THAI TRADITIONAL MUSIC: HOT-HOUSE PLANT OR STURDY STOCK

by

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Introduction

The two main streams of musical style in Asia are represented by the music of India and the music of China. With India may be included Iran (Persia) and the Near East (the Arabic countries, Turkey, and, to a certain extent, Greece). The musics of these areas in Western Asia are characterized by having a highly complex modal system and a good deal of improvisation in performance based on the numerous modes.¹ The music of India seems to have had little, if any, influence on the musics of Southeast Asia. If there was influence through the Indian colonies in Southeast Asia around the time of the beginning of the Christian era, this influence seems to have long been absorbed and is scarcely traceable in the various musics of Southeast Asia today.

The influence of the music of China, whose culture is several thousand years old, spread northward into Korea and Japan, eastward to the Ryukyu Islands (Okinawa), and southward into Southeast Asia. Chinese music, in practice at least, has used a much simpler modal theory than Western Asian areas, involving fewer pitches than the Indian and Near Eastern musics, and is a composed music, as opposed to improvisatory,

 "Mode" may be defined simply as a pattern of intervals, an interval being the distance between two adjoining pitches. This pattern exists apart from music as a theoretical concept in the music system. Composers are more or less consciously aware of mode or modes when and as they compose. It is the particular mode that is used as the basis of a composition or part of a composition that gives the music its "mood." The Western major scales are actually the major mode starting on different pitches. Starting on C, the modal pattern is represented by C D E F G A B C, and the intervallic pattern is: TTSTTTS, where T=a tone or whole step, and S=a semitone, halftone, or half-step.

Of all the Southeast Asian musics Vietnamese music is the most related to the Chinese, at least instrumentally: Vietnamese instruments are basically Chinese derived; the Vietnamese never adopted the melodic percussion instruments so characteristic of Southeast Asian ensembles.

Superficially, and probably at some depth, the musics of Laos, Cambodia, and Thailand are similar, if not identical. The peoples and cultures of these three areas have been intermingled for at least seven hundred years, and it would be surprising if there were not great similarities. Following the floral imagery of the title of this article, the musics of Laos, Cambodia, and Thailand might be likened to three blossoms on the same stem: though there may be slight differences in shade of color and size, they are of the same species and are on the same stalk. Using family terminology, they might be called sister musical cultures-even triplets. Burmese musical instruments are related to those of Laos, Cambodia, and Thailand, but the music is somewhat different; it is a different variety of the same species-a cousin to the triplets.

The musics of Java and Bali are related to the mainland instrumentally and in the style of the musical texture of the ensemble music (to be discussed shortly). Probably because of the isolation of the islands preventing rapid communication and inter-influence between the islands and the mainland, these musical systems developed somewhat differently from the "triplets"; they are perhaps cousins on the other side of the family. The high development of the modal system of Java relates the music, aesthetically at least, more to India than to China, but the raw material of the Javanese modal system is relatively simple -pentatonic, as in China - and it is the practical use of the modes, rather than the number of modes, that is complex.

The musics of Southeast Asia-Burma, Thailand, Laos, Cambodia, Java, and Bali-however we may wish to interrelate them, florally or as relatives, do belong to one basic musical family, and they have all been called collectively the "gong-chime cultures". The instrument in these cultures giving them this name is a set of tuned gongs placed horizontally on a rack-called by most of the older writers a "gong-chime" and by contemporary ethnomusicologists, a "gong set" or "set of gong-kettles." These cultures also use xylophones (wood bars on a stand) and metallophones (metal bars on a stand), as well as flutes and double-reed wind instruments, stringed instruments, and rhythmic percussion instruments (drums, gongs, and cymbals), many of which are very similar.

The modes in the mainland areas are, like those of Java and Bali, basically of five pitches, as are the Chinese modes.

The style of the texture of the music has been termed "polyphonic stratification"². "Polyphonic" is used here in its basic meaning of "many-voiced" or "many lines of music"; "stratification" indicates the strata or layers of sound that occur in ensemble music. The term describes the practice here in Southeast Asia of combining simultaneously a main melody (also called "fixed melody" or "nuclear theme") with versions and variants of itself. The musical texture, therefore, consists of one main musical idea accompanied at the same time by different versions of itself-a many-dimensional musical texture, but created out of one musical idea, in contrast to the onedimensional effect produced by a simple melody supported by a harmonic accompaniment, however simple or complex that accompaniment might be, as found in such Western music as accompanied songs (piano, guitar, or orchestral accompaniment, for example) and other homophonic types. Polyphonic stratification differs from Western polyphony of the eighteenth century, as found in the music of Bach and Handel, for example, in that in Western polyphony the lines are intended to be relatively independent of one another, but combined in such a way that they form an intelligible underlying harmonic structure or harmonic progression. There is a type of "harmony," in the basic meaning of the term : "simultaneous pitches", in the polyphonically stratified music of Southeast Asia (as will be discussed shortly), but it is not the same type as the Western harmonic system

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²⁾ This term was coined by Dr. Mantle Hood, Director of the Institute of Ethnomusicology at the University of California at Los Angeles, to describe the musical practice of the gamelan of central Java, but the term may be used equally well to describe all the musics of the Southeast Asian gong-chime cultures.

of chords and chord progressions. The Westerner, then, in order to understand and appreciate the musics of Southeast Asia (actually, all the musics of Asia), must re-orient his listening procedure to a linear, melodic, or horizontal approach instead of the generally vertically, harmonically oriented one to which he has been conditioned.

Let us now turn to the music of Thailand itself.

The Fundamentals of Thai Traditional Music

The "raw material" of Thai music, that is, the basic pitch material, may be discussed under three main headings, from the general to the specific: tuning system, modes, and scales.

Tuning System : The octave is divided into seven equal parts, producing a seven-pitch equidistant tuning system. The distance between any two adjoining pitches is about an eighth of a Western whole step less than a Western whole step: that is, for example, the Thai interval is greater than a Western half-step (C to C \ddagger , for instance), but less than a Western whole step (C to D). The fourth and fifth Thai steps (from any beginning pitch, forming an interval with the lower pitch) are about the same as the Western intervals of the 4th and 5th, but the Thai 2nd, 3rd, 6th, and 7th intervals differ noticeably from the Western intervals of those names (for a brief discussion of "interval," see footnote 11).

An equidistant tuning system is found in no other high-art music in Asia.³ Since there is no documentation of the development of Thai music in any extant records, it is impossible to know definitely what factors led to the evolution of an equidistant tuning system. My speculation is that since Indian influences are observable in the architecture and sculpture of the early Indianized colonies, from the coast of Southeast Asia inland to the Khmer capital at Angkor, Indian

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³⁾ Javanese slendro tuning (five pitches to the octave) was thought by some of the older writers to be an equidistant system, or, if not exactly equidistant, of equidistant intent, but later research has shown this not to be so. The use of the pitches in the different slendro modes (that is, their hierarchy, based on the amount of emphasis given each pitch) and the procedure of the music itself indicate the intention for nonequidistance.

influences may also have been present in the music. The music systems of these early cultures may have had more developed modal concepts or a greater variety of modes than Chinese music of the same period. We know nothing of the actual music of the Khmer at Angkor (ca. 800-1450); there are only the carvings of instruments on some of the remaining stone temples and monuments. The Khmer used numerous stringed instruments, including harps, wind instruments (most likely flutes, but also very probably a double-reed wind instrument), and percussion instruments such as gongs, cymbals. and drums. They had at least the beginnings of a gong-chime ensemble, for among the carvings on Angkor Wat is an eight-kettle gongchime in a rack shaped in a slight arc, apparently carried on shoulder straps in front of the player like a tray. No xylophones or metallophones, however, are represented in the carvings at Angkor. Equidistant tuning may have been achieved by the Khmer, or a preceding mainland culture, in an attempt to rationalize or combine into one tuning system the possible numerous Indian modes that may have come to these cultures in Southeast Asia.⁴ Or the Khmer may have had a tuning system different from the Chinese and/or Thai, and when the Thai migrated southward and came into contact with, conquered. and absorbed much of the Khmer culture, an equidistant tuning may have resulted from the blending of the two different tuning systems.

