
THE RHYTHM OF AIKIDO

PART I

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ABSTRACT

In this two-part article, we discuss how some music principles can be applied to various aspects of aikido training: Part I – including stretches, single-person routines to develop balance and mind-body coordination, rolling and falling; Part II – partnered techniques of neutralization, projections/throws, weapons, breathing exercises, and meditation. We use simple music notation and a percussion instrument to explain aikido's natural rhythm. Our goal is to provide students and instructors with novel tools for learning and teaching aiki arts. Not only aikido but every martial art—or physical discipline—has its own pace, which the student should discover. Learning to move according to this rhythm will allow the martial artist to adequately match an attack, blend and flow with it, and finally neutralize it.

The real work of a musician is to reveal the way of the universe through music. The calligrapher and artist do the same using a brush. Is not [Ki-] Aikido an art designed to reveal the way of the universe through movement?

Time has its own flow. It is very important ... to have an accurate grasp of the flow of the universe. In order to achieve this, [we] must have a sense of the rhythm of the universe. This is something [we] know with [our] body, not [our] intellect.

– Tohei Koichi (Reed, 1992: 299, 285)

INTRODUCTION

Aikido and music have numerous similarities. Both are arts because they allow us to create and express beauty in movement or sound. They are also science because aikido and music principles can be organized systematically in a body of knowledge susceptible to testing. Like music, aikido consists of “elements” (the techniques) ordered according to spatio-temporal relationships that have unity and continuity. For example, an attack and its corresponding neutralization technique occur in a given location and time and are governed by the laws of physics. Aikido (*aiki* = harmony; *do* = path, the way of) depends on rhythm and harmony. A technique's flow of movement and rate of speed, as well as the congruent and pleasant arrangement of body motions, define aikido's rhythm and harmony.

In this two-part article, we discuss how some music principles can be applied to various aspects of aikido training: PART I – including stretches, single-person routines to develop balance and mind-body coordination, rolling and falling, PART I – partnered techniques of neutralization, projections/throws, weapons, breathing exercises, and meditation. We use simple music notation and a percussion instrument, the floor tom-tom drum (Figure 1), to explain the natural rhythm of aikido.



FIGURE 1

A floor tom-tom drum or any other percussion instrument with a loud low-frequency vibration can be used to mark aikido's tempo. A plastic barrel and a short broomstick will also work!

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A. Espinosa & G. Paz-y-Miño C.

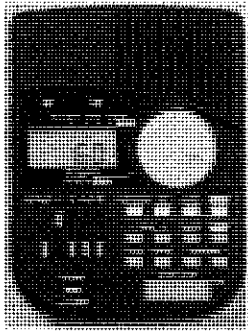


FIGURE 2

Electronic metronomes offer a variety of options to indicate the tempo of "aikido music." A large, old-fashioned alarm clock can replace the metronome; however, you will not be able to adjust its tempo to a pace slower and/or faster than sixty clicks per minute.

DISCOVERING AIKIDO'S RHYTHM

An essential component of aikido's rhythm is its tempo. We define aikido tempo as the rate of speed of an aikido technique or routine. It is possible to mark aikido's tempo by counting, or chanting, numbers at specific intervals. A more precise method is to use a metronome, a device that produces clicks and/or light flashes over a prearranged time interval (e.g., per second) to indicate the tempo of music (Figure 2). We recommend adjusting the metronome to 60 beats per minute (one second equals one unit of aikido music; see Supplement); this pace induces appropriate mind and body coordination during aikido practice. Slow and gentle training will let the student discover when to speed up.

Be patient! The ultimate goal should be to feel the rhythm in your "one-point" (*seika-no-itten*), or your body's center of balance. In biophysical terms, the one-point is the body's center of rotation; it is located about two inches below the navel. If the one-point moves rhythmically, the entire body will also move rhythmically. Aikido practitioners devote much effort to mastering the appropriate coordination between the overall body movements and the one-point motions.

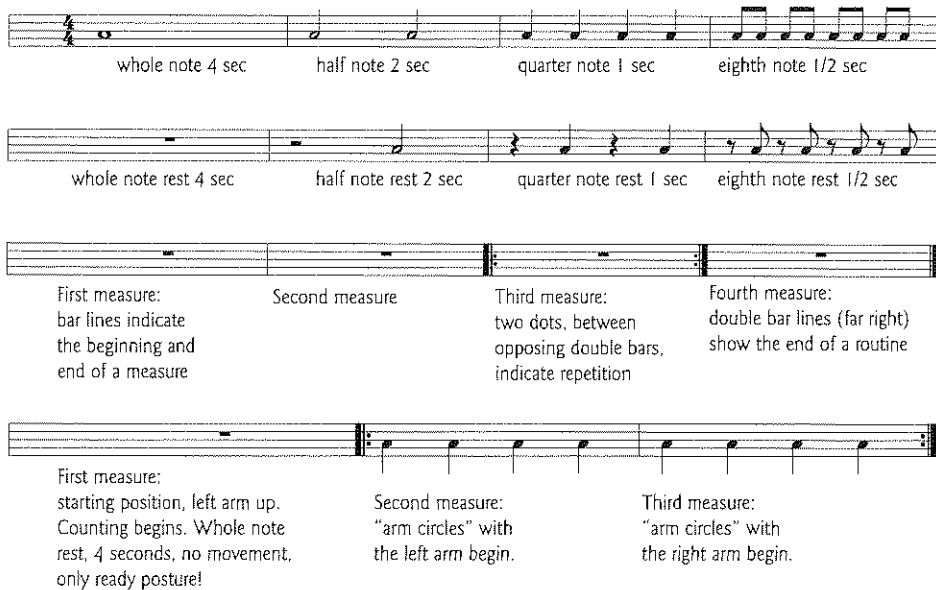
SUPPLEMENT: BASIC AIKI MUSIC NOTATION

Like in music, the duration of aikido techniques can be indicated by different types of notes (Figure 3). Here we arbitrarily assign the following duration to these notes: whole note = four seconds; half note = two seconds; quarter note = one second; and eighth note = half a second. The unit of aikido music is the quarter note. In consequence, one whole note equals two half notes, one half note equals two quarter notes, and one quarter note equals two eighth notes (Figure 3-A; there are also other notes in music, like the sixteenth, thirty-second and sixty-fourth notes; they are too fast to illustrate the aikido principles discussed in this article). All notes have their corresponding rests or pauses (Figure 3-B) which in music indicate silence. In aikido, however, there is no silence, just pause.

Aikido music is divided into equal parts called measures (Figure 3-C); bar lines indicate the beginning and end of a measure. Two dots, placed between double bars, indicate repetition of the aikido sequence within one or more measures. Double bar lines show the end of an entire aikido routine, which may include numerous measures.

Time signatures and note values: Time signatures are placed at the beginning of a sequence of aikido music. The most common time signature is 4/4 which consists of four quarter notes per measure (one per second; Figure 3-A). The top number shows the number of beats on the drum or the number of vocal counts chanted by the aikido practitioner (i.e., one, two, three, four...) in each sequence of aikido techniques. The bottom number simply specifies that the note in each beat corresponds to a quarter note.

In Figure 3-D, the 4/4 time signature indicates one arm circle per second, which is represented by the four quarter notes. The aikido practitioner shall count out loud each number, matching the rhythm kept by a drummer or a metronome.



3A: Types of notes used in aiki music.

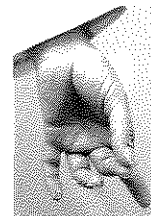
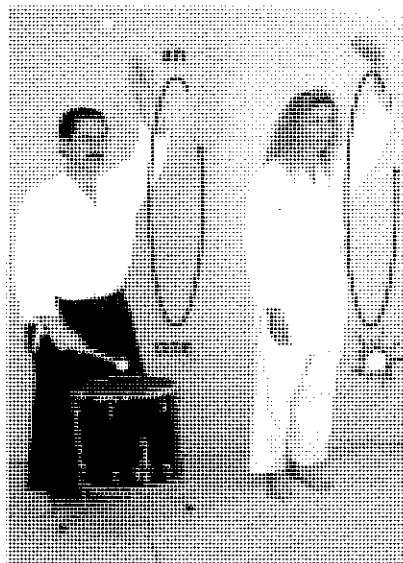
3-B: Rests or pauses.

3-C: Measures and their notation and symbols.

3-D: Arm "circles."

