using a different layout of course, is also followed by Al. Suwardi in DEBAH (Appendix IVi). Such new arrangements, together with the manoeuvres of the musicians during the performance, give an added visual, almost theatrical, dimension to some of the works. Indeed, considerable care is often taken with the visual aspects of the presentation.

A very fine example of how the limitation of resources may be turned into a positive challenge to creativity is the concert piece OWAH-OWAH, which was presented at the 1983 Young Composers' Week in Jakarta. Because of financial constraints, the Festival Committee invited all the participating composers to prepare works on a chamber music ("musik kamar") scale. Restricted to only 9 musicians, the ASKI composers, Subono and Santosa, eventually decided to limit the instrumentation to pencon-type instruments (gong/kempul/bonang), deliberately rejecting other instruments such as gender which had been used in the early stages of rehearsal. This restricted instrumentation explains the piece's subtitle SWARA PENCON - "pencon sounds". Once they had given themselves this challenge, the two composers and their select band of fellow musicians set about exploring the potential of their limited ensemble (together with their voices) to the full, inventing many new playing techniques and producing a work of great energy and imagination. Fig. 23 shows
Fig. 23 Layout of the ensemble used for OWAH-OWAH (SWARA PENCON)

Performers:
1 B. Subono  gong/kempul/voice
2 Supardi  bonang penembung I/voice
3 Al. Suwardi  bonang penembung II/voice
4 Darsono  voice/pencon
5 Joko Purwanto  bonang barung/voice
6 Suroto  bonang barung/pencon/voice
7 Santosa  bonang barung/pencon/voice
8 Rustopo  bonang barung/pencon/voice
9 Made Pande Sukerta  bonang penerus/voice

Source: Notes taken during rehearsals and performances (Solo/Jakarta, March 1983)
the layout of the ensemble. The bonang barung was at times played by one, two, three and even four musicians simultaneously!

The success of OWAH-OWAH has led to other composers adopting a similar approach as, for example, in the three new ASKI works taken to the Young Composers' Week in 1985 - BONANG, SITER and VOKAL. BONANG by Supardi uses an instrumentation rather similar to that of OWAH-OWAH. SITER by Joko Purwanto exploits the string and flute sonorities of an ensemble comprising 3 rebab (played pizzicato as well as bowed), 1 celempong, 4 siter, 2 kecapi (bowed as well as plucked), siter slenthem, and various types of suling including Balinese suling gambuh. VOKAL by Sukamso, already mentioned in section 8.4 above, explores the possibilities of the human voice.

Such interest in instrumentation by the young composers naturally implies a basic concern with orchestration as a compositional technique (the word orkestrasi itself is not unknown in this context) and this is clearly demonstrated in practically all the examples quoted, in terms of new combinations of traditional instrumental (including vocal) sounds and colours, the use of "new" sounds, new approaches to not only combinations of instrumental sounds but also their juxtaposition sequentially, simultaneously and even spatially, and the treatment of individual instruments or groups of instruments in relation to each other or to the ensemble as a whole.
8.9 The Resources of Instrumental Garap and Alien Styles and Techniques

In the account of his experiments with composing new kinds of balungan melody, Sri Hastanto concludes: "Certainly it is balungan which is easiest to use as experimental material. After the balungan is created, we have the headache of what the instruments which can actually play more than the balungan should play." (Appendix IIIii, paragraph [7]).

From many of the examples already presented, it is clear that the precomposed/realized dichotomy of balungan/garap implicit in Hastanto's statement and the root cause of his difficulty, is now often abandoned, the precise detail of what individual instruments play becomes the direct concern of the composer.

There are, however, many sections of new works in which traditional or quasi-traditional processes still apply. Here the composer has a number of options open to him in terms of how individual instruments realize their parts. One approach is to invent new garap, and there are many examples in of individual parts for such instruments as gender, gender penerus, gambang, saron penerus, bonang etc. being written out or otherwise specified in full. Another approach is to use traditional forms of garap, modified where necessary. Alternatively, the composer may invite the player concerned to "improvise".

The instruction "garap diserahkan kepada penyaji" (the realization is left up to the performer) is not infrequently encountered in the notations of new compositions, but care must be
taken with its interpretation as it may mean different things in
different contexts. For example, depending on how "avant garde"
or "traditional" the particular section to be realized, such an
instruction might imply totally free improvisation, or it might mean
that the garap was in fact devised by the composer (maybe incorp­
orating suggestions from the performer), or at least approved by
him, but that it was not necessary (or just too much trouble) to
write it down. In the notation for YANG MEMBANGUN, Darsono exhibits
a rather endearing desire to have his cake and eat it: "The realiz­
ation is left up to the performers - with the proviso that they do
not deviate from the intentions of the composer." (Darsono 1983,
15), whereas the composer of NAN TARASO is careful to make the
position crystal clear: "The bonang plays the melody as written
in the notation; the [slendro and pelog] ketuk are played using free

In both the experimental and quasi-traditional approaches,
however, there may be discerned a willingness to make use of existing
instrumental garap patterns treated as independant materials,
completely divorced from their traditional contexts and from their
traditional relationship to particular balungan melodies. In the
more avant-garde approach, it is as though blocks of traditional
instrumental garap are being used to build a new kind of structure,
rather like the pieces of a jigsaw puzzle might be rearranged so
that they no longer interlock but are re-grouped according to shades
of colour to form a new abstract composition. In section V of NAN
TARASO (Asri M. K. 1983, 12), for instance, a melody played on the
saluang is accompanied by a drone of humming voices ("suara
senandung") over a background ("melatar belakangi") of a slendro
gender improvising a sequence of traditional patterns bearing no relation to the other elements in the texture, the object being to build up an unusual sound colour. This kind of usage sometimes gives the impression of being an easy way out of having to specify instrumental parts, although when the composer is sufficiently confident of his materials it can be very effective (as, for example, the use of traditional garap for the slendro genders in the sequence from KEMELUT given in Fig. 36 and Recorded Example No. 18). In the extract from NANTARASO cited above, the two main elements of saluang and gender are, because of their use of traditional garap, so uncompromisingly Sumatran and Javanese respectively, that they tend not to blend into a single entity, but come together as a strange-sounding confrontation; however, in view of the fact that there are only three elements in this texture, maybe this is what the composer intended.

Of greater interest perhaps, and certainly having far-reaching consequences, is the application of this new attitude towards traditional instrumental garap (i.e. as detachable compositional resource material) within more traditional or quasi-traditional contexts. For example, a kind of instrumental garap normally associated with one particular form or performance circumstance may be transferred to another. Thus in KENAROK, during a conventionally-realized piece in ketawang form, "at the fourth gatra of the seventh line, the piece speeds up . . . and the kenong is played as for srepegan form" (Rusdiantoro 1984, 30). This sort of "cross-garap" has been developing in traditional karawitan for some time (several instances are given by Supanggah - Appendix IIIi, paragraph [4]), but the ASKI composers have taken it to new lengths.
Traditional garap may even be transferred from one instrument to another, as in the following instruction from YANG MEMBANGUN: "The gambang plays the gender part from Kodok Ngorek" (Darsono 1983, 14).

The gender part referred to in this last example is in fact itself a "borrowing" from the gender garap used in the Gamelan Kodok Ngorek, one of the types of ancient ceremonial court gamelan. Not only does ASKI have modern copies of such ensembles (Munggang, Kodok Ngorek, Carabalen, Sekaten), but all the students have to learn to play them as part of the performance course. Thus in addition to these ensembles (or selected instruments or parts of instruments from them) becoming a resource for compositional experiments, the playing techniques themselves are available for exploitation and further development. In PELING, for instance, two saron barung are instructed to play "using the klenangan pattern", a reference to the playing technique of the klenang, a bonang-type instrument in the Gamelan Carabalen which uses two players in tandem, rather like the Balinese reyong (see Appendix IViii, section III·F).

As mentioned in Chapter 6, during the course of their studies the ASKI students acquire the playing techniques not only of archaic forms of Javanese gamelan, but also of several other Javanese regional styles, the other major gamelan traditions, and even other Indonesian musics, all of which are quite alien to the current norms of the Central Javanese court gamelan style. In the same way that "alien" instruments have been incorporated into the gamelan ensemble, it seems quite natural for the young composers also to exploit these newly-acquired playing techniques and styles in their compositions:
"The karawitan of other regions which I have studied include Balinese, Javanese (Yogyakarta style), Sundanese, Banyumas style and East-Java style. . . . The experience gained by studying Javanese karawitan and the karawitan of other regions opens up a wide horizon of possibilities, at least on an occasion like this, when I am creating a composition."

(Rusdiantoro 1984, 4)

Not surprisingly perhaps, the most prevalent influence seems to be Balinese. Some composers even state the sources of their borrowings quite specifically:

". . . the garap is similar to that used in Balinese style."

(Panggiyo 1983, 9)

". . . uses a development of the Balinese candetan playing technique." (Darsono 1983, 10)

but in most cases, Balinese techniques are quite able to make their presence felt unannounced, as in the extract from PUTUS DAN TERHEMPAS given in Fig. 24 and Recorded Example No. 11.

The spectacular virtuoso interlocking textures from gong kebyar style, which are demanding enough when played on small-keyed Balinese gangsa using light, balanced, wrist-inflected Balinese mallets, are here transferred onto Javanese demung with great aplomb. Also to be noted towards the end of this extract is the appearance of the gangsa jongkok, an actual Balinese instrument from the Gong Gede ensemble, similar to the demung, but played here by two musicians in a slower interlocking style.

Balinese influence, not to be confined to matters of instrument-ation and garap, is even found in terms of form. The extract from YANG MEMBANGUN given in Fig. 2, for example, is described by the (Javanese) composer in the following terms: "The piece Gegilakan
Gludugan pencon
[continues intermittently throughout
the following sections]

I: 0000000...0000...0000...0000
II: 00...00...0000...0000...0000.

Jalinan Demung slendro

I: 6 2 1 3 2 5 3 6
II: 1 3 2 5 3 6 5 1

I: 5 6 5 6 5 6 5 6 6 5 6
II: 6 1 6 1 6 1 6 1 6 1 6 1

I: 5 6 5 6 5 6 5 6 5 6 5 6 5
II: 6 1 6 1 6 1 6 1 6 1 6 5 3

I: 1 5 1 5 1 5
II: 6 3 6 3 6 3

I: 2 3 3 2 3 2 3 3 2 3
II: 6 5 6 5 6 5 6 5 6

I: 1 3 1 3 1 3 1 3
II: 2 2 2 2 2 2 2 2

Jalinan Demung slendro
and Gludugan pencon
(beginning together) are
played loudly and softly
in alternation according
to requirements.

Jalinan Demung repeated

Jalinan Gangsa Jongkok

I: 3 // 2 1 3 3 2 1 3 //
II: 1 2 3 5 3 2 //

Imbal Bonang Penembung

I: 3/1 // 3/1 3/1 3/1 3/1 3/1 //
II: // 5 6 5 6 5 6 //

Source: Joko Purwanto 1983, 14-15
represents a development of the form of Gending Gilak (Bali)." (Darsono 1983, 10).

Throughout the new ASKI compositions, and especially in the more recent ones, techniques from all the sources mentioned in the quotation from Rusdiantoro above are to be found, applied in the gamelan context with varying degrees of integration. Perhaps one of the most interesting recent developments at ASKI, however, has been the growing presence of a Sumatran contingent of students and instructors, and two of these, Asri M. K. and Mahdi Bahar, have already been mentioned as composers of new works.

In NAN TARASO, although using a Javanese gamelan (with extras), Asri M. K. has produced a piece which is very Minang in flavour; whereas Mahdi Bahar, clearly as a result of a close working relationship with his Javanese fellow-composer on PENGORBANAN DALAM KONFLIK, has attempted more of a synthesis between Minang and Javanese elements. A good example of this difference in approach can be seen in the use in both these works of talempong. This is a gong-chime ensemble from West Sumatra comprising five small pencon which produce a static texture of interlocking rhythms. In NAN TARASO, Asri M. K. employs the actual talempong instruments themselves played in a traditional way, whereas in PENGORBANAN, Mahdi Bahar, in addition to this, also transfers the talempong technique onto the Javanese bonang barung and bonang penerus. With their much greater range, the bonang can then transpose the patterns onto different pitch levels according to the cadence points (seleh) of the balungan melody, thus producing a new and very attractive kind of decorative technique comparable to the traditional imbal. Recorded Examples No. 12 and No. 13 present a direct comparison of these two effects - first the
talempong itself as it appears in NAN TARASO, followed by a close-up recording of the bonang version from PENGORBANAN. Comparison may be facilitated by reference to Mahdi Bahar’s notation for PENGORBANAN—Appendix IVvi, section 6—which gives both the traditional talempong (6c) and the bonang version (6a).

This new openness to the acceptance of influences and specific techniques from other traditions has also been extended to an area much closer to home.

