

Movement Writing of Craftsmen Gestures

TimberWriting
in Sutton Movement Writing

Transcribing timber-cutting movement from video
by Valerie Sutton

Introduction

Sutton Movement Writing is a movement notation system that combines stick figure drawings with detailed movement symbols, providing an accurate research tool for transcribing gestures of all kinds: human, animal, insect, and even axes moving in space! Any movement can be written with this very large writing system, which is also called the International Movement Writing Alphabet, the IMWA.

The system is 32 years old in 2006, making its official debut in Denmark in 1974. Because the applications of Sutton Movement Writing (the IMWA) are so broad, the system is divided into sections for specific fields of study. This makes it easier to learn specific writing for specific gestures.

There are five sections of the system:

- 1. DanceWriting** for writing dance choreography
<http://www.DanceWriting.org>
- 2. SignWriting** for writing the world's signed languages
<http://www.SignWriting.org>
- 3. MimeWriting** for writing classical pantomime
<http://www.dancewriting.org/movement/about/what/mw0012.html>
- 4. SportsWriting** for writing skateboarding, gymnastics, karate etc
<http://www.MovementWriting.org/sports>
- 5. MovementWriting** for gesture analysis in scientific studies
<http://www.MovementWriting.org/science>

Movement Writing of Craftsmen Gestures

This fascinating project, by Harald Høgseth in Trondheim, Norway, provided us with an excellent video for transcription, which in turn helped me develop the symbols to write an axe moving in space and the body movements of a timberman, while he is cutting the log. You can read more about this on the web:

Movement Writing of Craftsmen Gestures

<http://www.MovementWriting.org/science>

The purpose of this document is to explain in detail, how I transcribed the movements of a timberman cutting a log, in two Movement Phrases, based on the video entitled: Timber Process 1. The video shows two timbermen cutting a log. The first timberman is a younger person trained in the techniques of craftsmen from centuries ago. His movements are the ones written in this document.

When I started this project, I had never written the movements of timber cutting before. Sutton Movement Writing is mostly used for writing Sign Languages (SignWriting), and writing dance (DanceWriting). There are no axes in either of those professions! It was necessary for me to really study the video to see what axe-symbols and log-symbols would have to be developed. I can now say that we are prepared with the symbols needed for future TimberWriting documents.

I wish to express my gratitude to Harald Høgseth for including Movement Writing transcription in his research project, and for stimulating our writing system to expand into a new field!

