

# COMBAT NOTATION

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## Preserving techniques

Of the many challenges martial arts systems face these days, one of the most important and overlooked is time. The preservation of a particular school's methods, techniques and ethos often fall victim to the ages and whilst we already have a reliable way to record words on paper, movement is not so easily penned.

Musicians throughout history faced a similar challenge. How to record their creative works so that others, with training, could replicate the masterpiece in years to come? In ancient times, audio recording facilities were not available. Artists had to come up with a way to pass their music on to students and followers in a more efficient way than

having to spend years training each person on each piece. Through the use of written symbols, artists could effectively record their music for quick distribution and also for posterity.

In a similar way, before the invention of video cameras, choreographers, dance academies and fencing studios used various methods of notation, much like music. This enabled the creator to record sequences of movement and interaction between the players. Unbeknownst to many, this notation has also been adapted to suit the purposes of shadow boxing and the standing martial



ow boxing  
and the stand-  
ing martial

## Movement notation

The Benesh Movement Notation (BMN) system, created by Rudolf and Joan Benesh and first published in 1956, is a concise, accurate and versatile written system for recording all forms of human movement.

BMN is most widely used in the recording and restaging of dance works, where it has proved invaluable, both as a day-to-day tool in the rehearsal studio, and as a means of preserving dance heritage. The Benesh system is much more than a means of recording theatre dance. It has been used successfully by anthropologists and by physiotherapists to analyse and record patient movement. It was even used in an ergonomic study of seating in an airport.<sup>1</sup>

It is a universal language that provides a true and accurate, 3-dimensional representation of movement. This includes the precise indication of the whereabouts of people and their relationship to one another within the working space, the directions in which they face and their paths of travel, and the movement and positions of the limbs, head, hands, feet and body. It's a tool for the analysis of movement, rhythm and phrasing and the structure of dance works and offers the opportunity to accurately record choreography without having to rely on video.

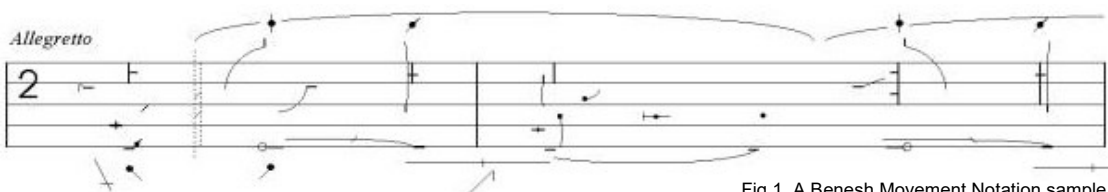


Fig 1. A Benesh Movement Notation sample

### Writing the fight

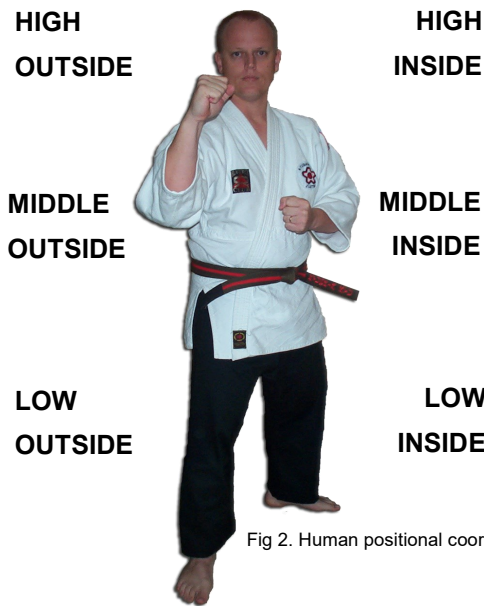


Fig 2. Human positional coordinates

Written on standard musical staff paper, combat notation only uses the top two lines.

More specifically, the spaces immediately above, between and below these lines are utilised to represent the high, middle and low sections of the human body.

Figure 2 shows the location of these positions in reference to a person, and figure 3 displays the location of these coordinates when written on the musical staff.

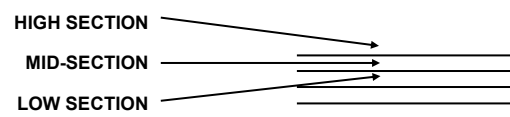


Fig 3. Notational coordinates

### The standard symbols



R

The capital letter R is used to indicate the fighter has their right side forward as the lead-side. Their left is considered to be the reverse-side. If no side is declared, then the fighter is standing straight-on and their right is considered the lead-side.

L

As with the previous, the capital letter L is used to indicate the fighter has their left side forward as the lead-side. Their right is considered to be the reverse-side. If no side is declared, then the fighter is standing straight-on and their right is considered the lead-side.

○

A circle indicates any offensive technique. This can be punching, kicking, etc.

◇

The diamond indicates any defensive technique. This can be parrying, blocks, etc.

□

The rectangle is used to illustrate a pause between the execution of offensive or defensive techniques.