It was suggested in Chapter 6 that the performance of Nano Suratno’s composition Sangkuriang at the 1979 Young Composers’ Week may have been influential in encouraging the ASKI composers to admit village and "folk-music" techniques as well as regional styles within Central Java (e.g. Banyumas) into their compositions. Whatever the original impetus, this was certainly a logical development considering the village origins of the vast majority of ASKI students, and once the idea became acceptable, the way was open to wholesale exploitation of a host of folk-style techniques in an experimental way which, although quite radically different in manner from the traditional interaction between court and village styles mentioned in Chapter 5, continues the spirit of that relationship.

This approach was well demonstrated in the ASKI composition presented at the 1982 Young Composers’ Week in Jakarta—NGALOR-NGIDUL. The composers’ explanation of the use of folk-style ("musik rakyat") vocal techniques in this piece has already been quoted in section 8.4 above, but this does not really prepare the listener for the shock of hearing the final section of this piece, which is given in Recorded Example No. 14.

Emerging from what sounds like complete chaos, an ostinato figure
quickly gathers momentum until finally exploding into a high-spirited version of that perennial Banyumas favourite Rricik-ricik, after which we are treated to an amazing concoction of traditional elements (e.g. Lancaran Kedu), childrens' song (Sluku-sluku Bathok), melodic banalities, animal noises and folk-style vocal cries (much parodied), in the course of which the classical refinement of a traditional-style palaran is unmercifully subjected to a host of indignities.

The problem then, of course, is how to end such a crazy piece. In this I suspect that the composers were prompted by a desire to go one better than Supanggah, whose 1979 Young Composers' Week piece, GAMBHUH, concluded with the players dissolving into fits of laughter, into which the audience was inevitably drawn (see Chapter 9·3/Cassette la). To bring an end to their anarchic tour-de-force, the composers of NGALOR-NGIDUL came up with an equally amusing solution, and one which is very imaginative in its use of sound transformation. The clattering of the gambang keys turns into the sound of "clip-clopping" as the musicians don wooden sandals (theklek) and trip off the stage - this sound itself then undergoing a further transformation into the clapping of the audience.

How can this piece, for all its impression of bizarre eclecticism and free-for-all, arouse a feeling of inevitability and forward momentum? For that matter, how can all the myriad new sounds and new techniques outlined in this chapter be used in a convincing and satisfying way? Such thoughts take us on to the consideration of questions of structure.
CHAPTER NINE

QUESTIONS OF STRUCTURE

9.1 New Development of Traditional Forms and Structural Procedures
9.2 The Influence of the New Theatrical Forms on Musical Structure
9.3 A New Genre - the Concert Work
9.4 Structural Implications of the New Compositional Process
9.5 New Structural Procedures - a Summary and Some Examples
9.1 New Development of Traditional Forms and Structural Procedures

"In traditional gamelan music there are found conventional fixed forms such as lancaran, ladrang, ketawang, [gendhing] ketuk loro kerep, ketuk papat kerep, ketuk loro arang, etc. These forms can stand alone as single entities, or may represent just one element of a larger entity. The overall form of NGALOR-NGIDUL certainly does not correspond to one of these existing forms of traditional karawitan. But of the various sections within it, there are some in lancaran form, and some which have similarities to ladrang, srepegan, palaran, but with much freer interpretation, not bound by existing conventions."

(Rustopo 1982, 3)

The above quotation refers to the composition NGALOR-NGIDUL, the extended extract from which (Recorded Example No. 14) prompted the question of musical structure. The two traditional aspects of the Javanese composer's task - creating structural units and then combining them into larger entities - are still recognised, but the final qualifying phrases make it plain that nothing else should be taken for granted.

Both Supanggah and Hastanto (Apendices IIIii and IIIiii) give numerous examples of how traditional forms have been developed and used in new ways, both outside and within ASKI, and it is evident from subsequent new compositions that an open, imaginative approach to the use of traditional structures can still yield serviceable and even exciting results. Among the many such experiments, two general (but not mutually exclusive) approaches may be discerned: (1) to use the traditional form intact, but give it new non-traditional content and/or treatment; and (2) to keep the content
and treatment traditional in style but make alterations to the form.

The effect of taking a traditional form (palaran, in this case) and subjecting it to changes of content and treatment (in terms of volume, dynamics, rhythm, tempo, instrumentation, orchestration, etc.) is well demonstrated in the extract from YANG MEMBANGUN presented in Fig. 25 and Recorded Example No. 15.

The vocal line is an odd mixture of traditional and newly-created elements. The composer provides the following analysis:

- line a: Sekar Tengahan Palugon, laras pelog patet nem, first line.
- line b: Sekar Tengahan Kusworogo, laras slendro patet manyura, first line.
- line d: Sekar Macapat Dandang Gula Padasih, laras slendro patet sanga, sixth line.
- line e: Sekar Ageng Candra Kusuma, laras slendro patet sanga, second line.

(Panggiyo 1983, 10)

Even more remarkable, however, is the way in which this "palaran" is performed. The very detailed instructions given by the composer require a different shade of tempo in each line. The disturbing, unstable effect is compounded by the instrumental accompaniment.

In a traditional palaran, the accompanying instruments (gong, kenong, kempul, gender, gambang and kendhang) have the function of providing a regularly-pulsed background of supportive harmony, on top of which the freely-sung vocal line can be projected. Here, however, not only is the accompaniment reduced to kenong playing a reiterated dissonant cluster of four notes, it is also required to be irregular in terms of both tempo and volume.
The tensions resulting from a traditional form being given untraditional content and treatment are here used by the composer to create a particular atmosphere in response to the requirements of the dance being accompanied.

The second approach, of using traditional-style content (instrumental garap) but making alterations to the form, is very widely used, and usually involves the modification of the structural manifestations of traditional fixed forms such as strokes on the gong, kenong, kempul, etc. to accommodate irregular phrase structures.
The extract from KEMELUT given in Fig. 26 shows the balungan for a piece which the composer entitles Bedayan 'Ngantu-antu'. In performance this is realized in thoroughly traditional fashion (as may be heard towards the end of Recorded Example No. 18). The structure, however, although clearly based on traditional ketawang form (as frequently the case in the traditional bedaya repertory) is irregular, the third line having five gatra instead of the usual four, and the next line having four "gatra" but with one of them consisting of only two balungan beats (5 3). The composer has tailored the structure of the instrumental accompaniment to the irregular phrase lengths of his vocal line. Note that Supardi does
not refer to the form of this piece in his title, merely indicating the genre - "bedayan", and giving a name "Ngantu-antu".

In their notations, particularly those of examination works, the ASKI composers often explain a particular piece as being a "development" of a particular form. Thus Lagu Tekad from PUTUS DAN TERHEMPAS (Fig. 14), despite its irregular rhythmic construction already remarked on in Chapter 8·5, is described by its composer as a "development of ladrang form, balungan nibani" (Joko Purwanto 1983, 7).

In their "developments" of traditional forms, whether in terms of providing them with new content, or tampering with their structures (or both), many of the ASKI composers are loth to include the epithet "Ladrang", "Lancaran", or "Ketawang", etc. in the title, even though such forms might have provided the models for their creations. Some, as in the above example from KEMELUT (Fig. 26), just give the piece a proper name; but the traditional linguistic penchant for classifiers more often leads to the adoption of other terms. In a few cases, "Gendhing" may be pressed into service, as in "Gending Sreg", "Gending Nyot", etc. in the extract from YANG MEMBANGUN given in Fig. 33. Here the word "Gendhing" is being used in its general sense, these pieces are obviously not in one of the specific forms such as gendhing kethuk loro kerep (the onomatopoeic names warn us that something rather more unconventional is in store!) The most common label applied to such pieces, however, is "lagu" (a very general term encompassing melody/song/piece), and numerous instances of its use are to be found (See, for example, Figs. 4, 7, 11, 13, 14, 18, 35, 36).
New thinking has also been applied to the problem of making transitions between traditional forms. The extract from KEN AROK given in Fig. 27 demonstrates a highly ingenious example of this. (Despite the poor quality of the recording, the general effect may be felt in Recorded Example No. 16.)

In the untraditional melodic contour of Lancaran 'Malik', the pitches 3 and 7 are given particular emphasis, and in this respect the extraordinary pause, during which all the instruments stop playing for two whole balungan beats: · 3 · · · · · 7, not only points up this 3/7 dyad, but also arouses the expectation that something is about to happen, especially when the phrase is repeated. This second time, however, as the continuation proceeds, we are suddenly aware that the tuning has turned into slendro without our noticing how or when.

Here, the composer exploits a feature of tuning of the particular gamelan used, namely that it is tumbuk lima (i.e. note 5 slendro is the same pitch as note 5 pelog). This means that slendro notes 2 and 6 are very close to pelog notes 3 and 7, so what we hear as:

pelog · 3 · · · · · 7 · 3 · 7 · 3 · 7

is actually:

pelog · 3 · · · · · 7

slendro · 2 · 6 · 2 · 6

as becomes clear from the continuation.

With its elegance of preparation, prestidigitation and piquant surprise, this transformation has all the delight of a well-executed conjouring trick. In musical terms, it is a good example of the evolutionary approach to development of the tradition, combining as it does a desire for fresh, stimulating effects with an imaginative
Fig. 27  Extract from the notation of KEN AROK

<table>
<thead>
<tr>
<th>H. Srepeg &quot;Bolo&quot; laras pelog</th>
<th>Srepeg &quot;Bolo&quot; laras pelog is played by the following instruments: kendang, bonang barung, bonang penerus, slentem, (2) demung, (4) saron barung, saron penerus, ketuk, kenong, kem pel and gong. Realization: Initially, Srepeg Bolo is played quietly; after a signal from the kendang (&quot;tak-de-dang&quot;), the volume increases. When Ken Arok and the group of dancers move from (C) towards (G), the tempo becomes faster, and when all the dancers have left the platform, proceed to Lancaran &quot;Malik&quot;.</th>
</tr>
</thead>
<tbody>
<tr>
<td>// 6 5 6 5 2 3 5 (6)</td>
<td>[•=*] 2 3 5 (3)</td>
</tr>
<tr>
<td>5 6 2 1 2 3 5 (2)</td>
<td>5 3 6 5 3 2 1 (2)</td>
</tr>
<tr>
<td>3 2 3 2 1 2 4 (5) //</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I. Lancaran &quot;Malik&quot; [change-over]</th>
<th>Lancaran &quot;Malik&quot; is a continuation of Srepeg Bolo, after the kendang signal (&quot;tak-tak-dlang-tak&quot;). Realization: Lancaran Malik is played in fast tempo (irma lancar). The pelog section is played through once only, loudly. The slendro section is repeated, beginning quietly; after a signal from the kendang (&quot;tung-dah&quot;), the volume becomes loud. The bonang barung is played striking two different notes at the same time: The kenong is played as the bonang barung, but with different notes: Bonang penerus garap: The bonang penerus is played in fast tempo. The kenong is played striking two different notes at the same time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Laras pelog</td>
<td></td>
</tr>
<tr>
<td>[*] 3 5 6 (7)</td>
<td>[•] 6 7 3 2 3 • • • (7)</td>
</tr>
<tr>
<td>5 7 5 4 3 1 3 (7)</td>
<td>5 7 3 2 3 • • • (7)</td>
</tr>
<tr>
<td>- Laras slendro</td>
<td></td>
</tr>
<tr>
<td>I 2 6 2 6 3 5 3 (2)</td>
<td>6 2 6 2 6 3 5 6 (6)</td>
</tr>
<tr>
<td>II 2 6 2 6 2 6 3 6 5 3 6 3 (2)</td>
<td>6 2 6 2 6 2 3 5 6 2 1 2 (6)</td>
</tr>
</tbody>
</table>

Bonang penerus garap:

35 6 35 6 35 6 35 6 35 6 3 2 3 1 2

The bonang penerus is played in fast tempo.

The kenong is played striking two different notes at the same time:

Source: Suroto 1984, 22-23
approach to existing structures, and a traditionally Javanese smoothness of execution.

The fixed forms of traditional karawitan are clearly still capable of development; but how are the young composers to use the new raw materials of composition which they have been so eagerly exploring? What is to take the place of traditional forms and structural procedures in the shaping of this new material?

Before these questions can be addressed directly, the important influence of new dramatic forms on musical structure must be examined.
9.2 The Influence of the New Theatrical Forms on Musical Structure

As indicated in Chapter 6, the new genres of dramatari (dance drama) and pakeliran padat ("concise" wayang kulit performance), with their interest in immediacy of effect and dramatic structuring of time, have provided the initial impetus for the development of new musical techniques at ASKI in the late 1970s and beyond; firstly, in the invention and development of new musical materials and effects; and secondly, in new ways of arranging and structuring a sequence of musical sections or units. An example of each of these aspects from the 1980 dramatari HARYA PENANGSANG GUGUR is examined below.

