

## THREE PRINCIPLES OF TIMING IN ANLO DANCE DRUMMING

by

HEWITT PANTALEONI

In Anyako, an island town in southeastern Ghana, the Anlo<sup>1</sup> branch of the Ewe-speaking people have at least thirty-seven different traditional drum ensembles.<sup>2</sup> Westerners are not familiar with the principles of musical timing in these ensembles. These principles are clearly illustrated in the Anlo dance drumming known as Atsiã, a stately recreational music said to date from the sixteenth century or earlier.<sup>3</sup>

The Atsiã orchestra is organised like every Anlo drumming ensemble. There are three layers of sound, formed in Atsiã by seven instruments. Each layer has a different function from the others. In the highest range rattles, clapping, and the smallest of four drums support with unchanging *ostinati*<sup>4</sup> the repeating pattern played on a forged iron double bell. From this top layer come the timing and the gait of the musical flow. In the middle range two larger drums play variations around certain strokes that repeat with every repetition of the bell pattern.<sup>5</sup> This middle layer has a role intermediate between supplying gait and forward drive, and adding decorative interest.

In the lowest range *atsimevu*, the largest drum, plays intermittently the greatest number of patterns and variations.<sup>6</sup> Each of its patterns contains one or more strokes that must occur at a certain point in the cycle of the bell; but these fixed strokes are not the same for every pattern, as they are in the play of the drums of the middle range. Therefore the play of *atsimevu* is more free than that of the other drums. Some of this play is made up of decorative patterns and some of signals controlling the performers.<sup>7</sup>

In every Anlo dance drumming the higher the pitch of an instrument the more unvarying its part. As one traverses the range from low to high, one moves from arbitrary signals and varied decoration to invariable patterns that provide gait and timing. In Western European art music of the Baroque and later, the lowest voice times the flow of the ensemble (by its own melodic rhythm and by the rhythm of harmonic change which it creates); the highest voice provides the decoration. Among the Anlo the situation is just the reverse.

Anlo timing is carried by sounds that are high and, in the midst of the drumming, relatively soft. This is the first of three principles unfamiliar to most Westerners. Because the Westerner has been trained to listen to low sounds and loud sounds for his timing he has difficulty understanding a system that depends on sounds that are soft and high. The partial drum score shown as Fig. 1 illustrates the Westerner's problem.

<sup>1</sup> The Anlo use an alphabet of Roman letters with some omissions and some additions. The additions appear in this paper as their nearest visual Roman equivalents italicised: *d* is a post alveolar flap (one "roll" of a rolled *r*); *e* is the English *e* in *men* (plain *e* is the schwa, the sound of *e* in *brother*); *f* is an English *f* with two lips; *n* is English *ng* with a very weak *g*; *o* is English *aw*; *ts* is like the English *ch*, but with the tongue further forward; *v* is an English *v* with two lips; *x* is a very light guttural, like the *ch* in *loch*; *y* is a very deep, smooth English *y*.

<sup>2</sup> For a descriptive catalogue see Hewitt Pantaleoni, *The rhythm of Atsiã dance drumming among the Anlo (Ewe) of Anyako* (Oneonta, New York; privately published, 1972). Appendix C. Copies of this study are in the Ibadan University Library, the Library of the Institute of African Studies at the University of Ghana, the International Library of African Music at Roodepoort, South Africa; and in the United States at the Library of Congress, Olin Library at Wesleyan University in Connecticut, and Milne Library at the State University College at Oneonta, New York.

<sup>3</sup> *Ibid.*, pp. 24-27. Interview supporting this chronology appear in appendix A.

<sup>4</sup> Slight variations do occur.

<sup>5</sup> My study of the play of one of these middle drums has been published as "Toward understanding the play of *sogo* in Atsiã," *Ethnomusicology*, XVI, 1 (January, 1972), pp. 1-37.

<sup>6</sup> My study of the play of *atsimevu* follows this article. *Atsimevu* is always the lowest voice and the leading voice in ensembles in which it is used. Nineteen such ensembles are listed as active in Anyako in Pantaleoni, *The rhythm of Atsiã . . .*, appendix C. These are mostly recreational drummings rather than ceremonial or cult drummings.

<sup>7</sup> I know of one dance drumming in Anyako in which the lowest voice is not the controlling voice. This is the music called *Vugã*: the lowest voices are those of two *aboba*, but the controlling signals are played at higher pitches on two *atumpan* (according to Mr Vincent Kofi Ladzekpo, Anlo drummer, dancer, singer and composer). There may well be other exceptions.