FIGURE 3

This apparently simple exercise is the foundation of numerous aikido routines, particularly wrist techniques like the one shown in Figure 4. Rather than "arm circles," the aikido practitioners perform elliptical trajectories with their hands, while the shoulders remain relatively immovable. The practitioners allow their hands to fall with gravity and catch them when the hands reach the lowest point in the elliptical trajectory; then, they take their hands up again. The student on the right matches this point in the trajectory with the rhythmic beating of the drum (left) and uses an excellent learning/teaching tool, the finger tap (borrowed from music) to accurately match her physical action with the rhythm (inset).



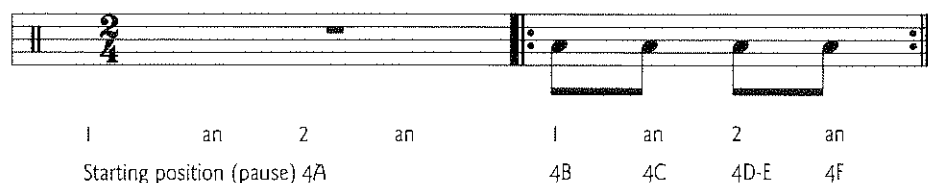
Note that each down movement of the arm circle corresponds to a drum beat (or a finger tap). Every time that the arm is up, the drum stick is also up. In correct aikido music this "up" should be chanted as "an." Therefore, the aikido practitioner shall count "one an, two an, three an, four an," emphasizing the down part of each arm circle and matching it with the count of the number. The up portion of the arm circle should be gentle while it matches the "an" part of the chanting. Because a quarter note equals one second (above), the "an" is chanted half second apart between two counts (i.e., one an two an three an four an). This simple method gives aikido practitioners an even better sense of timing (i.e., no unequal gaps or silence—pauses—between counts: e.g., one..... two... three..... four...). This principle also helps us indicate how fast a technique should be performed. For example, leg stretches (Figures 5-6, 13-18) are usually practiced at a frequency of one every half second (time signature 2/4), which corresponds to eighth notes (above). In contrast, knee walking (Figure 21) is usually performed at slow tempo: one every second (quarter note).

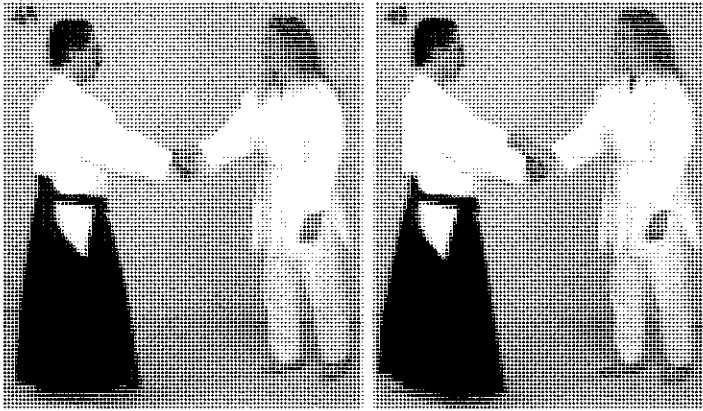
Aikido implies a harmonious dialogue between the attacker and defender. The defender must learn to detect the attacker's rhythm, match it, and blend with the attack's intrinsic speed. Knowing when to pause (= music rest, see Supplement) and when to continue determines the outcome of this dialogue. Here are some tips that will help you achieve this goal while training in a controlled environment:

- ❶ Set the metronome at 60 beats per minute or count out loud "1 an, 2 an, 3 an, 4 an," again "1 an, 2 an, 3 an, 4 an," (time signature 4/4, see Supplement for details) at approximately this tempo (the assistance of a drummer beating a floor tom-tom would be ideal).
- ❷ Both attacker and defender must move according to this rhythm: in essence "follow the music."
- ❸ The attacker executes "one-handed wrist grab, cross-side wrist" (Fig. 4).
- ❹ The defender locks the attacker's wrist and neutralizes the attack as shown in Figures 4 A-E.
- ❺ Practice this routine numerous times at this slow pace (60 beats/minute) until you can perform it in a completely relaxed manner. If you do this long enough, you will discover aikido's natural rhythm.
- ❻ Once you have mastered the slow tempo, you might feel confident to speed up (time signature 2/4, as shown in Fig. 4), without jeopardizing relaxation, accuracy, or performance: "jazz-time."

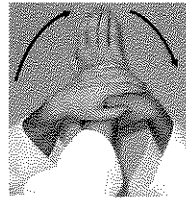
FIGURE 4

Starting position from standing (pause). 4-A: Attacker (right) performs one-handed wrist grab, cross-side wrist. Out-loud counting begins (time signature 2/4, see Supplement for details): one an... two an... 4-B one: Defender locks the attacker's wrist by gently placing the defender's free hand on top of the attacker's hand (inset). At the same time, the defender executes a finger tap with the fingers of his lowest hand. The finger tap is an excellent tool for learning and teaching how to accurately match physical actions with an attack's intrinsic rhythm (see Supplement). 4-C an: Defender leads the attacker's arm up. 4-D-E two: Defender leads attacker down, projecting her face down onto the mat. 4-F an: Defender neutralizes the attacker with a classical aikido pin: twisting the attacker's wrist and elbow in the direction indicated by the arrows and preventing her from standing up by pressuring her thorax with the knee. This wrist technique relies on the principles of the "arm-circle" exercises discussed in the Supplement and also in Figure 3.

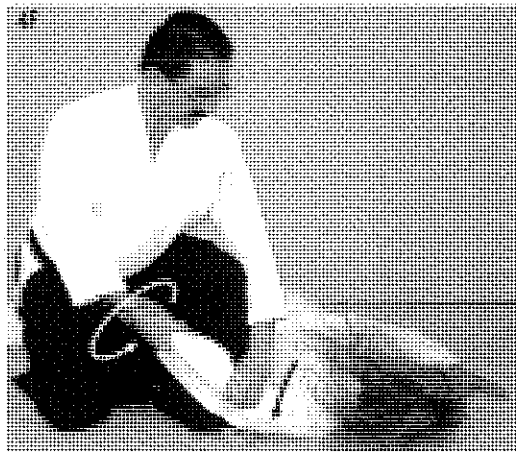
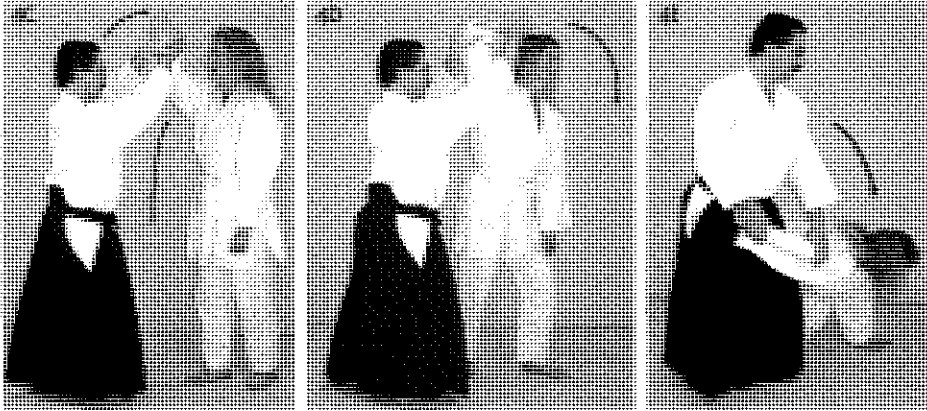




4B - detail



4C - detail



TECHNICAL SECTION

In the following figures, we indicate how to apply basic music principles to diverse aikido routines. Adopt the starting position ("pause") as indicated in every figure before proceeding to chant out loud the aikido tempo (set the metronome at 60 beats per minute and/or make sure your drummer partner beats the drum at this pace). Only relaxation will allow you to discover aikido's natural rhythm.

STRETCHES

Here we encourage students to practice numerous aikido routines with a 4' wooden staff (*jo*). The *jo* is an extraordinary tool for teaching and learning mind and body coordination.

FIGURE 5

Leg stretches, “feet together”

5-A: Starting position (pause): legs extended, heels together, hold the staff with both hands and place it slightly above the shins (without touching), relax. Out-loud counting begins (time signature 2/4). 5-B one: Bend forward bringing the chest (not the head) toward the knees and gently touch the soles of the feet with the staff. 5-C an: Return to the starting position. 5-D two: stretch again as in B. 5-E an: Finish in starting position. Repeat this series twice (= four music measures, see Supplement).