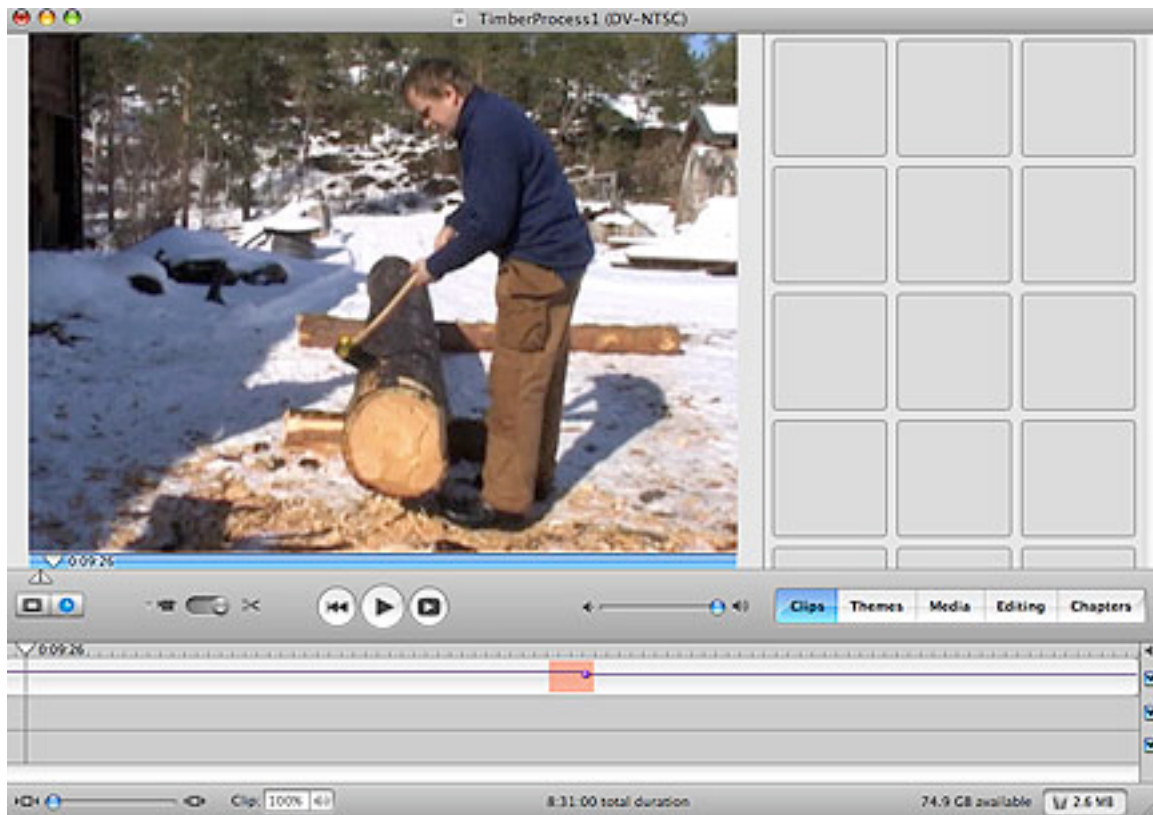
Valerie Sutton,
August 24, 2006

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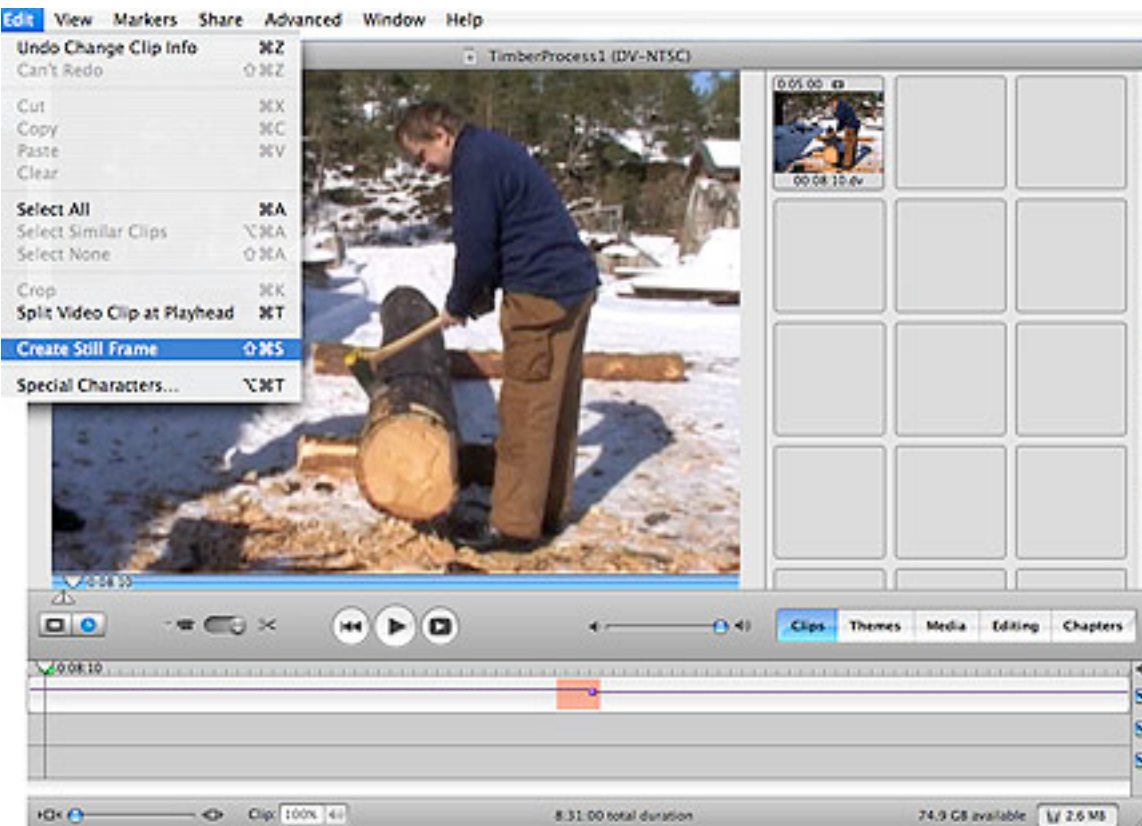
Part 1: Writing Major Counts

1. Open iMovie.
2. Drag the Timber Process 1 Video onto the iMovie Window.
3. The video loads into iMovie:



4. Then watch and listen to the video several times.
5. What is the focus of the movement? What is the purpose?
6. The focus, or purpose, is to cut wood.
7. So the moment the axe reaches the wood, (marked by the loud sound the axe makes hitting the wood) is the focus of the movement and it repeats and repeats.

8. The first time the axe hits the wood becomes **Major Count 1**.
9. The second time the axe hits the wood becomes **Major Count 2** etc.
10. In iMovie, **bookmark the exact frame** for Major Count 1.
11. Bookmark ALL the Major Counts in iMovie. Then you can tab to them.
12. Return to each bookmark and **create a still frame (photo)** of each Major Count (each strike of the axe):



13. Save each Still Photo as a JPEG.
14. Open each JPEG in Photoshop.
15. Format each photo for the web layout design.

16. Create a Timeline from left to right, landscape direction, placing the first Major Count at the beginning of the Timeline. It receives Rhythm Count 1. The accent mark on top of Count 1, shows that there is emphasis on the beginning count 1.

<p>Timeline</p>	<p>Axe Strike 01:00:23</p>	<p>Axe Pull-Back 01:00:27</p>	<p>Shaft Glide 01:01:14</p>
<p>Sound</p>			
<p>Rhythm</p>	<p>1</p>	<p>&</p>	<p>2</p>
<p>Movement Writing</p>			
<p>Frame Photos From Video</p>			

17. Each new page starts with a Major Count 1. Each page is one Movement Phrase. Each Movement Phrase is counted 1 & 2 &.