At any rate, however the equidistant tuning originated, all seven pitches are not used in a Thai composition with equal emphasis, and the modes are essentially pentatonic in Thai music. The process of "modulation" to other pitch levels demanded equidistance in the Thai system in the same way that the evolving harmonic system in Western music caused the twelve-pitch equidistant system to be devised and firmly established in Europe in the eighteenth century.

Modes: The Chinese modal system consisted (and still consists) of five modes, one beginning on each pitch of the pentatonic tuning:⁵

⁴⁾ The Indian raga (modal) system is thought not to have developed to its fullest extent until some time after the Khmer period. However, as we are speculating, we may also speculate that the basic elements of the Indian raga system were coming into existence much earlier than the final developments in raga and may have been taken to Southeast Asia.

⁵⁾ Chinese theory often dealt with a more complicated system of modes, but in practice, based on the extant music, most of them seem not to have been used.

In cipher (number) notation (see footnote 11)]		quivalent ern pitche	
Mode 1:	123	56	1		CDE	G A	С	
Mode 2:	23	56	12		DE	G A	C D	
Mode 3:	3	56	123		Е	G A	CDE	
Mode 5:		56	123	5		G A	CDE	G
Mode 6:		6	123	56		Α	CDE	G A

This modal theory seems to be the basis of the Thai modal system also. Not all five modes, however, are used in Thai music with the same frequency. Mode 1 is by far the most-used mode. Modes 6 and 2 occur with some frequency, but modes 3 and 5 are rare. Other elements than a clearly defined and organized modal system have seemingly taken precedence in Thai music, eliminating the need for a complex modal system, or causing whatever modal concepts the Thai brought with them when they emigrated from southern China, and possibly came into contact with in Khmer music, to have disintegrated and devolved.

Scales :⁶ There are two styles of Thai music, what I have called the "Thai style," and the "mon (uon) style." Thai style involves clearly pentatonic scales (actually synonymous with the mode) with or without the use of the other two available pitches (4 and 7) as passing tones or ornamental pitches. A typical passage might be as follows:



6) "Scale" here is defined as all the pitches in one composition placed in arbitrary ascending or descending order. This definition clearly differentiates scale from mode (a pre-existing theoretical concept) as existing only after a specific composition exists - that is, it can exist (according to this definition) only by being extracted from a specific composition. For example, "The

Star-Spangled Banner", if notated in the "key of C", is technically in the major mode (Ionian) starting on pitch C:



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(N.B. For an explanation of the cipher notation underneath the staff, see footnote 11. Lines above numbers equal flags and beams.)

Mön style uses a scale of six pitches, even all seven pitches; the result is a nongapped type of scale-more diatonic in feeling, particularly in passages such as the following:



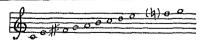
Mode will be discussed further shortly.

Melody: Thai melodies are largely diatonic, that is, without skips or leaps. In the pentatonic pattern: $1\ 2\ 3\ 5\ 6\ 1$ (very similar to the pattern of the black keys on the piano: $G^b A^b B^b D^b E^b$ G^b), 3 to 5 and 6 to 1 are not leaps, as these "gaps" are in the basic scale and/or mode: the step above 3 is 5, and the step below 1 is 6. The leap of a 3rd (only possible between pitches 1 and 3) and the leap two steps away across one of the "gaps" and turning back in the opposite direction are common:



All other leaps are rare and vare used only in specific circumstances, such as a change of register (shift to a different octave) between phrases.

The scale, however, is :

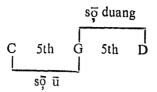


Pitches 2 and 4 in the lower register are not used in the composition, and high 4 (F#) is a nonmodal pitch used as a passing, decorating pitch. In the higher register the regular modal step 4 (F natural) is used. (N.B. I am speaking of the melody only of this song.)

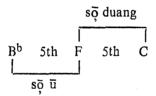
Pitch Levels: In Western music when tonal concepts replaced the old modal ones in practice, it became the custom to refer to the position of the major or minor mode as the "key" (or tonality) of the beginning pitch-the "key" of C major, the "key" of f minor, and so forth. In Thai music there is no comparable terminology, but as I listened to the music when I was in Thailand studying it in 1958-1960, it became clear to me that certain pitches were used more than others as pitch 1 of a mode or scale. In order to have terms to describe and talk about this, I devised the following system of "pitch levels," based on the tunings of the strings of the two-stringed instruments (so duang ขอด้วง and so บ ขอด้) and the pitch levels traditionally associated with the double-reed wind instrument (pi ป) and the bamboo flute (khlui udu). Since the pi is the wind instrument used with the pi phat (ป้พทซ์) ensemble, probably the principal Thai ensemble, I chose to call the pitch level at which a great many of the compositions for the pi phāt occur, "pitch level I." (These compositions, in suites called ruang they, are also the oldest compositions in the repertoire.) This pitch level is notated as the key of G in the manuscript collection of the Department of Fine Arts (notated in Western notation⁷). The ensembles with stringed instruments and flute (mahori wind and khruang sai (nano) play compositions that would be played by the pi phat at pitch level I one pitch lower, notated as the key of F-pitch level VII.

Many compositions are played at the levels a 5th below these: C (pitch level IV) and B^b (pitch level III). When the stringed instruments play compositions at the C level (and occasionally if one is used with $p\bar{p}$ ph $\bar{a}t$ for special use, at the G (I) level), the two-stringed instruments are tuned as follows, in what is called "kruat" (nrow, hard) tuning:

⁷⁾ Notating Thai music in Western notation for preservation, illustration, or for whatever purpose, works very well. There are seven pitches in the major mode and seven pitches in Thai tuning, therefore it is a simple matter to use a conventional Western mode (scale) to represent the Thai pitches, provided that one also keeps in mind that the intervals are not Western, but Thai. Accidentals are used (F‡ in the key of G, B^b in the key of F, for example) only to help keep in mind the key (pitch level) and tonic pitch and the function of the pitches with the accidentals (pitches 4 and 7, for example).



At the flute level (key of F, VII) the stringed instruments are tuned as follows, in what is called "phiang $\overline{\rho}$ " tuning (induson, soft tuning; "phiang $\overline{\rho}$ " is part of the full name of the medium-sized flutekhlui phiang $\overline{\rho}$):



These four levels seem to be the most used pitch levels in Thai traditional music. Putting them in order :

Bp	С	F	G
III	IV	VII	I

it is clear that there are two general pitch areas: high and low, and that there are high and low levels in each area. Therefore to have terms for these, I borrowed from the tunings for the stringed instruments and have called G and F (I and VII) "high kruat" (abbreviated: HK) and "high phiang \overline{q} " (HP \overline{q}), respectively. The lower pitch areas become, then, "low kruat" (LK) for C/IV, and "low phiang \overline{q} " (LP \overline{Q}) for B^b/III.

In practice a number of compositions are played at the VI/E (E^b) and II/A (A^b) levels.⁸ I have not given these levels specific

8) Since there are no "half-steps" in Thai tuning, there cannot be both E and E^b, for example. The choice of which "key" to use for notation depends on the intent of the shift ("modulation"), and the 5th relationships. For example, if a composition started in III/B^b and shifted down a 5th, it would be appropriate to notate the new level as E^b, a 5th from B^b, to show the 5th relationship. If the music shifted down another 5th, it would be appropriate to notate in G, shifted to D (an ascending 5th), and then shifted again to the 5th above D, it would be appropriate to notate the new level as A^b.

names, but they are considered phīang $\overline{0}$ tuning/pitch levels. The instruments, having equidistant tunings, can, of course, play in any of the seven levels, and, indeed, in many compositions, particularly in the old suites (rūang), there is a good deal of shifting to pitch levels other than the starting one, including the less-used levels, II and V. Since the shift does not necessarily mean a change of mode, but merely shifting the mode to another pitch level, I have borrowed from Tran Van Khe, the authority on the music of Viet-Nam (where a similar practice occurs), the term "metabole", which he borrowed from the ancient Greeks, to describe this practice.⁹

There are no apparent regulations concerning the level to which the music can shift from any given level. As one might expect, a shift (metabole) to a position a 5th away (G to D ascending, G to C descending, for example) is frequent (as it is in Western "modulation"). However, particularly in the old suites mentioned above, a metabole to an adjoining level, that is, a diatonic metabole (G to F, for example) sometimes occurs and often is quite abrupt.

