An Approach to a Cultural Constant as Seen in the
*Tensho* Karate Kata

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Abstract

As cultural heritage from Japan (Okinawa), karate conveys not only body forms (or corporal shapes) of its culture of origin; it also gives insight into deeper cultural concepts. The use of time and space and a particular rhythmicity can be analysed in the practice of karate kata, and particularly in the *Tensho* kata. This analysis is supported here by an anthropo-didactic study that highlights the pervasive cultural dimension of this kata in relation to the practice of other Japanese art forms, and even posits it as an overarching principle of Japanese culture. For this purpose, a parallel between the musicology of traditional Japanese music and the *Tensho* karate kata is discussed here.

Keywords: anthropo-didactics, cultural constant, rhythmicity, *Jo-Ha-Kyu*, karate, *Tensho* kata

要旨

日本の、厳密にいうならば沖縄の文化遺産としての空手は、伝統的な身体的な型だけではなく、より深い文化概念について知ることができる。空手における時間や空間、独特なリズムの使い方は空手の型を通じて分析が可能であり、特に転掌型においてそれは顕著にあらわれる。

この観点は、空手の型と他の日本芸術との共通性に注目する人類学的研究にも基づくものであり、それは日本文化の超越性をも視野に入れるものである。したがって、本稿では伝統日本音楽と空手の転掌型の類似点について注目し、考察を進めていきたい。

キーワード：人類学、超越的な文化特性、音楽学、序破急、空手、転掌型
Introduction

Body-culture “redefines the rapport with the world, the technique of body forms or (corporal shapes) and the knowledge embodied by the actors” (Wallian and Bride 2014).

Each culture embodies a particular form of, or way to move and use, the body. Cultures indeed emerge through physical practice, and martial arts such as karate, are a good example to investigate in this respect. So, the question could be how much does a physical activity belong to a culture.

When one looks at the practice of karate, one can see people making moves, which could just look like a style of fighting technique. But if we look deeply inside the practice, beyond what is just visible, we can find many elements that can be related to the culture of origin of the physical activity, for example, a certain concept of how to use space and time (Kato 2009).

1. Karate and Japanese culture

There are many karate schools/styles (ryu; 流). Each karate school proposes to teach many technical body forms that indicate a great master’s style and, belonging in a community, places the practitioners in a particular symbolic universe. These techniques appear to be the foundation, or the essence, of the body forms and are transmitted from generation to generation as a heritage, allowing the sustainability of an intangible living heritage. Inscribed into an ancestral martial art, karate takes on a cultural dimension, adorning itself in these particular forms that are kata.

The study of an ancestral kata will enable focus on a specific case in order to study the logic of its realisation and transmission. The proposition is to highlight what makes its essence in relation to other cultural Japanese productions in order to validate its anthropological significance; it is about how a karate kata, and more particularly the Tensho kata, incarnates this cultural and anthropological dimension in its way of conveying knowledge and technical forms in addition to a cultural way of thinking in acts.
If we compare body forms produced in kata, including the *Tensho* kata, to those of the vocaloid-music choreography of Japanese pop music (e.g. the hologram Hatsune Miku), it is possible to identify similarities in the sense that they may exist as common structures specific to Japanese culture. Also linked with music, the idea in this research was to see if there were common cultural constants that could allow a better understanding of the body forms that are in karate kata.

This perspective is supported in this paper by an anthropo-didactic study that highlights a pervasive dimension of the kata relating to the practice of other Japanese art forms.

2. The anthropo-didactic dimension of body forms (corporal shape)

Ways to walk, dance, or fight present an anthropological dimension that indicates the cultural and social identity of the one who moves (Wallian and Bride 2014). If similarities culturally exist between karate and dance, especially between the *Eisa* dance from Okinawa and particular karate techniques, it is also because this Okinawan signature dance allowed, in the XVII\textsuperscript{th} century, the hiding of fighting techniques of *Ti* (ancient name for karate) inside danced choreographies; the practice of *Ti* was forbidden by the Japanese samurai who occupied the Ryukyu archipelago at this time. This can be seen by comparing the two sequences of movement given in appendix (A.1.fig.1), where it is difficult to say which technique is from karate and which from dance.