18. Although most Major Counts should be similar, the differences will be obvious...a good way to research the changes in style of movement.

Some Major Counts in Timber Process 1 Video

Strike 01: 00:08:10
Strike 02: 00:09:20
Strike 03: 00:11:00
Strike 04: 00:12:10
Strike 05: 00:13:20
Strike 06: 00:15:00
Strike 07: 00:16:10
Strike 08: 00:17:20
Strike 09: 00:19:10
Strike 10: 00:20:20
Strike 11: 00:22:00
Strike 12: 00:23:10
Strike 13: 00:24:20
Strike 14: 00:26:00
Strike 15: 00:27:15
Strike 16: 00:28:25
Strike 17: 00:30:07
Strike 18: 00:31:19
Strike 19: 00:33:07
Strike 20: 00:34:19
Strike 21: 00:36:01
Strike 22: 00:37:15
Strike 23: 00:38:25
Strike 24: 00:40:07
Strike 25: 00:41:21

Question 1

How do you decide which position would start with Count 1?

Answer 1

There are two kinds of counts: Major and Minor. Major Counts are larger and are the focus of the movement. Minor Counts are smaller transitions.

Timeline	Axe Strike 01:00:23	Axe Pull-Back 01:00:27
Sound		
Rhythm	1	8

The focus (purpose) is to strike the wood with the axe. Therefore, the first count in the document is the first strike of the axe on the wood, making the first sound. That is a Major Count.

Each new strike of the wood will be a Major Count. Movement between the counts are the motions necessary to get to the next strike. They are smaller numbers that are, in this case, generally silent. The dotted line around the smaller numbers means a Silent, Minor Count.

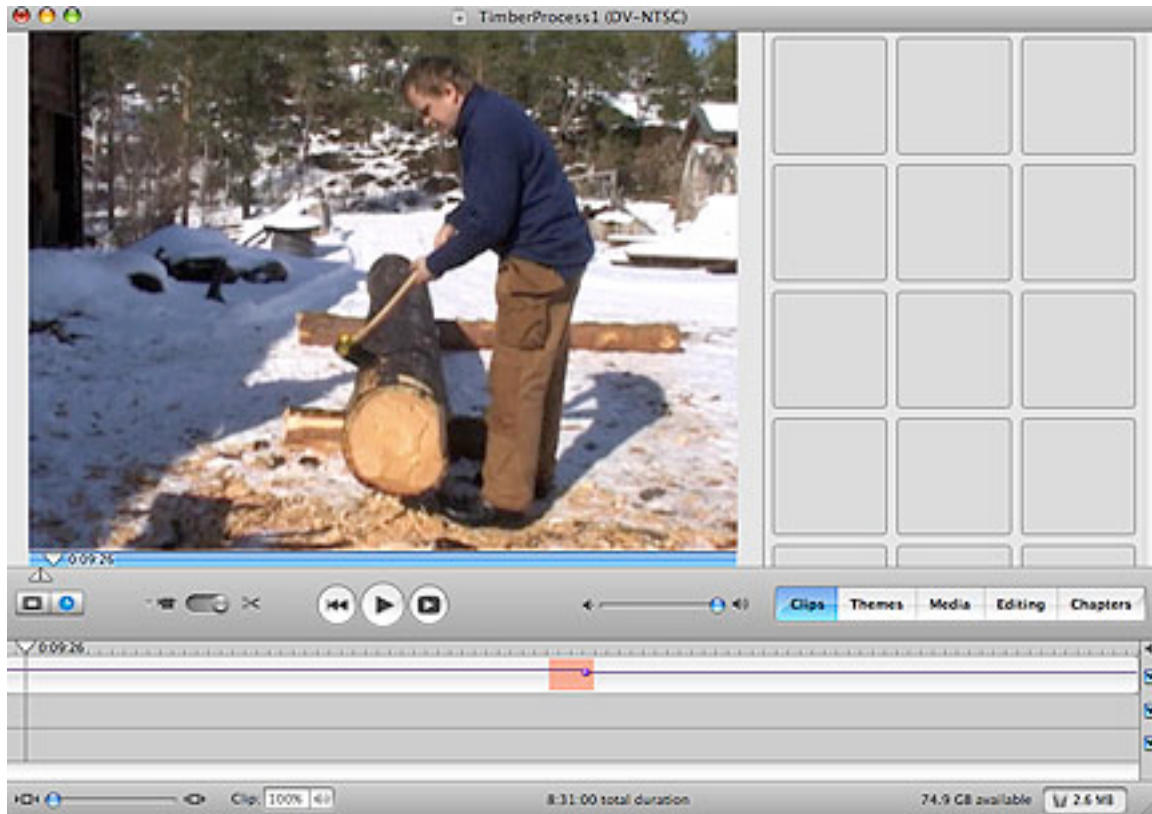
Notice the Major Count has an accent on it. It shows there is emphasis on that count. It means that the movement is fast as well.