Metabole may be accomplished in two ways: 1) by the "pivot pitch" (comparable to the pivot chord in Western conventional harmonic modulation): a functional pitch in one level becomes a different functional pitch in another level:



9) "Modulation," in Western music, has come to be concerned with changes of key rather than changes of mode, which, according to the basic meaning of the word, it should refer to. That is, a movement from C major to c minor, or F major to d minor, would, strictly speaking, be modulation. Changing from the major mode on C ("key of C major") to the major mode on F ("key of F major") is not, strictly speaking, modulation, but rather, metabole. 2) by use of the passing pitch 4 or 7: pitch 4 or 7 (as a nonmodal pitch) in one pitch level becomes a functional modal pitch in another level:

a) using pitch 4:



b) using pitch 7:



These last two methods (2a and b) can also work in reverse: a functional modal pitch can become a passing tone 4 or 7 in another level.

Meter and Rhythm: In the traditional music, meter is always dupletwo or four pulses per "unit". ("Unit" here means whatever grouping is being considered: one measure, two measures, four measures, two lines, four lines, etc.) The meter is marked off and indicated by the ching (\vec{n}_3) , the small hand cymbals. There are three basic patterns, which also indicate form:

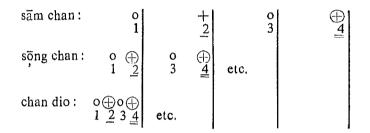
sām chan (สามชั้น):	0		+	ļ	0		\oplus
song chan (สองขั้น):		0	Ð	0	\oplus	0	\oplus
chan dio (ชั้นเดียว):		• •	⊕ o	• 🕀 o	⊕ ₀	⊕ 0	\oplus

N.B. The space between vertical lines is comparable to a 2/4 measure in Western notation. The other symbols are as follows:

o = undamped, unemphasized strokes

- + = damped, emphasized strokes
- \oplus = damped stroke, emphasized, and gong (if one is used)

For ease in reading for the Westerner, the main strokes in the diagram above (and in Western notation) have been put on the downbeat—the first beat of the measure. However, in the gong-chime cultures of Southeast Asia, in their basically linear (as opposed to harmonic) music systems, the strong beat comes at the end of a group, not at the beginning, as it appears to be in Western notation. The emphasis in Western music is: 1 2 3 4 (in duple meter), a strong pulse on the first beat, a secondary accent on the third beat. In Southeast Asia the pulse pattern is: 1 2 3 4, a secondary accent on 2, the strong accent on 4 of each group. The pulses of the Thai metric patterns, then, actually fall as follows:



Rhythms in the main melody are simple. More complicated rhythms are found in some of the variation parts in the ensemble music, such as those of the ranat thum (reunny) and ranat thum lek (reunny), and in the drum patterns. Virtuoso solos are more intricate, both melodically and rhythmically, than are the ensemble compositions.

Harmony: In the basic meaning of the word-simultaneous pitchesthere is a type of harmony in the ensemble music of the gong-chime cultures, an essential element of the polyphonic stratification mentioned earlier: all parts converge to the unison or octave at structural points in the music, ¹⁰ these points coinciding with certain damped

¹⁰⁾ In high-art musics, rules and regulations are rarely followed slavishly, but are varied artistically and aesthetically. So in Thai music the so-called rule discussed here is varied by sometimes having the instrumental part anticipate the unison or octave, or delay playing it until slightly past the beat, or even ignoring it at points of secondary emphasis, playing ornamental passing tones. At the primary points of emphasis, however, particularly those involved in establishing the modal feeling, the unison or octave is usually closely adhered to.

strokes on the ching (indicated by + and \bigoplus). These are points of maximal consonance, resolution, or relaxation in the combination of musical lines. In between these points the instrumental parts diverge, according to the idiom of the instrument, to maximal dissonance and tension. By alternating linear tension and resolution, the music drives forward and "breathes"; this is the motor power, so to speak, as the system of harmonic chordal progressions is the motor power of Western harmonic music. To "hear" the ensemble music of the gong-chime cultures correctly and to the best advantage, the listening process must be more linearly or melodically oriented, rather than vertically oriented, as the Western listening process is primarily.

The pattern of emphasis in the music of the gong-chime cultures also has as a characteristic the increase of tension toward the end of a phrase-the point of strongest emphasis being on the final pulse, whatever the length of the phrase-at which point the tension is released by unison or octave playing (refer again to footnote 10). Thus in considering phrases of various lengths, the pattern $1 \ge 3 \le 4$ may be superimposed over the phrase to indicate which pitches are structurally important. For example:

one phrase:	1 2 3 4	(N.B. Numbers here refer
two phrases :	-1 - 2	to beats, not to pitches.)
	<u> </u>	
four phrases :	1	
	2	
	3	
	4	

The modal implications in Thai compositions are indicated by the pitches that coincide with these structural points. In most, if not all, musical systems the interval of the 5th is basic.¹¹ The Thai music system is no exception; pitches a 5th apart are frequently paired. I have called these "5th polarities". Many of the structural pitches in compositions (that is, those pitches occurring at structural

¹¹⁾ For readers who may not be acquainted with the musical concept of interval and the system of number names given them, the following is a brief explanation. Intervals have been named by Western musicians according to numbers based on the seven-pitch conventional modes (scales). The use of numbers to indicate pitches is called "cipher notation". The "C major scale" may be shown in cipher notation as follows:

points, as shown in the diagram above) are a 5th apart: 1-5, 2-6, 5-2, and 6-3. Since pitches 4 and 7 are not in the pentatonic modes, 3-7 and 4-1 do not occur. The prevalence in the music, however, of the 1-3 and 3-1 polarities suggests that in the ascending 5th, 3-7, pitch 1 is substituted for pitch 7, resulting in the 3-1 polarity, and in the descending 5th, 1-4, pitch 3 is substituted for pitch 4, resulting in the 1-3 polarity.

Following the pulse pattern of accented pitches shown above, the following patterns of pitches falling on structural points are frequent in Thai traditional music:

secondary primary						
a	ccent	8	ccent			
	\downarrow		\checkmark			
1	3	3	1			
3	1	1	3			
2	6	6	2			
6	2	2	6			
3	6	6	3			
5	2	2	5			

(N.B. Each line here represents one phrase. Ciphers represent pitches.)



The intervals occurring between tonic (beginning) pitch 1 and the other pitches are named according to the higher pitch:



An interval will be known by these names wherever that pattern occurs in the tuning system; for example, in Western tuning and notation, the following intervals are all 5ths:



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Patterns not involving 5ths are also found: 1 6 5 3, 1 2 2 1, 5 3 3 5, 5 3 2 1, for example. These varied patterns are usually found as phrase 3 of a 4-phrase pattern (the phrase of secondary emphasis in the 4-phrase pattern), less often as phrase 1, since the first phrase must establish the "tone" or "mood" and is inclined to be regular. Sometimes the last phrase of the 4-phrase pattern will also be a varied one because the final cadence, usually covering the last two ching beats, may be more important than the full phrase of stuctural pitches.

An example of a 2-phrase unit might be:

6 2 6 (2) \leftarrow secondary accent

5 1 1 $(5 \leftarrow \text{primary accent})$

and one of four phrases might be:

1 6 5 3 1 3 3 (1) \leftarrow secondary accent 2 6 6 2 1 5 3 (1) \leftarrow primary accent

The final pitch of a section is the cornerstone pitch of the section, indicating the basic mode, and is supported at previous points of secondary emphasis by related pitches.

Often one pitch of the five available pitches is avoided on points of emphasis and consequently receives what might be called "emphasis by omission."¹²

Form:¹³ Forms in Thai traditional music are few. They are indicated basically by the ching pattern that underlies the music. The ching patterns: sām chan, sõng chan, and chan dio, previously discussed, may

¹²⁾ This avoided pitch in Javanese music has been termed the "enemy tone" or "enemy pitch."