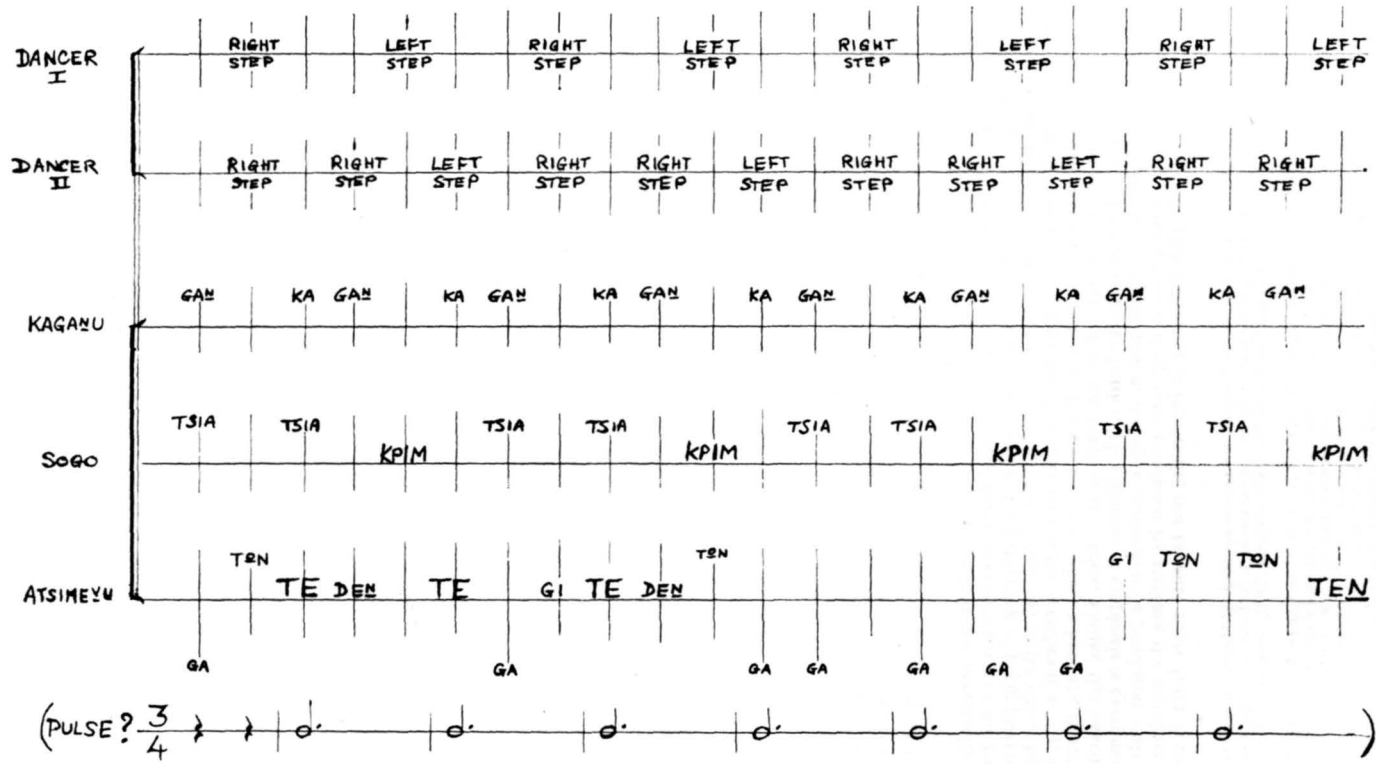


Fig. 1—A. partial score of a section of Atsiá with a possible pulse interpretation added below.

The example represents some of the music of Atsiā and is to be read from left to right. Equidistant vertical lines mark off equal intervals of time. The sounds of the drums – kaganu, sogo and atsimevu – are scored as syllables because the Anlo drummer verbalises his patterns.<sup>8</sup> The relative size of the letters with which these syllables are printed gives a rough indication of the relative loudness of the strokes: smaller syllables are softer; larger syllables are louder.

Three levels of pitch are represented: high pitches are above the horizontal line; medium pitches, which are a second or third below high pitches, are on the horizontal line; low pitches, which are about a fourth below medium pitches, are below the horizontal line. These levels correspond to the three pitch levels recognized in spoken Ewe.<sup>9</sup>

Listening to a performance of Atsiā, a Westerner can hardly ignore what atsimevu plays because it is both the loudest and the lowest of the drum parts. Tapping out the atsimevu part with due attention to pitch and volume the Western reader, like the Western listener, will probably feel the pulse shown with standard musical notation below the score in Fig. 1.<sup>10</sup> As indicated by the vertical alignment of the pulse notes with the score, the repeating figure played on the smallest drum, kaganu, strengthens this feeling of pulse.

The timing of the atsimevu phrase in Fig. 1 becomes difficult to understand in terms of a pulse<sup>11</sup> when one examines the other lines. When the timing of the dancers' steps is considered, a single pulse no longer seems to govern the ensemble.<sup>12</sup> Sogo has yet another rhythm apparently independent of the pulse indicated for atsimevu.

Here is the classic problem posed for Westerners by the rhythms of this kind of African drumming: what is the unifying principle binding the performers together? As Fig. 1 clearly shows this principle is not to be found in the organisation of low sounds and loud sounds.

Before developing a solution to this problem, I shall turn aside for a moment to discuss the role of dynamic stress and then to evaluate briefly four approaches that have been made to finding the unifying rhythmic principle in this music.

It is a Western habit of mind to attach to dynamic stress a major role in the rhythmic organisation of an ensemble. Variation in loudness is indeed an important part of the character of a rhythmic line in Atsiā, but no evidence indicates that its contribution is more than melodic. Dr Seth Dzagbe Cudjoe, Anlo physician and student of traditional music, points out that:

the important thing to remember is that accentuation in Ewe music is not necessarily deliberate, but may be inherent to the technique of tone production. The timekeeper gong of the Ewe consists of a large and a small bell; the large bell which is struck at the beginning of gong patterns gives an illusion of emphasis, because of its deeper tone although the player may strike either bell with the same force. A similar illusion occurs where the drummer strikes the membrane softly, in order to keep time between playing his actual patterns. We see the same effect where the drummer distributes his patterns over the hands, one of which plays with a stick. Unlike the naked hand, the stick is hard and brittle, and seems to strike harder. This illusion of emphasis is even more striking in the techniques employed in tone production. An open medium tone produced with the tips of the fingers sounds louder, than an open deep tone produced by striking the membrane with the fleshy portion of the hand.<sup>13</sup> This difference is inevitable, not because more force is used in pro-

<sup>8</sup> The choice of syllable varies somewhat from drummer to drummer. My sources are Mr Kobla Ladzekpo and Mr Vincent Kofi Ladzekpo. A description of the similar Ashanti practice is given by the Ashanti scholar J. H. Kwabena Nketia, *Drumming in Akan communities of Ghana* (New York: Thomas Nelson and Sons for the University of Ghana, 1963), chapter four. See also Pantaleoni, *The rhythm of Atsiā* . . . , chapter five.

<sup>9</sup> Gilbert Ansre, *The tonal structure of Ewe* ("Hartford studies in linguistics," No. 1. Hartford: Gilbert Ansre, April, 1965).

<sup>10</sup> Should the reader feel a regular beat different from the one I have shown, it will not weaken the demonstration.

<sup>11</sup> Throughout this paper "pulse" is used in the sense of a slowly moving, evenly spaced main beat – the "down beat" of the Western conductor which unifies the ensemble. Those who analyse African rhythms as various totals of an extremely brief unit of time, often refer to this small unit as a pulse, which is obviously not the same use of the term as my own.

<sup>12</sup> At least two other dance steps with more or less different timing could be added to this particular atsimevu phrase.

<sup>13</sup> In Figs. 1 through 5 the open medium tone is represented by the syllables DEN, GI, and KPIM; the open deep tone by the syllable GA.