Question 2

How did you determine how much time there was, between each count?

Answer 2

The video has a timeline, and with today's modern technology, it has become easier to determine the length of videos and to find out exactly what time each frame occurs. In this case, I opened the video inside a program called iMovie, on my iMac. In iMovie, I can drag the video on top of the iMovie window, and it loads it into the program giving it a timeline automatically.



I then notated the exact spot on the timeline where the axe hits the wood, giving me the Major Counts. I counted how many frames occurred between each strike of the axe. The first Major Count occurs at 00:08:10 and the second Major Count occurs at 00:09:20, which is 00:01:10 (one second and 10 frames) difference between them. Since there are approximately 30 frames per second, there are approximately 40 frames between Major Counts.

Part 2: Movement Phrases

A Movement Phrase is all the movement that occurs within one Rhythm Measure. Each Rhythm Measure is counted 1 & 2 & in this video. The counts in one Movement Phrase represent the following:

Axe Strike

1

Axe Pull-Back

&

Shaft Glide

2

Axe Lift

&

Count 1: Axe Strike

Includes the movement of the axe moving down and hitting the wood.

Count &: Axe Pull-Back

Axe is pulled out of the log. The wood chips fly.

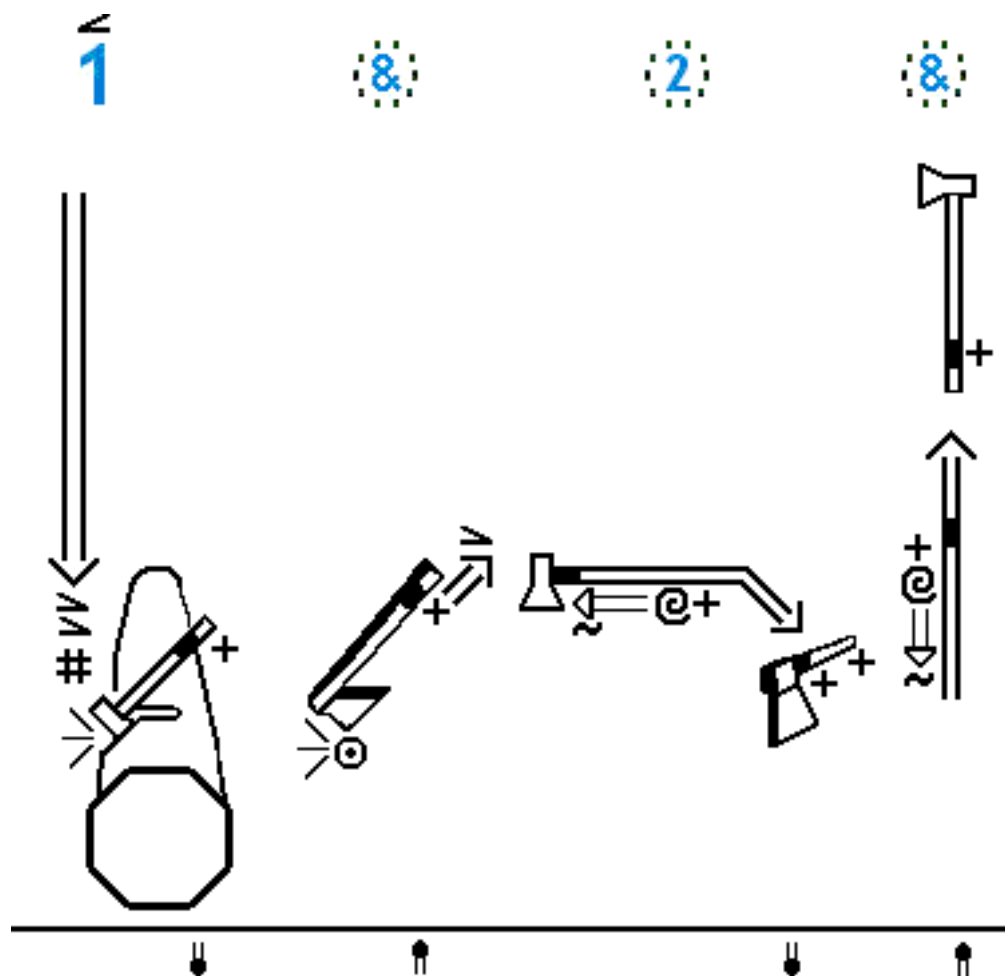
Count 2: Shaft Glide

The left hand glides down the shaft, finishing close to the blade. At the same time, the axe is moved back towards the body.













Count &: Axe Lift

The axe is lifted overhead while the left hand glides down the axe shaft.