¹³⁾ By "form" is meant the interrelationships of the parts or sections of a composition. The number of possible basic forms is, interestingly enough, rather limited, and probably all possibilities have been tried somewhere on earth, at some time, in some way or another. One can diagram forms by using capital letters for the principal sections (and small letters for subsections, if desired), different letters for sections that differ, the same letter with prime marks or numbers (that is, A', A'', A''', etc., or A¹ A² A³, etc.) for repetitions or near repetitions of previous sections.

The oldest compositions in the traditional Thai repertoire are those in the old rūang (suite or medley). Compositions were combined into a rūang on the basis of their general similarities: their ching pattern, their style and atmosphere, or their names, for example. The "ideal" rūang had three divisions: "slow" tempo (phlēng chā iwasti), "two-beat" tempo (song mai aradiu), and "fast" tempo (phlēng reo).

If a composition is different all the way through, it is called "through-composed". Many art songs, vocal works, and descriptive and programmatic piano and orchestral works are through-composed. This would be diagrammed: A B C D E etc.

If after a section of music a variation of it occurs and variations continue to occur, it is called the "variation" form and may be diagrammed: $A A^1 A^2 A^3 A^4$ etc.

At any point in composing the composer may repeat the same material (or vary it slightly) or compose something different, returning or not returning to previous material. The best-known forms involving new material with or without returning to previous material are:

- A B, commonly called "binary" form; that is, two parts
- A B A, commonly called "song" form, or "ternary" form (three parts), or "simple rondo" form
- A B A (or A¹) C A (or A¹ or A²), called "rondo" form; this form may contain as many contrast sections as desired.

These forms involving a contrasting section or sections can be varied infinitely. For example, the so-called "sonata-allegro" form is an elongated ABA; many popular songs are in simple song form, ABA, with the first A repeated : AABA, which can also be diagrammed as A (aa) BA, while other songs are in the simple rondo : ABAC, often with a hint of A at the end of the C section.

All compositions can probably be subsumed under one of these basic skeleton diagrams. Actually, form is also based on a polarity : samedifferent; at any point, what has gone before can be repeated, or something new can be presented. Melodically this is true also, from the single pitch to the section or movement. Not all $r\bar{y}ang$ were "ideal," however; some are in only one tempo, some have two tempos. The compositions in the $r\bar{y}ang$ are all (or at least all but those in the fast division) considered to be in 2-chan form even though the three ching patterns occur, one for each tempo, when these compositions are used as the bases for new compositions.

The compositions in the ruang are basically sectional. Sections are usually repeated, and a composition generally has several sections. Rarely, however, does a section return. Therefore these ruang compositions are mostly large through-composed compositions. Great variety in length is to be found: a few are of only eight measures; one of the longest is over six hundred measures.

About the time of the latter part of the reign of King Rama III and the beginning of the reign of King Rama IV (ca. 1840-1860; or perhaps earlier-there is practically no documentation for this), the idea occurred to musician-composers to enlarge these old compositions (in 2-chan form) by doubling their length. The result was called "3-chan," and it was probably at this time that this term originated.

Basically, the enlarging was done by retaining the pitches of the 2-chan on the important structural points (the \oplus strokes of the ching), but putting them twice as far apart and then filling in with new material in the style of the original composition. When this technique was first developed, there was a tendency on the part of the composer to disguise his new composition so that no one could guess on what 2-chan it had been based. So in these early 3-chan compositions a good deal of ingenuity was used, such as cutting down the original (using only part of it), adding to the original, putting in musical "tricks," moving the accented beat to a different pulse, giving the new composition a name very different from the original, and so forth.

Later when there was a great increase in the number of royal households (King Rama IV and King Rama V each had some sixty

children), many of which had their own ensembles, these ensembles often competed in friendly rivalry with these 3-chan compositions. This led to a great deal of composing and often a good deal of intrigue when one ensemble tried to discover what a rival ensemble was going to use for the basis of a new composition for a coming competition. This also led to much disguising of origins as formerly. Once the composition had been played, however, and the outcome of the competition was decided,¹⁴ the origin of the new composition could be disclosed, and it could be played freely. Probably in the second half of the nineteenth century during the reign of King Rama V, the technique began of reducing the 2-chan to one-half its length. called chan dio, in a way the reverse of the enlarging process to 3chan. Then all three parts-3-chan, 2-chan, and chan dio-were played together as one unit, a kind of variation form (A A¹ A²), called thão 15

The thảo form as the Thai musicians developed it seems unique to Thai music and is probably the principal artistic high-point in the development of Thai traditional music. A detailed analysis of one section of a typical thảo composition will illustrate the basic features of the form and technique as well as offer an opportunity to illustrate again the principles or fundamentals of Thai traditional music briefly explained at the beginning of this article.

- 14) The competition centered around figuring out the origin of a new composition: if the rival ensemble guessed the origin of the new composition that the other ensemble played, it "won," and the performing ensemble "lost face." And vice versa.
- 15) thǎo (rising tone; (11)) in Thai means "a set of something in gradated sizes" and is a very appropriate name for this variation form, as will be seen in the following discussion. The word must not be confused with thâo (falling tone; (11)), which means "equal to" and is used musically as a term to describe a fill-in phrase in the music to prolong and sustain a pitch. This will be discussed and illustrated in the ensuing analysis.

An Analysis of "Khamen La Q Ong" Thao (Section 1)

เขมรถะออองค์ เถา

(composed by King Rama VII about 1930)

Before starting the analysis, a few more terms that will be used must be explained.

In discussing the that form, it is easier to refer to 3-chan, 2-chan, and chan dio as the "extended version," "middle version," and "short version," respectively.

In order to be able to refer to parts of Thai compositions by terms that were not Western or that did not refer to notation, I coined the following two terms:

1) "Phrase-unit". This term refers to a group of pulses (beats) ending with an important emphasized structural pitch. The term grew out of my examination of many extended versions (3-chan) in which the (-) stroke of the ching/gong is the important one in a group of four ching strokes. Therefore the music with the three ching strokes leading up to and ending with the \oplus stroke (the fourth stroke) is a "phrase-unit" in the extended version or 3-chan (and also in the slow division of the ruang). In the accompanying notation, one line of notation of the extended version is presented so that the (+) stroke falls as the last beat of the line. The bar-lines are, however. according to Western notation. Therefore the first measure of each line is incomplete in the notation (being part of the last measure of the preceding line), but the phrase of Thai music ending with "o" or "+" ching strokes (in extended version) is a complete unit; each line of notation has, then, in extended version, four units (or subphrases) of Thai music with the strong pulse (\oplus) on the last beat of the line. This is one phrase-unit in the present terminology. The same is true in the middle and short versions, except that phrase-units become one half as long as in the preceding version: in the middle version a phrase-unit is two measures of notation, and in the short version, one measure. But there are the same number of phrase-units in each version : eight, in this composition. The music is notated with four

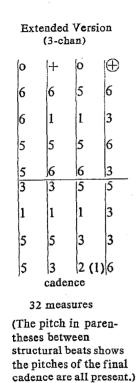
measures to a line in all three versions, however, so that the proportionately decreasing lengths-thirty-two measures, sixteen measures, and eight measures-will appear clearer on the printed page.

2) "Phrase-block." In a majority of Thai compositions the number of phrase-units in a section is divisible by four, because of the system of emphasis: $1 \ 2 \ 3 \ 4/1$

2 3 4

I have, therefore, called a group of four phrase-units a "phrase-block". When the structural pitches are put in rows separately, they give the appearance of a block, as can be seen in Figure 1. (The ciphers of the structural pitches have also been added to the notation for each + and \oplus ching and ching/gong stroke for cross-reference.)

ŻÒ



"Khamen La O Ong" thảo (Section 1) Middle Version Short Version (chan dio) (2-chan) $0 \oplus 0 \oplus 0 \oplus 0 \oplus$ 6 6 6 6 1 3 6 12 3 (3) (5) 6 6 (3) 1 3 5 1 3 (2)13 5 2(1)6 3 cadence cadence 16 measures 8 measures (Ciphers in parentheses on structural beats indicate that the pitch was first sounded on a nonstructural beat and

THAI TRADITIONAL MUSIC : HOT-HOUSE PLANT OR STURDY STOCK

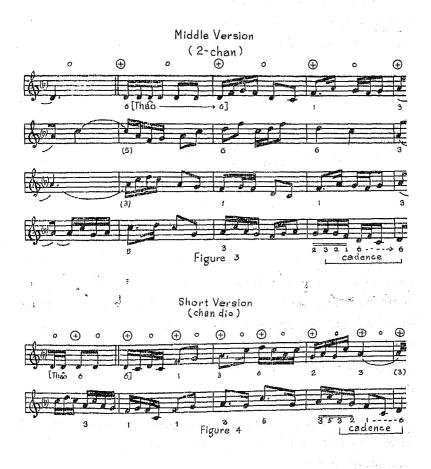
sustained into the structural beat.) Chart of the structural pitches.