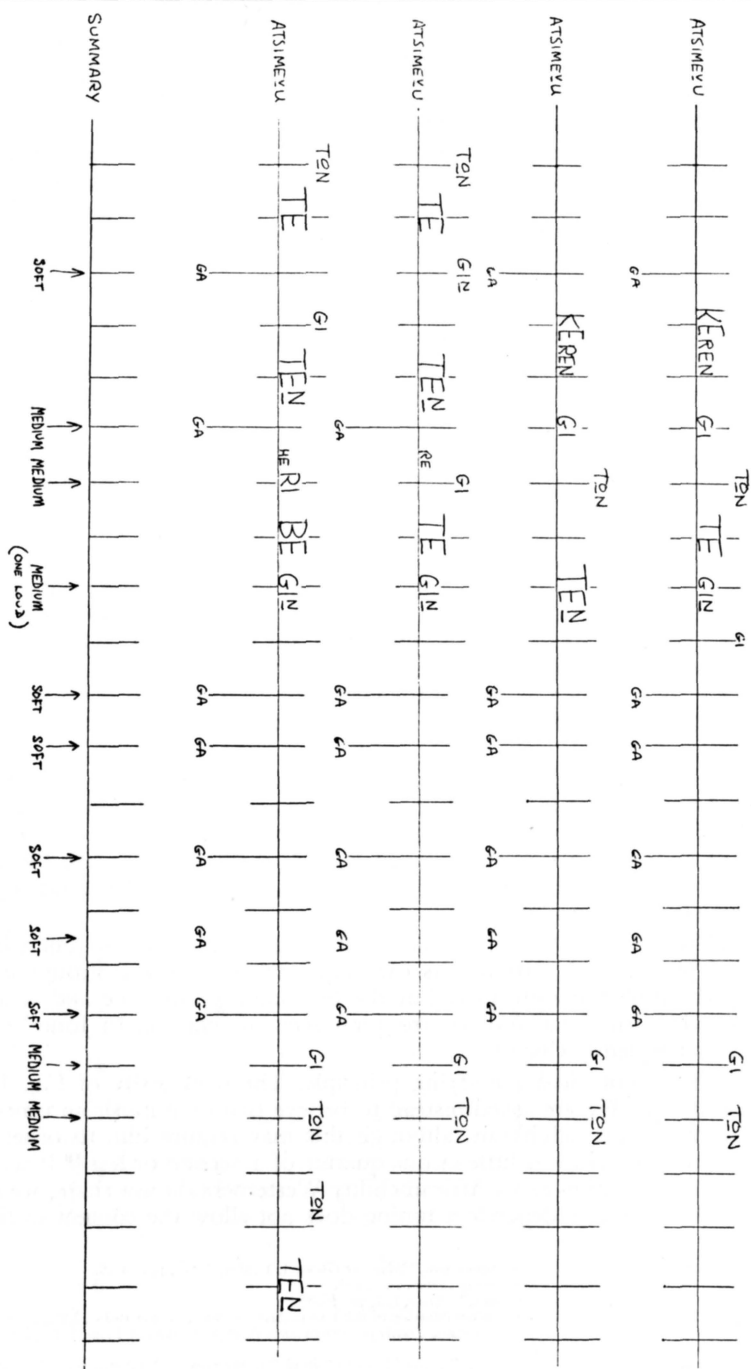


Fig. 2—Four variants of the same *atsimevu* pattern, plus a summary line showing the volume of the strokes common to all four.

ducing one tone than the other, but because the technique of producing an open medium tone allows the membrane to vibrate freely, whereas in the case of the open deep tone, vibration is limited. The technique of tone production and the distribution of a rhythmic pattern over two hands constitute what I term handling, and each drummer creates his own accents according to the manner in which he distributes any given pattern.<sup>14</sup>

A supplementary note to the passage quoted is the fact that the loudest strokes in the *atsimevu* part of Fig. 1 turn out to be incidental: they are not strokes that appear in every version of the pattern. To show this, four variants of the pattern have been placed one below the other in Fig. 2. At the bottom of the figure a fifth line summarises the volume level of those strokes common to all four variants. This summary line shows only sounds of low and medium volume, although at least three very loud strokes appear in every one of the variants.<sup>15</sup> Dynamic stress would seem to be individual, decorative, incidental, and often illusory, hardly a likely clue to rhythmic organisation.

Western scholars have developed various ways of understanding African rhythm. I shall discuss four of these briefly to indicate in what way they fail to explain satisfactorily the timing of the rhythms in *Atsiã*.

First is von Hornbostel's suggestion of 1928<sup>16</sup> that the African feels his beat in the effort of raising his arm preparatory to striking his instrument and not in the effort that culminates in the sounded stroke. Unfortunately, this does not resolve the problem posed by Fig. 1; it simply moves the complexity slightly to the left, so to speak. Furthermore, his suggestion does not make sense from the drummer's point of view. In drumming (or in playing the xylophone) raising the arm takes less effort than striking the instrument because the spring of the drum-head (or rubber-tipped mallet) throws the stick upward after a blow has been delivered; also, for many drum strokes the stick has to be forcibly retained against the drum-head after the moment of initial contact, and this action calls for a sudden tensing of the hand and wrist. If muscular effort pinpoints the musical beat, then this beat is not to be found in the upward movement preceding a stroke.

The second approach is that of A. M. Jones, who since 1934<sup>17</sup> has always and correctly pointed out that the individual lines of an ensemble like that partially scored in Fig. 1 are straightforward rhythms arranged so that the main beats of one cross the main beats of another. In the late Percival Kirby's memorable words, "what to the European is apparently highly elaborate syncopation is really the deliberate opposition of simple powerful rhythms."<sup>18</sup>

In Fig. 3(a) the lines of Fig. 1 are scored in the manner of Jones (but without his indications of pitch). Each part has its own equidistant beats and grouping of beats indicated by the time signature placed at the beginning of the line and at any point within a line where the beat and its grouping seem to change. In Jones' scores the time signatures frequently change.

Jones' scores do not yield a unifying principle. The complexity of Fig. 1 remains complex in Fig. 3(a). We are asked instead to believe that each musician times his part from the playing of his neighbour, although this may require him to offset what he plays from what he hears by as little as one quarter of a second or less.<sup>19</sup> If we can pass off this feat of coordination as an African ability Westerners do not share, we still have the problem that such interdependent timing does not allow the content of the drum-

<sup>14</sup> "Problems of notation. (3) The notation of drum music," *Music in Ghana*, I, 1 (May, 1958), pp. 74-75.

<sup>15</sup> Fig. 2 is transcribed from Pantaleoni, *The rhythm of Atsiã* . . . p. 157.

<sup>16</sup> Erich M. von Hornbostel, "African negro music," *Africa*, I, 1, pp. 52-55.

<sup>17</sup> A. M. Jones, "African drumming: a study in the combination of rhythms in African music," *Bantu studies*, VIII, 1 (March), pp. 1-16. His major exposition of his views is in the two-volume *Studies in African music* (Oxford University Press, 1959), for most of which his informant was an *Anlo* from Anyako.

<sup>18</sup> In a note to p. 1 of Jones' "African drumming . . ." I take his word "simple" in the sense of "not syncopated", since the article is a refutation of von Hornbostel's argument for syncopation. Some African patterns are simple in the sense of "easy to play", but many are not.

<sup>19</sup> See, for example, Jones' *Studies* . . . , II, p. 80, staff 7, end of bar 3, where the offset is less than one eighth of a second.