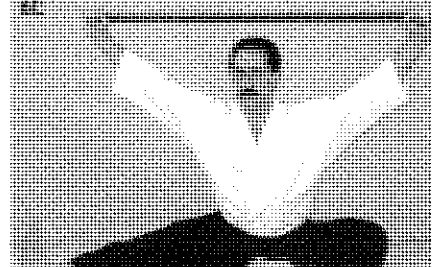
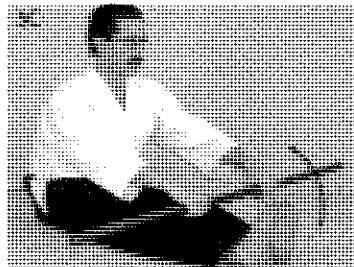
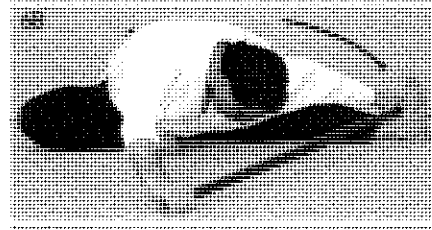
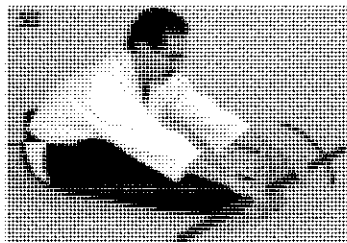
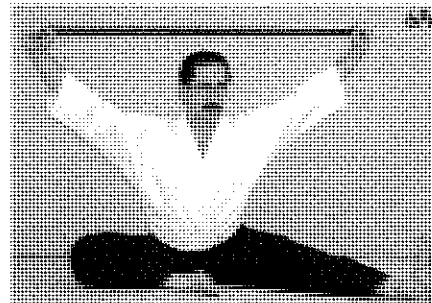
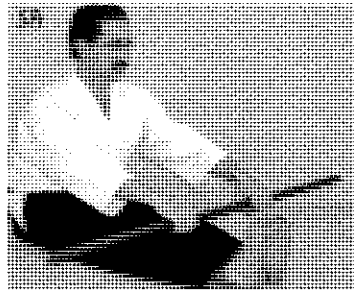
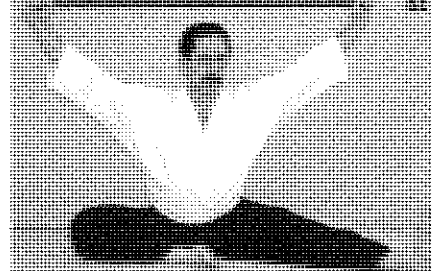
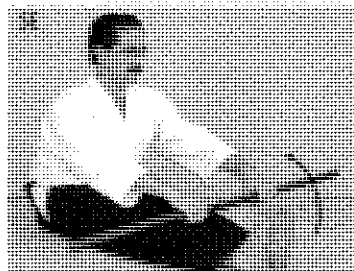
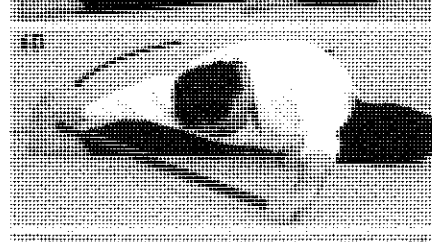
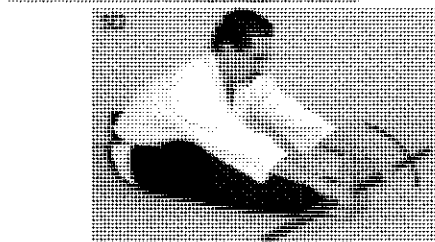


FIGURE 6

Leg stretches, “one leg in”

6-A: Starting position (pause): left leg extended, right leg bent (heel close to the groin), hold the staff with both hands (separated at a comfortable distance), shoulders relaxed. Out-loud counting begins (time signature 2/4). 6-B one: Bring your chest (not the head) toward the left knee and gently touch the shins with the staff. 6-C an: While returning to the starting position, switch the position of your feet. 6-D two: Stretch toward the right knee. 6-E an: Finish in starting position. Repeat this series twice.



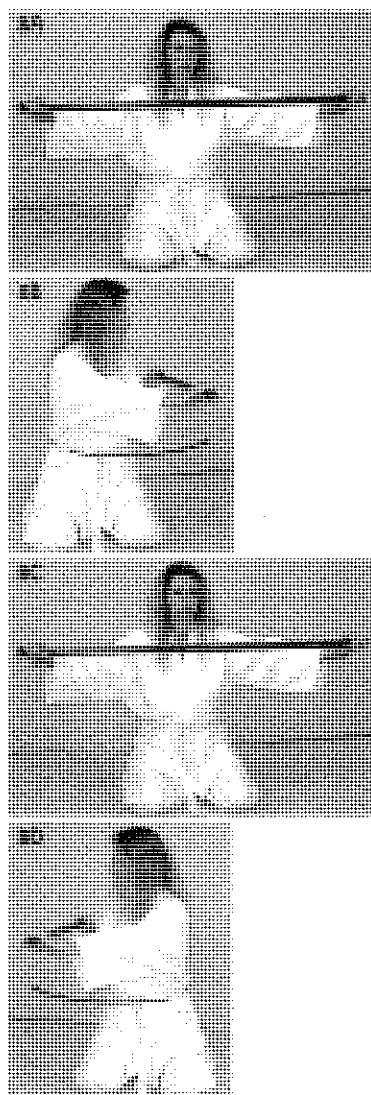
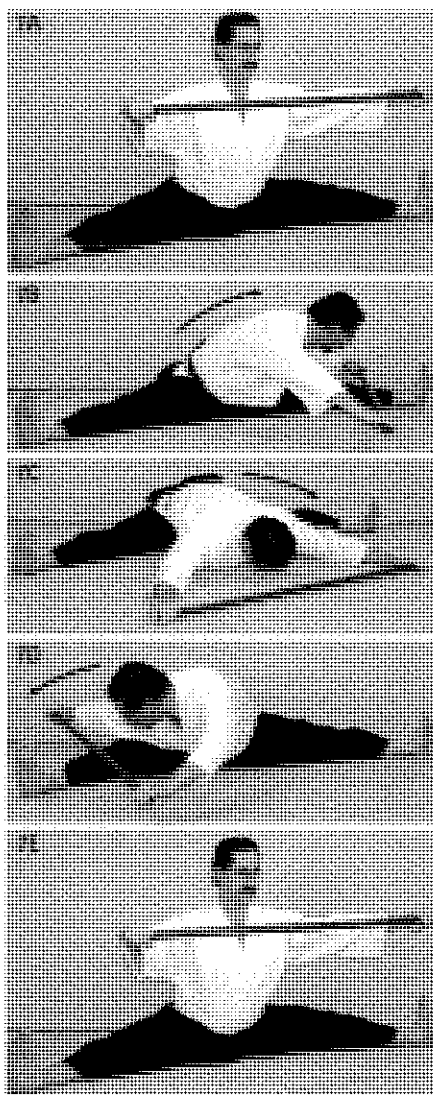
4/4
 1 an 2 an 3 an 4 an | 1 an 2 an 3 an 4 an
 Starting position (pause) 7A | 7B 7C 7D 7E

2/4
 1 an 2 an | 1 an 2 an
 Starting position (pause) 8A | 8B 8C 8D 8E

FIGURE 7 - Leg stretches, “open legs”

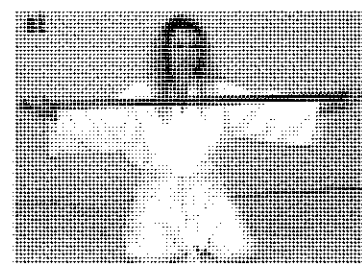
7-A: Starting position (pause): open legs, hold the staff with both hands (separated at a comfortable distance) and raise it to chest level. Out-loud counting begins (time signature 4/4). 7-B one an: Bring your chest (not the head) toward the left knee and gently touch the shins with the staff. 7-C two an: Bend forward (back straight). 7-D three an: Stretch toward

the right knee. 7-E four an: Finish in starting position. Repeat this series twice.



**FIGURE 8
Turning upper-body to the side, arms at chest level**

8-A: Starting position (pause): formal aikido sitting posture (*seiza*), hold the staff with both hands (separated at a comfortable distance) and raise it to chest level. Out-loud counting begins (time signature 2/4). 8-B one: Turn gently toward the left side. 8-C an: Return to starting position. 8-D two: Turn gently toward the right side. 8-E an: Finish in starting position. Repeat this series twice.