Figure 1.

 $\hat{\mathbf{2}}_{\mathbf{1}}$



Figure 2



against start was to stra

Let us now turn to Section 1 of "Khamen La \overline{Q} Ong" and analyze it in some detail.

The features of this composition corresponding to the fundamentals of Thai music discussed previously, except for mode (which will be discussed shortly at some length), may be summarized briefly:

Scale: 123 56; pitches 4 and 7 are not used as passing or ornamental pitches. Because of the word "khamēn" in the title, we know that the original melody was Khmer or Cambodian ("khamēn" is the Thai pronunciation of "Khmer"), for it is a Thai musical tradition to include in a title of a composition based on a melody borrowed from a neighboring culture the name of that culture. We may assume, then, that Khamēn and Thai style are similar in that, at least, they both use the basic 1 2 3 56 pentatonic scale/mode pattern.

Melody: The melody of this composition is almost entirely diatonic. There are some leaps of a 3rd and some of a 4th, most of the latter turning back in the opposite direction from the leap. There is one leap of a 5th in the extended version in measure 14 between pitches 6 and 2 (a 5th polarity): pitch 2 follows pitch 6 and begins an ascending passage back to pitch 6; the phrase is an ornamental extension of pitch 6.

Pitch Level: "Soft", befitting the modal quality, discussed below. I have notated the section in $HP\bar{Q}$ (VII), though the composition is often played at level VI.

Metabole : None.

Mode: I have chosen this composition for this brief analysis because the modal implications in it are very clear and straight-forward. In analyzing more complex Thai compositions, the principles are the same, only the intricacies are greater. Let us look first at the middle version of "Khamēn La $\overline{0}$ Ong," the original composition from which the extended and short versions were made. The beginning pitch of the section (as well as the complete that) is pitch 6, stressed by its extension by means of a that $\overline{6666}$ $\overline{66}$ | 6. The section (actually both Sections 1 and 2 of all three versions, thus the complete that) ends on pitch 6. The last phrase-unit is:

In Southeast Asian music of the polyphonically stratified type, final cadences¹⁶ usually consist of four pitches in descending order,¹⁷ with or without additions or extensions. The final pitch of the cadence is often an indicator of the mode. For example, in Mode 1, the cadence would be 5321, in Mode 2, 6532, and so forth. In this section since pitch 6 is the final pitch, the corresponding cadence would be 3216. Examining the last phrase-unit, we find the last half of the unit starts with the cadence 3216, which is extended by its lower neighbor, pitch 5, to a final pitch 6. The first half of the phrase-unit begins with the cadence 5321 extended to

- 16) A cadence is a standard formula (melodic, harmonic, rhythmic, or otherwise) that comes at the end of a phrase, period, section, movement, or composition (or any other musical unit) to signal a temporary pause in the musical activity or a final conclusion.
- 17) Physical characteristics of an instrument may disrupt this, as in the case of Javanese instruments. The saron, carriers of the nuclear theme or fixed melody, have an octave or less of keys. Some of the cadential formulas are "broken" because the final part of the cadence has to be played in the same register as the beginning, when it would be played in a lower register if the lower register were on the instrument. For example:

pélog tuning: 1 2 3 4 5 6 7

On the saron, which have only seven metal keys, one for each pitch of the tuning, and all within one octave, the profiles of the cadences are as follows:



pitch 3 and then to pitch 2, which falls on the penultimate \oplus stroke. The 5321 inner cadence might be considered to support partially the 3216 cadence as it is the same pattern one step higher, but it is probably used more for contrast (if it is not merely a diatonic approach to the final cadence) because pitch 1 is not emphasized and the phrase proceeds quickly to pitch 3 (a 5th polarity above pitch 6) and on to pitch 2 (a 5th polarity below pitch 6) on the \oplus stroke of secondary emphasis in the phrase-unit. Looking at the extended version, we find the phrase-unit has been retained exactly as the last half of the phrase-unit in the extended version. In the short version the two subphrases of the last phrase-unit of the middle version have been $\bigoplus \bigoplus \bigoplus \bigoplus$ collapsed into: 532 1 56. The two cadences, 5321 and 3216, have

collapsed into: 532 1 5/6. The two cadences, 5321 and 3216, have been combined, and pitch 5, which was previously the lower neighbor between two pitch 6's now is merely inserted into the 3216 cadence.

Let us look next at the structural pitches in the rest of the section to see if they support the classifying of this section as being in Mode 6. In the middle version the pitches at the end of the phraseunits are those in the columns with arrows above (see Fig. 1). They are:

phrase-block 1 $\begin{cases} 6 & 3 \\ 6 & 3 \\ \hline 6 & 3 \\ \hline 6 & 3 \\ \hline 6 & --- \\ \hline 8 & --- \\$

In the first phrase-block the polarity 6-3 occurs twice; 6-3 is the reverse position of the 3-6 polarity in the last phrase-unit. The penultimate phrase-unit in a phrase-block is often the one in which the most deviation (for contrast) occurs. Here, we find the polarity 1-3, the other polarity including pitch 3. Two conjunct polarities, then, supply the modal "backbone" of the section :

$$\begin{array}{c} \text{pitch } 1 \\ \uparrow \\ \text{pitch } 3 \\ \hline \\ \text{pitch } 6 \end{array} \right\} 5 \text{th} \\ \begin{array}{c} \text{5th} \\ \text{modal center} \end{array}$$

The technique of enlarging 2-chan to 3-chan is basically to spread the ching strokes twice as far apart—one per measure (of Western notation) instead of two per measure, and for the structural pitches on the \oplus strokes (of the 2-chan) to remain the same (the first \oplus of the middle version phrase-unit becomes merely + in the extended version). The composer must then expand the melody to occupy twice as much time (space, in notation), and it must be in the same style as the original. The reverse takes place in making the short version from the middle version—everything is cut down to half the length; only the essentials remain.

An examination of Figure 1 shows that this process has been carried out in this composition: the 6-3-6-3 of the first phrase-block in the middle version become the \oplus pitches in the extended version. This composition is even more highly integrated, for in the first phraseblock of the extended version, the composer also retained on the + strokes the pitches on the secondary \oplus strokes in the middle version. The second phrase-block varies slightly because in the extended version the composer enlarged the middle version by using a set of "question-answer" (or "echoing") phrases (stated by the ranāt ēk neumaten, the nominal "leader" of the ensemble, then answered by the ensemble)¹⁸ of decreasing length :

565 565	3523 5 3532 1	}	polarity
523 523	$\begin{array}{c c} \overline{5} & \overline{3} & 5\\ \overline{5} & \overline{2} & 3 \end{array}$	}	not a polarity, but pitch 3 is a polarity of pitch 1 of the first set
	$\frac{\overline{3}}{2}$ $\frac{5}{3}$	}	the last two pitches of the previous question- answer set

The structural pitches of the phrase-block in the two versions are:

¹⁸⁾ If the "answer" is a repeat of the "question", in Thai it is called lūk lŋ (ลูกล้อ), which might be freely translated as "wheel effect." If the answer differs from the question (as occurs in the second section of this composition), it is called lūk khat (מעמ) – "the wheel is broken."

	\downarrow		\downarrow		\downarrow		\downarrow
extended version: 3	5	1	3	5	3	3	6
middle version: (3)	1	1	3	(3)	3	2	6

The arrows indicate the essential structural points.

Despite the intricate musical technique of question-answer used in the extended version, the structural pitches match, except for the first (a secondary structural point), which replaces pitch 1 of the middle version with its polarity, pitch 5, in the extended version.