Not only the body technique form, but the rhythm of the movement when ‘listening’ (Bride 2015) to the kata is specific: for a kata it is necessary to use powerful breathing rules as a foundation of karate practice. It is even more the case with the breathing or respiratory kata, *tanden* kata (丹田型) in Japanese, called *Tensho*, which has been chosen for this case study. The aim of this study is to see if the *Tensho* karate kata conveys a part of Japanese culture through its breathing rhythmicity and its global forms of body techniques.

3. The *Tensho* kata (転掌型)

First of all, the term kata (型/形) means a ‘mould/model/shape’. In the Asian martial arts, such as the Japanese, the kata is the base of the practice, whereas in the occident, the combat form or assault form (like free fighting) is the base.
The kata represent gestural coded data and form a broad technical repertoire, somewhat in the manner of a bodily encyclopaedia of all the techniques of the martial art, in this case karate. These techniques are preserved and transmitted for centuries by the practice of kata.

As mentioned above, the Tensho kata is a *tanden* kata (丹田型), which means that all the moves are executed in close relationship with breathing. That is why we can call this kind of kata in English, breathing or respiratory kata. This relationship with breathing allows better stability and balance, pushing the centre of gravity down, giving more power. The moves are executed slowly concentrating a large mass of energy (*ki*; 気) under the navel, inside the abdomen (*tanden*; 丹田), with a strong relationship with the spirit that concentrates on which body parts to accumulate the energy: i.e. the abdomen and limbs of the body. The energy is diffused more or less strongly according to the movement, the technique, and the breathing. According to karate masters, the practice of kata, and the Tensho kata in particular, can cure the ills of the body (Bride 2015).

The Tensho kata can be broken down into six distinct parts (A.2.fig.2): The first part is the ‘bow’ (*Rei*; 礼) for the beginning and the preparation stand position (*kamae*; 構え). The second part is a sequence of techniques executed with the right hand, the third part a sequence of the same techniques executed with the left hand, and the fourth is again the same techniques executed with both hands. The fifth part is a sequence of new techniques that have a different rhythm in that there is an acceleration of the movement. Then the sixth and last part is the ending ‘bow’. Of course, visually, hands seem to be used with more intensity than the rest of the body, but it is actually the whole body which gives strength and power, from the movement and the positioning of legs, hips, with the *tanden* as the central point of the energy.

Beyond the individual technique of the kata, it is a concept of the world that the practitioner confronts. Indeed, it is about finding an inner strength through breathing in a perfect aesthetic. Far from seeking spectacularization as deployed in competition, this kata opens up a technical basis, focusing on breathing from the diaphragm conducive to the deployment or delivery of lightning attacks.
When observing this kata, it is possible to note a symmetry in the movement and in the repetition of sequenced gestures. This motor activity is accompanied by a controlled breath flow while creating harmonizing energy, strength, power, and flexibility.

4. Intensity, rhythm, density: Jo-Ha-Kyu (序破急)

In Japanese musicology, there is a concept called Jo-Ha-Kyu (序破急) that characterizes the change in the intensity, rhythm and density in music and vocal variations of the chant in Noh (能). Tamba (1974) modeled these variations with graphs representing the curves of the singing (A.3.figs. 3 and 4). Then, it is possible to visualize the variations of the rhythm, the density and intensity of the voice, or the music.

To highlight the symmetry and rhythmicity of Tensho kata movements, a model of the respiratory amplitude curve with respect to the movement has been developed based on Tamba’s Jo-Ha-Kyu model. Each movement, or technique, corresponds to a specific breath, inhalation or exhalation. The more the movement needs power and intensity, the greater the intensity of the breathing. Total control is operated by the karateka (karate practitioner) on inhalation and exhalation in line with the overall body movement and travel. A significant increase in intensity, rhythm, and density is observable through the curve of the respiratory amplitude of Tensho kata (A.4.fig.5).

