Budo and Breathing

January 6th, 2014 13 minute read

About Iaido and Breathing: excerpts from "The Essence of Budo" by Kawakubo Takiji

Editors note: the following guest post/translation comes from Eric Spinelli based in Tokyo. Although the notes were put together for iai practitioners, the content here is also not only highly applicable for kendo people, but to all practitioners of Japanese martial arts.

About the Author

KAWAKUBO Takiji (1896 – 1985) studied Yamauchi-ha Muso Jikiden Eishin Ryu under SAKAGAMI Kameo, a student of UNO Mataji, in Nagasaki¹. He held the rank and title of Iaido Hanshi, 10th dan and Kendo Kyoshi².

Preface

These notes were written as a reference for the members of the Iaido Aikokai³. They cover the important breath control techniques as written in "The Essence of Budo" by Prof. Sato Tsuji, (Professor of Literature, Kogakkan University). Breath control has an incredibly deep connection with budo and it is my hope that you will read these notes thoroughly and make use of them in your practice.

-Kawakubo Takiji, Iaido Hanshi, April, 1978

Kokyu-ho (呼吸法, Breathing Techniques)

Iai and breathing techniques have an incredibly deep connection with each other. It is said that, "when exhaling, the body is true; when inhaling, the body is false.⁵" Obtaining both truth and falsehood within one's movements is of utmost importance. Practitioners of iai must practice breath control at the same time they practice iai technique.

Correct breathing techniques is tanden breathing. The following is a summary of the important parts of Prof. Sato's "The Essence of Budo" and should be a reference for all iai practitioners.

By adjusting our breathing, we can tense⁶ our entire body and move in a fluid and lively manner. It is for this reason that breath control is important for iai.

Kikai-tanden (気海丹田7)

When the muscles of the lower abdomen are tensed, the seat of body's power, the tanden, appears. The tanden is the tension of the muscles and appears only in the living body. It was not discovered through western medicine or academics because it cannot be found in a dissected body.

Defined broadly, the tanden is the front of the lower body, the abdominal muscles that can be tensed together. Defined more narrowly, it is where power gathers when the abdominal muscles are tensed.

This point is approximately three centimeters below the navel. The point above this is called the kikai. Inhaled breath fills the the kikai naturally and without effort but when it is exhaled, power is focused on the tanden below it.

The tanden is sometimes called the center of the body, but it is more accurately called the center of gravity. The center of gravity presides over the body, controlling the function and movement of the extremities. It performs all true movement in budo and other arts.

Tanden-sokuho (丹田息法, tanden breath technique)

Breath is what gives life to posture. Correct posture only has meaning when it is based upon correct breathing and correct posture follows naturally from correct breathing.

Let's examine the human body's breath. When sleeping lying down, the breath naturally enters the body, expanding the chest and upper abdomen. As the breath is exhaled, those parts become empty. Both the inhalation and exhalation happen only in the upper body; the lower body does not participate. However, if the tanden is actualized when the body is upright and the hips are bearing the weight of the body, breathing can be done through the tensing and relaxing of the tanden. When the tanden relaxes, air naturally is pulled into the center of the body. When the tanden tenses, this air is expelled from the center of the body. If the breath does not pass through the center of the body, but only the upper body, the breath is the same as a sick or feeble person.

How to Breathe Deeply

Laughter demonstrates natural deep breathing, with the breath passing through the center of the body. Consider the human lungs as a single vessel. When the chest is used in unfocused breathing, only twenty or thirty percent of the vessel is filled. Try emptying the chest, keeping the body straight and exhaling until you feel the chest muscles relax. Because there is still a lot of air left in the body, try laughing. When you do so, you should feel a comfortable strength naturally filling a single point in the lower abdomen. The seat of this power is the tanden.

The tanden is described as three centimeters or 1.5sun below the navel but, in reality, it should not be defined from the outside of the body. Rather the tanden is the point you felt fill with strength when you laughed with an empty chest. Laughter is a sign of health. Humans laugh often when healthy and by purposely laughing more one's health naturally improves.