1 an 2 an | 1 an 2 an
 Starting position (pause) 9A 9B 9C 9D 9E

1 an 2 an 3 an 4 an | 1 an 2 an 3 an 4 an
 Starting position (pause) 10A 10B 10C 10D 10E

FIGURE 9

Bending upper body laterally

9-A: Starting position (pause): sitting *seiza*, hold the staff with both hands (separated at a comfortable distance) and raise it up (arms stretched, shoulders relaxed). Out-loud counting begins (time signature 2/4). 9-B one: Bend gently laterally to the left side. 9-C an: Return to starting position. 9-D two: bend gently to the right side. 9-E an: Finish in starting position. Repeat this series twice.

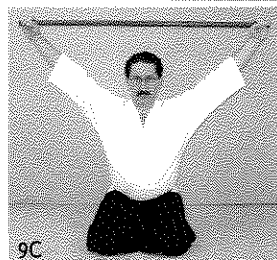
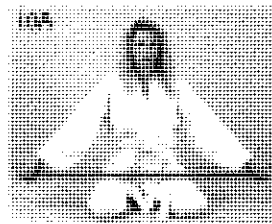
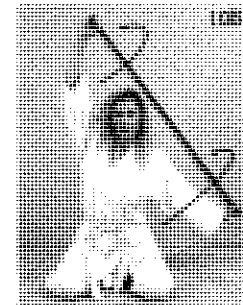
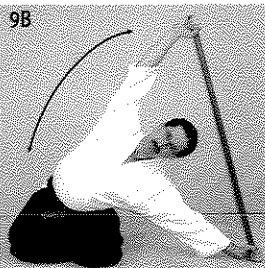
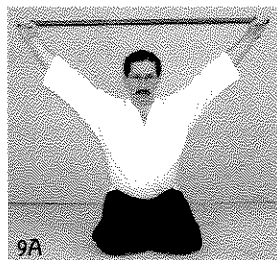
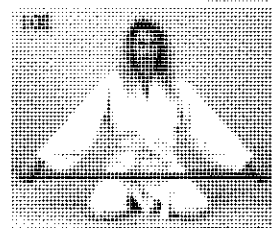
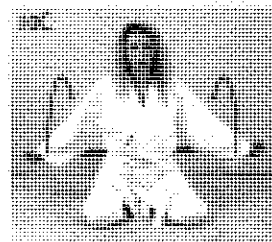
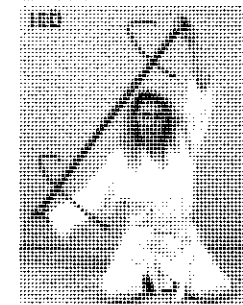
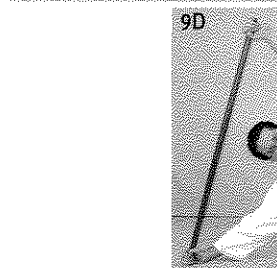


FIGURE 10

Shoulder stretches: rotation

10-A: Starting position (pause): sitting *seiza*, hold the staff with both hands (separated at a comfortable distance), staff slightly rests on thighs. Out-loud counting begins (time signature 4/4). 10-B one an: Raise the right arm while keeping the left arm and particularly the left hand in place (do your best!). 10-C two an: The movement continues backwards using the right shoulder joint as a rotation point until the staff is positioned behind the hips (be careful!). 10-D three an: Raise the left arm while keeping the right arm and particularly the right hand in place. 10-E four an: Finish in starting position. Repeat this series twice. With practice, this routine should be performed in only two counts (time signature 2/4).



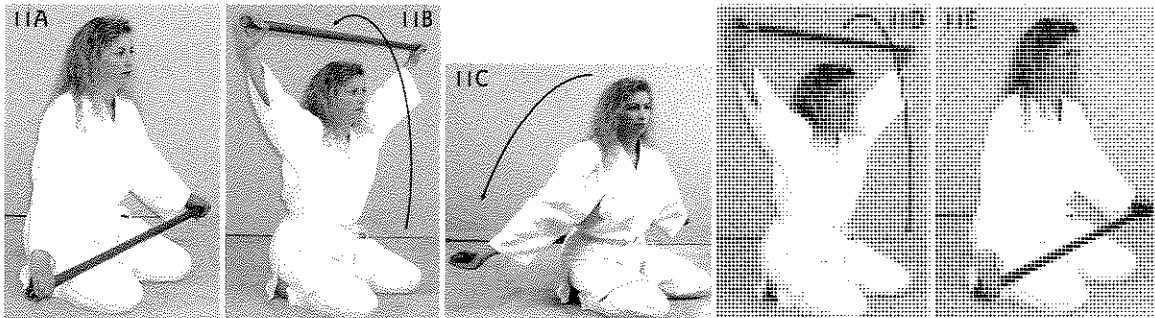


1 an 2 an 3 an 4 an 1 an 2 an 3 an 4 an
 Starting position (pause) 11A 11B 11C 11D 11E

FIGURE 11 - Shoulder stretches: back and front

11-A: Starting position (pause): take formal aikido sitting posture, hold the staff with both hands separated at a comfortable distance, staff slightly resting on thighs. Out-loud counting begins (time signature 4/4). 11-B one an: Raise both arms. 11-C two an: The movement continues backwards using the shoulder joints as a rotation point until the staff is positioned behind the hips (be careful!). 11-D three an: Return to B. 11-E four an: Finish in

starting position. Repeat this series twice. With practice, this routine should be performed in only two counts (time signature 2/4).



SINGLE-PERSON ROUTINES TO DEVELOP BALANCE & MIND-BODY COORDINATION



1 an 2 an 3 an 4 an 1 an 2 an 3 an 4 an
 Starting position (pause) 12A 12B 12C 12D 12E

FIGURE 12 - Sitting and standing

12-A: Starting position (pause): take formal sitting posture. Out-loud counting begins (time signature 4/4). 12-B one an: Raise your hips and sit on your heels, toes touching the mat.

12-C two an: Stand up perpendicularly to the mat and keep your balance (most of the bodyweight should rest on the toes). 12-D three an: Return to B. 12-E four an: Finish in starting position. Repeat this series twice. With practice, this routine will help you develop not only stability but also powerful legs.

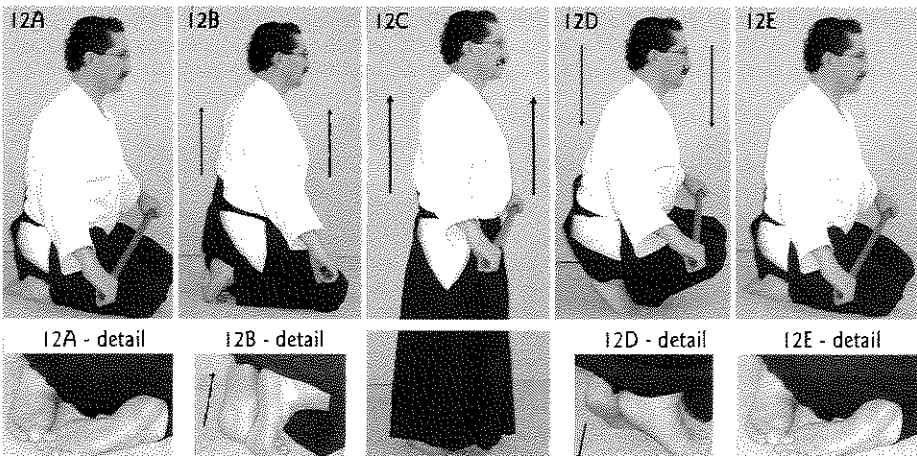


FIGURE 13 - Leg stretch, forward

13-A: Starting position (pause): standing, hold the staff with both hands and use it as a support for this routine: left hand keeps one end of the staff close to the armpit while the right hand maintains it perpendicular to the mat. Out-loud counting begins (time signature 2/4). 13-B one: Raise your left leg as high as you can (be careful!), leg stretched. 13-C an: Return to the starting position calmly. 13-D two: Raise your leg again. 13-E an: Return to starting position. Repeat this series twice and alternate sides. Keep your balance and relax.