Here we try to validate the hypothesis that there is a homological relationship between rhythmicity in the Tensho kata and that of traditional Japanese music, thanks to the collaboration of an expert on the issue of Jo-Ha-Kyu, the musicologist and composer Akira Tamba. The idea is somehow to write a Tensho kata musical score in order to compare it with other traditional Japanese musical scores as those of Noh theatre and see if there are similarities, in an attempt to draw a parallel.

According to Tamba (op. cit.), rhythmicity in Jo-Ha-Kyu not only applies to an increase in the intensity but, by tracking Jo elements (序), Ha elements (破) and elements of Kyu (急), also defines each of the individual elements. The elements of Jo appear at the beginning of the partition and are only located in Jo. The elements of Ha are seen only in the Ha, they also partially host elements of Kyu. The elements of Kyu are new items that appear towards the end and which include, in
full, the elements of Kyu that were in the Ha. This identification applies to the music of the Noh theatre, the music of the Koto, and seems to apply here as well to the Tensho kata.

In the Kyu there are intensive techniques, where the execution speed of techniques and exhalation frequency for the same respiratory amplitude appear, at this intensity, only at that place in the kata.

Inspired by Tamba, who modelled the rhythm of variation curves and musical time in Noh theatre (Tamba 1974: 214) and Jo-Ha-Kyu (Tamba 2004: 49) the curve of the intensity of kata relates the breath with movement to a reference time scale set using a metronome. That time, or rather the tempo of kata, is based on the first two movements (the bow; bending down then up) which introduce the kata. This movement indicates the tempo that has been set at 58 bpm (beats per minute) (A.5.fig.6).

Then, keeping the tempo reference, every move and every time without motion was plotted on a graph with the graduated intensity when performing the kata as ordinate and the tempo expressed in beats/minute (bpm) as abscissa, where 2 millimetres represent 1bpm. The result is the graph given in appendix (A.6.fig.7) where we can see the curves of the Tensho kata obtained thanks to Tamba’s methodology to measure the time. The visualization of kata according to its intensity allows its analysis whilst checking whether it belongs to a Jo-Ha-Kyu type rhythmicity that takes changes in breathing and gesture intensity as a reference.

The effects of breathing produce hyper oxygenation similar to other areas of respiratory techniques like yoga and Zen techniques: they start with deep inhalations/exhalations, before accelerating to produce a powerful ventilator effect. So the visualization using coloured areas shows a rhythmicity close to the Jo-Ha-Kyu type of Japanese arts structures, and may validate the cultural hypothesis that the persistence of the dynamic structures of this martial art are an instance of an overarching and pervasive Japanese cultural dimension and conception.

6. Conclusion: cultural configuration, structural constants, and anthropological
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dimension

Therefore, the Jo-Ha-Kyu concept allows one to consider the existence of a typical configuration with structural constants in the expression of different arts of the same culture.

The similarity identified in the rhythmicity of Japanese music and Tensho kata suggests that the pace of the configuration may be deeply cultural and that the rhythmic structure will be similar for different artistic activities in Japanese culture: the dynamics observed in the execution of the kata, here Tensho kata, may correspond to an identity in Japanese culture and art.

Whether a work of music, graphics, theatre, gestures, body, or practice, this rhythm is characterized by: 1) a first form which is long with slow implementation of the various elements which make the work; and 2) a paroxysmal type completion, short and intense, in which the clocked acceleration stops quite abruptly.

This study refers to the Tensho kata as having a Japanese cultural rhythmicity which is also observed in other areas as well as the martial arts. In other words, the notion of rhythm in Japanese culture is reflected in the art of music, in theatre, and in martial arts.