Laughter occurs as convulsions. Let us examine this process. First, one fills the lower abdomen with strength, pushing the air out. Next, the strength in the abdomen lessens, pulling new air down into the bottom of the lungs. The air flows in in an instant but in that short time the vessel is almost completely refilled. Laughter is an efficient form of deep breathing. Breathing as if one is laughing, without convulsions, calmly and without pause, is tanden-soku (alternatively, tanden-kokyu). It is a form of deep breathing using the lower abdomen to exhale. It is the genuine kokyu-ho of zazen and seiza^o, as well as all varieties of budo and other arts.

While standing upright, you must always extend the lower back and fill the lower abdomen with strength. At the same time you must keep tension in your center, specifically the lower abdomen, and quietly breath out. Keeping twenty or thirty percent of the air in your lungs, you should relax the lower abdomen. Because there is always an atmospheric pressure around you, air will flow into you naturally just as if you had loosened your grip on the bulb of a dropper¹⁰. This happens in an instant but, as mentioned above, an incredibly large amount of air is inhaled.

On a slightly different topic, it is necessary to always keep the external sphincter muscle of the anus contracted. In kyudo they teach, "keep your hole closed." However, focusing on the anus is an uncomfortable, animalistic feeling. Instead you should put strength into the lower abdomen and the sphincter will contract proportionally and unconsciously.

Laughter is an action of exhalation but humans can discover the location of the tanden through the action of inhalation as well. Try swallowing your saliva. When you do your muscles contract towards your navel but, immediately after the saliva enters the stomach, the lower abdominal muscles clench tight, stopping the saliva there. The place where these muscles contract is the tanden¹¹.

Exhalation is Truth, Inhalation is Falsehood

All true human action is performed while exhaling. The exhaled breath is the breath of a human realizing an action and when breathing out one is in an active kamae. In budo and other arts, exhalation is truth, inhalation is falsehood. A human's upright body is a body in action and, while awake, exhalation should be the principle form of breathing. Inhalation is a natural, unconscious state. It is a principle of budo that the change from stillness to action must start by breathing in and the principle movement must be brought to a finish while breathing out.

It is desirable to exhale for as long as possible. Breathing shallow breaths without strength in the hara, it is normal to take 17 or 18 breaths in one minute. The hurried breaths of a sick man are countless. When correct tanden breathing is practiced, one will take only seven or eight breaths in a minute, dropping to four or five with mastery. In zazen or budo, a person who has achieved complete

harmony in his body will number one or two breaths per minute, or even less. It is said that in the Edo period, a famous spearman once walked the length of Ryogoku Bridge¹² with just one breath.

One must not strain when breathing. In correct breathing there is no stopping or holding of the breath. The breath must flow out naturally. With the lungs full to the bottom from correct breathing there is more air available than one might imagine and even a big, unwavering exhalation will continue for a long time.

Each of us can discover whether our exhalation is correct and the entire body is in harmony or if our exhalation is in discord and out of harmony. The first step is to focusing our awareness inward. If there is no stiffness or strain in the body when breathing out, the nasal passage opens and an indescribable, pleasant strength fills the lower abdomen. The second step is to feel the breath with the palm of the hand. Correct breath comes out warm and gently. Discordant breath comes out cold and rough. In the past, practitioners of budo and zazen would place a candle in front of the nose and practiced tanden breathing so that the flame would not flicker.

When the method of correct breathing is mastered, neither the breath in nor the breath out should be able to be felt. There should be only the tension and relaxation of breathing in and out. If the breath can be felt or heard, there is still some stiffness or strain in the body (for example, the chin muscles or oral cavity).

In contrast to the tension of exhalation, inhalation is a relaxation and should be done in the shortest possible amount of time. This relaxation, however, must not be a complete relaxation but a relaxation supported by tension.

The act of exhalation starts from the natural state of inhalation. Inhalation, however, is the opposite; it is born from a state of human effort and the tension of exhalation. It starts with the lower back extended and strength filling the lower abdomen and the relaxing of that tension, but without releasing all of the strength. To understand this method it may help to consider how one breathes while sprinting. It is necessary to put strength into the lower abdomen to run but breathing in can only be done by slightly relaxing that tension.

The Principles of Breathing

Having understood the correctness of and realizing the depth of logic of tanden breathing, let us now provide some additional support.

Even in the middle of physical exertion budo masters do not become short of breath nor does their breathing become rough. This is because the muscles throughout their entire body are settled in the correct position and because they regulate their diaphragm correctly.