In the extended version pitch 5 appears on structural points. Pitch 5 is the polarity above pitch 1:

extended version
$$\begin{cases} 5 \\ \uparrow 5th \\ 1 \\ \uparrow 5th \\ 3 \\ \uparrow 5th \\ 6 \end{bmatrix}$$
 middle version

Pitch 2, it can be seen, is avoided on structural points in all three versions, appearing only on a secondary structural point at the end of the section in the cadence. It is the "enemy pitch"; it might also be considered a brief suggestion of the polarity below pitch 6:

$$5
\uparrow 5 th
1
\uparrow 5 th
3
\uparrow 5 th
6 modal center
\downarrow 5 th
2$$

This scheme is supported by the frequency of occurrences of the pitches on the + and \oplus strokes, as shown in Figure 5.

		ORREACE OF FIGURE	,
	(on + and 🕂) ching strokes)	
pitch	extended version	middle version	short version
б	8	5	4
5	10	1	1
3	8	6	6
2	1	1	0
1	5	3	4

FREQUENCY OF OCCURRENCE OF PITCHES

Figure 5

In the middle version pitches 3 and 6 occur most frequently, with pitch 1 next in frequency. In the extended version the large number of occurrences of pitch 5 is caused by there being a thâo on pitch 5 and the question—answer phrases ending on pitch 5. Otherwise, the frequency of occurrences is the same as in the middle version. The frequencies of occurrence in the short version are almost identical to those in the middle version.

The modal implications, then, are clear in the section, and the structural 5th polarities occur at structural points. An examination of the music itself will reveal how the composer actually worked out melodically the enlarging and condensing processes.

Although there is not space to present it here, it may be said in conclusion that the second section of "Khamen La \overline{O} Ong" is as highly and ingeniously integrated as Section 1. Section 2 also ends on pitch 6 with the same cadential phrase used in the first section. The composition, then, seems clearly in Mode 6.

+ + +

There is a special form of 3-chan that should be mentioned, if only briefly. I have called this form "Developmental 3-chan". In this treatment a section that has, usually, two phrase-blocks is used. The phrase-blocks are separated, and in between them the composer inserts a linear development section made up of phrases, in questionanswer technique, of decreasing length (usually the sections of phrases

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of the same length are repeated), ending with two adjoining pitches alternated. The alternation ends on the lower pitch, which is sustained. This can be shown clearly in diagram form (I have concocted the following "composition" for purposes of illustration; it is not an actual composition—though it could be):

phrase-block 1	$ \begin{array}{cccc} 0 & + \\ 3 & 1 \\ 1 & 5 \\ 2 & 6 \\ 1 & 3 \end{array} $	$\begin{array}{c} \bullet & \bullet \\ 1 & 3 \\ 5 & 1 \\ 3 & 2 \\ 3 & 2 \\ 3 & 1 \\ \end{array}$	
· •	: <u>Q</u> (RE)		(phrase a)
section : (RE = ranāt ēk	A (ens.)		(phrase a)
ens. $=$ ensemble)) <u>Q (RE)</u>		(phrase b)
	A (ens.)	:	(phrase b)
	∥: Q	A	(phrases a and a, cut down)
	Q	A :	(b-b, cut down)
		· · · · · · · · · · · · · · · · · · ·	
	∥: <u>Q</u> A	<u>Q</u> <u>A</u> :	(phrases a and b cut down further)
alternating pitche pitches 5 & 6	es	.5	(pitch 5 sustained)
•	(13	3 1	
phrase-block 2	$\begin{array}{c c} 3 & 6 \\ 2 & 3 \end{array}$	6 (5) 1 2	
PHILIDO DIOUR 2	1	1 2	
	1 3	3 🛈	

The principal pitches in the phrase-blocks are pitches 1 and 5, so these might be emphasized in the development section, perhaps with a secondary suggestion of pitch 3, as it occurs frequently in the phrase-blocks on secondary structural points.

Another famous composition of King Rama VII, "Khlun Kratop Fang" (aduatenud), which is this type of developmental 3-chan, was printed in the *Silpakorn Magazine*, published by the Department of Fine Arts, Volume 2, Number 5, with an accompanying explanatory article in Thai by Mr. Montri Tramote, head musician of the Depart-

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ment. A performance of this composition is included in the album of traditional Thai music issued by the Institute of Ethnomusicology, University of California, Los Angeles, as well as a thao composition and other representative compositions of the traditional repertoire, with an accompanying 48-page booklet of background, commentary, and analysis.¹⁹

Social Factors in Thai Music

It is difficult to know what the actual status of music and musicians was in the past in Thailand, at least in all but high court circles. There are only a few references to music in the old court annals, and these are primarily lists of instruments, directions for processions, and the like. And then, almost everything was destroyed at Ayuthaya in 1767. There must have been some musical activity, however, perhaps even a good deal, if we interpret as meaning that an extant annal of the Ayuthaya period in which a court order specifies that no one was to play a musical instrument or sing within earshot of the royal palace without permission. Of course, it is possible that that king just did not care for music.

A few Western travel books of the nineteenth and early twentieth centuries mention music in passing. The authors tend to state generally that the Thai are a musical people and that there is musical activity, but they say nothing of a technical nature about the music itself. If the music is mentioned at all, it is often in none too flattering subjective terms. Bowring, an exception, comments on the desire of the women musicians for accuracy in tuning when tuning up their stringed instruments. Little is said in any book specifically about noncourt music-the music of the general populace.

¹⁹⁾ Back issues of the Silpakorn Magazine, as well as current issues, are available from the Department of Fine Arts, Bangkok, Thailand. Also available from the Department are a number of recordings of the traditional music, but with only a brief explanation of the compositions on the record jackets. The album of traditional music (two 12-inch, long play, stereo records) with accompanying booklet is available from the Institute of Ethnomusicology, B408 Schoenberg Hall, UCLA, 405 Hilgard, Los Angeles, California 90024, USA. A review of this album and booklet appeared in the Society's Journal, the July, 1969 issue.

Thai court musicians and composers were apparently respected even though, like Haydn in the Esterhazy household in the late eighteenth century in Europe, they were literally household servants. But, also like Haydn, the names of some of the great Thai composers who lived in court households will be remembered long after the names of their royal patrons have been forgotten.

Up until the revolution of 1932 and the change from an absolute monarchy to a form of democracy, any young musician showing signs of promise was promptly taken into the service of one of the numerous royal households. Thus the best musicians were never, strictly speaking, among the general populace; their music was for the court and not for the public and, one presumes, except on rare occasions, was not heard by the public. It is probably for this reason that with the change of government in 1932 and the following disintegration of the royal households as circles of culture, Thai traditional music fell on evil days. Some of the musicians, to be sure, particularly those of the court of King Rama VII, became the nucleus of the newly formed Department of Fine Arts. But the Department was far too small to accommodate all the good musicians in the country. Further, the prime minister in the 1930's openly discouraged the public performance of traditional music on traditional instruments. Two additional factors cannot be overlooked: 1) the traditional music being a court music and not the music of the people, when the courts disbanded, there was no reason for the traditional music to exist. The public really never knew it; it was not their music, and they were not interested; 2) having been a court music, it represented the "old" days of the monarchy. In 1932 traditional music began to become an anachronism. Perhaps, too, it reminded too many people of the old regime that they were ready, at least in part, to forget.

Although the Department of Fine Arts fosters the traditional music and theater, and a few private schools, like the Phakavali Institute of Dance and Music, still teach traditional music and dance, the number of people actually involved in the traditional arts is a very small percentage of the total population of the country.

Two other situations speak much more loudly than words: 1) the best seats in the National Theater are priced out of the range of all but the wealthy Thai. These seats, if not occupied by foreignersand perhaps a few Thai-are empty. 2) Neither of the two principal universities in Bangkok has a music department. No college or university in Thailand, to my knowledge, teaches music-Western or Thai-as regular academic, departmental course work leading, at the university level, to a degree. The school connected with the Department of Fine Arts still operates at the high school level. (I have just heard that there is a project under way to extend this to the college level.) I know of two people, at least, who teach music informally in at least two of the universities, but these people, I repeat, are not part of a regular department. This would indicate that there is no great demand on the part of the Thai in general for advanced education in music leading to a degree.²⁰ It should be mentioned that there are, in at least two universities, extra-curricular music clubs.