1 an 2 an 1 an 2 an
 Starting position (pause) 13A 13B 13C 13D 13E

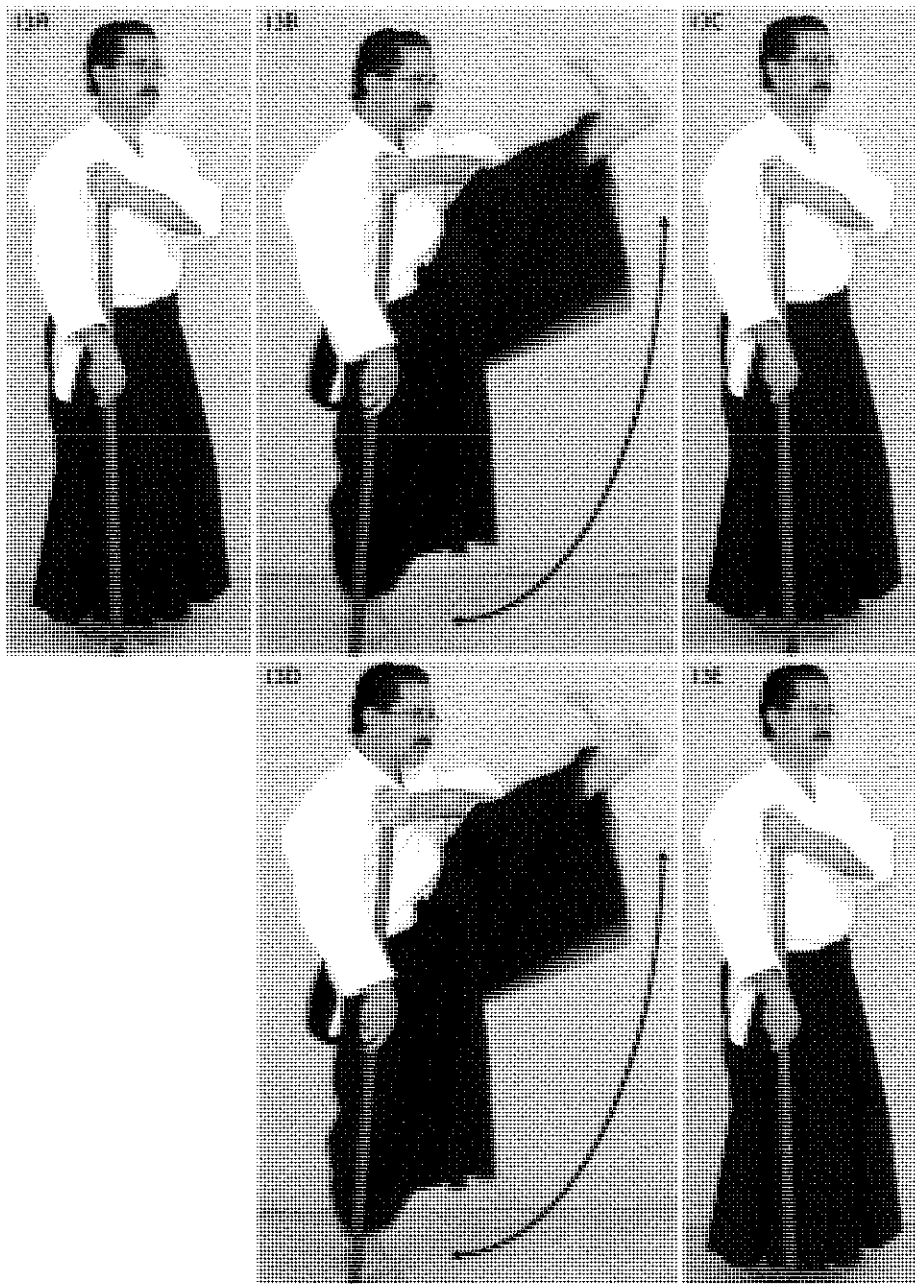


FIGURE 14 - Leg stretch, forward and in “arc”

14-A: Starting position (pause): standing, left leg forward, left arm forward and parallel to the mat, hold the staff with the left hand. Out-loud counting begins (time signature 2/4).
 14-B one: Raise the right leg and reach your left hand with the inside edge of the right foot. This movement should describe an arc trajectory (front view).
 14-C an: Return to the starting position calmly.
 14-D two: Raise your leg again. 14-E an: Return to starting position calmly. Repeat this series twice and alternate sides. To maintain relaxation and balance, the

aikido practitioner uses a trick: the right hand remains gently closed, next to the vertical alignment of the body, with the thumb slightly touching the body, with the middle finger slightly touching the middle finger (see detail).

1 an 2 an 1 an 2 an
 Starting position (pause) 14A 14B 14C 14D 14E

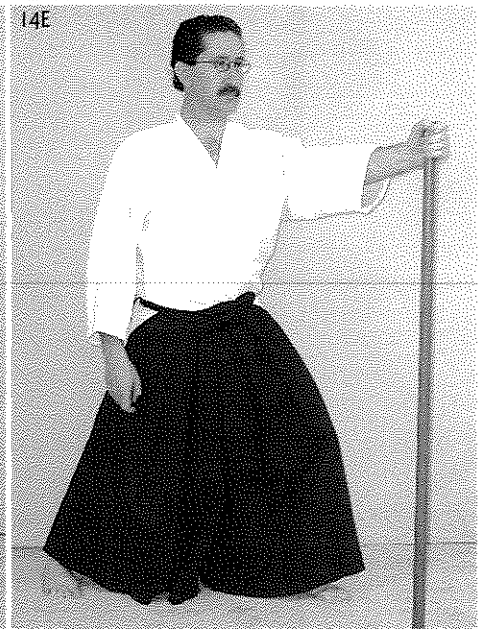
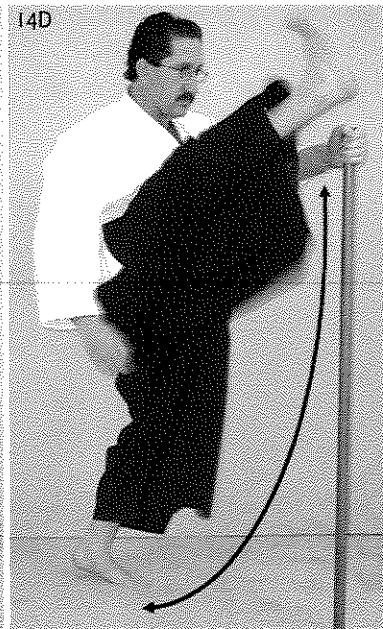
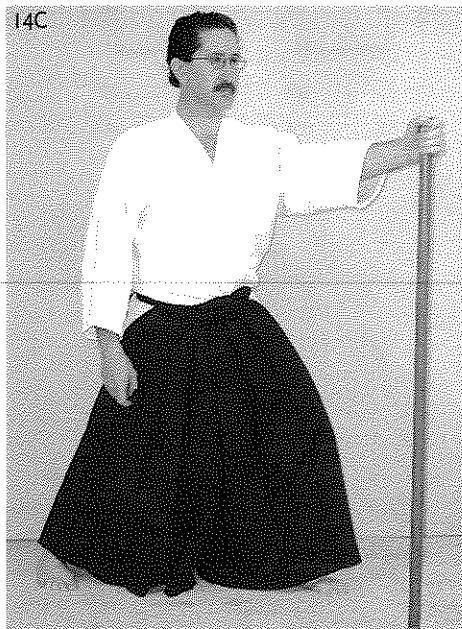
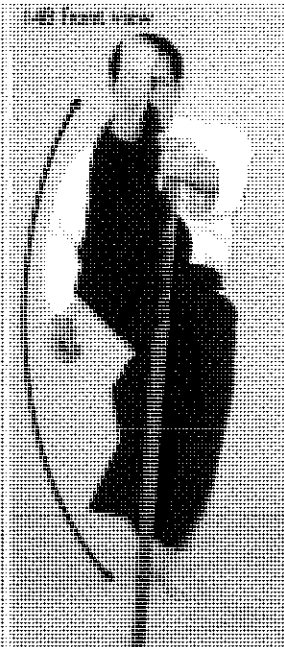
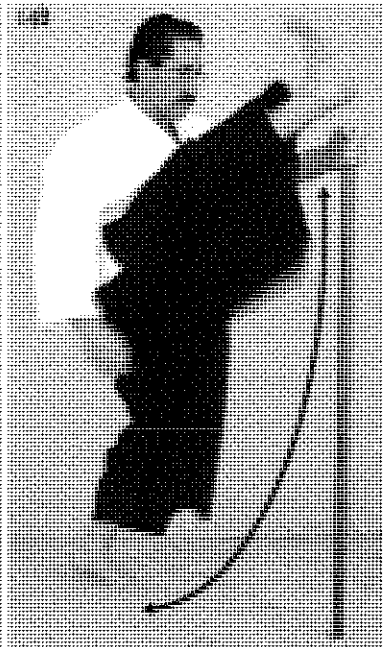


FIGURE 15 - "Walking" over the staff

15-A: Starting position (pause): standing (one leg forward), hold the staff with both hands separated at a comfortable distance. Out-loud counting begins (time signature 2/4). 15-B one: Raise one knee up. 15-C an: "Walk" over the staff so that you position the staff between your legs. 15-D two: Return to B. 15-E an: Finish in starting position. Repeat this series twice with each leg.