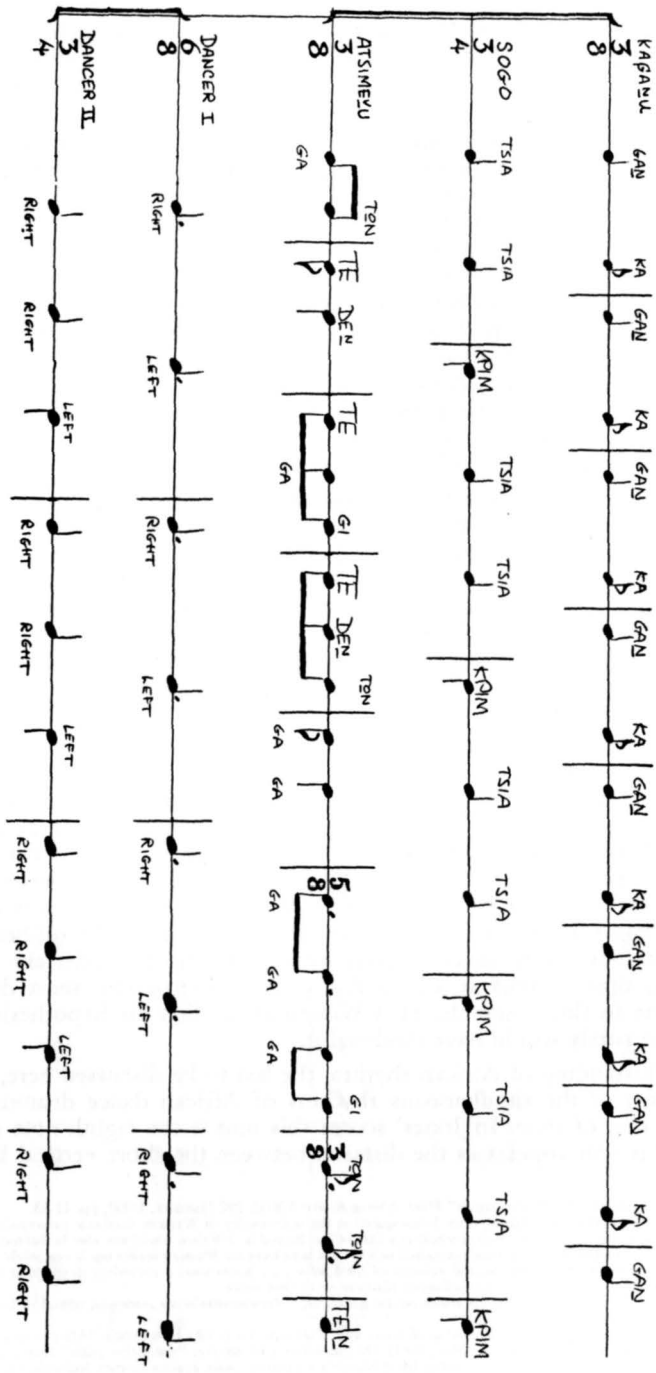


Fig. 3 (a)—The material of Fig. 1 scored in the manner of A. M. Jones.

ming to be varied: everyone must play what is familiar to all; anything new might throw off the timing of one or more players. Jones knows that *Anlo* ensemble drumming is full of variety. His view of the timing is not consistent with his knowledge of the style.

*Anlo* dance drummers certainly work interdependently. They learn the music that way as they grow up, because their schooling is to hear live performances; they always hear the individual lines in the context of the whole ensemble.<sup>20</sup> The basic process of timing, however, depends on a relationship more simple and flexible than Jones suggests: the relationship not between every performer and his neighbour but between every performer and one particular instrumentalist, the player of the bell. The proof of this lies in the music itself, as will be shown later on.

There is another objection to Jones' scores. He has identified and grouped the beats in each part (as indicated by his bar lines and time signatures) without setting forth the basis for his decisions. Western durational and melodic formulas have evidently influenced him. Thus an iambic stress pattern is often assumed on the evidence of a short note preceding a longer one, or when there is an upward leap.<sup>21</sup> I would prefer an analysis that minimized the cultural bias of the researcher.

Richard Waterman published a third approach to African rhythm in 1952.<sup>22</sup> It seems to be based on American Jazz. Without discussing *Anlo* drum ensembles in particular he suggested that a single, subjective beat permeates the music, a beat he apparently thinks of as moving more slowly than the faster of the sounding strokes. He termed this subjective beat the African's "metronome sense", and argued that when the play of some instruments does not seem to support this beat, the performers and their listeners are maintaining it subjectively through a series of mental efforts equally spaced in time. In other words he thought that every line is tied to the same large beat rather than independently shaped.<sup>23</sup>

Waterman's approach certainly fits American Jazz, except that in Jazz the equidistant beats are grouped into fours. Waterman's metronome sense is an undifferentiated pulse. In Fig. 3(b) the material of Fig. 1 is written out with uniform bar lines to show an undifferentiated pulse (arbitrarily chosen, since any moderately moving pulse will serve the argument). The result contains many syncopated rhythms. It is important to notice that at least one line of Fig. 1, "sogo" or "dancer II", will be completely syncopated regardless of what ensemble pulse is chosen. Waterman himself points out that no player can maintain syncopation beyond a certain limit without the off-beat becoming the on-beat.<sup>24</sup> Because patterns completely syncopated in Fig. 3(b) are often maintained for a long time in Atsiã, it is clear that a single metronomic sense does not permeate the players in this ensemble. Had Waterman applied his hypothesis to specific *Anlo* examples he surely would have modified it.

A fourth understanding of African rhythm, the last to be discussed here, is based on the fact that most of the simultaneous rhythms of African dance drumming share a common, small unit of time. In Jones' scores this unit is the eighth-note (or quaver). In my figures this unit appears as the distance between the short vertical lines. Alfons

<sup>20</sup> Philip Gbeho, "Cross rhythm in African music" *West African Review* XXIII, 292 (January, 1952), pp. 11-13.

<sup>21</sup> Nowhere in his writings, as far as I know, does Jones question the universality of Western rhythmic behaviour patterns. Thus on p. 5 of "African drumming . . ." he considers whether a line he has barred in 3/8 time could not also be barred in 3/4 time (using the same note values). His proof that the music is indeed in 3/8 time is to have his Western reader tap it out while another Westerner judges the meter. For the scores in the second volume of his *Studies* . . . Jones used a recording device that eliminated dynamic differences; thus patterns of loudness do not influence his barring in that work.

<sup>22</sup> Richard Waterman, "African influence on the music of the Americas," *Acculturation in the Americas*, edited by Sol Tax, II (Chicago: University Press), especially pp. 211-214.