The Diaphragm

The Japanese term for the diaphragm is oukakumaku (横隔膜, horizontal separating membrane). It gets its name from the fact that it separates the chest and abdominal cavities. It is called a membrane but it is actually a thick, membrane-like layer of muscle. It is the only voluntary muscle among the internal organs and can be tensed at will. Those who aim to master correct breathing must first start by training the diaphragm. To do so, practice allowing the upper abdomen (solar plexus) to draw in as you exhale. It may help to place the hand on the solar plexus to feel the movement of the diaphragm.

If, as you breathe out, you tense the lower abdomen and relax the upper abdomen (solar plexus¹³), the lower abdomen will become round like a rubber ball. As the solar plexus depresses the navel will point upwards. As you continue to breathe in and out, this round shape should not change but as you breathe out it should become harder.

When breathing using the tanden, the diaphragm should first move down as you breathe in and the ribcage should rise as air enters the body. Next, as you breathe out, the ribs should lower as the diaphragm rises, pushing the air out of the lungs.

*The Solar Plexus*¹⁴ (Strengthening Character and Moral Sense)

Directly below the diaphragm in the abdominal cavity is the solar plexus nerve complex. his is a group of autonomic nerves the size of the thumb that receives instructions from the diencephalon¹⁵ to regulate the body. The solar plexus is such an important organ that, it is said that if the brain is the seat of knowledge, the solar plexus is the seat of moral sense.

Tanden breathing stimulates and trains the solar plexus, calming the nerves, and works to strengthen the character. This is one reason that budo and zazen aid in a person's moral education.

In addition to the very real effects on efficiency of movement, as discussed above, focusing the whole body's strength in the tanden invites a spiritual benefit as well.

The diaphragm is shaped like an arched ceiling. When one has put no strength in the abdomen and is, for example, surprised, the diaphragm contracts towards the chest cavity and presses up against the heart, pushing the apex of the heart against the chest wall causing the heart to beat faster. If the diaphragm can move up and down in a controlled manner the base of the heart can expand and the heart can pump slowly. This reduces mental states such as anxiety, surprise, and fear. It is important to note that a calm and composed mental state is not achieved by the mind alone, but by correct posture and correct breathing. It must be build on the strong foundation of the physical body.

The Second Heart

Some call the diaphragm the second heart. The heart in the chest pumps blood through the arteries but the contractions of the diaphragm are incredibly important in returning the blood from the veins of the lower body to the heart.

Normal breathing is a matter of controlling the lungs. As you inhale the chest expands and the upper abdomen inflates. As you exhale, the chest becomes empty and the upper abdomen collapses in. The lower abdomen is not involved at all. This is true of shallow breathing and surely also when sleeping laying down.

As mentioned above, when one wakes and stands upright, allowing tension to keep the body balanced, the tanden appears as the seat of the whole body's strength. Because all true movement, without exception, must be generated from the tanden, the breath too must originate from the tanden.

Breathing from the chest and breathing from the tanden are completely the same. Breathing from the tanden, however, is incomparable with natural breathing in the amount of air that fills the lungs.

Tanden breathing is neither unnatural breathing nor reverse breathing. Rather, it follows natural breathing and takes the same form, but is one level higher and more efficient. It is the absolute correct way to breathe.

Because tanden breathing does not go against the natural order of breathing, with the exception of sleeping, it should be possible to do all day without issue. It is in fact the best thing you can do for your health.

The function of breathing is to absorb oxygen from the air and expel the carbon dioxide gas generated inside the body. If one's breathing is shallow, the oxygen in the blood decreases and, carbon dioxide combines chemically with water and builds up inside the body, decreasing the life force of the body's cells.

Focus on Breathing Out

Normal air is made up of over twenty percent oxygen and the air humans exhale is approximately sixteen percent oxygen. Our bodies absorb the four percent difference. The air we exhale, however, contains over 100% more carbon dioxide than normal air (0.04% in air and 4.4% in exhaled breath). We can induce from this that if we breathe a large amount of air into the lungs, as long as we are exhaling, the body continues to absorb oxygen. We should thus focus only on exhaling and expelling carbon dioxide. In budo and zazen it is unnecessary to think about inhalation and important to focus instead on our exhalation.