1 an 2 an 1 an 2 an
Starting position (pause) 15A 15B 15C 15D 15E

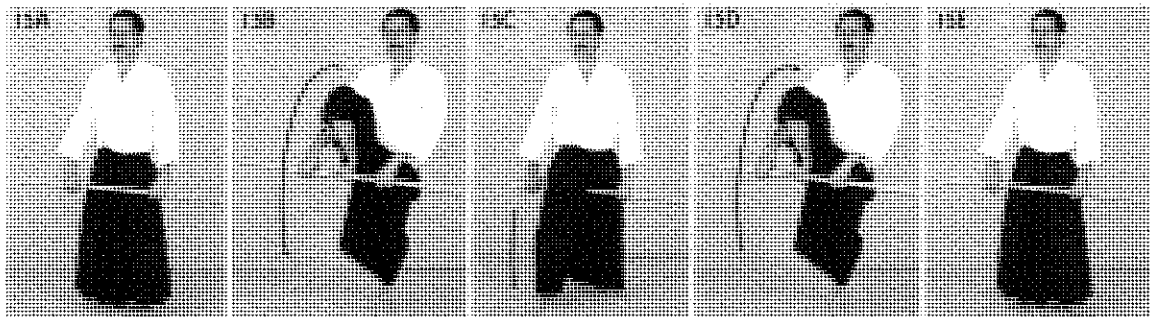


FIGURE 16 - Leg stretch, back

16-A: Starting position (pause): standing, hold the staff with both hands and use it as a support for this routine. Out-loud counting begins (time signature 2/4). 16-B one: raise your left leg to the back, toes pointing down. 16-C an: Return to the starting position. 16-D two: raise your leg again. 16-E an: Return to the starting position. Repeat this series twice with each leg and alternate the position of your hands when holding the staff.

1 an 2 an 1 an 2 an
Starting position (pause) 16A 16B 16C 16D 16E

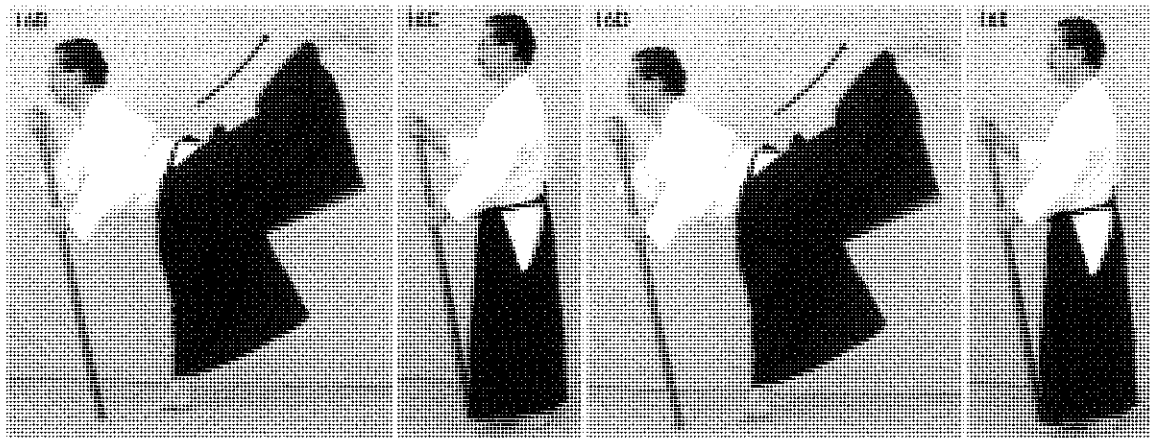


FIGURE 17 – Leg stretch, lateral

17-A: Starting position (pause): standing, hold the staff with both hands and use it as a support for this routine. Out-loud counting begins (time signature 2/4). 17-B one: Raise your left leg to the side. 17-C an: Return to the starting position. 17-D two: Raise your leg again. 17-E an: Return to the starting position. Repeat this series twice with each leg and alternate the position of your hands when holding the staff.

1 an 2 an 1 an 2 an
Starting position (pause) 17A 17B 17C 17D 17E

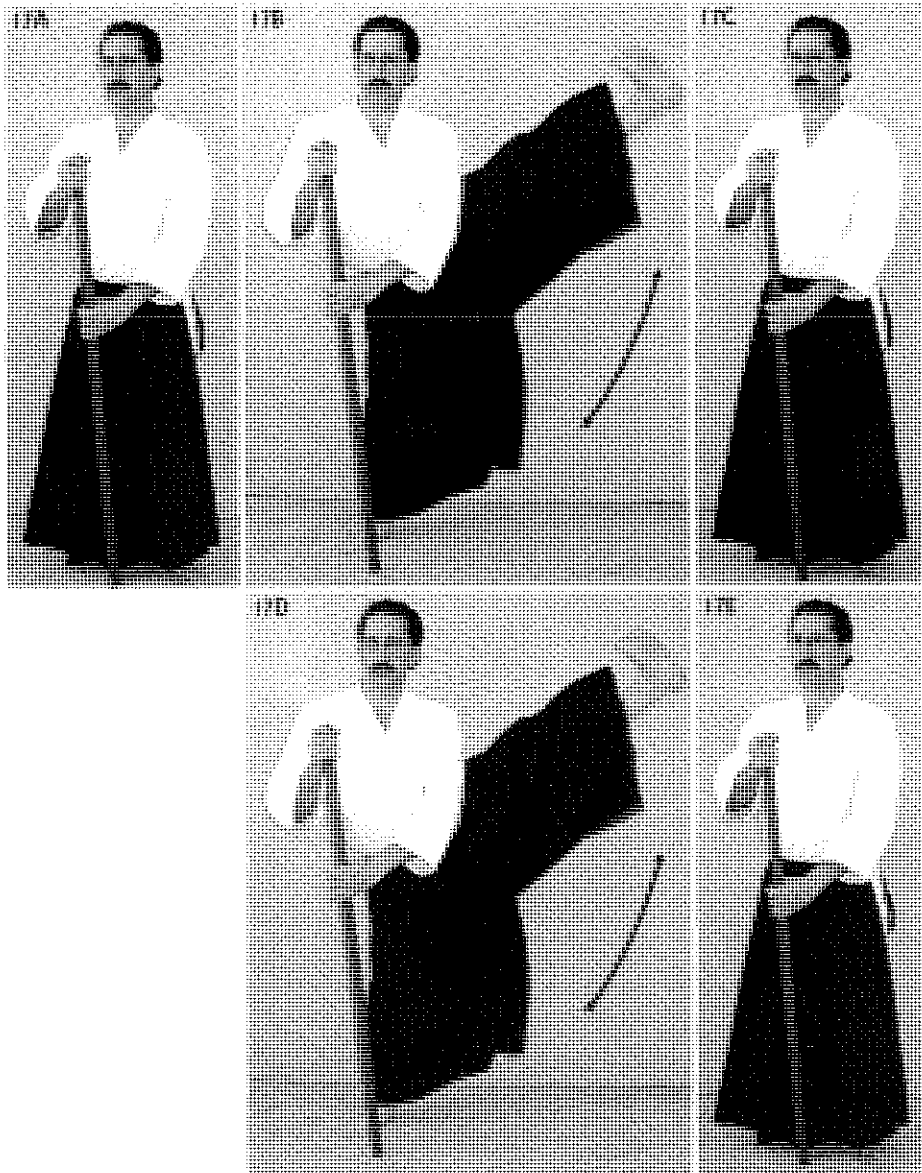
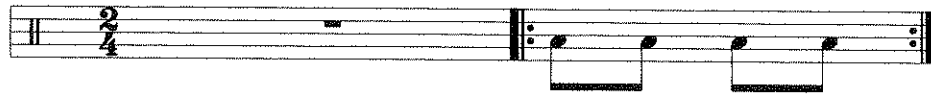
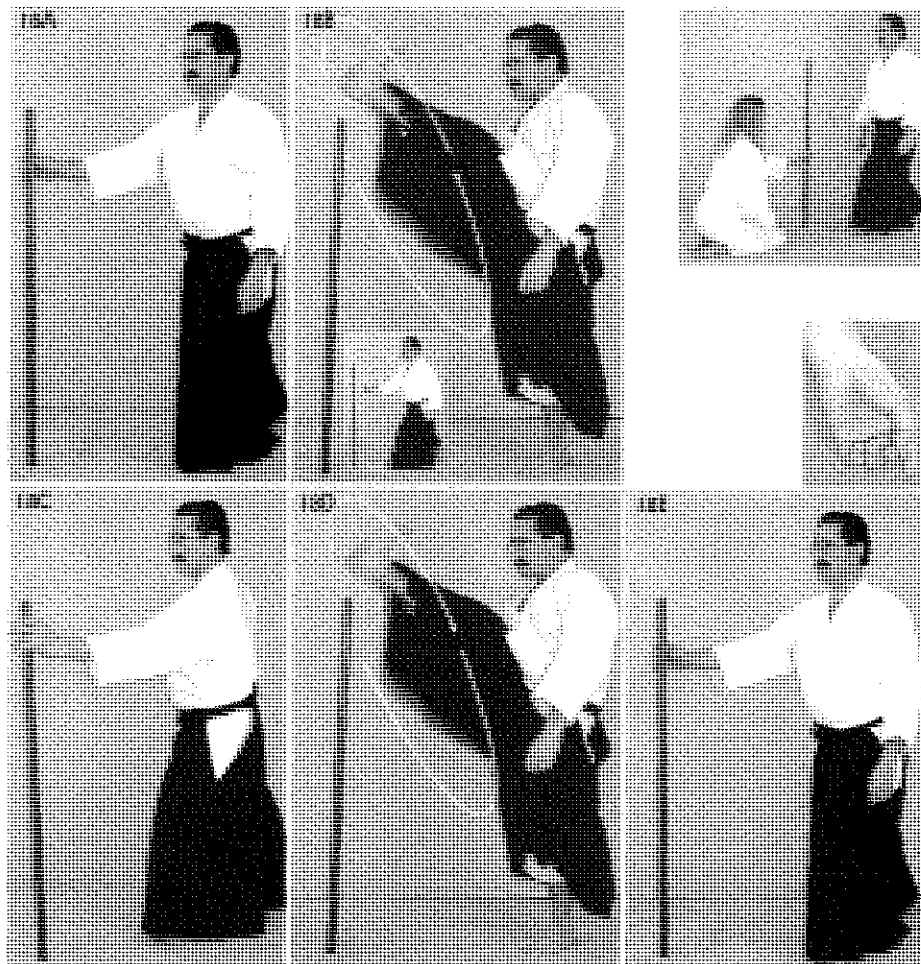