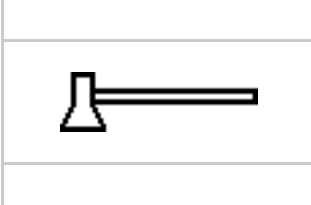
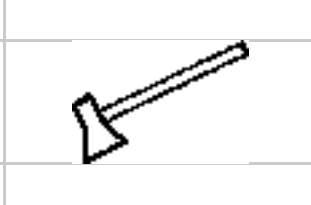

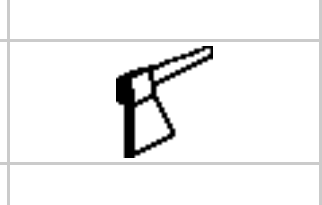




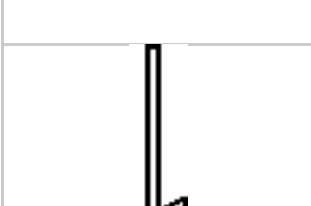

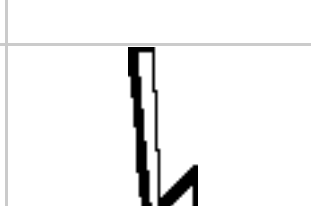

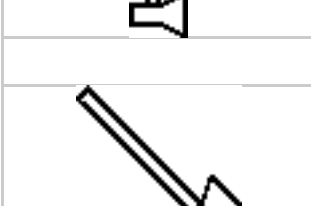



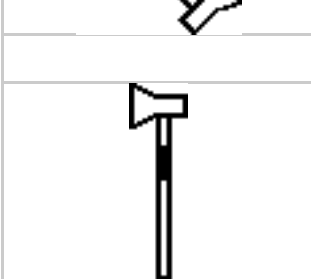
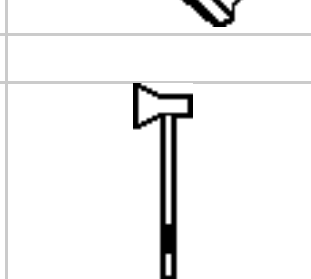
Here is an example of one Movement Phrase:



Part 3: Symbols Used in Timber Writing

	Rhythm 1 Major Count with Emphasis
	Rhythm In-Between Silent Minor Count
	Rhythm 2 Silent Minor Count
	Touch Basic contact
	Grasp Shows holding axe
	Strike Contact with force
	Brush Glide but leave surface
	Glide or Rub Continuous gliding contact
	Press or Pressure Touch plus Tension
	Fast Emphasis
	Tension
	Straight Movement Down, Parallel with Wall Plane

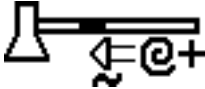


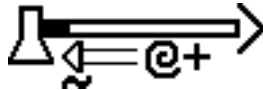

Axes

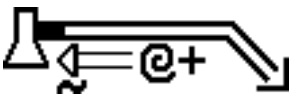

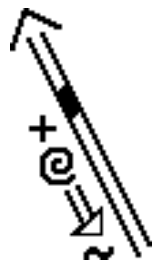

			
			
			
			
			
			
	Axe held near blade		Axe held near end of shaft




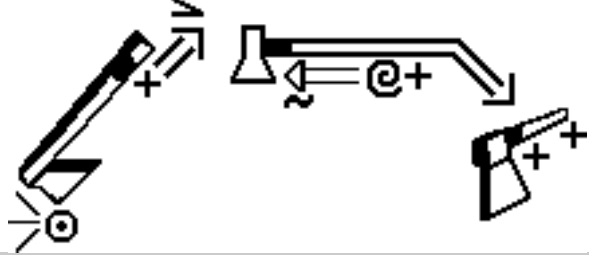

Logs

Movement Combinations

	<p>Shaft-Glide Left hand starts holding the axe at the end of the shaft, but then glides the left hand toward the blade, finishing touching the neck of the blade with tension.</p>

	<p>Shaft-Glide to Center Left hand starts holding the axe at the end of the shaft, but then glides the left hand toward the blade, finishing in the center of the shaft. The dark area on the axe shaft indicates where the left hand stops.</p>
	<p>Shaft-Glide to Blade Left hand starts holding the axe at the end of the shaft, but then glides the left hand toward the blade, finishing touching the neck of the blade with tension. The dark area on the shaft indicates where the left hand stops.</p>
	<p>Shaft-Glide to End Left hand starts holding the axe near the blade, but then glides the left hand toward the end of the shaft, finishing touching the end with tension. The dark area on the shaft indicates where the left hand stops. Axe is up.</p>
	<p>Shaft-Glide to Blade, While Axe Pulls-Back Left hand starts holding the axe at the end of the shaft, then glides the left hand toward the blade, finishing touching the neck of the blade with tension. The dark area on the shaft indicates where the left hand stops. While this glide occurs with the left hand, the entire axe moves back towards the body pulled by the arrow at the end of the shaft.</p>
	<p>Shaft-Glide to Blade, While Axe Pulls-Up-Diagonal Left hand starts holding the axe at the end of the shaft, then glides the left hand toward the blade, finishing touching the neck of the blade with tension. The dark area on the shaft indicates where the left hand stops. While this glide occurs with the left hand, the entire axe moves up diagonal pulled by the arrow at the end of the shaft.</p>

	<p>Shaft-Glide to Blade, While Axe Pulls-Back</p> <p>Left hand starts holding the axe at the end of the shaft, then glides the left hand toward the blade, finishing touching the neck of the blade with tension. The dark area on the shaft indicates where the left hand stops. While this glide occurs with the left hand, the entire axe moves back towards the body, and then back-down-diagonal, pulled by the arrow at the end of the shaft.</p>
	<p>Shaft-Glide Down, Axe Moves Up</p> <p>This is a Movement Arrow that shows movement straight up, parallel with the Wall Plane. It also includes information about the left hand gliding down the axe shaft. The dark area on the Movement Arrow stem shows where the hand was located on the axe shaft, before the up movement begins. The left hand glides down the shaft while the arrow is moving up, and the finishing position is shown on the axe that will be written above it.</p>
	<p>Shaft-Glide Down, Axe Moves Up Diagonal</p> <p>This is a Movement Arrow that shows movement up-diagonal, parallel with the Wall Plane. It also includes information about the left hand gliding down the axe shaft. The dark area on the Movement Arrow stem shows where the hand was located on the axe shaft, before the diagonal movement begins. The left hand glides down the shaft while the arrow is moving diagonally, and the finishing position is shown on the axe that is written above it.</p>
	<p>Axe Lift, Version 1</p> <p>Left hand starts holding the axe near the blade, but then glides the left hand down towards the end of the shaft, finishing near the right hand at the end of the shaft. The dark area on the axe shaft indicates where the left hand stops. While this glide occurs with the left hand, the entire axe moves up, following the direction of the arrow underneath the axe. So the finish of the glide happens at the same time as the finish of the movement up.</p>