The extract given in Fig. 28 shows the composer faced with the perennial problem in such dance dramas of what to do with the battle/fight scene. As can be seen from the notation, however, this particular sequence has elements of the supernatural (Harya Penangsang is supposedly invincible through the possession of a magic weapon) and in any case, this being ASKI, the dance is highly stylised. An imaginative response was called for, and in his innovative use of randomly-pitched tremolos, the composer provides well-matched support for the dance, achieving an atmosphere of dramatic tension. (His intentions are clearly indicated in his choice of title for this section - "Geger".) Note, however, that the composer is not content to make a suitably noisy effect, but explores the musical possibilities suggested by the movement of the dancers, dividing his tremolos into three different colours which he then manipulates
Fig. 28 Extract from the notation of HARYA PENANGSANG GUGUR

| III. tremolo keys | - the soldiers surround Harya Penangsang, shifting towards the front (tremolo II is played with the addition of ceng-ceng kopyak) 
|                  | - the encircling soldiers fall as if into a sleep, at which moment the tremolo playing simultaneously disappears. |

by combining, overlapping etc. (The effect is more engaging in execution than it appears on paper, as changes in volume and balance are managed with some subtlety, and are also applied within each group, e.g. moving from high-pitched keys to low-pitched etc.) The composer describes this section as "an attempt to exploit the sound colour of instrumental groups of bilah [keys], groups of pencon, and mixed groups, which are not played in the usual way" (Rustopo 1980, 10). The point is, however, that both the content (tremolo effects to suggest tumult etc.) and the the structure (sequence of overlapping and interacting textures matching the movements of the "soldiers", as directed in the notation) are determined by the requirements of the dance. Nevertheless, in the process two interesting new musical techniques have been developed.
The way in which the dramatic requirements of a particular sequence may shape the large-scale musical structure is illustrated in the opening scene of HARYA PENANGSANG GUGUR, the notation of most of which is given in Fig. 29.

The dance scenario of this work is a highly abstracted version of a story based on Javanese history concerning the disputed inheritance of the Kingdom of Demak. The principal dancers in this opening scene represent three of the main protagonists - Prince Hadiri and his wife Kalinyamat (who support Hadiwijaya as king) and Harya Penangsang (who is plotting to overthrow Hadiwijaya). The ensuing confrontation turns violent, Hadiri is killed, the grief-stricken Kalinyamat swears revenge, Harya Penangsang escapes.

To set the scene of the royal court, a favourite device is employed in the form of a bedaya (classical court dance for 9 females). After a vocal introduction, Bremara Wilasita, pelog, the bedaya is accompanied by a ketawang which, though newly-composed, is in the traditional style (Ketawang Kilisuci, pelog). The refined mood of the court is then continued in Ladrang Hadiri (also in pelog), which is the first item in the extract from the notation given in Fig. 29. The realization of the bedaya section has been utterly conventional, but now Rustopo organises his musical resources into three sharply contrasting groups in terms of melodic material, tuning, instrumentation etc., in order to underscore the dramatic tensions in the confrontation between Hadiri and Harya Penangsang. Thus the calm atmosphere of Ladrang Hadiri, played by the soft-style ensemble of rebab, gender etc., is disturbed (on the arrival of Harya Penangsang) by Gangsaran Ribed. The initial outburst of this (A), is followed by a short ostinato texture (B1-5) in triple rhythm played
on balungan, kenong, kempul, bonang penerus and suwukan, which continues quietly but menacingly (hence the title). The undermining contrast this makes with Ladrang Hadiri is not just in terms of rhythmic character or orchestration but, more disturbingly, in terms of tuning, being in slendro.

A third element, to accompany the physical conflict, is Lancaran Glagah Kanginan. This provides a further contrast in instrumentation, using bonang barung, kendang, kenong and gong in an imitation of the ancient gamelan carabalen. (The ostinato figure used is indeed a piece from the traditional carabalen repertory.) This in turn binds together a long section in which it becomes the background to two vocal items - the Sekar Ageng Sardula Wikridita sung by unison chorus preceding the murder of Hadiri, and the solo female voice singing Maskumambang as Kalinyamat expresses her grief. During the latter, Gangsaran Ribed also returns, the whole texture rising to a loud climax which, as Harya Penangsang makes his triumphant escape, breaks into Jipang Bala, a loud vigorous-style ladrang in slendro which brings the scene to an end. Note how this piece makes strong play of the 2/6 dyad which, in its insidious triple-rhythm form of Gangsaran Ribed, had accompanied the arrival of Harya Penangsan earlier in the scene.

The juxtaposition of these separate musical layers is handled with great skill, creating a very tense and unstable atmosphere while perfectly supporting the dance. The seamless onward flow of the music is made effective largely by the use of layering, over-lapping and foreground/background and fade-in/out effects. Such "editing" techniques have become a major feature of the ASKI style in both dance and concert works.80
<table>
<thead>
<tr>
<th>SECTION</th>
<th>MUSICAL ACCOMPANIMENT</th>
<th>EXPLANATION OF THE GARAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hadiri, Kalinyamat and the Bedaya group of dancers (seated).</td>
<td>Ladrang Hadiri, pelog nem</td>
<td>Played softly (after the second kenong) using the following instruments: rebab, kendang (kalih), gender barung, gender penerus, ketuk kempyang, kenong, kempul, gong. [also gambang]</td>
</tr>
<tr>
<td></td>
<td>⋅ 5 6 3 5 6 1 6 2 1 6 5 2 3 5 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 2 ⋅ 2 3 2 1 6 5 3 2 ⋅ 3 5(6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>⋅ 2 6 ⋅ 2 6 1 6 ⋅ ⋅ 2 1 6 1 2 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 5 3 2 ⋅ 1 2 3 6 5 3 5 2 1 2(6)</td>
<td></td>
</tr>
<tr>
<td>A cry is heard</td>
<td>Gangsaran Ribed ['trouble'], slendro</td>
<td>Ladrang Hadiri still continues softly throughout.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Balungan (loud unison): 2 ⋅</td>
<td></td>
<td>A. is played once in unison and loudly (led by the demung player furthest forward), that is, after the first gong [of Ladrang Hadiri] and after the cry is heard. Then B1 enters, followed by B2, B3, B4 and B5, finally all together, initially soft, becoming louder and louder. At the moment when Harya Penangsang joins the Bedaya group at the inner left part of the performance area, the playing diminishes in volume and disappears (Ladrang Hadiri is still playing).</td>
</tr>
<tr>
<td>B.1. Kempul (nem) throbbing (sampak style)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Kenong 2 (gulu) reiterated (sampak style)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Bonang penerus 2 tremolo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Balungan ( ⋅ 6 2 ) repeated continuously</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Suwukan ( ⋅ 1 2 ) repeated with balungan</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lancaran Glagah Kanginan, pelog
['reed struck by the wind']

bonang barung: (•• 65 3255 3235 6532)

klenang: (2356)

gender barung: Sendon Penanggalan

At the moment when the Bedaya group line up in two rows at the rear and Harya Penangsang who is at the inner left raises his leg and lifts high one of his arms, B1-5 [of Gangsaran Ribed - see previous page] begin again very quietly becoming louder and louder; then at the moment Harya Penangsang jumps from left to right at the back, [the Gangsaran] turns into Lancaran Glagah Kanginan (on a signal from the kendang).

Played loudly until Kalinyamat and Hadiri are surrounded by the Bedaya group and fall down.

Then softly, the only instruments playing being klenang, kendang, kenong, gong (quietly), then the gender barung enters with Sendon Penanggalan played loudly.

After the encircling Bedaya group stands, Glagah Kanginan appears loudly. Hadiri and the Bedaya group retreat to the left, then the Bedaya group returns to the centre - the music becomes soft and the Tembang Gede Sardula Wikridita begins (sung by the chorus).
Hadiri is killed by Harya Penangsang

Lancaran Glagah Kanginan

bonang barung

(* * 6 5 3 2 6 5 3 2 3 5 6 5 3 ?)

After the Bedaya group stand again, Glagah Kanginan reappears; Kalinyamat moves violently. When Kalinyamat is at the inner left corner, Glagah Kanginan becomes soft again and the Tembang Maskumambang begins (solo voice). [see next page]

- played very loudly
- when Harya Penangsang crosses the inner left area, play softly.
- when Harya Penangsang leaves the stage, loud again.
Kalinyamat (alone)

- solo female voice (Glagah Kanginan still played softly).

Gangsaran Ribed [see first page] returns played quietly until the tembang is finished.

Kalinyamat draws her keris [dagger]; Glagah Kanginan and Gangsaran Ribed become loud. Kalinyamat leaves the stage; Glagah Kanginan fades away leaving Gangsaran Ribed.

Harya Penangsang and the soldiers run diagonally to the left as the Gangsaran is played loudly; as they return to the centre, the Gangsaran becomes quiet. They run to the front left corner as the music becomes loud - and then changes into Ladrang Jipang Bala, slendro (at a signal from the kendang).

Ladrang Jipang Bala, slendro

MUSICAL ACCOMPANIMENT

EXPLANATION OF THE GARAP

Kalinyamat (alone)

Maskumambang [pelog]

5 6 1 1 1 1 1 1 2 3 1 6 5
Rampu ing tyas dhuki ta na wung gung kingkin

1 2 3 3 2 1 2
bi na rung bra man tya

6 5 5 5 6 1 2 5 6 3
su sah sengit ngi git i git

5 6 1
ma rang kang hambeg can da la

EXPLANATION OF THE GARAP

- solo female voice (Glagah Kanginan still played softly).

- Gangsaran Ribed [see first page] returns played quietly until the tembang is finished.

- Kalinyamat draws her keris [dagger]; Glagah Kanginan and Gangsaran Ribed become loud. Kalinyamat leaves the stage; Glagah Kanginan fades away leaving Gangsaran Ribed.

- Harya Penangsang and the soldiers run diagonally to the left as the Gangsaran is played loudly; as they return to the centre, the Gangsaran becomes quiet. They run to the front left corner as the music becomes loud - and then changes into Ladrang Jipang Bala, slendro (at a signal from the kendang).

[Source: Rustopo 1980, 14-17]
For all its use of innovative features, HARYA PENANGSAN GUGUR still represents a more traditional approach to dance drama than some of the more recent works. However, the two extracts given above demonstrate the impetus given to matters of musical structure by the requirements of the new dramatic style. These methods can be, and are, redeployed and redeveloped to serve similar functions in other dance works, and indeed many such techniques have become part of the stock-in-trade for the composers and arrangers of music for dance both inside and outside of ASKI. They are, of course, also available for use in the new genre of concert work – komposisi.
9.3 A New Genre — the Concert Work

Since the creation and arrangement of large-scale musical structures is so bound up traditionally with other art forms, particularly dance and wayang — and now dramatari and pakeliran padat, it might have been expected that when forced into a purely concert-work genre, the Javanese composer would be tempted to use a programme to give shape to his work. Such an idea, however, is very much frowned upon at ASKI, clearly being incompatible with the Humardani aesthetic, with its emphasis on the "presentational" rather than the "representational" in all forms of art (Appendix IIIi, paragraphs 29-32). As seen in Chapter 7, composers of concert works sometimes explain the underlying impulse behind the creation of a work in terms of inner feelings, emotions, conflicts etc., and may in some cases have extra-musical ideas which provide a structural outline, but an overtly-stated programme is not used.

Even though the programmatic approach is incompatible with the classical ideals of the ASKI aesthetic, the influence of the new theatrical genres is still strongly felt in the new concert works which although not "programmatic" in a specific sense can often be described as "dramatic" in their use of stark juxtaposition and bold contrast, and in their evocation of strong emotional response.

The earlier works in this genre, however, are still quite close to traditional sensibilities despite their technical innovations. The pioneering nature of the earliest ASKI concert works, those by Supanggah and Hastanto taken to the first Young Composers' Week in
1979, has already been mentioned, but what approach did these two compositions take in matters of structure?

Sketches showing the outline structure of the two compositions DANDANGGULA and GAMBUH are given in Figs. 30 and 31 respectively. Even though these diagrams show only the basic structural divisions (without any consideration of melodic or tonal features), some interesting points emerge which have a bearing on the subsequent development of the ASKI style.

The two works have a number of features in common. They both take traditional vocal technique as a starting point, but Hastanto is more concerned to develop a chosen vocal melody in various ways, including instrumentally. This melody is a cohesive element in the structure, and to some extent gives shape to the sections of the work, as indicated by the composer himself in the quotation given below (p. 173). Supanggah, on the other hand, is more concerned with exploring vocal techniques in terms of their sonorities and timbres, and even transferring these to instruments. Both pieces for most of their duration make use of very free rhythm, but both also have a centrally-placed rhythmic section for instruments only. Both show relatively simple use of "volume-control" techniques, the opening of GAMBUH being particularly striking in this respect, with its tremolos growing out of silence; yet both cannot resist the temptation of using the gong in its traditional role as a structural marker (although perhaps there is a whiff of parody in the execution - in Supanggah's especially, with the preceding wildly exaggerated alok). With the exception of the central short rhythmic section of DANDANGGULA, neither piece makes use of kendhang - the instrument
with a key role in the determination of structural matters in traditional karawitan.