<sup>23</sup> Nketia suggests an approach midway between that of Jones and Waterman on p. 22 of his article "African music: an evaluation of concepts and processes," *Music in Ghana*, II (May, 1961). He postulates a subjective, "regulative pulse" that does not vary. This is like Waterman's "metronome sense." On the other hand Nketia's regulative pulse applies to each individual player rather than to the ensemble as a whole. This is like Jones' scores.

<sup>24</sup> Waterman, "African influence . . ." p. 213.

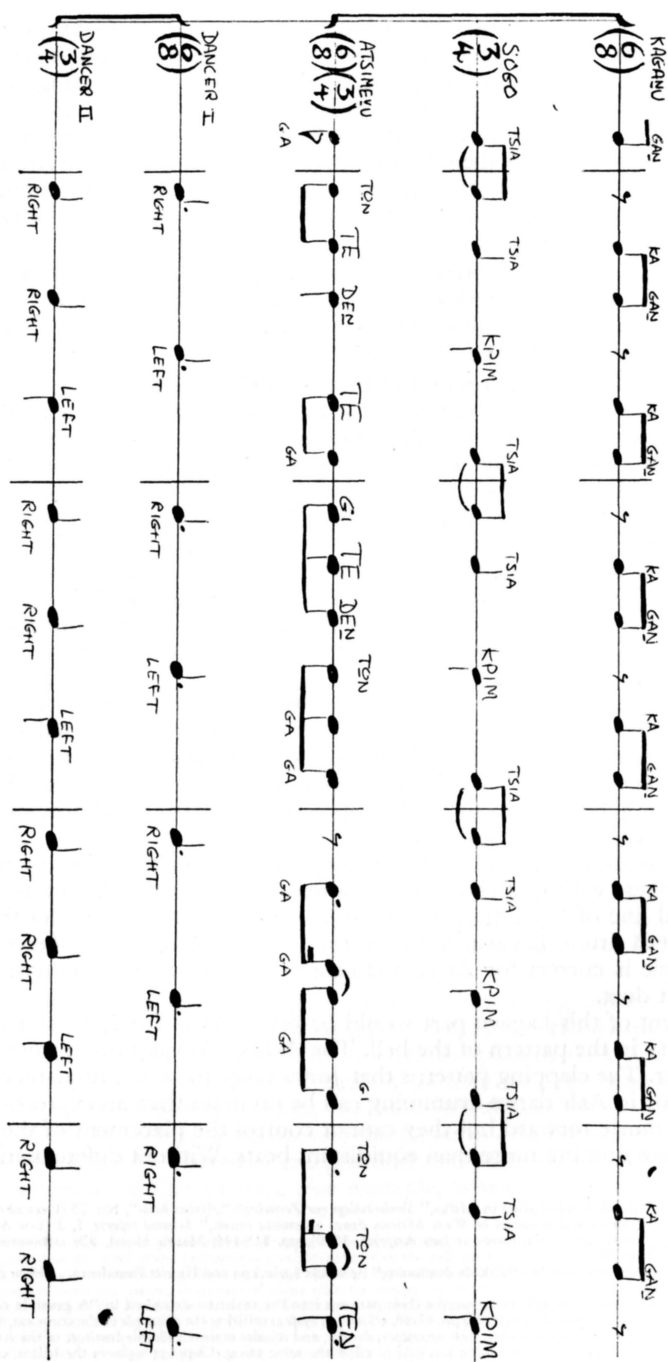


Fig. 3 (b)—The material of Fig. 1 scored as suggested by Waterman.



M. Dauer and others<sup>25</sup> suggest that Africans build their rhythms by putting together various totals of this common, small unit of time. If the *Anlo* built Atsiã rhythms this way one would expect to find a great variety of lengths in the phrasing. There is not a great variety of lengths. Every phrase of every line in Atsiã turns out to be a factor or multiple of twelve of the small time units when one finds the phrase repeated end to end (such repetition provides the only objective demonstration of the length the phrase is considered to be). I therefore conclude that a larger system of timing binds the players. Agreement among them about the small unit of time contributes a clear gait to the music, nothing more.

A larger system of timing better accounts for the fact that when this drumming is scored as in the present illustrations, many patterns are found to involve strokes that do not coincide with the beginning or the end of this small unit of time. See for example the penultimate *atsimevu* stroke in Fig. 1.<sup>26</sup>

Admittedly the small, common unit of time is a helpful tool for measuring and laying out the rhythmic parts. I have not found it to be a concept familiar to those African drummers with whom I have worked, nor does it seem to be an easy concept for them to use once it has been explained.<sup>27</sup> Perhaps it is simply difficult for a performer to think as an analyst, but in the absence of some kind of positive support from the musicians themselves it cannot be assumed that a convenient analytical tool corresponds to the basic pulse or principle of timing which actually functions in the playing of the music.

A simpler way to understand the unity that underlies Atsiã is to accept what *Anlo* drummers say: "You must always fit with the bell."<sup>28</sup> As we shall see, this explains how the various lines can be independently shaped but precisely coordinated, and how the players of the larger drums can introduce new variations without upsetting the timing of their neighbours.

The bell is high and, in the midst of the drumming, relatively soft. This accords with the first principle of *Anlo* timing, to which must now be added two more: (1) every timing pattern is asymmetrical<sup>29</sup> and (2) against the timing pattern every pattern has but one placement. The mechanism is quite simple and objective: when one does not position one's play correctly with respect to the timing pattern, one creates an improper duet that is audible at once.

In Atsiã the bell plays a group of two long strokes in alternation with a group of three long strokes, with one short stroke sounding between each group. This can be seen in the bell line of Figs. 4(a), (b) and (c). In each of these examples the pattern of the smallest Atsiã drum, *kaganu*, has been set against the bell in a different way. Only the first example is correct for Atsiã; the others are inadmissible because they do not create the right duet.

The placement of this *kaganu* part would be fixed just as surely by mirror symmetry as by asymmetry in the pattern of the bell. The *Anlo* of Anyako do not use mirror symmetry, however. The clapping patterns that Jones takes to be the fundamental means of keeping the time in *Anlo* dance drumming can be no more than an expression of tempo. They urge the music forward but they cannot control the placement of the other parts, for often they are nothing more than equidistant beats. Without differentiation, through

<sup>25</sup> Alfons M. Dauer, "Musik-Landschaften in Afrika," *Sonderbeilage zur Zeitschrift "Afrika heute"*, No. 23 (December 1, 1966), pp. 1-7; James Koetting, "Analysis and notation of West African drum ensemble music," *Selected reports*, I, 3 (Los Angeles: Institute of Ethnomusicology, University of California at Los Angeles, 1970), pp. 115-146; Mantle Hood, *The ethnomusicologist* (New York, McGraw-Hill, 1971), p. 35.