● ◆ ■

Completely filling-in the shapes above indicates a time interval of one count. The basic unit of combat rhythm, this is equivalent to the time taken to execute a parry and then return to guard. This is generally agreed as approximately 0.07 of a second.

◐ ◑

These shapes indicate a time interval of two counts. Equivalent to the time it takes to execute a lead-side punch and return to guard, this is approximately 0.13 of a second.

○ □

Completely unfilled shapes indicate a time interval of three counts. The time it takes to execute a reverse-side punch or lead-side kick and return to guard. Approximately 0.20 of a second.



Placing the dot adjacent to the unfilled shape indicates a time interval of four counts. This equates to the amount of time it takes to deliver a reverse-side kick and return to guard. Approximately 0.30 of a second.



The apostrophe symbol, when placed above an offensive or defensive technique indicates that the reverse-side is used. If there is no apostrophe over a note, it means the technique is delivered from the lead-side.



An accent symbol placed above an offensive technique is used to show that the attack successfully struck the target.



In the event an offensive move requires a little more time to execute, a dash beneath the note is used. It's only used in complex sequences where time-difference is a critical factor. An example would be a roundhouse kick or hook punch. This symbol can also be used to show when a particular move as been deliberately slowed-down.



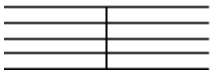
Placing a dot beneath a note indicates the technique has been deliberately sped-up.

*slow*

The word 'slow' printed below a fighter's ledger line indicates that their overall tempo is slower than that of their opponent.

*fast*

The word 'fast' printed below a fighter's ledger line indicates that their overall tempo is faster than that of their opponent.



A vertical line through the five lines of the music ledger is called a measure bar. It indicates a brief, mutual pause between combinations and must appear in the same place for both fighters. Consider this the 'comma' of combat notation.



Two vertical lines is called a phrase and is used to display the end of one complete skirmish. Consider this the 'full-stop' of combat notation.



**'All together now...'**

Here is an example of a brief bout written in combat notation<sup>2</sup>:

Fighter Y

roundhouse kick

Fighter Z

outside parry      roundhouse kick

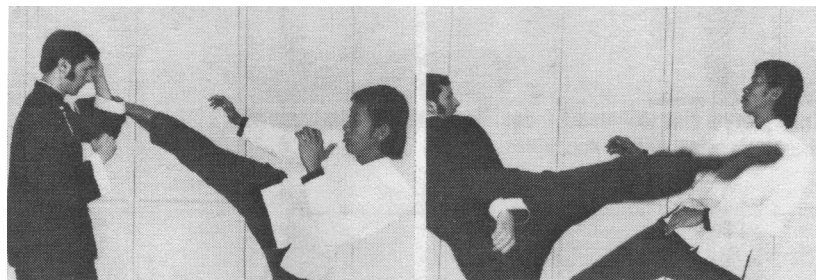


Fig 4. Two-stage fight sequence



### Explanation

You can see from the brief script accompanying Figure 4, that opponent Y has their right side forward and Z has their left side forward. Y kicks to Z's high outside with a lead roundhouse kick.

Opponent Z successfully defends with their lead arm and then counter-attacks with their own roundhouse kick to Y's high-section (using their reverse-side leg).

The notation is predominately used to define timing and outline the positional theory contained within each fight. Brief descriptions are written below the moves so that the reader can begin to picture the interactions.

As with music, each musician can interpret the script in a different way so combat notation on its own, is by no means a complete solution.

**"I felt the need to develop this notation system further"**

### What about Jujitsu?

Combining my 27 years of music study and experience, and my training in the throwing and grappling art of Jujitsu, I felt the need to develop this notation system further.

Whilst Jujitsu uses punches, blocks and kicks as part of its standard techniques, throws, takedowns and ground-fighting moves are also an integral part of this martial art.

Applying the combat notation as it stands to a Jujitsu fight

sequence would require too many comments to be written at the bottom of each set of moves.

Thinking about each type of Jujitsu attack and defense, and how it relates to positional fight theory, I have devised a set of extra symbols for use when recording a Jujitsu skirmish or kata.



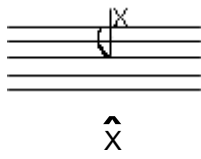
Adding a vertical line to the right of a circle indicates a throw. This should be placed in the coordinate that best represents the active component of the throw (refer to Figure 5).



Writing the same symbol as a throw, takedowns can be displayed by adding a tail to the stem (much like the quaver note in music). As with throws, the location on the ledger is determined by the location of the active component (refer to Figure 7).



This symbol indicates a lock or restraint-hold. These can be applied standing or on the ground and the location that best represents the location of the locked joint is used. Time can be relatively indefinite so the measure bar is used to indicate the overall time.



Using the quaver tail on the restraints symbol represents an escape.

As per the standard combat notation outlined above, placing the accent over the top of the offensive technique (restraints, locks, throws or takedowns) indicates that it was successful in terminating the fight (refer to Figure 6).