Hastanto's structure is certainly easier to grasp. His initial presentation of the dandanggula melody on rebab over a background of random gong-rim noises (a), is repeated (b), after an interruption, with the addition of a pulsed ostinato; after a further interruption, it reappears with varied orchestration (c). Following the central rhythmic section for balungan instruments, and a contrasting vocal section with genders, the initial material is recapitulated (d) albeit using the suling in place of the rebab; and after a further interruption, is subjected to an extended final development (e), where the melody is "shared" between the voice, suling, rebab and chorus, over the ostinato which first appeared briefly in section (b). (For Hastanto's own analysis and "score" of this final section, see Appendix IIIiii, section [8].) Note that the "interruptions" (g) and (h) are brief reminiscences of the central balungan section (f).

Supanggah also makes structural use of such "reminiscence" or restatement techniques, although his are in terms of new sonorities - as in the suling "whistles" and, more importantly, the ending of the work, which is a return to the tremolos from-and-to silence with "bell" effects (inverted pencon) which opened the work.

Hastanto makes extensive use of layering into foreground and background, also using the latter (random gong-rim sounds, bonang penembung ostinato, low pencon tremolos) to bridge over movement from one section to the next. Supanggah makes some use of this idea in that the whole of the first half is underlain (and to some extent grows out of) the Buddhist chanting, but otherwise the structure of GAMBUH is much looser and simpler, holding our interest by evoking
Fig. 30 Outline sketch of the structure of DANDANGGULA

(Recording on Cassette I side a)

approx. timing
(minutes)

0'

0' - silence - breathing

1'

1' - rebab gong rim random sounds

2'

2' - rebab gong (as before) bonang penembung ostinato

balungan slow melody (tremolo)

balungan triplets

3'

3' - voices "uh-uh"

balungan melody

voices "uh-uh"

4'

4' - solo voice

suling rebab gong rim (as before)

5'

5' - (fade out)

low pencon tremolos

balungan melody + kendhang rhythmic

balungan melody

6'

6' - voices "oh..."

shout voice with genders

chorus

7'

7' - shout

voice with genders

chorus

8'

8' - (loud)

Gong

9'

9' - shout

suling rebab gong rim

balungan (rhythmic)

10'

10' - voice suling rebab bonang penembung ostinato

11'

11' - chorus

12'

12' - chorus
(Recording on Cassette I side a)

approx. timing (minutes)

0'

"Om" (chant, solo and choral)

1'

"whistles" (suling)

2'

alok

3'

chant "we-wa" (solo)

voice suling rebab

4'

gender/gambang etc.

5'

chorus

6'

vocalisations

7'

solo voice (distant)

8'

2-part choral intro. to bonang balungan melody

ostinato

INSTRUMENTAL SECTION

(accelerando)

9'

whine (top)

10'

suling rebab

11'

chorus (all fade to silence)

12'

tremolos - "bells"
a strong atmosphere, and continually tickling our ears with new sonorities and combinations of sounds and moods.

Speaking about the structural design of his composition, Hastanto makes the following statement:

"In composing this piece I have not used existing traditional forms. A form of the kind which has evolved in my piece is determined by the starting point of the composition [i.e. the tembang macapat Dandanggula Wantah] and its sentence construction."

(Hastanto 1979b, 3)

The key word in this statement is "evolved" for, as will be demonstrated below, the process of creating a new composition as practised at ASKI (and already described in Chapter 7) has itself had important implications for the question of musical structure.
Structural Implications of the New Compositional Process

The examples of DANDANGGULA and GAMBUH were closely followed in subsequent works of this kind, such as the ASKI contribution to the 1982 Young Composers' Week, NGALOR-NGIDUL, and the kinds of structural techniques and procedures they established became valuable models for further development. Composers such as Hastanto and Supanggah, however, represent a slightly older generation, already being established teachers at ASKI, with considerable experience in composition, including music for dramatic and dance genres. How much more difficult was the task of structuring musical material for the ASKI students who were often insufficiently experienced even in traditional karawitan. Moreover, the new experimental approach, which had been given a great boost by the success of GAMBUH and DANDANGGULA, soon began to produce material of a much more radically new kind.

In the extensive explorations and experiments which have taken place at ASKI since "komposisi" found itself on the ASKI timetable as an official part of the curriculum - in classes, workshops, rehearsals etc., the students and teaching assistants have been encouraged to experiment with the raw materials of composition in a systematic and unfettered way. For musicians based in an aural tradition as highly-developed and self-contained as Javanese karawitan suddenly to be required almost to reinvent music from its most basic constituents, having complete disregard for old rules and conventions, is an exacting and difficult task. As we have seen, their success
in exploring and inventing "new sounds" has been almost overwhelming. However, an impression was created in many new pieces of a succession of "effects" with little or no sense of connection or overall shape, and this was a commonly-heard criticism. To see how the ASKI student composers rose to the challenge of giving form to their new discoveries, it is necessary to understand the important influence of the actual process of evolution of a new work during the rehearsal period as described in Chapter 7.

As an example of this, Fig. 32 shows in diagrammatic form three early stages in the structure of part of a new work by Prasadianto. 84

The first version, attained about half-way through the first two-hour development-rehearsal period, shows a sequence of blocks of material, representing the elements which the composer had brought ready-prepared to this first session. The end of the section which precedes this one, a long and very slow two-part choral dirge (B), is followed by a texture of random sounds from stopped pencon distributed among the players (F), and then four pencon played in Balinese reyong style (G), rounded off by a fast ascending scale over the range of balungan instruments leading to a stroke on the gong ageng (\[\begin{array}{c} \hline \hline \hline \end{array}\]). Tremolo balungan effects (H) are then followed by an extended balungan melody, lively in character with cross-rhythms and syncopations (P); this is repeated and then followed by a short ostinato figure on gender penerus played on two different pitch levels (Q1, Q2). The rocking "fifths" on kempul and slenthem (A) which had originally accompanied the choral section (B) are now used as a background to P and Q, giving some feeling of continuity to the sequence P-P-Q1-Q2-Q1-Q2, especially since the materials are clearly related (sharing a pelog lima/minor key tonality based on
pitch 1).

The second version represents the stage reached after about five hours of further development (not all spent on this section, of course). The long slow choral section (B) has now been moved so that it follows the present section, which is now preceded by new material (S). The main criticism of version 1 had been that there was not enough feeling of progression from one unit to the next. This problem is tackled in the first, "sound-texture", part (F/G) by the application of the now-familiar "volume-control" editing techniques, although here the effect is quite subtle since by fading in the reyong (G) from under the stopped pencon texture (F), the pulsed reyong sound appears to be growing out of and then being absorbed back into the random pencon sounds. (This kind of transformation effect has become a favourite device, already commented on in Chapter 8.5 with reference to the extract from Nan Taraso in Fig. 15 and Recorded Example No. 7.) The effect is then repeated, giving the sequence F-G-F-G.

In the case of the second, melodic, part of this section (A/P/Q), the chance simultaneous playing of P and Q during a rehearsal led to the realisation that they went well together, and so instead of the sequential presentation of version 1, they are presented concurrently, thereby adding an extra layer to the texture. Note also that the two statements of P are now separated, and are themselves faded in and out.

In version 3, little change has been made to the first part, other than refining the execution making the whole episode more concise. The part immediately after the gong stroke is still causing problems - the original tremolos of H had been developed by adding vocal sounds in the second version (H'), but now they are replaced
with something completely new (Z), and in quite dramatic contrast to the subsequent pelog A/P/Q section (in fact too much so, since it was dropped in the next version). The main interest, however, is still in the development of the following section. Here the big discovery has been that if the chorus part (B) is speeded up a little (B'), not only is it considerably less somnolent, but it also seems to fit in with the Q ostinatos. (The idea for this came when one of the singers came in too early after only the first statement of P, followed by someone shouting "not yet".) The composer developed this gift of serendipity by starting the B' section, then having it interrupted by a short vocal solo melody (V), during which the second statement of P fades up. Thus when the full statement of B' starts, we are already acquainted with its opening and are eager for its continuation. This melodic section is now becoming quite sophisticated, with another two layers added, and this is still an early stage - the fifth rehearsal in a process that would be expected to require about twenty.

The actual musical material contained in this sequence was regarded at the time as being not very original or distinguished and indeed the piece was eventually abandoned unfinished, but the analysis of its structural development gives an important insight into how such new works "evolve". The very fact that a composition grows and develops during this creative rehearsal process means that the principles of "growth" and "development" themselves will be amongst the forces which determine its form.
Fig. 32 Diagrammatic representation of three early stages in the structural development of a new composition by Prasadianto (1981)
(Source: Notes taken during rehearsals at ASKI, 1/3/4 March 1981)

VERSION 1: First rehearsal, after about one hour
VERSION 2: Third rehearsal (two days later)
VERSION 3: Fifth rehearsal (one day later)
(all in pelog except where stated)

A: ostinato kempul alenem [6.5 | 2.1]
B: two-part male chorus:
I: 1 2 3 5 | 3 5 6&c A- ja tu-re so-re
II: 6 1 6&c so-re so-re
B' chorus as above, but faster to match tempo of Q1 and Q2
F: random sounds of stopped pencon
G: gong played reyong-style
H: tremolo balungan effects
H' as H with added vocal effects
P: extended melody played on sarons:
Q: ostinatos on gender penerus (Balinese mallet)
Q1: [1 1 1 5 5 5 5 5 5 5]
Q2: [3 3 3 3 7 7 7 7 7 7]
S: new balungan ostinato in triple metre
V: vocal solo
Z: new balungan section in slendro
9.5 New Structural Procedures - a Summary and Some Examples

Unlike the new sounds and techniques described in Chapter 8, questions of structure in the new komposisi style are more difficult to discuss. The whole field is so new that even the pioneers are still feeling their way, and the students who have followed them are not given instruction in this aspect of composition, nor is analysis used as tool in the Western manner. It is important to remember that the approach is almost entirely intuitive, not intellectual. In this respect the experience of taking part in other composers' works, and the compositional process (as outlined in Chapter 7) itself, is quite invaluable.

From an examination of the twenty-one works chosen for study, it is possible to summarise these "new" structural procedures:

Montage and Editing

Techniques observed in the above analysis of three early stages in the development of Prasadianto's composition (Fig. 32) - such as the manipulation of blocks of material; moving them around, trying them in different sequences, juxtapositions and contexts; modifying them by extension, curtailment, expansion, contraction, transformation and other treatments - bear a striking resemblance to the working practices of the electronic music studio and the tape composer in particular.
Moving between sections has always been a major preoccupation in traditional karawitan, but now a whole new range of "editing" techniques has been developed. In many instances, the need for such new methods came from the demands for fluency and flexibility made by the new dance-drama genre; but the means, as in the "garap of volume" for example, came from the new experimental attitude. Thus the fade-up from silence, the fade to silence (menghilang), the fading in or out of one element over or under another, the lap-dissolve or mix, and, of course, the straight cut, all these are now commonly-used devices.

This concern with montage has also led to attention being given to the relationships between adjacent sections in terms of the sequential arrangement of material. Even though the dramatic use of boldly contrasting, unrelated material has become an important weapon in the composer's arsenal, the traditional Javanese penchant for fluent transition is still strong. Adjacent sections, which are substantially different in character may be given one related element - perhaps in terms of melody, tonality or orchestration etc. - to ease the sense of progression. This "continuity" element might take the form of a constant or recurring background colour or texture, or a continuing ostinato, to bridge over a sectional change. Such techniques, of course, involve the concept of layering.

Collage and Layering

The layering of different musical elements is clearly a development of traditional procedures, but the new sensibility which allows free use of contrast and juxtaposition sequentially, when
applied to simultaneous layers of sound has produced some quite startling results. These range from the simple device of having a foreground element layered over a background (dilatarbelakangi) to which it may or may not be related, to the wholesale superimposition of several elements which may have totally unrelated tempi, tonality, instrumentation etc. Such layering may be used to fuse disparate materials into a new composite whole, or may retain the individual identities of the constituent elements to present an almost Ivesian collage of simultaneities.

The idea of gradually building up a texture by the cumulative piling-up (ditumpangi) of additional elements may have been a development suggested by the garap of volume and dynamics, now applied to texture and orchestration, but whatever their origins, both these new features imply, albeit in a simple way, the concept of growth.