The Importance of Deep Breathing

The lungs are made up of millions of microscopic alveoli. The inner surface of the lung that makes contact with air is 56m², twenty-five times greater than the outer surface area of the body. This is half the size of a tennis court. The greater portion of alveoli are unused in normal, shallow breathing and remain unexposed to fresh air. This is why it is important to breath deeply.

Deep breathing consists of an inhalation component and an exhalation component. A naturally occurring inhalation component of deep breathing is yawning. When yawning the lungs fill completely and there is a feeling of the kikai (below the navel) filling as well.

Professor Sato gives this type of breathing the name kikai-soku¹⁶. Inducing yawns throughout the day, inhaling deeply into the lower abdomen and stretching the body, has health benefits.

Likewise, a naturally occurring exhalation component of deep breathing is laughter. Here air is pushed out by tension of the tanden, the point below the kikai. When the tanden relaxes, air is sucked in. This is called tanden-soku. It is the breath of budo, zazen, and seiza¹⁷. Tanden-soku is the same deep breathing as laughter but steady, without the convulsions.

Signed and sealed:

Kawakubo Takiji Muso Jikiden Eishin Ryu Iaido, Hanshi 9th dan¹⁸ Third Month¹⁹, Showa 53²⁰

Footnotes

- 1. From "Kyoto Yamauchi-ha Muso Jikiden Eishin-Ryu Iaijutsu" by Yamakoshi Masaki and Tsukimoto Kazutake. back
- 2. From Kawakubo Takiji's own signatures. back
- 3. The Kodaira City Iaido Aikokai (小平市居合道愛好会) in Tokyo Prefecture. back
- 4. Japanese title: 武道の神髄, published by 日本教文社 in Oct., 1977. back
- 5. 実, "truth" or "substance", and 虚, "falsehood" or "emptiness", appear as polar opposites in the philosophy of Zhuangzi (4th c. BC). In kendo and jukendo, these same words can refer to the absence or presence of an opening (隙, suki). back
- 6. "Tense" and "tension" (緊張) is used throughout this translation. It refers to the prolonged or continuous contraction of muscles and tendons. Its opposite is "relax" or "relaxed" (弛緩). back
- 7. Kawakubo gives the following footnote:
- "Kikai" is a term used in traditional Chinese medicine. It is a vital spot located 1sun below the navel.
- "Tan" is the Taoist elixir of immortality; "den" is the earth that creates this elixir. The tanden is an acupuncture point 1sun5bun below the navel. The tanden is between the kikai and the ishi-mon, a point 2sun below the navel. back
- 8. 正中, the true, three dimensional center of the body. back
- 9. Seiza (静座) here does not refer to the Japanese sitting position, but "sitting calmly and quietly" for meditation, etc. back
- 10. Pasteur pipette or eyedropper back
- 11. Kawakubo writes heso-shita-tan (臍下丹, tan below the navel). This is simply a graphic description of the tanden. back
- 12. Ryogoku Bridge in Tokyo has a modern span of 164.5m and a historical span of 94ken (~170.9m).back
- 13. Here Kawakubo uses the Japanese term 鳩尾 (mizo-ochi), also known as the 水月 (suigetsu). This is the point of the depression on the surface of the chest directly above the solar plexus nerve complex. Mizo-ochi literally references a pigeon tail, similar in shape to the depression of the chest.back
- 14. Here Kawakubo uses the term 太陽神経 and 太陽神経叢 (taiyou-shinkei-(sou)), terms used for the solar plexus nerve complex itself. This term literally references the sun, as does the English term, because of the radiating nature of the nerve fibers. back
- 15. The interbrain (間脳) which connects the cerebrum to the brain stem. back
- 16. 気海息 or "kikai breathing". See footnote 5 for a definition of "kikai". back
- 17. See footnote 9 back

- 18. Although Kawakubo later obtained the rank of 10th dan (seen in signatures from Showa 59 (1984)), at the time of this writing, he held the rank of Hanshi 9th dan. back
- 19. Kawakubo writes 弥生月 (yayoi-tsuki, month of new life), the third month of the traditional Japanese lunar calendar. This may or may not correspond to March. back
- 20. The year 1978 back