FIGURE 18 – Kick over the staff

This exercise requires speed and good mind and body coordination (practice it away from windows!). 18-A: Starting position (pause): standing (left leg forward), hold the staff with the right hand and stabilize it perpendicularly to the ground. Out-loud counting begins (time signature 2/4). 18-B one: Once the staff is steady, release it carefully so that it remains in balance for at least one second. Right after you release the staff, kick over it describing an elliptical trajectory with your right foot: up, out, down, in. Be fast! Use a short staff at first and/or ask a partner to hold it for you (inset) until you become skillful with this exercise. To maintain relaxation and balance, the aikido practitioner uses the same trick explained in Figure 14 (hand relaxed with the thumb touching the middle finger; see detail). 18-C an: Quickly regain control of the staff by grabbing it with the opposite hand (left) before it falls. 18-D two: Once you re-stabilize the staff, release it again and kick over it describing with your foot an elliptical trajectory in opposite direction to the one described in B (i.e., up, in, down, and slightly out). 18-E an: Finish in the starting position. Repeat this series twice with each leg. To the observer, this routine should seem easy. Complete relaxation will help you give that impression.



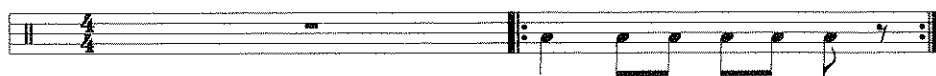
1 an 2 an 1 an 2 an
 Starting position (pause) 18A 18B 18C 18D 18E



ROLLING & FALLING

FIGURE 19 – Backward half-roll from a formal sitting posture (*seiza*)

19-A: Starting position (pause): formal sitting posture. Out-loud counting begins (time signature 4/4). 19-B one an: Lean forward and cross your legs (inset) while gently touching the mat with your fists. 19-C two: Backward half-roll begins; allow the body to roll naturally. 19-D an: Legs reach perpendicular alignment in respect to the floor. 19-E three: Smooth return forward; allow gravity to take the weight of your legs down. 19-F an: Gain momentum and return to the position described in C. 19-G four an: Finish in formal sitting posture. Backward half-rolls should be practiced constantly, aiming to perform them with little effort. Backward half-rolls and complete forward rolls (Figure 20) are excellent—perhaps the best—solo exercises that will help you understand the natural rhythm of aikido.



1 an 2 an 3 an 4 an 1 an 2 an 3 an 4 an
 Starting position (pause) 19A 19B 19C 19D 19E 19F 19G pause

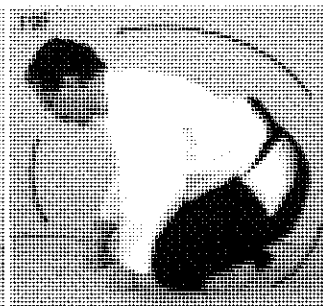
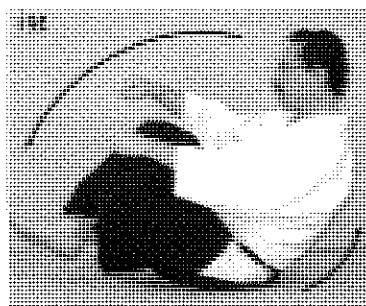
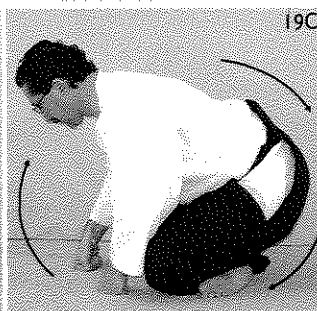
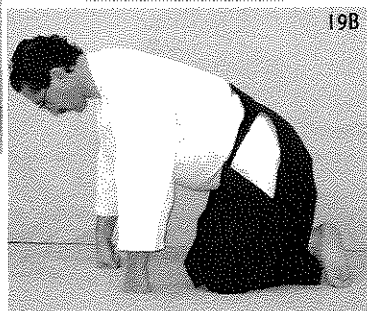
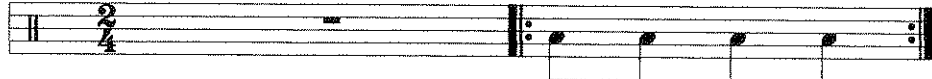


FIGURE 20 – Forward roll from a formal sitting posture (seiza)

20-A: Starting position (pause): formal sitting posture. Out-loud counting begins (time signature 2/4). 20-B one: Raise your body up and forward and “throw” yourself into a classical aikido forward roll (this motion needs full commitment, therefore, mind and body coordination). 20-C-D an: Continue rolling. 20-E two: Slow down and prepare yourself to “knee walk.” 20-F-G an: “Knee walk” one step and finish in seiza. This modality of rolling should be practiced on both sides of the body.