Growth and Development

The simple use of "volume-control" and cumulative layering effects to make textures grow (and conversely, decay), has been developed and extended even to such other elements as melody. The possible influence of the development-rehearsal process of evolutionary composition has already been suggested in this respect. Many new works show evidence of processes which might be described as developmental, ranging from simple transformation of textures to clear examples of melodic development. In many cases such procedures represent the application of the kinds of variation techniques which are so central to traditional karawitan, but occasionally the way in which they are applied with due regard to
the sequential linear progression through the material of the composition possibly suggests new modes of thought.

**Shape and Form**

The composition as a linear sequence of events requires a feeling for shape, proportion and overall form, and such matters may be pre-planned or intuitive. Again, the influence of the composition process is felt here in the development of related musical material throughout a work, which helps to gave a sense of unity.

The use of structural markers or signposts is clearly a development of traditional practices; the gong still frequently asserts its time-honoured place in this role, although other devices, including silence, are also employed to make audible structural proportions.

Various methods are used, many unconsciously, to give a feeling of overall form to a piece, including recapitulation of sections or elements and other "reminiscence" techniques, large-scale structural use of tonality or tonal movement, melodic relationship, orchestration, colour and texture (the whole form of NAN TARASO, for example, is shaped by a gradual shift from vocal/free textures to instrumental/rhythmic ones).

**Dance Works / Concert Works - Some Differences in Approach**

The most obvious differences between dance and concert works in terms of structure, stem from the contrast in working procedures
which was examined in Chapter 7. The overall form and individual structural elements of a dance work are largely determined by the specifications made by the choreographer(s), whereas the composer of a concert work has to confront such problems himself.

Thus in the initial planning stages, a dance work is usually divided up into relatively short sections. The titles given by the composers to the corresponding sections of the musical accompaniment sometimes give an indication of the specification received from the choreographer, e.g. "Lagu Konflik" (conflict), "Sesak" (oppressive) from KOMPOSISI II (Appendix IVv, sections [O] and [P]). Other titles may refer to the name of a particular character, e.g. Lagu Boman (Fig. 36) accompanies the entry of the character Boma.

In concert works, however, such sectional titles are not used, nor is the work necessarily thought of in short sections at all. Thus of his composition DEBAH (Appendix IVi), Al. Suwardi states:

"In this explanation of the garap and sequential presentation of the composition, the different sections in fact represent a single entity of form. I have used division into sections only for the purpose of facilitating the writing of the notation" (Suwardi 1983, 22)

Concert works, in other words, tend to be through-composed.

The sectional nature of dance accompaniments has a further practical function in providing the music with a certain flexibility in case the dancers (whether intentionally or not) shorten or lengthen a particular passage. In the dance work notations in Appendix IV, many examples can be found of sections which are never played in their entirety, or which are indefinitely repeatable. The need for this sort of flexibility is a major factor in the dance composer's
major preoccupation with transitions.

The requirements of dance also tend to favour rhythmically pulsed music, whereas the concert works can be much freer and experimental (and for the same reason often dispense with the kendhang).

A demonstration of some of the larger-scale aspects of structure requires the examination of whole works and this is one of the purposes of the selection of the six representative compositions of Chapter 10. Before proceeding to those examples, here are four shorter extracts which show particularly interesting or effective use of the sort of innovative structural techniques examined in this chapter:

The first of these examples is a sequence taken from YANG MEMBANGUN (Fig. 33), and is remarkable for its very close relationship with the dance it accompanies, indeed, it is not really proper to speak of accompaniment here, the dance and music are as one.

The sequence begins with Gending "Napak" in pelog, which the composer describes as being based on "lancaran form but with garap similar to Balinese". It is notable for its rhythmic energy and invention, with strong syncopation, a disorientating third line, and skipping cross-rhythms in the fourth, which bring us firmly back to base. Gending "Sreg", which follows straight on from "Napak", is a complete contrast rhythmically, being totally four-square in metre with conventional-style balungan contours. The transition from "Napak" seems perfectly natural, however, since the first gatra
B. Gending "Napak" laras pelog

// 3 1 2 3 5 5 1 
3 1 2 3 5 5 1
• • 5 7 5 6 3
12 3 53 2 3 21 1 1 //

C. Gending "Sreg" lancaran laras pelog

// 3 2 1 3 (1) 2 3 2 
3 3 3 1 2 3 5 6 //

D. Gending "Nyot" laras slendro

( • • ) ( • • ) ( • • ) ( • • ) (6)
( • • ) 1111 ( • ) 1 ( • )

E. Gending "Theklug" laras slendro

2 2 2 2 2 2 2 2 2 2

Explanation:

$ note played stopped (staccato sound)

( • ) the pause between one entry and the next is determined by the dance

===== repeated as necessary

Gending Napak is realized as follows: First time through, the first two phrases are played quietly, and the second two loudly, then quiet again.

After the dancers of the male group execute the gedrigan movement, go on to Gending Sreg (C), played loudly.

In Gending Sreg, the kempul part is to be improvised by the player, with the proviso that it must not be too loud or prominent, but must be irregular in rhythm.

After the group of male dancers moves from areas B6, 89 to areas B5, B8, B4, B7, gending Sreg continues quietly (slentem, [saron penerus], kenong and kempul played softly), while Gending Nyot begins.

Gending Nyot is played by demung I and II and saron I-IV. The spacing of the groups of notes should be matched to the slot movements of the dancers, i.e. together with, preceding, or following specific movements of the dancers. Gending Nyot is played once and continues into Gending Theklug, while Gending Sreg is still being played quietly. Gending Theklug is played by demung I and II and saron I-IV, several times according to the requirements of the dance. When the group of dancers at B5 stand leaning to the right holding out their right arms, Gending Sreg and Gending Theklug stop together. A short silence follows.

Note: The playing of Gending Nyot and Gending Theklug is led by one of the demung players, who also gives the signal to stop by lifting up his mallet.

Source: Panggiyo 1983, 15-16
strikes the ear very clearly as a variant of the first gatra of Napak:
\[ 3 \cdot 1 \cdot 2 \cdot 3 \quad \text{(Napak)} \]
\[ 3 \ 2 \ 1 \ 3 \quad \text{(Sreg)} \]
The traditional feeling is undermined, however, when we hear the result of the direction to the kempul player. The composer describes the structure as "lancaran form but losing the kempul playing pattern and changing the gong and kenong structure".

Layering techniques are now brought into play as "Sreg" continues quietly as a background to "Nyot" and "Theklug". The strong Balinese influence in this sequence has already been commented upon in another context (Chapter 8·5), and the composer himself describes "Nyot" as being "like Balinese style". The remarkable feature, however, is not so much the stopped playing techniques, or even the juxtaposition of slendro and pelog, but the very detailed interplay between the music and dance as indicated in the instructions. Such integration is possible only because the dancers are in full view of all the musicians.

The second extract demonstrates a very interesting process-generated structure using phasing of rhythmic accents. It was contrived by Waridi in PUTUS DAN TERHEMPAS, and may be heard in Recorded Example No. 17. The notation, as seen in Fig. 34, gives only the balungan.

This unbroken melodic stream is played loudly and with a fast, regular pulse by all the balungan instruments. Missing from the notation, but clear on the recording, is the kenong, which plays on every third beat. This fits with the 2-3-5 ostinato figure of line [a] and, as it continues into line [b], carries the strong triple-metre feeling along, imposing it on the now meandering melody.
Fig. 34 Extract from the notation of PUTUS DAN TERHEMPAS

G. Lagu Roluma laras pelog

// 235 //

[a] // 235 235 235 235 235 235

[b] 6565 2356 7653 2356 532 2356 //

Source: Waridi 1983, 16

However, since the number of notes in line [b] is not a multiple of three, on returning to line [a] the kenong stroke falls on a different note of the 2-3-5 ostinato: (* = kenong)

1st. time: 2 3 5 * 2 3 5 2 3 5 2 3 5 2 3 5
       6 5 6 5 2 3 5 6 7 6 5 3 2 3 5 6 5 3 2 2 3 5 6

2nd. time: 2 3 5 2 3 5 2 3 5 2 3 5 etc.

3rd. time: 2 3 5 2 3 5 2 3 5 etc.

Thus the shifting stress produces a change in the way the three-note motif is heard:

first time: 2 3 5 2 3 5 2 3 5 &c.

second time: 3 5 2 3 5 2 3 5 2 &c.

third time: 5 2 3 5 2 3 5 2 3 &c.

together with corresponding changes in the perception of line [b].
Fig. 35 Extract from the notation of KEN AROK

L. Lagu "KUKUH" laras slendro

Part I.

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 6 1 2</td>
<td>balungan tremolos and &quot;clangs&quot; ['genjelengan']. The notes followed by the symbol are played tremolo, while the notes with the symbol 0 beneath them are &quot;clanged&quot; [i.e. struck once, very loud]. The symbols 3/6(P+N) simultaneous with the clang indicate the kempek (P) and kenong (N) play notes 3 and 6 together. The symbol SW indicates a stroke on the gong suwukan, and when under balungan (2) indicates the gong suwukan and gong ageng played together. The third line of part I is played normally (by the balungan).</td>
</tr>
<tr>
<td>3 5 6</td>
<td>normal play</td>
</tr>
</tbody>
</table>

[Narration in Indonesian]

NARRATION (for the monologue)

Part I.

For all my people wherever / who sing in the twilight / between their teardrops / running twixt sand and dust / bowed down in the banyan-tree's shade / praying / imploring / waiting and waiting / and my friend / imprisoned in a smoke-filled room / tears flowing / face dumb and soul screaming in silence.

Part II.

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 1 6 5 3 2 6 1</td>
<td>bonang barung and bonang penerus garap in parts I and II.</td>
</tr>
<tr>
<td>3 6 5 2 3 5 6 2 5</td>
<td>bonang barung: ( \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} )</td>
</tr>
<tr>
<td>5 3 6 5 3 6 5 3 6 1</td>
<td>bonang penerus: ( \frac{5}{6} \cdot \frac{5}{6} \cdot \frac{5}{6} \cdot \frac{5}{6} \cdot \frac{5}{6} ) (irama lancar)</td>
</tr>
</tbody>
</table>

NARRATION for Part II.

Now lift up your head / tear down the blind / breathe in the fresh air, God’s gift to us / and engrave upon your heart.............(music ends).... that God creates alike for all his creatures.

Lagu KUKUH consists of two parts.

Part I uses balungan tremolos and "clangs" ['genjelengan']. The notes followed by the symbol are played tremolo, while the notes with the symbol 0 beneath them are "clanged" [i.e. struck once, very loud]. The symbols 3/6(P+N) simultaneous with the clang indicate the kempek (P) and kenong (N) play notes 3 and 6 together. The symbol SW indicates a stroke on the gong suwukan, and when under balungan (2) indicates the gong suwukan and gong ageng played together. The third line of part I is played normally (by the balungan).

Part I is played twice. First time the tremolo is soft, second time rather loud, becoming faster, at which point the bonang enter.

The bonang barung plays slendro notes 1 & 2 simultaneously, alternating with the bonang penerus slendro notes 5 & 6, beginning softly, becoming louder to match the level of the other instruments.

Part I ends and is followed by Part II at the same time as the Narration Part I ends.

Part II is played rhythmically in irama lancar, and repeated over and over, becoming soft (sirep) after the first time through, i.e. after gong (1), at which point the second Narration begins.

The piece ends (suwuk) on the first or third line (according to the requirements of the dance). After it ends, the final line of Narration is spoken, and is then followed by Lagu Nutup.

In the composition of Lagu KUKUH, I have fused together the two elements of gamelan sound and the sound of the Narration. Thus Lagu KUKUH and the Narration represent a single entity.

Source: Rusdiantoro 1984, 34-35
The third extract, Lagu "Kukuh" [steadfast/firm] from KEN AROK (Fig. 35) shows a remarkable example of melodic development. Initially (Part I) the melody is presented by the balungan instruments using a combination of soft, sustained tremolos and single loud strokes, the rhythm being completely free (requiring visual coordination, of course); while in Part II, the same melodic outline is transformed by ordering it into a metrical framework which, apart from the hiccup in the second line, is in triple metre. Note the dissonant bonang part and also the great emphasis the composer (Rusdiantoro) puts on the close relationship not only between the music and dance, but also between music and narration. The transformation of the melody from wavering tremolos and rhythmic uncertainty to clear tone and purposeful rhythmic pulse, is not just determined by what the dancers are doing, but also underscores the change in feeling between the two parts of the narration.

The final extract is a sequence from KEMELUT (Fig. 36, Recorded Example No. 18) which, in the space of one short sequence, encompasses new development of traditional forms and new experimental material in an imaginative and very convincing way.