The concept of temporality and space in Japanese culture (Kato 2009) by which the practitioner is confronted, represents an immaterial but animate aspect as embodied in that particular body shape that is the kata. Everything in karate kata refers to cultural dimensions and conceptions. It represents an Asian way of transmitting knowledge and techniques, martial as well as non-martial, such as the art of tea (sado; 茶道) and other traditional arts. The notion of tanden and the very specific breathing that is adopted in a kata also refers to the Far Eastern concept of energy, ki (気), which does not exist in the West. This notion of ki is part of the domain of the invisible of the kata, as well as all the techniques that contain hidden knowledge, arcana (ogi; 奥義) which have to be discovered at the price of long repetition.

The rhythmic temporality of Tensho kata opens up the question of how to organize learning in a given dynamic in different cultures and refers to different ways to view the world. Indeed, each master intends to place more or less gestural intensity at key
moments of progress, whether in learning, in everyday situations, in the development of individual thought, in the demonstration of aesthetic elements or the arrangement of body techniques. If Western cultures prefer a stronger and immediate intensity, Japanese culture seems to favour a late paroxysmal intensity with a longer preparation stage. In the Japanese language, this rhythmicity can be observed in the sense that the verb is always positioned at the end: the rule of word order that the determinant precedes determined, and the fact that one cannot avoid placing the verb at the end of the sentence requires the reader to read the details before knowing the whole. (Kato 2009: 51). As well as in poesy, in tanka (短歌) the rhythm of the verse is in 5-7-5-7-7 syllables.

What it is possible to see through a cultural practice, like karate and its kata, seems to be much more than what is apparent at first glance. It even appears to mean that the invisible remains, like an iceberg, bigger than the visible.

Appendix

A.1. Similarities between movements in karate and dance from Okinawa

Fig. 1: Eisa dance sequence compared to karate sequence

In comparing the two sequences of movement given above, it is difficult to say which technique is from dance (woman on the right) and which is from karate (man on the left).

A.2. Chronological sequence of the Tensho kata
Fig. 2: The Tensho kata from first to last move, executed by a Japanese master

The chronological sequence above gives a breakdown of each movement in order to precisely represent the movement against the specific timing of the kata. The first part is the ‘bow (Rei; 礼) for the beginning and the preparation stand position (kamae; 構え) (a). The second part is a sequence of techniques executed with the right hand (b), the third part is a sequence of the same techniques executed with the left hand (c), and the fourth sequence is again the same techniques executed with both hands (d). The fifth part is a sequence of new techniques that have a different rhythm, in that there is an acceleration of the movement (e). Then the sixth and last part is the ending ‘bow’ (f).

A.3. Noh theatre chant

Fig. 3: Soft chant Kagekiyo
The curves given in the above graphs visually portray the rhythm of the chants in Noh theatre. This rhythm corresponds to the concept of Jo-Ha-Kyu and is cultural.

A.4. Relation between breathing and movement in the Tensho kata

Here we can see whether a movement corresponds to an inhalation or an exhalation. The up-arrows represent inhalation and down-arrows represent exhalation. The more the arrows extend in the ordinate, the greater the amplitude and the greater the inhalation and exhalation. The more the arrows extend in the abscissa, the higher the frequency and the longer the breath.

A.5. Coding the intensity of gesture with a metronome

Fig. 4: Fort chant Tomonaga

Fig. 5: Tensho kata breathing curves in relation to the movement

Fig. 6: Encoding the tempo of the Tensho kata
Figure 6 above shows how, based on Tamba’s model, we measured the time of the Tensho kata. We used a computerized digital metronome to establish the tempo of the kata. It was 58 beats per minute, so almost one beat per second.

A.6. Jo-Ha-Kyû graph used to encode the respiratory Tensho kata (based on Tamba methodology, 1974; 2007)

In the above graph Jo elements can be seen in 1, Ha elements in 2, and Kyû elements in 3 and 4. Of note, the elements of Jo (1) appear at the beginning of the partition and are only located in Jo. The elements of Ha (2) are seen only in the Ha, they also partially host elements of Kyû (3). The elements of Kyû (4) are new items that appear towards the end and which include, in full, the elements of Kyû (3) that were in the Ha (2).

Bibliography