1 an 2 an 1 an 2 an
Starting position (pause) 20A 20B 20C-D 20E 20F-G

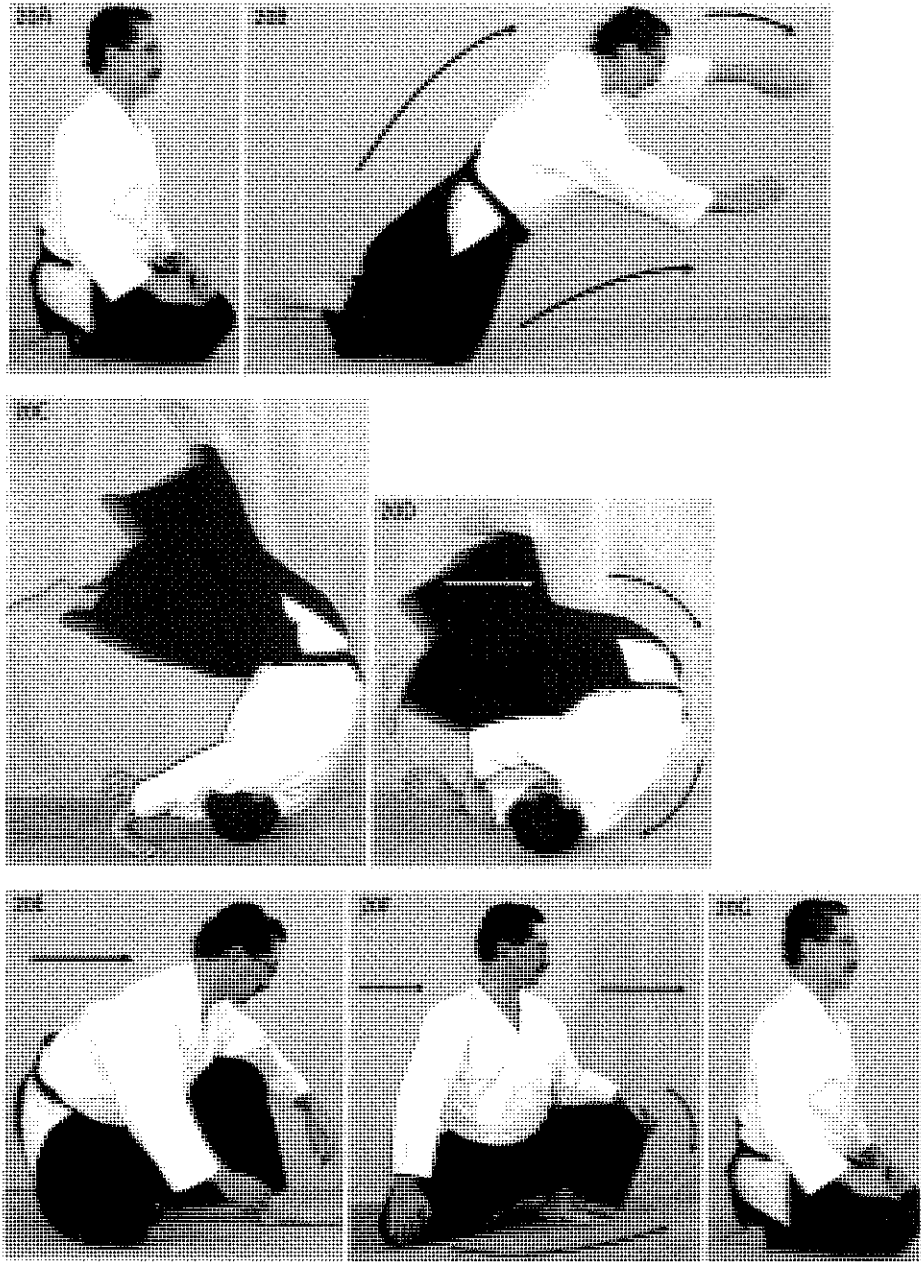
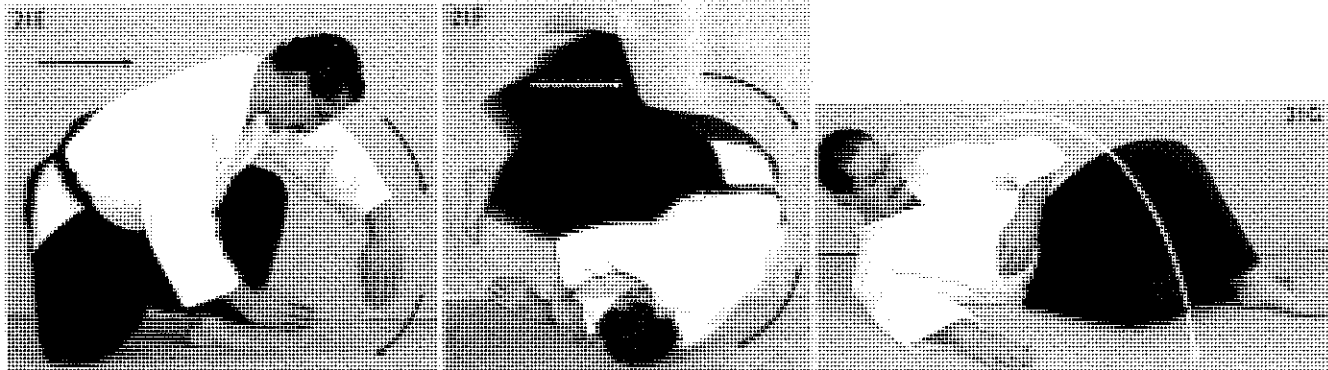
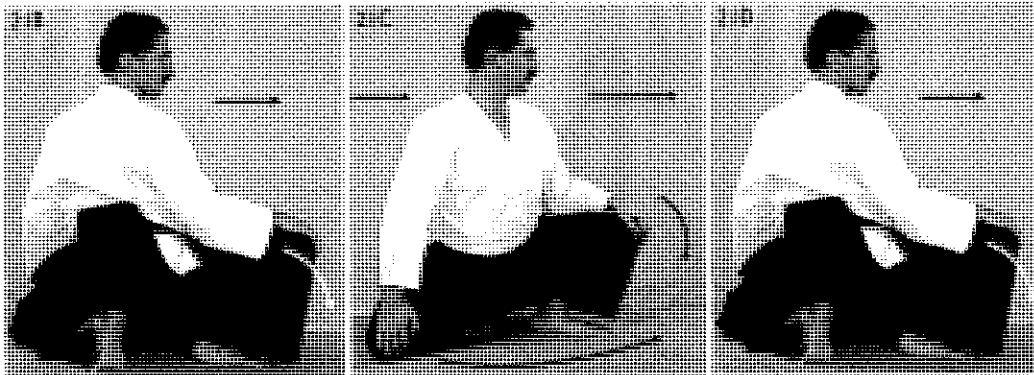
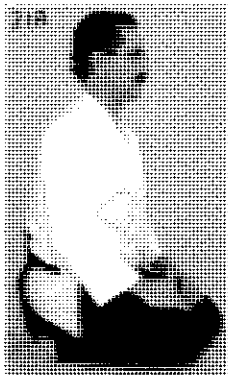


FIGURE 21 – Knee “walking” and break fall

21-A: Starting position (pause): formal sitting posture. Out-loud counting begins (time signature 4/4, two measures). 21-B one an: Perform one “knee-step” with the right knee. 21-C two an: Second knee-step with the left knee. 21-D three an: Third knee-step with the right knee. 21-E-F four: The fourth knee-step with the left knee turns into a short forward roll. 21-G an: End with a break fall. Practice the break fall on both sides of the body. For this you should alternate the side with which you initiate knee-walking.



1 an 2 an 3 an 4 an 1 an 2 an 3 an 4 an
 Starting position (pause) 21A 21B 21C 21D 21E-F 21G





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CONCLUDING REMARKS

Not only aikido but every martial art—or physical discipline—has its own rhythm (“music”), which the student should discover. Learning to move according to this natural “tick” should be an important goal of training. This will allow the student to adequately match an attack, blend and flow with it, and finally neutralize it.

In this article, we have shown how music notation can help us “write” and understand the “rhythm” inherent to aikido. Keep in mind that aikido practitioners are just like musicians: at some point in their development, they want to interpret aikido’s rhythm in unique manners. Some learn to move fast, others emphasize motions in specific parts of a sequence (accentuating the expression of an “aikido note” or “pause”), and a few improvise by simplifying or prolonging the components of the “song.” They all are, however, governed by the laws of physics that impose a natural pace to the movements of their common human anatomies. In part two of this article, we will discuss how music principles can be applied to partnered techniques of neutralization, projections-throws, weapons, breathing exercises, and meditation.



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ACKNOWLEDGMENTS

We dedicate this article to Mark Rubbert, William Reed, Kashiwaya Koichi, and Andrew Tsubaki, who have inspired us to explore the fascinating complexity of Shin Shin Toitsu Aikido (founder Tohei Koichi). Very special thanks to the St. Louis Ki-Society and Kansas Ki-Society members for continuous support and friendship. The material discussed in this article is not necessarily endorsed by Ki-Society or any of its affiliates.