Lagu Boman (F1), with its strange hesitating melody, after one full statement becomes the soft background to the vocal section (F2) which is sung freely but canonically in two parts. On the second time through, the vocal section is interrupted by Lagu Boman becoming loud again. The gender barung (G1) then begins to play in slendro upon which (not indicated in the notation) Lagu Boman becomes faster and faster at the same time decreasing in volume until fading out completely, leaving the genders (G1, G2) occupying the foreground.
F.1) Lagu "Boman" laras pelog

\[
\begin{align*}
2 & \cdot 3 & 1 & \cdot 5 & 2 & \cdot 1 & 6 & \cdot 5 \\
32 & \cdot 3 & 1235 & 4564 & 1 & \cdot 2 & (1) \\
23 & \cdot 1532 & 123 & 1216 \\
5 & \cdot 23 & 5635 & 3216 & 5 & \cdot 6 & (5)
\end{align*}
\]

2) Sekar macapat Maskumambang laras pelog

\[
\begin{align*}
1 & \cdot 2 & 2 & 2 & 1 & 2 & 3 & 1 & 5 \\
5 & 3 & 2 & 3 & 1 & 6 & 5 & 3 & 2 & 1 & 6 & \cdot 1 \\
A & \cdot 6 & 5 & 3 & 2 & 1 & 6 & \cdot 1 \\
5 & 3 & 2 & 5 & 5 & 6 & 5 & 3 & 2 & 2 & 1 & 6 & \cdot 1 \\
\end{align*}
\]

G. Gembyungan on slendro gender followed by balungan, kenong, and kempul in pelog.

1) a. +++++ ++++ +++= ++++ ++++ ++++
   b. ++++++++ +++++ +++++ +++++
2) +3+3 +3+3 +3+3 +3+3 +3+3
   +++3 +++3 +++3 +++3
3) 33353------25353-------23535--------
   36565-------65-------66653-------656-------2
   2356-------5656--------

H. Bedayan "Ngantu-antu" laras pelog

<table>
<thead>
<tr>
<th>Buka celuk:</th>
<th>5</th>
<th>( \frac{61}{61} )</th>
<th>( \frac{23}{23} )</th>
<th>etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>gya ka- ran- ta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Supardi 1984, 10-11
This effect gives the extraordinary impression of the balungan melody running off into the distance. The sound-colour undergoes a metamorphosis as the slendro genders are joined by the soft pulsing of the kenong and kempul (G2), and then by the balungan section playing the quiet free-rhythm melodic musings around the notes 3-5-6 (G3). The far-away melody, like voices dimly heard in the distance through the static haze of the combined slendro and pelog colours, produces a dream-like atmosphere, which drifts on until the vocal introduction to Bedaya "Ngantu-antu" (H), taking its cue from the last note of the balungan melody, brings us back to earth.
CHAPTER TEN

SIX NEW WORKS IN FULL

10·1 Introduction
10·2 DEBAH by Aloysius Suwardi
10·3 BONANG by Supardi
10·4 PELING by Sigit Astono
10·5 CINTA DAN TEKAD by Sutiknowati and Slamet Riyadi
10·6 KOMPOSISI II by I Nengah Muliana and Sukamso
10·7 PENGORBANAN DALAM KONFLIK by Mahdi Bahar and Sriyanto
10.1 Introduction

The preceding three chapters have covered a bewildering array of new working methods, sounds and compositional techniques which have resulted from the ASKI experimental movement. This systematic analysis using extracts from recordings and notations must now be balanced by looking at several of the new works in their entirety. This enables, for instance, a better picture to emerge of the relative proportions of traditional and new techniques which, as will be seen, is rather different for compositions of the concert-work genre than for dance works.

I have chosen six new pieces — three concert works and three dance works — with recordings on Cassettes II and III, specially prepared translated editions of the composers' notations in Appendix IV, and commentaries given below.

Basis of choice

These six works do not necessarily represent the "best" out of the total of 21 studied. To no small extent the choice has been determined by the availability of notations and good-quality recordings (although that of KOMPOSISI II is unfortunately not particularly clear). Within these limitations I have tried to choose works which are fairly representative of the range of approaches to be found within the ASKI style. I have also deliberately included one work which has a non-Javanese gamelan musician as co-composer (KOMPOSISI II), and one which has a non-Javanese, non-gamelan musician as co-composer (PENGORBANAN DALAM KONFLIK).
Editorial procedure in the notations (Appendix IV)

(Attention is drawn to the general introductory notes on Orthography, Terminology, etc. on pages xxiv-xxv, and the Kepatihan Notation System on pages xxvi-xxvii.)

Notations of works by ASKI composers have to be approached with care. They are compiled purely to fulfill examination requirements, and are often regarded by less academically-inclined students as something of a chore. They can differ quite markedly in the amount of detail recorded (cf. KOMPOSISI II, Appendix IVv, and PENGORBANAN DALAM KONFLIK, Appendix IVvi, for example), but all follow the same basic format.

The notations are extremely useful, however, in that they show how the composer conceptualises the music and its construction.

The guiding principle in making these translated editions, therefore, has been to preserve as closely as possible the original layout and presentation.

It will be realised that the notations are not "scores" after the Western model (which is the reason I have avoided that term for them), many sections, for example, setting out consecutively parts that in fact are played simultaneously. I have made frequent editorial annotations [using square brackets] in order to explain these and other matters, such as where the recorded version differs from that notated.
I have also added timings (in minutes and seconds) in the left-hand column of each notation to aid coordination with the recording.

Numerous small defects such as typing errors have been remedied. Some larger-scale mistakes have also been corrected, but always after consultation with either the composer or with one of the musicians who performed in the work concerned.
DEBAH was composed for Suwardi's S. Kar. examination and performed on 8 September 1983 at ASKI, although several sections are developments of ideas first used in earlier pieces, such as the water-filled pencon sounds which featured in NGALOR-NGIDUL (1982). Nevertheless, this fifteen-minute composition required 23 full rehearsals spread over a three-month period.

Suwardi's own comments on the preparatory work for DEBAH and on the ideas behind the music have already been quoted in Chapter 7 (pp. 71-2 and 73 respectively). Mention has also been made in Chapter 8 (pp. 95, 101) of his prodigious skills in not only making traditional instruments but also inventing new ones. Evidence of this is found in the plan showing the layout of the instruments which precedes the notation (see Appendix IVi). Included are a modern reproduction gamabang gongso designed by Suwardi himself, and his unique invention - the "gender vibraphone". Although a large number of instruments are shown on the plan, only 15 performers are used, requiring a considerable amount of doubling, and also accounting for the unconventional layout of the ensemble.

DEBAH represents the more extreme "avant garde" approach of the ASKI style, containing representative examples of almost all the new experimental sound-producing techniques. The first 3½ minutes
sound almost electronic, consisting of a slow gradual build-up of sonorities, starting from silence and culminating in the crash of the "kebyar" (I·5). Unlike some of his colleagues, Suwardi builds his textures up in a subtle and precisely-calculated way - it has already been mentioned (Chapter 8·6, p. 121) that the notation of DEBAH contains no less than nine different kinds of instruction concerning volume. The growth of this opening section is sustained by adding new colours and textures as well as increasing the volume. Fade-in/out and dissolve editing techniques are employed in a masterly way throughout the work, and growth and transformation seem to be major preoccupations of the composer.

We must guard against the sectional impression given by the notation - as Suwardi himself has told us (Chapter 9, p. 183), the division into sections was done after the piece was created in order to facilitate the writing, and the work itself is to be regarded as "single entity of form".

Evidence of the principles of growth and transformation are to be found throughout. Note, for example, how in section I·3 the bowed kecapi (I·2) starts playing rhythmically, preparing to "transform" into the degung pencon (I·4) playing in the same rhythm.

Section I·6 is the nearest Suwardi comes to using traditional garap in DEBAH, and even here the pathetan is transposed to a 5-7 tonal centre and played over a background of "wavering vocal sounds".

The composer's interest in growth and development is not restricted to textures and sonorities, but is also to be found in his handling of melody and "tonality". For example, section II·1
is clearly transitional between the 5(6)7 tonal colour of section I·6 and the full pelog range of section II·2. The transition is achieved melodically by starting on pitches 6 and 7, and gradually widening the range downwards until all the pelog gamut is covered. Section II·2 is notable for its non-traditional use of all 7 pitches of the pelog system, eventually culminating in the 7-tone "cluster" formed by the simultaneous rapid undamped balungan scale passages (a) 4567· and (b) 54321. However, the preceding section clearly moves between two contrasting tonal areas, 5-6-7 (cf. section I·6), and 1-2-4, with 1 and 3 acting pivotally.

This melody is performed together with the chorus part (II·3).

Note how the vocal line "grows":

from a single note 6
by extension from below 5 6
then by extension above 5 6 1
then by rhythmic augmentation 5 6 1
then by a transformation 5 6 7 which is provoked by the balungan melody. The latter, although played by the "balungan instruments" (slenthem, sarons etc.) is not a "balungan gendhing", i.e. not a skeletal melody acting as a guide to improvisation. The only instance of anything like a traditional balungan gendhing in DEBAH is the short section III·3. Even that has no structural gong punctuation, and the only embellishing instrument is the bonang penerus, whose garap is written out in full (III·2), the bonang barung (III·1) continuing its 5 6 5· ostinato throughout.

The whole of section II·4 - III produces a very strange feeling with the slendro choral organum gradually overlaid by the pelog instrumental parts. Note also how the bonang barung (III·1), the
balungan (III·3), and the chorus (III·6) refer back to the pelog 5-6-1 idea at the start of section II·3.

After the somewhat anarchic-sounding section IV, the piece is rounded off in a very satisfying way by a return to the instrumentation of the opening, but with the sounds now transformed by different playing techniques. So the gender vibraphone which in the opening was bowed (I·1) is now (V·2) played with beaters (and accompanied by the magical sounds of the water-filled pencon - V·3); and the kecapi which in the opening was bowed (I·2) is now (V·4) plucked (albeit on the wrong side of the bridge).

Something of the composer's mischievous humour is heard in the way the vocal "kazoos" (originally in I·3 just given a sustained wavering sound) are now let loose in two-part counterpoint (VI·1), eventually transforming themselves into the rapid clatter (VI·2) of the slenthem (perhaps echoing the way the bowed kecapi transformed into the degung pencon of I·4), which brings this extraordinary piece to its abrupt close.

For further references to DEBAH, see Appendix I.
Bonang is the only one of these six selected compositions which is not an examination work. It was prepared for the 1985 Young Composers' Week in Jakarta where it was performed together with SITER by Joko Purwanto and VOKAL by Sukamso. A total of only ten musicians was used, including the three composers themselves. Not being an examination piece, there was no need for a notation, and so I am most grateful to Mr Supardi for preparing specially the outline given in translation in Appendix IVii.

The basic premise of exploring the possibilities of pencon-type instruments had already been used in a previous ASKI work, but being a specialist bonang player himself, Supardi obviously saw further possibilities in terms of both technique and expression:

"At the 4th Young Composers' Week in 1983, my colleagues B. Subono and Santosa (ASKI Surakarta) appeared with their composition [OWAH-OWAH] SWARA PENCON. The instruments used were various kinds of bonang ranging in size from the smallest to the largest. As a musician (bonang player) I take this opportunity to develop this idea ... In BONANG the central purpose is to extract something pleasant, sweet, "gayeng" [Jav. = cheerful-sounding] from the texture of the sound-sources. The other elements - the slenthem [and saron penerus], the movement and the other sounds are the "spices" which sometimes make things tasty, or perhaps sometimes the opposite. This is intentional."

(Supardi et al. 1985)
BONANG is perhaps not so weighty or ambitious a piece as OWAH-OWAH, nor so extremely avant-garde as DEBAH. It certainly has its share of ASKI-style sonorities, and indeed comes up with some novel and attractive effects in section 2(b), for example, with its bowed pencon and gong sounds, and the vibrato-type effects obtained by using tin cans as movable resonators (these sounds return at the end of the piece). The very opening of the piece is itself a favourite ASKI "clocks and clouds" transformation of the type discussed in Chapter 8.5 (pp. 118-9), the surprise being in the abrupt way it stops.

The most striking and memorable sections of the work, however, are those which are highly imaginative developments of traditional techniques, creating an entirely new feeling or effect. The first example of this is section 3, where the traditional principles of a regularly-pulsed balungan with its embellishment are employed, although the sound is decidedly non-traditional, with the strange pelog melody underlain by a slendro ostinato on the bonang barung. Note, however, the carefully-calculated orchestration, for the "balungan" is played only by the slenthem and the saron penerus and decorated by the bonang penerus, representing the extremes of the instrumental range. The transparent texture so produced leaves the middle octaves free for the spectacular (and most decidedly un-traditional) interpolations on the bonang barung and bonang penerus (section 4). Note how Supardi rearranges the pencon on the bonangs (cf. the usual layouts shown in Chapter 1, p. 13), in order to facilitate the virtuosic flourishes.

Another outstanding passage is section 6 where the free choice
of pitch given to the balungan instruments at each seleh point produces a strange, yet hauntingly-beautiful effect, achieved by imaginative use of simple tradition-derived means.

"It is the tradition that we have studied, and we make use of the riches it offers. It is as though those riches provide limitless possibilities for development."