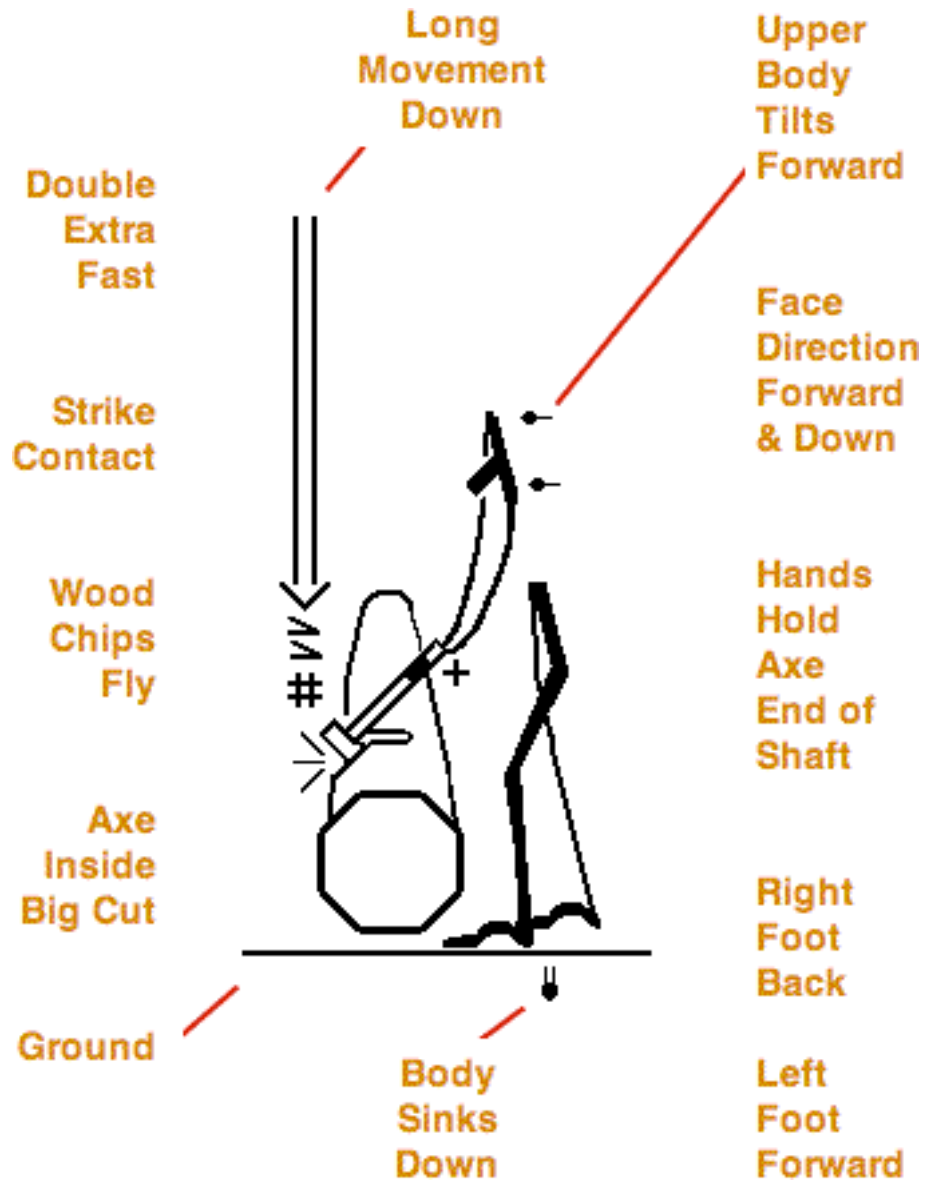
	<p>Axe Lift, Version 2 Another way to write the same movement, as described Version 1, Number 10 above. In this version, the writing of the Shaft Glide movement is placed on the up arrow below, showing the finishing position in the axe above it. This is useful when writing a stick figure, since it shows where the hands finish at the end of the Axe Shaft.</p>
	<p>Axe Pull-Back Beveled axe is pulled out of the log with force. The force is written with wood chips flying, a brushing symbol near the blade, indicating that the blade brushes out of the cut in the log. The arrow near the end of the shaft shows that the pull up-diagonal is done quickly.</p>
	<p>Position End of Shaft Glide The axe is held at a diagonal. Two Grasp Contact symbols show that the axe is held near the blade with the left hand and near the end of the shaft with the right hand.</p>
<p>Axe Movement Combination Three movements combined....</p>	
	<p>Axe Pull-Back Up-diagonal arrow brushing fast.</p>

Part 4: Movement Writing of a Phrase

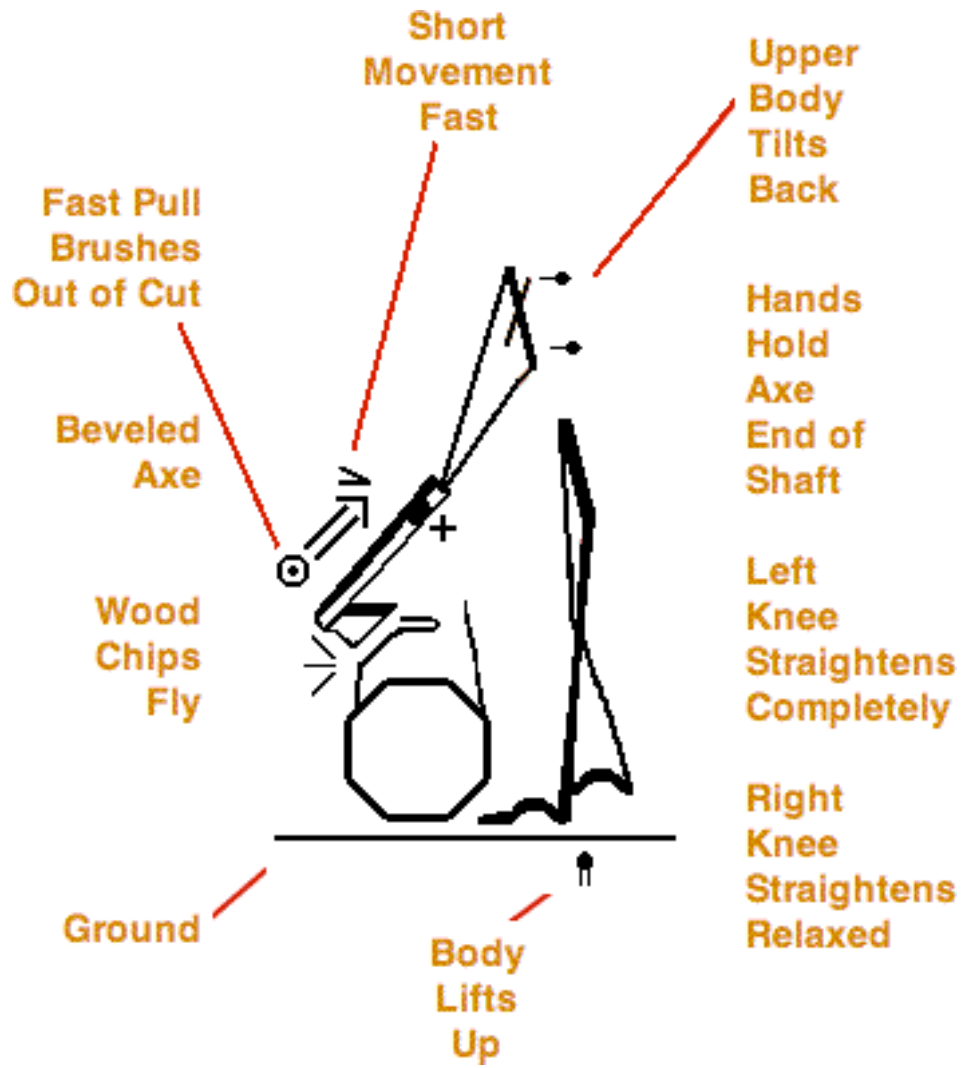
Timber Phrase 01:00:23, Writing Version 1