A few people are also engaged in what can be called Thai popular music. While this music is interesting to the ethnomusicologist and anthropologist as the result of an acculturation process-that is, the blend of elements of two different cultures-it is of no great interest to the musically educated. Thai popular music is a blend of a Thai-style melody, generally a banal echo of traditionalstyle pentatonic melodies, harmonized with a few simple chords of traditional Western harmony. This genre shows no signs at the moment of leading to any further developments.

Little or no composing is being done today in traditional style. In fact, there probably has been no composing in traditional style since the last great compositions of Luang Pradit Phairo (Son Silapabanleng; founder of the Phakavali Institute of Dance and Music) in the 1930's. Special mention should be made, however, of Mr. Montri Tramote, previously mentioned, who supervises the music for the Thai traditional music-dramas (khôn and lakhôn luu aren) presented at

²⁰⁾ The plastic arts-painting and sculpture-fare better. There is a University of Fine Arts where one can get a degree in these disciplines.

the National Theater. Mr. Tramote often makes new arrangements of the traditional compositions used in the music-dramas and on occasion composes new material. As also mentioned, short articles by Mr. Tramote, many of them explanations of the background of the traditional compositions that appear in the *Silpakorn Magazine* together with the music in Western notation, are helping to give us some knowledge of the past of Thai music. The help, at the moment, is mostly for the few interested Thai, however, as these articles are printed in Thai and have not as yet appeared in translation. A group of them were reprinted under one cover as "Thai Classical Songs, Book 1" also in Thai without translation, but this issue has been out of print for some time. Other volumes in this series have, I understand, been contemplated, but for whatever reason, they have not yet appeared.

There seem to be two main reasons for the decline in composing in traditional style: 1) there is no demand on the part of the public for new traditional compositions; and 2) those musicians still performing the traditional repertoire seem disinclined to compose in traditional style. Two musicians, who perform well in traditional style, whom I asked why they did not compose, replied that they could not do it so well as the great composers of the past, so they did not want to try.

The Future of Thai Traditional Music

The question "What is the future of Thai traditional music?" brings us back to the title of this article. Is the traditional music system a sturdy stock or only a hot-house plant that bloomed brilliantly for a time and is now withering and dying?

That it is at least a stock cannot be denied. It is a developed high-art music with a definite theory. The music system is "closed", meaning that the music and the music system can and do exist apart from any social factors, important as those may have been along the way in its development. That the courts in which the music developed and bloomed, for instance, have disappeared does not alter the fact that the music system still exists and the music is still, if only occasionally, played. But the stock (one might also say "stalk") was a fragile one at best, even when the music was at its height. Rather than continually breaking its bonds and widening the allowable possibilities in the music (as has happened in the development of Western art music and in at least some of the areas in Africa, for example), Thai music has developed within the framework of definite restrictions, which succeeding generations of musicians and composers have been content to observe and work within, rather than to become dissatisfied with and discard. Following this path could only lead to eventual stagnation, and probably has, for traditional Thai music is at a point where practically everything has been done in the system that can be done; composition for some time has been merely a reworking of a few, basic, already well-worked musical ideas.

Let us look briefly again at the elements of the Thai traditional music system from the standpoint of the limiting qualities.

Tuning System : The seven equidistant pitches in the octave are far enough apart that another pitch could be inserted, if the Thai wished to add more pitches to their system, making at least fourteen pitches instead of the traditional seven. The Thai interval is about 172 cents,²¹ which could be divided into two equal intervals of about 86 cents. This is very close to the 90-cent interval (between the *pien* or "exchange" tone and the principal pitch with which it is connected) that the Chinese have used for centuries. In the raga system of India, also, a small "minor second" of about 70 cents occurs in some ragas. So "half-steps" in the Thai system are quite possible as usable musical pitches. But they were never created.

The Thai could have, of course, used any pitches whatever, had they so desired.

²¹⁾ The cent system was devised by the Englishman, Alexander J. Ellis, in the late nineteenth century for measuring intervals. Based on the Western tempered tuning, it divides the octave into 1200 parts, each Western tempered interval, thus, having 100 cents. A whole step has 200 cents; a minor third, 300 cents; a major third, 400 cents; and so forth. The Thai interval of 172 cents, then, is much larger than a Western tempered half-step, but not so large as the Western tempered whole-step, as stated earlier. The Thai "neutral" 3rd of 344 cents is about halfway between the Western small or minor 3rd (300 cents) and the large or major 3rd (400 cents).

Modes, Scales, and Tuning Levels: The five Chinese modal patterns that seem to be present in Thai music, if not all used with equal frequency, are, in this tuning system, the only possible pentatonic patterns with two gaps and the pitches arranged in two groups with no single pitch isolated by itself between two gaps.²² Because of the equidistant tuning, the five patterns could all be constructed from the same starting pitch:

Mode 1:	123	56	1			
Mode 2:	12	45	71	(= 2 3 5 6	12)	
Mode 3:	1	34	671	(= 3 56	123)	
Mode 5:	12	456	1	(= 5 6	123	5)
Mode 6:	1	345	71	(= 6	123	56)

This would follow the practice of a central tonic point from which all modes are built, as in the Indian raga system. If these five patterns were available starting on each pitch of the seven-pitch tuning, which would follow the Chinese method, there would be thirty-five (five patterns times seven pitches) patterns available, all different as far as actual pitch (cycles per second) is concerned. But neither of these possibilities occurs in Thai traditional music; the simple Chinese arrangement of the pentatonic pitches into five modal patterns was followed. Of the possible five modes, one accounts for a large majority of the compositions, two are moderately used, and two are rare. Of the pitch levels, one is little used; two are used only moderately, leaving four principal pitch levels used with any degree Mon style adds some variety by using the other two of regularity. pitches more functionally or at least more often than in the simpler Thai style.

Scales in most instances are synonymous with the mode. At best the scale can include only two pitches more than the mode itself in Thai style, and one or none, in mon style.

On the basis of having only seven equidistant pitches to the octave, the Thai music system is less restricted in modes (scales) and

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 (\mathbf{r})

²²⁾ That is, 1 3 5671, 12 4 671, 1234 6 1, 123 5 71, are not used.

the use of different pitches as starting points for modes (tuning levels) than in any of the other musical elements discussed here, even though not all available possibilities have been exploited.

Melody: Thai melodies are almost entirely diatonic, Thai and $m\bar{q}n$ style. If leaps are used, they are used sparingly, and they generally resolve to a pitch that would cause the passage to be diatonic if the leap were omitted. Rarely does a leap follow a leap. The total effect, therefore, is diatonic. Such a passage, for example, as the following, while quite possible in the Thai system, would simply not be considered traditional style:



Melodic limitations, then, are great. What is truly amazing is the amount of variety found using only a pentatonic-diatonic style of melody. That melodies may sound repetitive and monotonous to the uneducated ear, is no criterion. I, as a Westerner, can say from experience that once a Thai composition is learned, even to a Western ear, it is just as distinctive from all other Thai compositions as most Western compositions are distinct from one another.

Meter and Rhythm: Since Thai traditional music in a steady tempo is always in duple meter, a tremendous number of possibilities are thus denied. There are no triple meters (3/4, 3/8), no compound meters (6/4, 6/8, 9/8, etc.), nor assymetrical meters (5/4, 7/8, etc.)as found elsewhere (the West, India, the Middle East, and Africa, for example). Rhythms are also simple and straight-forward, with syncopation, mostly in the elaborating parts, the most adventurous technique, but such syncopations as triplets are not used, except in a special rubato section in some of the suites.

The Thai music system has limited itself tremendously, then, metrically and rhythmically.

Harmony: Aside from the linear-type harmony discussed at the beginning of this article in connection with the style of polyphonic stratification, the Thai music system has seen no development in the direction of chordal harmony such as has developed in the West.