(Supardi et al. 1985)

For further references to BONANG, see Appendix I.
The notation for Peling is rather unusual in that the composer writes at some length, in a very direct manner, about his aims in composing the piece and the problems encountered. He even explains something of his own background, worth quoting here as his story is not untypical:

"I was born a member of the general public, that is the general public as far as the arts is concerned, although from a child I had a liking for several forms of art, especially the traditional arts such as wayang orang, kethoprak, karawitan and all kinds of music, but did not especially study them. Indirectly, this factor of my liking clearly has had a substantial influence on the expression of my feelings in the creation of this composition.

In 1974 I entered Kokar [music high school, now called SMKI] ... this was the first time I got to know traditional gamelan from several regions, such as Bali, Sunda, and Java. I also began to learn the method of writing notation for gendhing and other notation such as vocal music.

In 1978 I entered the Karawitan Department at ASKI. From this time I began to be acquainted with the methods of arranging/making a composition and I became involved directly in the creation of compositions which at that time were being produced by senior students and instructors at ASKI.

This experience awakened a particular desire in myself, and the question arose how would it be if I were to have the chance to create a composition myself?

The opportunity which I sought has now become a reality, although not without great labour."

(Sigit Astono 1984, 10)
The latter is certainly an understatement, for Sigit had many difficulties, some stemming from personal problems and disagreements with his supervisors, and it took a considerable length of time before his composition was allowed to proceed to examination. His own comments on one particular problem during rehearsals has already been quoted in Chapter 7 (p. 82). Perhaps some of the tension and conflict are reflected in the music. PELING is certainly a very different experience from both the assured innovation of DEBAH and the imaginative geniality of BONANG. The opening section, especially, where the lone voice is slowly but inexorably overwhelmed by chaotic noise, is very disturbing, almost expressionist, in its impact. (The text is taken from the traditional Dewa Ruci story and consists of an exchange between Dewa Ruci and Sena on the giving and receiving of instruction and enlightenment.)

The chaos of this opening section culminates in all the performers shouting *Wis*! (enough!). This is then followed by a remarkable passage (L) for 2-part balungan playing in parallel "5ths" and "4ths", underlain by a very fast moving kempul part.

Note also at (N) the use of a "cluster" of harmonic colour generated by undamped demung ostinatos. It is interesting also that this first section ends conventionally with the gong, but played in an unconventional way (O).

The start of the second section seems rather weak, for it is yet another gradual build-up of sound textures, although perhaps the recording does not do it justice. (Incidentally, at this very quiet moment on the recording can be heard in the background a small chorus of those other great Javanese musicians - the frogs.)
There follows in II·B a most brilliant passage for two-part balungan, making exciting use of stopped notes and even the striking of instrument cases. The rhythmic vitality is increased with the entry of the kempul, again played fast, with its triple-metre ostinato.

The third section, which is played twice (see explanation given opposite figure J), is remarkable for the precise calculation of the individual instrumental elements, which are all written out or specified in full (note the 4-part writing for saron barungs at I).

The impression of this piece being intensely worked on is confirmed in the recurrence of melodic motifs in different guises in different sections. Thus the coupled slendro 1316/pelog ·1·3 saron penerus ostinato at the end of section II (IID) recurs in section III at figure H, transformed into pelog 7576/slendro ·1·5 on the saron barungs. This motif is also related in a more subtle way to the (pelog) melodic material at the head of section IIB which is itself related to material first heard in section I (figure L).

For further references to PELING, see Appendix I.
Responsibility for this work is divided between the two composers as follows:

Scene I (Nos. [1] - [7]) Sutiknowati
Scene II (Nos. [8] - [13]) Slamet Riyadi
Scene III (Nos. [14] - [16]) Sutiknowati
Scene III (Nos. [17] - [20]) Slamet Riyadi

In the notation, I have collated the two sources and added my own sequence of figures [1] - [20] for ease of reference.

After listening to DEBAH, BONANG, and PELING, the first thing that impresses about the dance pieces is their higher proportion of traditional or tradition-derived sections, although closer inspection often reveals great imagination and new thinking in the way traditional techniques are developed. KOSEK (No.[2]), for example, sounds almost completely traditional in both style and garap being, as the composer says "a development of ketawang form", but note that the structure is highly irregular, requiring explanation in the 4th column of the notation.

The point already made (p. 183) about dance accompaniments needing a built-in flexibility is well illustrated in the very first page of the notation where the composer has provided an extensive chorus 5 lines in length. In the recorded version, however, the
dance allows only 2 lines of this to be completed before moving on to the next section, KOSEK (No.[2]).

CINTA DAN TEKAD is a fine example of the ASKI style of dance drama, the music interacting with the dance in a direct way, helping to create character, movement, and atmosphere. Note, for example, how effectively the simple ostinato texture of MANEMBRAMA (No.[3]) completely changes the mood for Wiraguna's entrance.

There are several instances of strange tonal colours or atmospheres, usually involving a mixture of slendro and pelog, as in the memorably strange section [9] - a slendro vocal melody (with rebab and humming) underlain by a (non-pathet) pelog balungan part.

Some typical ASKI noise textures are put to good use for the battle scene (Nos. [14]-[18]), of which the imaginative Lagu TANDING [17] is quite outstandingly hair-raising with its sparse dramatic texture.

The use of a pelog mode omitting notes 2 and 6 in Lagu SREPEGAN [18] makes an interesting comparison with Joko Purwanto's Lagu Bangun (see pp. 127-9).

One of the most delightful features of this work is the use of a rumbustuous folk style to accompany the group of dancers representing the peasantry (section [10]).

For further references to CINTA DAN TEKAD, see Appendix I.
Responsibility for this work is divided between the two composers as follows:

Scenes I, II and III(i) (Figures A-N) I Nengah Muliana
Scenes III(ii) and IV (Figures [0] - [CC]) Sukamso

In the notation given in Appendix IVv I have collated the two sources and continued I Nengah Muliana's sequence of letters throughout Sukamso's section [0] - [CC] for ease of reference.

For Sukamso's description of the working procedure used on this composition, see Chapter 7, pp. 70-71.

The dance of KOMPOSISI II, unlike that of most ASKI extended dance works such as both CINTA DAN TEKAD and PENGORBANAN DALAM KONFLIK, is not based on a traditional story or scenario, being much more abstract in character, but retaining the division between principal dancers (one male, two female) and male and female groups of dancers. The presentation is also more "theatrical" in a Western sense than most other works of this kind, keeping the gamelan to the side, out of sight (see plan), and using stage decoration in the form of large screens at the back of the dance area onto which elaborate shadow effects are projected (see section R).
The modernistic impression created by the dance style is reflected in the music which is generally more "experimental" in nature than that of CINTA DAN TEKAD. This is well demonstrated in the mysterious atmosphere generated at the very opening of the work.

Traditional sources, of course, are still made use of, and it is not surprising considering his origins, to find a considerable number of Balinese techniques developed in Nengah's portion of the work — sections I and J being especially notable in this respect.

Note also Nengah's striking use of the pelog system in gendhings Angklung (K) and Uyang (M).

Early examples of Sukamso's preoccupation with experimental vocal techniques (see p. 110) are to be found in his portion of the work. It is also interesting to note how he frequently uses graphic notation rather than verbal explanation, to specify the effects required, as, for example, in sections [P], [Q], [T], [U] etc.

Like Slamet Riyadi in CINTA DAN TEKAD, Sukamso makes entertaining use of folk-style techniques in Lagu Rakyat [V], which is an ingenious adaptation of Banyumas style, with the effect of bamboo calung being obtained from the interlocking texture of gambang keys distributed among the players [W].

For further references to KOMPOSISI II, see Appendix I.
Responsibility for this work is divided between the two composers as follows:

Scene I Nos. 1-4 Sriyanto
Scene I Nos. 5-14 Mahdi Bahar
Scene II Nos. 15-24 Sriyanto
Scene II Nos. 25-26 Mahdi Bahar

As explained above, one reason for the inclusion of this work is that one of its composers, Mahdi Bahar, comes from a non-gamelan background. (I Nengah Muliana, the co-composer of KOMPOSISI II, by contrast, although not Javanese, comes from a gamelan background albeit of a different kind (Bali), and studied Javanese karawitan at ASKI). Mahdi's problems in composing for gamelan were greatly eased by the very close working relationship he enjoyed with his co-composer Sriyanto. He explains the relevance of his background to his compositional approach in the prefatory section of the notation, and it is worth quoting in full:

"Intimacy with the cultural milieu of the Minangkabau world has formed my feelings, because from being a small child I have absorbed the influence of that culture. Something like this is not easily lost, especially in relation to the traditional music, for I have made a formal study of it, graduating from ASKI Padang Panjang."
In connection with the requirements which must be fulfilled at ASKI Surakarta as a student presenting a final work, I have tried to compose a dance accompaniment making use of Javanese gamelan (slendro/pelog).

Involvement with Javanese gamelan is something new for me in the sense that I do not yet fully understand the existing conventions in terms of character, technique, or content; although I have studied in formal classes, this is clearly not yet enough. My rather limited store of knowledge of gamelan, coupled with my different cultural background will undoubtedly give rise to an individual colour in this dance accompaniment, which can only be understood in relation to my cultural background. This can clearly be seen in the melody "Nan Singgalang".

The same goes for my knowledge and experience of kinds of music and karawitan other than Minangkabau and Javanese, which have helped greatly in the creation of this composition. Among the playing techniques which I have used there are some which are not found within the conventions of Minangkabau and Java. Such matters are inseparable from questions of feeling, and so are reflected, for example, in the melody "Riyang Gagah".

The riches of feeling inherent in working with gamelan very much make possible for me new discoveries. Thus I am aware that things have arisen in this work which have not existed before, such as in the section "Talempong'an".

(Mahdi Bahar 1984, 5)

This development of Minangkabau talempong technique on the Javanese bonang (at figure 6 in the notation) has already been described in detail in Chapter 8·9 (pp. 147-8). "Nan Singgalang" (section 5 in the notation) illustrates the problems of stylistic synthesis familiar to some Western composers for gamelan, as the Minang tunings are different from Javanese laras. As explained in the notation, the composer has to use a mixture of slendro and pelog pitches in an attempt to write the vocal part (5.a.) for Javanese
singers. The melody itself represents a development of a folk song from Kabupaten Lima Puluh Kota in South Sumatra.

The third piece mentioned by Mahdi in the above quotation, *Rivang Gagah* (fig. 9) is, in his own words, "very much influenced by popular music - most clearly seen in the bonang technique which is based on, and a development of, the bossanova ['busanova'] rhythmic motif" (Mahdi Bahar 1984, 9).

In fact this composition is a veritable compendium of both Javanese and non-Javanese influences, from the very opening Balinese gong kebyar techniques to the contrapuntal effects derived from Western choral music in *Resah* (fig. 11) and *Pacaran* (fig. 19). The developments of traditional Javanese methods includes *Lagu Tekat* (No. 25) which although using lad rang form is really an experiment in accentuation.

Despite all these disparate influences, *PENGORBANAN DALAM KONFLIK* has a very powerful sense of overall unity and style. This is due in large measure to the close cooperation of the two composers in all sections of the piece; but also, in a technical sense, to an underlying (and possibly unconscious) use of a unifying "tonality", transformation techniques (*Riang Gagah* (9), for example is derived from *Riang Tentrem* (8)), and some wonderfully effective transitions made possible by the gamelan used being tumbuk 5 (i.e. slendro note 5 = pelog note 5), such as that between sections 5 and 6.

For further references to *PENGORBANAN DALAM KONFLIK*, see Appendix I.
CHAPTER ELEVEN

CONCLUSION

The problems of evaluation and criticism

Wider perspectives
The corpus of new works produced by the ASKI experimentalists 1979-85 is undeniably an impressive achievement, but what of the quality of the works themselves? How are they to be judged? Who is qualified to make valid artistic criticism of such a radically new departure in gamelan music?

In the past karawitan was discussed, if at all, poetically, in terms of feeling - there is no tradition of analytical criticism as found in the West. In the present development context of Indonesian traditional arts, however, practical constructive criticism has a very important part to play and Pak Humardani himself devoted a whole paper to this important question (Humardani 1982).

It is perhaps unreasonable to expect meaningful criticism of the new ASKI works when the pioneers of this experimental movement themselves seem to be launching out into the dark, unsure exactly where they are going:

"I nurse the hope only to add to the existing treasure-house that is the traditional repertory, to experience and try to express feelings which I hope will offer a new and refreshing taste (if I may borrow the terminology of the toothpaste advertisments).

It is highly probable that an uncertainty of direction, of identity, of attitude towards the situation I find myself in, will be apparent in this work."