Axe Strike 01:00:23	Axe Pull-Back 01:00:27	Shaft Glide 01:01:14	Axe Lift 01:02:00
1	&	2	&

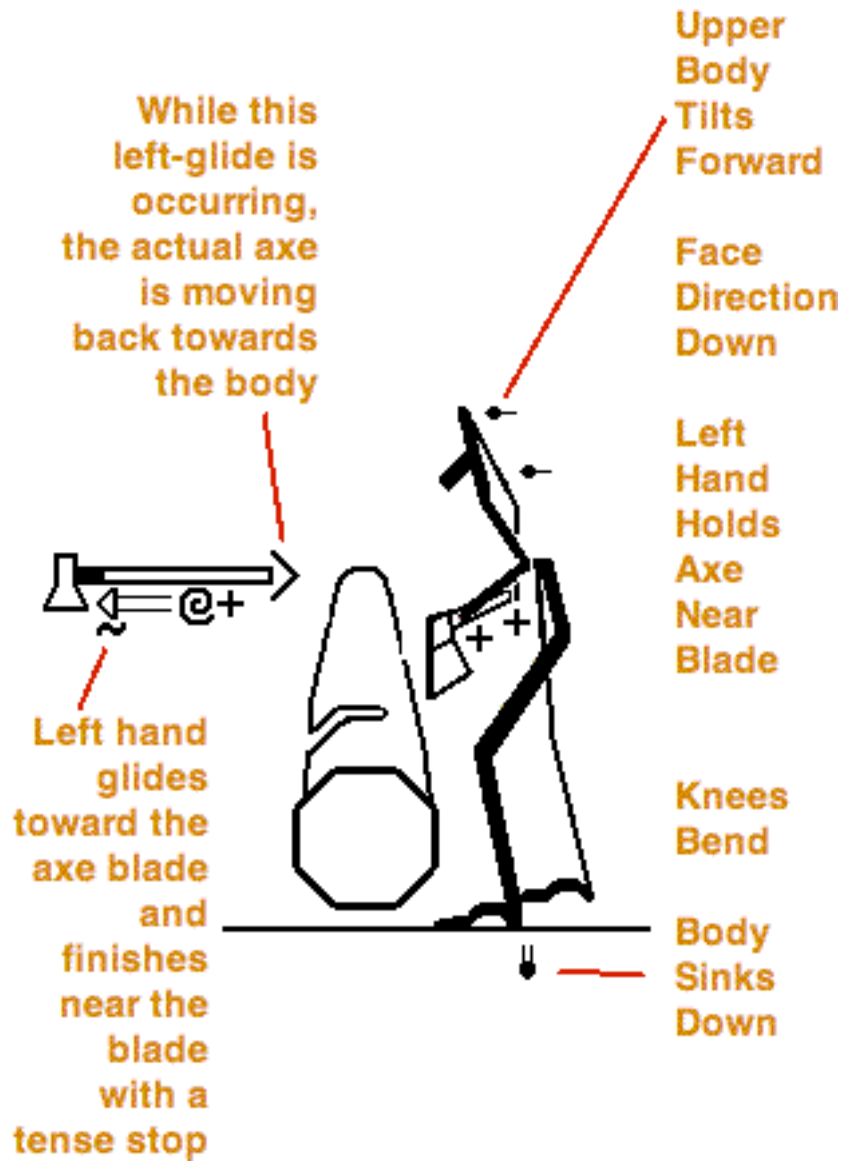
Instruction Frame 01:00:23



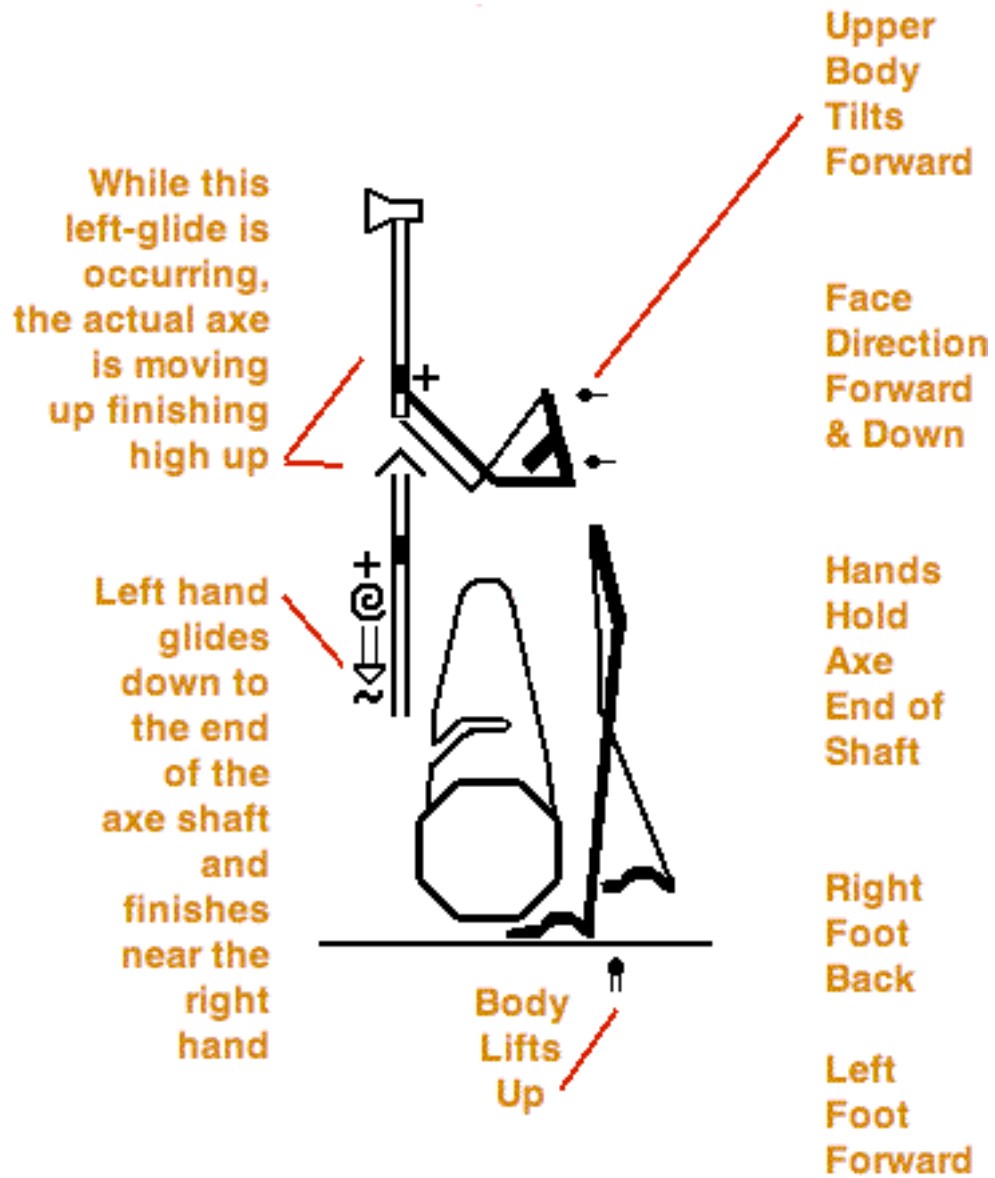
Instruction Frame 01:00:27



Instruction Frame 01:01:14

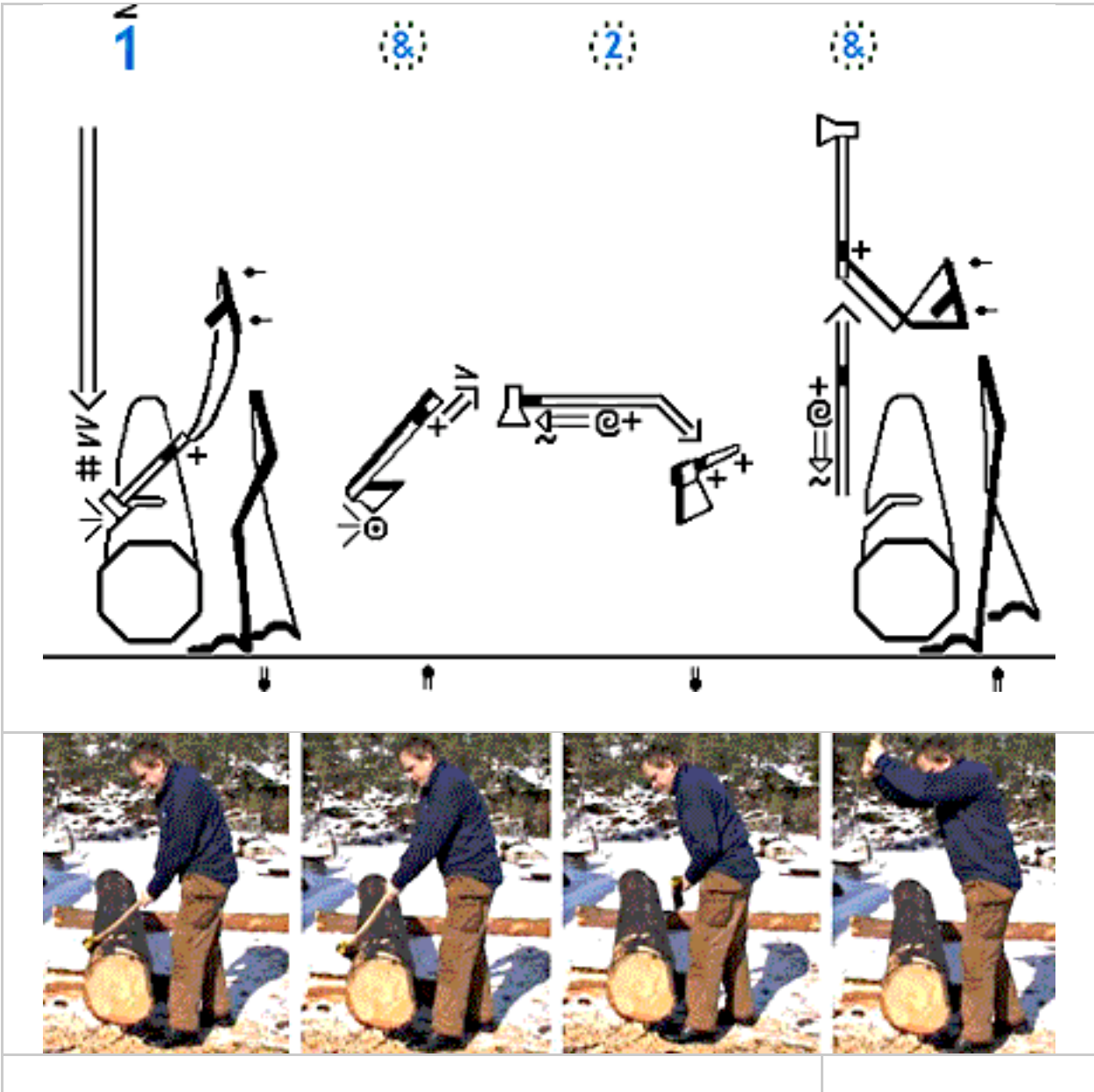


Instruction Frame 01:02:00



Timber Phrase 01:00:23, Writing Version 2

Taking away the two middle positions, leaving only the group of movement symbols in the center between a beginning and ending position, is another way to write this movement. It does not show the details of the shoulders tilting forward or back in the middle, but it is shorter to write. The movement-symbols grouping can become a standard way to write the Pull-Back motion.