A system of chordal harmony *could* be developed with a tuning system of only seven pitches; it was in the West (that is, the modes and scales have seven pitches, and compositions can be harmonized in a "key" using only the seven pitches). But the pitches in the Western conventional modes (scales) are nonequidistant and the Thai tuning is equidistant. A type of chordal harmony could theoretically be developed with a seven-pitch equidistant system, but whether it would have the potential of one developed from a nonequidistant system is questionable. The Western basic system of traditional harmony is based on the seven-pitch major or minor mode of nonequidistant pitches. A harmonic system of chords and chord progressions would seem to require a nonequidistant set of pitches, that is, a set of unequal intervals, so that a system of balances and imbalances would exist having the potential of tensions and resolutions. This is not possible in an equidistant system where all intervals of like name are the same.²³ While equidistant patterns have sometimes been used in various musics for particular effects (such as Debussy's use of the six-pitch whole-step pattern), a harmonic system based on an equidistant system does not exist, to my knowledge.

A harmonic system might be devised using only the five pitches of a Thai pentatonic mode, but only five pitches, all the intervals between which are relatively large, can produce little in the way of a variety of chordal possibilities.

Thai traditional music has not developed a chordal harmony, but has remained a linear, polyphonic (in the basic meaning of the word: many-voiced) music, unified by a system of structural beats occurring, according to the form, at specific, regular points in the duple meter.

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²³⁾ In the Western system, for example, 3rds are major (large) or minor (small), 5ths are perfect or diminished, and so forth. In the Thai system all 3rds are neutral (see footnote 21), all 5ths are slightly flat of perfect, for example.

Form : Few of the possible forms of music have been explored by Thai composers. Compositions are made on a framework of a set number of rhythmic patterns of four measures (3-chan and slow compositions), two measures (2-chan, medium tempo compositions), and one measure (chan dio, phleng reo or fast compositions) in length. and the number is almost invariably (except in phleng reo compositions in the ruang) a multiple of two. Regularity of meter and a duple basis of submetrical divisions characterize the music. Literal repetitions of sections, sometimes on contrasting pitch levels, occur in some of the old ruang. The main compositional form of the last 100-150 years has been a type of variation form. The rondo pattern. from the simplest form : ABA, to the more complex arrangements of sections, has not been explored. Indeed, the technique of returning after a contrast section to a more or less exact restatement of previously stated material in a composition has not been used in Thai traditional music.

The creating of original music entirely separate from and different from pre-existing material and forms has not been the tradition in Thai music. Composers who have created some original music have created it within the framework of the few existing forms.

Another element of the traditional style that ought to be mentioned, if only briefly, as it is another limiting factor in the music, is the relationship of vocal to instrumental. Because of the restrictions of the tonal language, which has, so to speak, a built-in melody in that each word must always be spoken with a specific tone or inflection, vocal sections are traditionally unaccompanied by melodic instruments. It is said that at some time in the past it was considered that vocal lines limited the melodic freedom of the instrumental accompaniment, so the two were separated. This eliminated from the music system all possibilities of combinations of vocal and instrumental tone qualities.

The traditional Thai music system, then, as we have seen, embodies a great number of limitations. But I repeat, the amount of variety found in the traditional repertoire is a testimonial to the ingenuity of the great Thai composers who created this repertoire

working within a system of such strict limitations. One of the results of this narrow frame of reference is that Thai traditional music sounds like itself: it cannot be mistaken for any other music.²⁴

In this brief survey of the principles of Thai traditional music we have seen what has and what has not been allowed or used in the Since the word "art" implies some frame of traditional system. reference, some arrangement of some type of raw material by a human being, limitations, in the sense of "selection of what is and is not to be used", will always be in operation at any given point in an artistic process. If the Thai composers have chosen to use only a few of the possibilities inherent in the world of sound, that has been their choice. In itself, it is neither good nor bad; it just is. A musicologist observes this; he does not evaluate it. He may, however, and should, observe how the culture itself evaluates its own compositional procedures or its music system as a whole, for that matter. In the past, obviously, the Thai traditional composers were content to compose within the limits of the system - it apparently allowed them sufficient scope to express themselves musically as much as they desired, and their audience was apparently also content with the results, as they seem not to have demanded, at any point in the development, any particular changes. If the composers had not been content with the system, they would have changed it, for no composer worthy of the name hesitates to compose exactly as he pleases (aside from what he may have to compose by order, or what he may choose to compose on the side for commercial reasons); if a music system is not sufficiently broad in scope for his purposes, he breaks the so-called rules and regulations and restrictions to suit his needs.²⁵ And if an audience is not satisfied with what it hears being performed as music, the performers and composer soon know about it.

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²⁴⁾ I include here with traditional Thai music, as one musical identity, the comparable types of Laotian and Cambodian music.

²⁵⁾ Compare, for example, the differences in the musical principles used by Palestrina, Bach, Mozart, Beethoven, Debussy, and Stravinsky, as well as the contemporary trends in aleatory, serial, and electronic music, all of which come under the heading "Western" music.

Until 1932 the Thai traditional music system served the musical needs of the courts, whose music, essentially, it was. In the courts in the old days there was time to listen to the long, linear types of compositions; time was psychologically different then. Today the pace of life has changed; the tempo is faster in all cosmopolitan centers, which Bangkok, capital city of Thailand for nearly two hundred years, certainly is today. The contemporary generation in urban areas all over the world, it seems, simply does not have, or does not want to take, the time to listen to, to learn to appreciate, the old long, drawn-out types of music of the traditional systems of their countries.

That Western musical influences, particularly in the area of popular music, are spreading to many non-Western areas cannot be denied. That it is the popular music whose influence is being seen in so many non-Western areas and not the high-art, traditional, or "classic" music would indicate that the popular music is the more vital of the two at the moment and apparently is the stronger in appeal to the majority of young people in the non-Western areas as is rather true in the West also. A musicologist refrains from subjective opinions about this, simply observing the situation as one of the numberless processes of acculturation that have gone on among human cultures since the beginning of time. His focus of interest is not so much that acculturation is taking place (since, from one standpoint, it is always taking place-it is the rate of change that attracts our attention or causes the changes to slip by unnoticed), but in what way it is taking placewhat aspects of one culture another culture chooses to adopt and adapt, which it does not, and in what way the adaptations are carried out. As was mentioned earlier, for example, the phenomenon of the seven-pitch equidistant system in the Thai traditional music system may itself have been the result of an acculturation process when "Chinese" tuning met and clashed with and then blended with "Indian" tuning.

Western music essentially grew out of Asian sources. Ancient Greek music was similar to the music of the Near and Middle East

and India in that it was a linear, nonharmonic music system with a number of modes. The music of the Catholic Church was based on this system, and in addition had some elements of contemporary Hebrew music. Harmony did not reach any great level of development until "Western" music was over a thousand years old. The music of Western Europe was a direct outgrowth of these origins; that is, Western music itself is a result of many acculturations—from non-Western areas as well as from national cultural areas, one affecting another, within the larger framework of Europe. If the latter-day developments in this Western system, or some of them, are in turn adopted by non-Western cultures, it is only part of the eternal process of acculturation.

The Thai traditional system, as it stands, seems to have worn itself out. Within the restrictions and bonds of the system, it seems that little more can be done but reworking of already overworked musical techniques. What the Thai choose to do about their traditional music system, if anything, is up to them-it is their choice. If anything at all is done, other than what is allowed within the traditional system, there will always be some Thai purists who will claim that it is not "Thai". On the other hand, if a Thai composer wishes to expand and develop the Thai music system, in whatever way he will, it will be by definition, "Thai", because a Thai did it. (I am not speaking here of more or less exact duplication or imitation of another system—that is only an exercise in orchestration, as one of my former teachers put it. I am speaking of adapting essences of one music system to another system, of grafting them on in such a way that they "take root" and continue to live and develop and become an intrinsic part of the system, adding something to the system it did not have before.) Whether there will be any Thai musicians and composers of the present or future who will wish to do this (outside of the area of popular music, that is) remains to be seen. And if such a development takes place, whether the Thai public in general will approve of it and accept it is also conjectural.

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The traditional Thai music system, then, seems to have been a hot-house plant, nourished in the rarified atmosphere of the old courts. Whether this delicate plant can be transplanted to the rigorous conditions of the contemporary outside world and become a hardy stock without transfusions and a good deal of nourishment from other sources seems unlikely. If not, if it can no longer serve the contemporary needs of the contemporary Thai, then it will become a museum piece, as have other music systems in the past history of mankind.

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