<sup>26</sup> This point is more fully developed in "Takaã drumming" by Kõbla Ladzekpo and Hewitt Pantaleoni, *African Music*, IV, 4 (1970), pp. 18-20.

<sup>27</sup> Specifically, they have not been able to transcribe their patterns into the tablature described in "A possible notation for African dance drumming" *African Music*, IV, 2 (1968), pp. 47-52, which is a system utilizing the principle of the common, small unit of time.

<sup>28</sup> The quotation is from Mr. Kõbla Ladzekpo, *Anlo* drummer, dancer, and scholar at the California Institute of the Arts. Every drummer I questioned in southern Ghana about timing has said in effect the same thing. Clapping replaces the bell in only one *Anlo* dance drumming I know of, which is called *Ga* (or *Gakpa*).

<sup>29</sup> One exception may be the timing for the *Yese* cult music *Adaã*, which seems to be three bell strokes of equal duration. This needs further investigation.

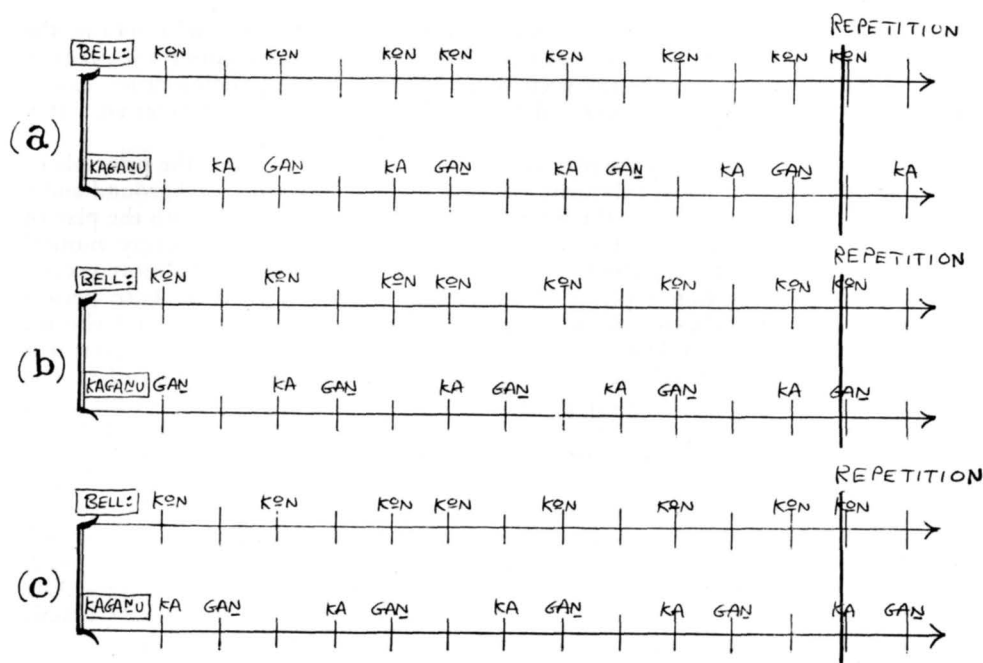


Fig. 4—Three ways of fitting the Atsiã *kaganu* pattern to the Atsiã bell. Only example (a) is correct.

a change in timbre or dynamic stress, equidistant beats can serve to place a pattern in only the most general way.

When a player fails to match his pattern perfectly to the play of the bell, the bell player stays steadily on his course and the other player corrects himself. The system assumes a bell player in the ensemble who can keep strict and steady time independently.<sup>30</sup> A bell player who adjusts his timing to what he hears around him causes the ensemble to fall apart; he has to be replaced. Anyone who has studied *Anlo* drumming as a participant is familiar with this falling apart and its cause. It is clear proof that the voice of the bell is the basis for the system of timing.

Proof that the bell regulates timing by means of matching patterns is simple and unequivocal. Every pattern used in Atsiã appears in only one relationship to the pattern played on the bell. The essential strokes of a certain pattern do not appear here one time and there the next within the bell pattern. If they did, one would have to agree with the theories previously discussed; the basic regulation of the time is by equidistant beats. Without exception, however, the position of a pattern in the cycle of the bell is always the same.<sup>31</sup> Therefore the position of a pattern in the cycle of the bell is part of the definition of that pattern. For example, when the *atsimevu* player in Atsiã

<sup>30</sup> I suspect that such a musician is as rare among Africans as among Europeans.

<sup>31</sup> Patterns shorter than the span of the bell occupy a subdivision of it; the bell pattern is twelve units long and these shorter patterns are six, four, three, or two units long. Patterns longer than the span of the bell are multiples of it. In no instance will the content of a cycled pattern force the pattern to go out of phase with the pattern of the bell as it is repeated. I recently had the opportunity to observe a rehearsal of the *Kadodo* section of the Dahomean dance drumming called *Adzogbo* under the direction of Mr Vincent Kofi Ladzekpo and his brother Mr Torino Godson Ladzekpo. The bell for this dance section plays an asymmetrical pattern eight units long, and the dancers go out of phase with it when they are simply cycling a kind of waiting step. They return to being in phase with the bell at the end of the third playing of the bell pattern. Since another bell pattern twelve units long was also used for the same dancing (as a way of getting on with the rehearsal until there was time to teach the new bell pattern of eight units) it seems clear that the true length of the bell pattern for *kadodo* is twenty-four units. The example is interesting and needs further investigation.

introduces a special call to which certain drummers must make a special response, the responding drummers can tell which call is about to be played by noting the point in the cycle of the bell at which the call is started. This gives the responding drummers an extra moment to prepare themselves and ensures that the response will enter smoothly after the call.

The matching of patterns to the play of the bell might well be called the principle of the silhouette. Just as a visual silhouette exists as the line between a background and a foreground, *Anlo* timing exists as the interaction of the play of the bell with the play of each of the other parts. Interaction is certainly a familiar element in every musical ensemble at the relatively imprecise level of mutual responsiveness. At the more precise level of timing, interaction explains how Western musicians achieve those perfect rhythmic unisons that characterise the sound of the Western orchestra and chorus. Interaction with the bell in *Anlo* drumming is not a unison relationship, however; it is polyphonic, with all the rhythmic independence of parts implied by that word.<sup>32</sup> The reader can experience this relationship for himself by performing any one of the duets scored in Fig. 4: simply tap out the *kaganu* part and speak the bell part against it.