Some examples



Fig 5. O goshi (major hip throw)



O goshi (major hip throw) is one of the first throws taught in jujitsu. The student is taught to pick up their opponent, throw them over their hip and land them cleanly on their back, thus developing balance and timing.<sup>3</sup> Note above, how the symbol for this throw is written in the mid-section coordinate. This is because the hip is the active component in the technique.

“...thus developing balance and timing.”

Ippon seoinage is a shoulder throw, so the notation should appear in the high-section. Finishing the bout with a punch, can be written using the standard notation with an accent.



Fig 6. Ippon seoinage (shoulder throw)

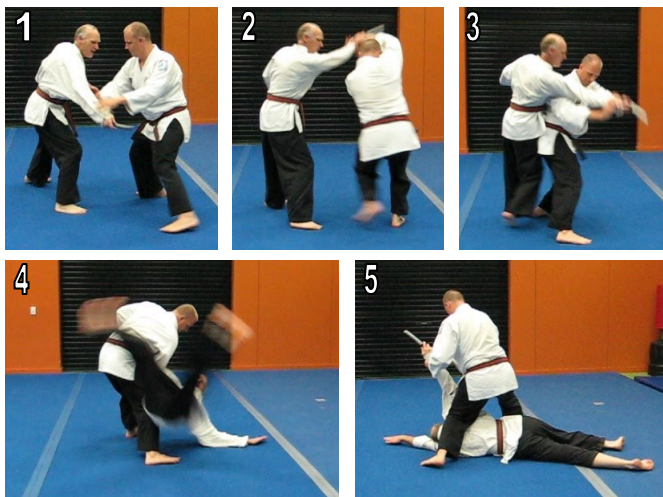
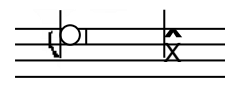


Fig 7. Arm-lock takedown (from knife attack)

The arm-lock takedown from a stabbing attack can be written using the same symbol as a throw, but adding the quaver tail. Since the takedown is affected by an arm-lock across the outside of your bicep, this is situated at the middle coordinate and the notation should also reflect this.

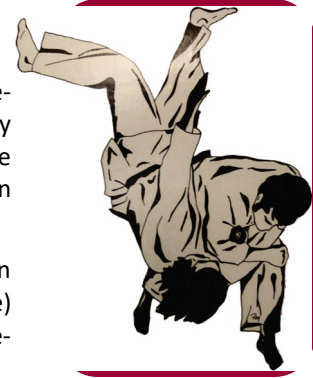
Finishing the bout using a lock would require the use of the restraint symbol. together



### A practical application

'Kata' is a Japanese word describing detailed choreographed patterns of movements practiced either solo or in pairs. Kata are used in many traditional Japanese arts such as theatre forms like Kabuki, and schools of the tea ceremony Cha-no-yu. Most kata are commonly known for their presence in the martial arts.

As they attain the more senior ranks, students of Kyushin Ryu Jujitsu will learn the Kyushin-Jitsu kata. This demonstration involves two people (Tori and Uke) and consists of three sets. Each set contains three attacks to which Tori defends and counters. In the last set, the attacker (Uke) brandishes a short staff.



At the beginning and end of the kata, Tori and Uke perform standing and kneeling bow routines, and between each set they each adjust their Gi. Combat notation could be developed further to include these non-combative routines, however it would fast become complicated and messy. Here is an example of the adapted notation used to illustrate all three sets, with those non-combative elements omitted:

UKE

Hammerfist strike      Backhand strike      Mawashi zuki

TORI

Block then Ippon seoinage      2 hand block then Osoto gari      Block then Ogoshi      Arm-lock submission

UKE

Mae geri      Overarms bear-hug      Two-hand choke

TORI

Catch heel then Kibisu gaeshi      Break grip strike ribs then Morote gari      Break grip then Tomoe nage rolling over into Nami juji jime

UKE

Stab/lunge with stick      Back-handed strike      Roundhouse strike

TORI

Block then wristlock takedown      Block then Mawashi geri      Block then Tai otoshi      Heel kick to solar plexus

## In summary

Along with preservation of techniques, combat notation can also be used as a powerful teaching tool. Principals and head instructors can use the notation to develop detailed lesson plans, which can then be passed on to the assistant instructors to deliver during training.

As the school grows and new branches form, the principal can be assured the same teaching methods are employed throughout their particular style. In the same way quality control systems are used to maintain product conformity and uniformity, combat notation allows alterations to techniques to be communicated throughout the school in a more timely and efficient manner.

In a speech given by Jigoro Kano, founder of Kodokan Judo,

*"Nothing under the sun is greater than education. By educating one person and sending him into the society of his generation, we make a contribution extending a hundred generations to come."*<sup>4</sup>

Used correctly, combat notation can enable students and teachers to record and share their learning and ideas, not only within their own style, but also amongst the greater martial arts community.



## References

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