(Supanggah 1979b, 2)

The press reports of the first Young Composers' Week, at which Supanggah's work GAMBUH was performed, expressed few opinions, largely confining themselves to factual accounts of what happened where and who was involved. It took the more distanced view of a Westerner to make an interesting fundamental point:
"While some of the ideas present in the works such as those by Sri Hastanto and Supanggah may influence others, the audience for which they are intended currently is clearly an intellectual elite, comparable to the audience for most contemporary Western 'art' music. Where a piece by Ki Nartosabdo can substitute for a traditional one in certain contexts . . . one like those of Sri Hastanto and Supanggah cannot. Their works find themselves more at home on the concert stage with an audience prepared to listen intently for a short period, without all the complex social and ritual implications of more traditional performance contexts."

(Sutton 1982, 77)

It is certainly true that the ASKI concert-work type of composition is only performed within the environs of ASKI itself, or at arts festivals and the like (which themselves have complex enough social and ritual implications!), and would be regarded as "crazy music" by the general public. What is very interesting, however, is that the ASKI dance-dramas are well received outside ASKI, indeed the style is even quite well-known and copied. Perhaps here we have evidence of "the rise of a new Great Tradition as the centre of artistic life moves away from the palaces and into the hands of the fine arts academies" (Morgan and Sears 1984, xiii). It seems that the Javanese public, like that in the West, can accept radically new musical experiences as long as they don't notice that they are having them. Perhaps if there was no dance to watch they would find the music as shocking as do many traditional musicians, for the ASKI style is almost guaranteed to cause controversy wherever it appears.

One commonly-heard complaint from the traditionalists concerns the possible physical damage done to the instruments themselves by
being played in unconventional ways. Such activities also pose a threat to the attitude of respect traditionally shown towards the gamelan. It must be said in their defence, however, that the ASKI musicians are careful to restrict such playing techniques to the new ASKI-commissioned instruments.

There is also much criticism, even within ASKI, of the extremes to which experimentalism has led. In mitigation, it might be argued that a radical movement such as this is usually driven, at least initially, by an element of reaction. Many young musicians speak of feeling as though traditional karawitan has reached a dead end. As we have seen, there are instances, especially among the earlier ASKI works, of an almost destructive feeling, or at least a certain amount of good-humoured raspberry-blowing towards existing norms and values. The sweeping away of the traditional rules and restrictions as envisaged by Pak Humardani (see p. 61) was a necessary stage to be undergone before a new constructive path could be undertaken. The greater use of "free" rhythmic elements in the new works might also be seen as a less extreme kind of reaction against the confines of traditional karawitan.

However, once the experimental period got under way, and the ASKI style began to take shape, the dangers of substituting one set of "rules" for another became apparent. The cooperative nature of the new compositional process meant that any newly-discovered technique immediately became common property. The dangers of mannerism are inherent in such a situation (the Mannheim School had the same problem), and it is very easy for certain effects to be overdone and thus lose their potency. The fade-in/out transition,
for instance, offers a very easy way out of having to devise a workable transition between two sections; likewise the good old standby of clattering everything within reach becomes the automatic answer for any battle scene.

Some of the dangers were sensed in a perceptive newspaper article by Suka Hardjana, reporting on the ASKI work performed at the 1982 Young Composers' Festival:

"As a work, NGALOR-NGIDUL is very pleasing. However, it is perhaps necessary to remind our friends from Solo that the innovations which they have been pioneering now for some time are becoming rather predictable. I am worried that if they are not able to produce something different from the form and style which they have already achieved, they themselves will become stuck in a new 'establishment'. Perhaps an alternative approach is needed which takes another road, or challenges this one which is already becoming settled. Only then will creativity be guaranteed . . ."

(Suka Hardjana 1982)

It may have been a mistake, in retrospect, to make komposisi a compulsory examination subject at ASKI. Being thus institutionalised, the prime objective became passing the examination, leading to a tendency to produce works in the "acceptable" style likely to please the examiner. This has certainly been a common complaint amongst the students. There was also often a feeling, especially after Pak Humardani died, that the situation had got out of hand and lacked a sense of purpose. When the art of composition had reached the stage of employing inverted bicycles, bouncing volley balls, glass plates, balloons, not to mention the orchestrated sounds of many krupuk being eaten noisily, the question of where all this was leading began to be heard.
By late 1984 both Supanggah and Hastanto had returned from their studies in Europe and a review of ASKI policy was under way. The general feeling seemed to be that too much emphasis had been placed on komposisi to the detriment of traditional karawitan studies. This was noticeable, for instance, in the generally poor quality and lack of understanding shown by some students in those sections of their compositions which made use of traditional forms and techniques. (Sri Hastanto was highly critical of several of the vocal sections supposedly in traditional style which he had analysed at my request). The immediate result of this re-think was that komposisi was no longer compulsory as a final examination requirement, but was to be only one of three possible options, the others being traditional karawitan performance, and something new (perhaps Suka Hardjana's suggestion, above, was prophetic in this respect) - the arrangement of a performance using traditional materials and sources but with new ideas of garap. The first person to graduate S. Kar. offering this new option was Prasadianto in December 1984.

The period of intensive and single-minded experimentation at ASKI thus now seems to be over, and like many such cathartic experiences, is likely to be followed by a period of consolidation which promises to be very productive.

This present study is thus rounded off quite neatly; nevertheless, many new questions are raised, suggesting innumerable lines of further inquiry. The most obvious of these are: How will the creative work at ASKI develop in the future? and What will the long-term effects of the ASKI experiment be on the tradition?

But also let us not forget all the other composers whose works
were performed at those important Young Composers' Week festivals - from Bali, Sunda, Sumatra, from Jakarta itself. How does their work relate to their own local traditions? Balinese music is clearly a major influence on Javanese karawitan, but how much influence is Javanese gamelan having in Bali? How do these diverse developments relate to each other and to the wider field of the traditional and modern arts in Indonesia today?

In Chapter 10.7 we saw how a young Sumatran composer, with a non-gamelan musical background, responded to the challenge of composing a new work for Javanese gamelan. From this it is a small step indeed to considering the multitude of new gamelan compositions created in the last few years by Western composers. For with over 100 groups in the USA alone, and growing traditions in Europe, Australia, New Zealand, and Japan, gamelan is now nothing less than a world music - a fact due to be confirmed in 1986 with the first International Gamelan Festival, which will be held in Vancouver. How do the ASKI compositions compare with the new works for gamelan coming out of San Francisco, Portland, New York, Amsterdam, Tokyo, Kyoto, Berlin, Sydney, Perth, London, York . . . ?

It strikes some people as not a little ironic that at a time when Westerners are increasingly drawn to gamelan and its music for the communal aesthetic, spiritual calm and artistic poise and refinement which it enshrines, the young inheritors of that tradition are increasingly moving towards Western ideals of originality, experimentation, and personal expression. Judith Becker paints a very bleak picture of what contemporary Western concepts of composition might mean for gamelan music:
"A musical composition which uses a private language will, in the West and in Java, sometimes be called crazy music. While part of us objects to such derision of serious effort, there is one sense in which the vulgar epithet is true. By speaking a private language - musical or otherwise - the individual has denied to his fellow men both communication and reciprocity. If as seems increasingly obvious, the elements of communication and reciprocity are what keeps our universe going, then the denial of them can be seen as a pathology. It is a pathology, however, deeply engrained in Western thought and closely allied to the desire for power and control. The modern composer of gamelan music has no constraints on what he can do. He need not be a transmitter of the musical system of his ancestors. He can be the absolute master over his own compositions. In the West this is called 'originality' and is given a high cultural value. Often, the price the artist pays for his originality is loneliness and isolation; the price we pay is separation from ourselves."

(Becker 1979a, 8)

I was once privileged to hear a very interesting comment from the distinguished Filipino composer and musicologist Jose Maceda on hearing some of the new compositions during a visit to ASKI. He had found that many young composers all over the Far East and Southeast Asia were producing very similar kinds of new works using sound textures and effects very much under the influence of the ideas of the Western avant garde, and usually resulting in the depressing kind of experience which might justify the fears expressed above by Judith Becker. Although such techniques were in evidence in the ASKI works, he found them far more engaging, with a marked inner strength - more exciting in fact than anything he had heard coming from the West itself. Now it cannot be denied that the Western (albeit filtered through Jakarta) concepts of composition and the
composer, with implied goals of originality and the finished work of art, have been taken up by the ASKI experimenters. Professor Maceda's delight is perhaps explained by the fact that the ASKI composers have adopted such concepts, but in doing so have changed them to suit their own requirements. This is not so surprising when we remember the flexibility and tolerance of traditional Javanese culture and the importance of syncretism throughout its history. The gamelan itself, with its unitary concept and communal structure ensures the survival of certain traditional values, and , as is so neatly expressed by Supardi (see p. 202), the young ASKI composers are students of the tradition and are still firmly rooted in it. Thus many of the new techniques which at first seem so radically new and avant garde in a very Western way, on reflection turn out to be logical developments of traditional techniques and concepts. The layering of different textures and sonorities is a perfectly understandable development of a musical system which has been described as "stratified polyphony"; and even the unrelated foreground/background type of layering could be said to have a precedent in the sirep, or soft playing of a gendhing acting as the background to the dhalang's narration in wayang kulit performance.

Even in such a simple thing as the way that thenotations of the examination works are laid out with separate columns for "notation" and "garap" shows that traditional modes of thought are not dead, only adapting.

Looking again at the crude models of the Western and the Javanese orchestral music processes given on page 21, we can see that the traditional garap-centred process has not been completely abandoned, neither has the composer-dominated process of the West been accepted
wholesale. Pak Humardani sometimes used to complain that his students lacked the strength of individualism and self reliance to be able to create an original work of quality. But perhaps the great achievement of the ASKI experiment lies elsewhere. The new compositional process described in Chapter 7, at its best, manages to temper the Western ideals with some of the most valuable features of the traditional system. The idea of "composition" has been adapted to allow for creative input by the musicians when the piece is being formed. The Western idea of "the finished work" as an independent product is absent, for the komposisi belongs to and is inseparable from its performers as much as it reflects their characters as well as that of their leader - the komponis. The feeling of "family humour" in ensemble playing so prized by Sindoesawarno (see p. 33), and the values of "totality", "cooperation" and even "play", regarded as "positive features of the tradition which must be developed" by Supanggah (see Appendix IIIii, paragraph [10]), do indeed form part of the new musical process. It is the sense of the joy of creation that informs the very best of the new ASKI works which came across so clearly to Professor Maceda, as it has done to me on so many occasions. But let us leave the last word to a Javanese musician, Hardja Susila, writing in a newspaper article on the 1985 Young Composers' Week:

"If there were such a term as 'naughty music' then a good example would be that which was presented by the 12 members of the contingent from ASKI Solo. I was frequently amused, frequently wanted to smack their hands, but never wanted to box their ears. The prospective master musicians who were led by Djoko Purwanto, Sukamso, and Supardi presented works of contemporary karawitan, but these young composers were not afraid also to present some
musical humour, not afraid of being considered artists who lacked seriousness. Besides exploiting several kinds of emotional feeling, they also exploited the gamelan instruments freed from the context of their traditional use. And this was carried out in a precisely calculated fashion. Not all the possibilities were used, for everything which went into their compositions had to pass through a rigorous selection process. Their compositions, entitled BONANG, SITER, and VOKAL, feature the pencon instruments, stringed instruments, and the human voice. Some sections of their works feel so sure-footed that the music seems to have existed for a long time, like something produced by our predecessors. Listening to their compositions, we need no longer associate modern or contemporary music with unrewarding musical experience. Their works are in no way the inferiors of Western contemporary works. Although the aspirations of these compositions are the same as in the West, their like is difficult or impossible to find outside Indonesia.

Of course, there is no ivory without cracks [i.e. nothing is perfect], yet BONANG, SITER and VOKAL were totally captivating, so that I didn't have time to look for the cracks, I was too busy enjoying the ivory."
"This music crept by me upon the waters,
Allaying both their fury and my passion
With its sweet air: thence I have followed it,
Or it hath drawn me rather. But 'tis gone.
No, it begins again . . ."

(Shakespeare, The Tempest, Iii)

As mentioned in the preface, my experiences at ASKI reawakened in me a desire to compose. The opportunity to try and put into practice some of the lessons I had learned in Solo came in 1983 when the English Gamelan Orchestra was invited by the Arts Council to undertake a tour of the U. K. presenting both classical Javanese repertory and new works by English composers (all of whom, with the exception of Michael Nyman, were members of the group).

We were most fortunate in having for that tour no less than five guest musicians from Solo - in fact, five composers whose names have appeared regularly throughout these pages - Rahayu Supanggah, Sri Hastanto, Al. Suwardi, Sukamso and Supardi. Not surprisingly, the temptation to compose something which would make use of their particular talents was not to be avoided. The work which I prepared for that occasion - Two Songs from 'The Tempest' - is presented here (Appendix V and Cassette IIIb (2)) as an expression of my gratitude to them and to all their fellow composers in Solo - not that it can match up to their fine works, of course, but I have a feeling that it might just be recognisable as being by an anak ASKI.