In performing polyphony the Westerner does not derive his timing from the relationship itself; he follows an equidistant but flexible count and responds to the other line as sensitively as he can. In *Anlo* drumming it is quite possible that the individual performer may derive a subjective feeling of a count or pulse from the repeating play of the bell and then form his patterns upon this pulse. The bell pattern clearly underlies the pulse, however, and not the other way around; for in the play of *sogo*, a drum of intermediate pitch in Atsiã, we find continual modulation from one pulse to another.<sup>33</sup> Nketia reverses the relationship, for he postulates a subjective, regulative pulse that

may also be externalised by implication in musical sounds which may accompany the song, such as handclapping, beats of sticks or an iron bell, etc. But this does not replace the subjective pulse: it sustains it; it helps the performer to keep his bearing or find it if he should lose it temporarily through concentration on some other feature of the piece.<sup>34</sup>

Nketia does not specifically limit the application of his observations to the music of his own people, the Ashanti, but perhaps it would be wise at this point in our knowledge to accept such a restricted interpretation. A precise scoring of Atsiã and *Takada* (another *Anlo* dance drumming) shows that every pattern in every part of these musics has but one location in the play of the bell.<sup>35</sup> A "subjective" pulse cannot account for this unless it is a differentiated pulse. Nketia does not speak of setting any one pulse apart from the others by means of stress, a change in timbre, or in any other way. We know that the asymmetrical pattern of the bell automatically differentiates one pulse from another. It is thus the bell that regulates the play, and not the steady pulse some player or observer might feel, because the bell can put each pattern into its proper place, while a simple pulse can only regulate the speed with which the pattern is played.

Theoretically the principle of the silhouette allows an unlimited amount of variation and invention: a performer whose function includes decoration can play any variation so long as it supports the pattern's relationship with the bell. A consistent relationship with the bell, in turn, allows for the building of larger effects out of the play of individual lines; that is, if a certain pattern behaves in a specific way every time the bell repeats, accompanying patterns can be devised accordingly.<sup>36</sup> In this way two drummers can

<sup>32</sup> I prefer the term "polyphony" here to that of "polyrhythm" because most of the rhythmic lines in Atsiã and other *Anlo* drumming are pitched and, in fact, melodic.

<sup>33</sup> A passage illustrating pulse modulation concludes this paper as Fig. 6. The matter is thoroughly discussed in Pantaloni, "Toward understanding . . . *sogo* . . ." pp. 17-20.

<sup>34</sup> "African music: an evaluation . . ." p. 22.

<sup>35</sup> The full score of Atsiã is on pp. 413-503 of Pantaloni, "*The rhythm of Atsiã*" . . . The full score of *Takada* is on pp. 21-31 of "*Takada* drumming" by Ladzekpo and Pantaloni. I have joined this argument on the expectation that *Anlo* practice will be found to be typical of much of West African dance drumming. The research has not yet been done to support this expectation.

<sup>36</sup> Consistency with the bell is a restraint that clearly sets apart *Anlo* inventiveness from what is meant in the West by "improvisation". Future descriptions of African ensemble drumming should specify what is meant when the term "improvisation" is used, because the rule of the bell is an important stylistic feature.

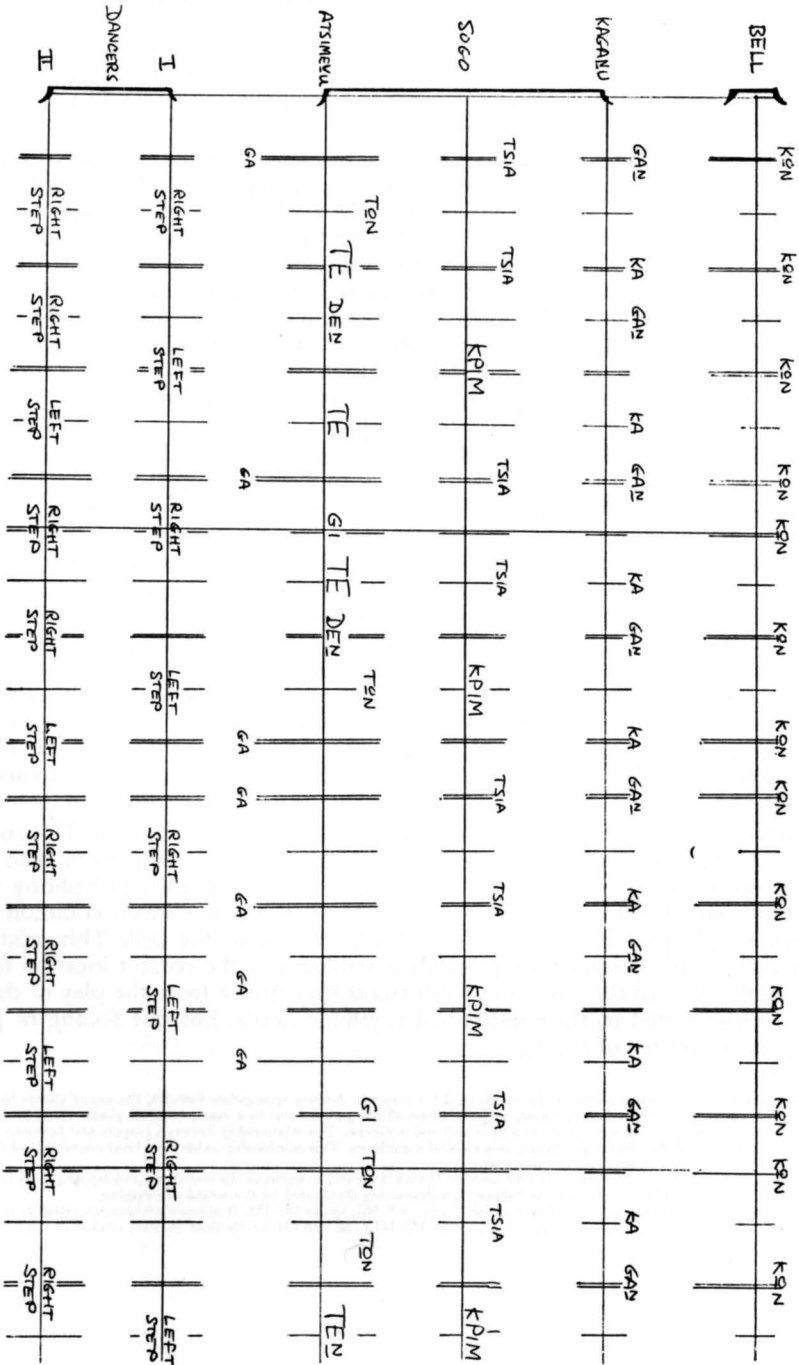


Fig. 5—The material of Fig. 1 scored to show how each player keeps time by forming a duet with the pattern of the bell. Double vertical lines represent strokes of the bell.