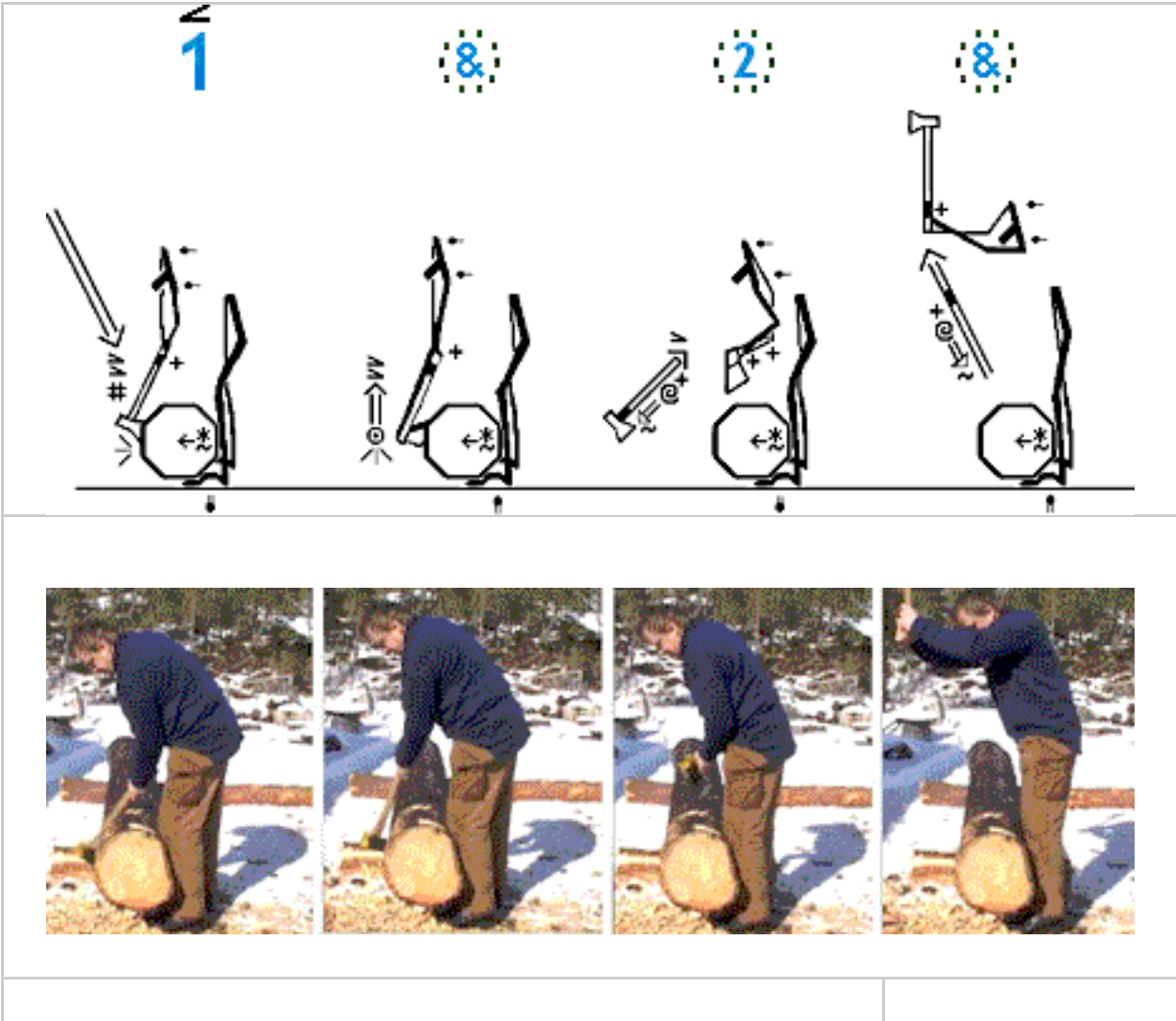
Timber Phrase 01:00:23, Writing Version 3

Taking away all four stick figure positions leaving only the movement symbols and the beginning position of the axe in the log, is another logical shortcut that makes the writing more abstract but faster to write. The movement-symbols grouping can become a standard way to write the entire movement.

The diagram illustrates the movement of an axe through four stages, each with a stick figure icon below it. Above the stages are movement symbols: a blue '1' with a downward arrow, a blue '&' symbol, a blue '2' with a curved arrow, and another blue '&' symbol. The first stage shows the axe being lowered into a log, with a '#VV' symbol and a downward arrow. The second stage shows the axe being pulled back, with a '+' symbol and a curved arrow. The third stage shows the axe being swung forward, with a '+' symbol and a curved arrow. The fourth stage shows the axe being pulled back again, with a '+' symbol and a curved arrow. Below the diagram is a sequence of four photographs showing a person in a blue jacket and brown pants performing the same axe-throwing movement on a log in a snowy environment.

Part 5: Comparing Two Movement Phrases

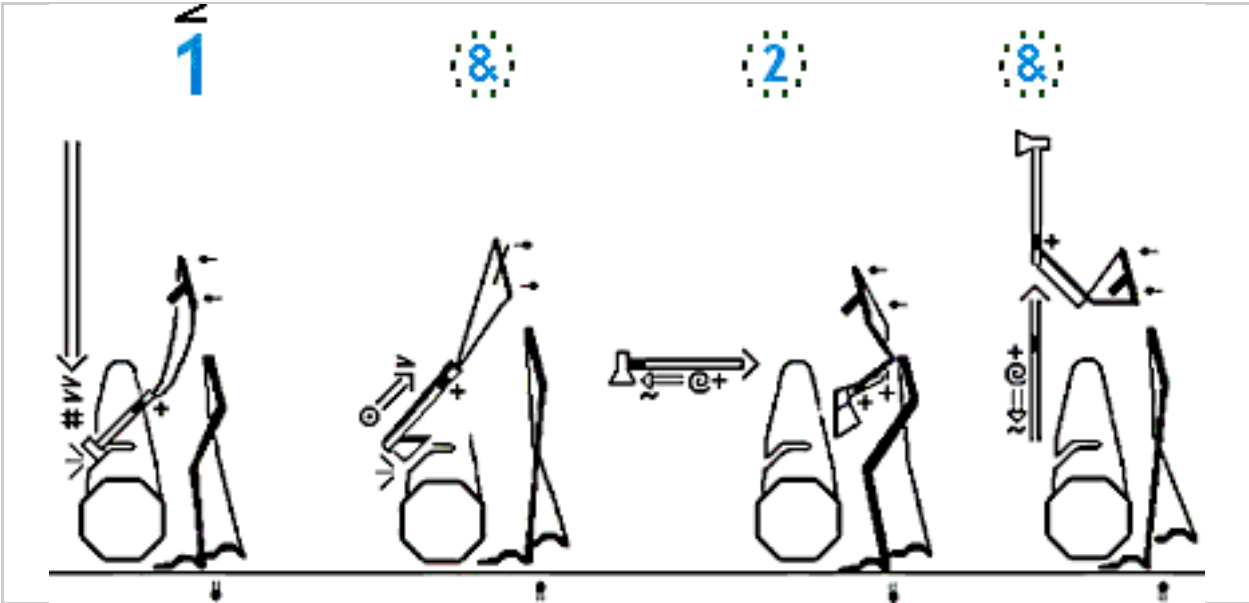
Here is a second phrase, Phrase 02:12:29



Comparing Phrase 01:00:23 with Phrase 02:12:29

As the cut in the log gets deeper, as time goes by, the timberman moves his feet forward, pressing his lower legs and feet against the log, and bends forward and down deeper, over the log, to reach the other side of the log with the axe. This changes the writing considerably. Notice in Phrase 02:12:29 below, the figure has the feet under the log, the shins pressing against the log, the upper body is bent lower and over the log, and the movement arrows are at different angles.

Phrase 01:00:23



Phrase 02:12:29