create an intricate exchange of call and response, each introducing variations the other may never have heard before, yet neither one playing anything that does not fit with the other. In practice, variation and invention are limited by a sense of what is appropriate to the style of each dance drumming.<sup>37</sup>

Theoretically the silhouette also allows for an unlimited number of contributing parts. A single beat pervading the entire ensemble, as in the West, is easily obscured by too many different rhythms at the same time. The total mixing of rhythms must remain simple. When each musician has only to relate himself to the play of the bell, however, he can take his part confidently regardless of the number of other parts accompanying his own. The total mixing of rhythms can be infinitely complex. In practice the *Anlo* exhibit as much sensitivity to the quality of the sound of an ensemble as do the musicians of the West. For each of the dance drummings in Anyako a certain number of instruments of a certain quality are appropriate. A limited amount of substitution occurs (as when *atsimevu* replaces *agboba* in Gahu) [the u is nasalized], but not the addition of instruments.<sup>38</sup>

By way of conclusion the material of Fig. 1 is scored in Fig. 5 according to the principles outlined in this paper. The seven-stroke cycle of the bell is carried on the topmost line. From each stroke of the bell an imaginary vertical double line drops down through the other parts of the ensemble, becoming visible as it crosses each horizontal line. The purpose of this arrangement is to show that each performer hears these bell strokes in combination with his own strokes or steps. Reading across any one of the lower horizontal lines one can see both the part represented on that line and the part played on the bell. Bar lines and time signatures are not appropriate since (1) they do not point to the actual organization of the timing and (2) the dynamic stress implied by them does not exist. For convenience a vertical line runs through the score at each appearance of the first stroke of the bell pattern, but this stroke does not necessarily correspond to a point felt to be emphatic by any of the players. A more extended play for *sogo* is provided in Fig. 6, in which a modulation from one pulse to another is clearly felt.<sup>39</sup>

This paper discusses only the matter of timing in *Anlo* drumming. The source of timing is a high, soft voice that gives out a repeating, asymmetrical pattern. The process of timing one's part to this voice is a process of creating correct polyphony with it. The players neither follow a beat nor build additively upon a small, common unit of time; they simply play in duet with the steady cycling of the bell. This relationship gives them both the correct timing for their strokes and the correct location for their patterns in the flow of the ensemble. Performers may derive from the play of the bell a feeling of pulse suited to their individual rhythmic needs, but this feeling of pulse is not the primary source of timing.

<sup>37</sup> This is an extremely important matter and a virgin field for research. Among appropriate features, the use of silence in a repeating pattern will surely turn out to be important, as John Chernoff has pointed out in a manuscript he kindly made available to me, because the basic relationship among the drums is call and response. The relationship between players and between players and dancers, is the heart of *Anlo* dance drumming as a musical experience. This relationship exists on a level above that of fundamental timing and is therefore not discussed in this paper.

<sup>38</sup> An exception may be the recent introduction of wooden blocks (*akpewu*) to augment the sound of handclapping. This has happened only by ensembles described by the *Anlo* as "*akpewu*", a drumming dominated by the sound of clapping.

<sup>39</sup> The passage is from Pantaleoni, *The rhythm of Atsiä* . . . pp. 498-502, cycles 185-191. It appears without the syllables in Pantaleoni, "Toward understanding . . . *sogo* . . ." pp. 36-37, cycles 155-161. The vertical double lines indicate strokes of the bell.

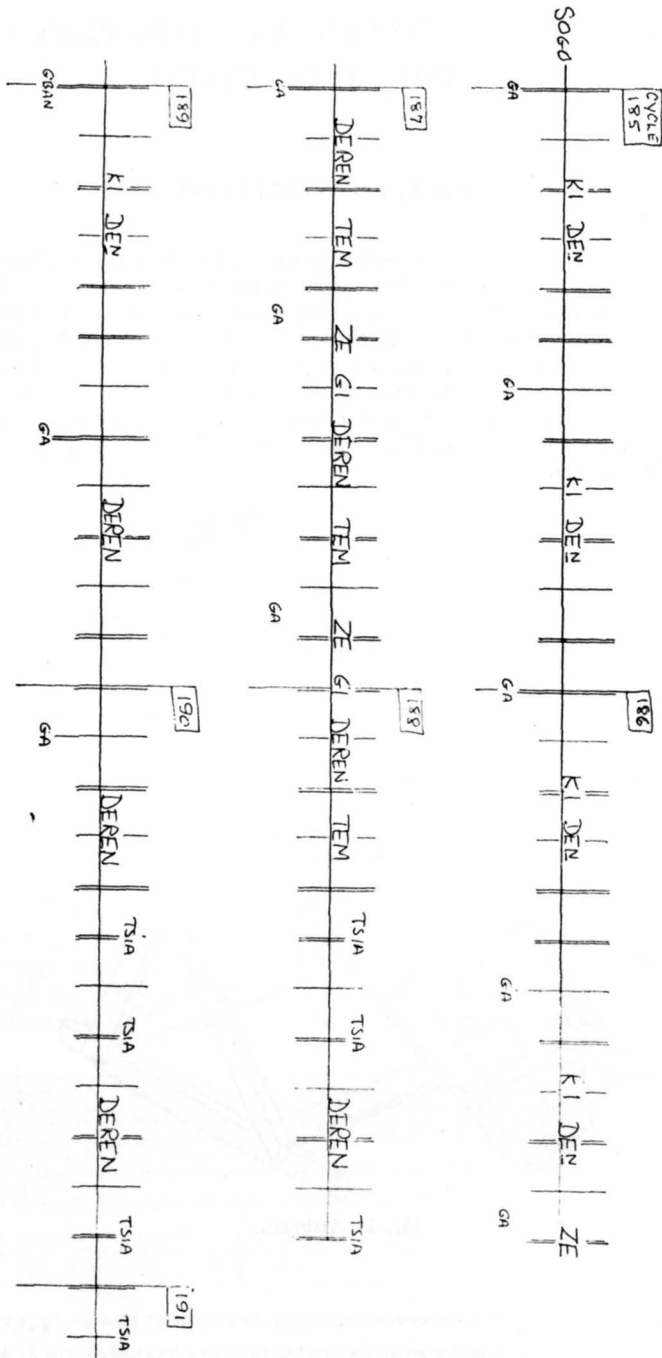


Fig. 6—A passage from the play of sogod in Atsiä showing changes of pulse. Double vertical lines represent strokes of the bell.