

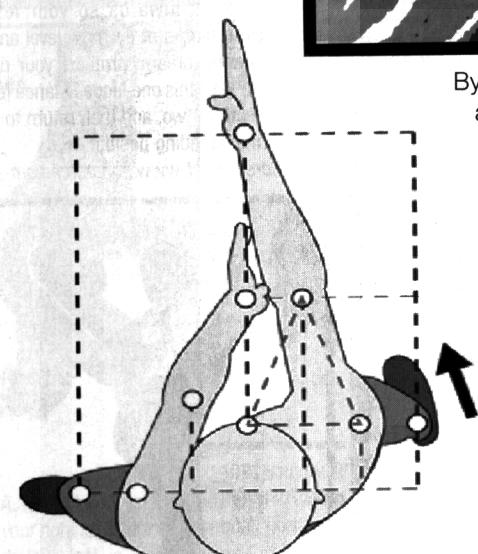
Seven Military Science Criteria for Developing a Survivable Hand-to-Hand Combat System



By Garrett Gee, Benny Meng
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Above:
The ability to engage and
counterattack
simultaneously is always
more efficient than a 1-2
sequence.

Left: Hung Fa Yi Triangular
structure



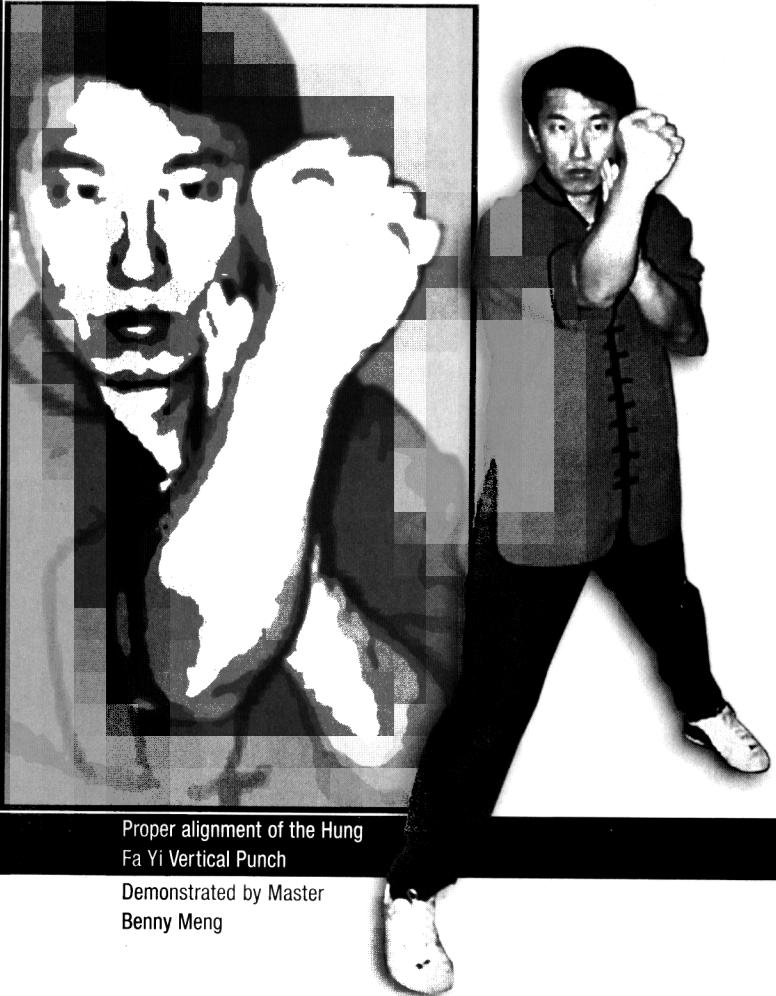
The true test of a hand-to-hand combat system is its employment and survivability on the battlefield. Hung Fa Yi Wing Chun kung fu is one such system that survived battlefield tests for over 200 years. Ultimately, its use on the battlefield gave way to longer range weapons and weapons of mass destruction that negated many of the training needs of eyeball-to-eye fighting. In today's world of terrorism in urban areas amongst countless innocent non-combatants, long-range weapons and weapons of mass destruction must often be shelved. Soldiers are once again confronted with the serious potential for eyeball-to-eye combat. Military officials are again looking to develop true hand-to-hand combat

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skills with "single-kill" precision and little collateral damage. At the same time, law enforcement officials, bodyguards, and ordinary citizens have greatly increased their demands for "unarmed" self-defense training with "streets," "public assemblies," "transportation nodes," or even "classrooms" defined as the battlefield. It's time to define specific criteria for a hand-to-hand combat system to meet these needs. These criteria represent the cumulative knowledge gained from a study and analysis of military experience by military scientists spanning decades of defense engagements. Said experience includes actual combat and contingency operations as well as formal tests and training exercises.

This article highlights seven military science criteria that must guide the creation and development of a true hand-to-hand combat system if it is to survive the real test of battlefield use. These criteria are:

1. The system must make full use of all available natural weapons. The structure and motion of these weapons must comply with the harmony (physical laws) of their genetic construction.
2. The system must employ optimum efficiency in combat. In doing so, it must be direct and require a minimum amount of motion, energy, and time.
3. The system must be both logical to learn and effectively retained.
4. The system must be capable of lethality in deployment, yet allow a full range of lesser responses consistent with morality.
5. The system must provide reasonable survivability against a numerically or physically superior enemy. In doing so, it must protect against "Pyrrhic victory" or a victory that costs more than it is worth.
6. The system must emphasize and provide reactional combat speed rather than eye/brain-dominated speed only.
7. The system's results must be both predictable (in terms of success) and repeatable.



Proper alignment of the Hung
Fa Yi Vertical Punch

Demonstrated by Master
Benny Meng

Natural Weapons Use

The primary functions of human body parts do not include using them as weapons, but this does not preclude using them as such provided proper alignment, structure, and energetics are adhered to cooperatively. A good example is the human fist. If used incorrectly, it isolates the intended weapon from the body's root (earth connection) and can result in serious injury to the person throwing the punch. Aligned properly, all bones cooperate in transferring shock energy to and from the root, resulting in maximum power with minimum damage to the person employing it. Of course, proper alignment and throwing of the punch won't result in minimal self-inflicted damage if improper targets are engaged. Strategies, tactics, and training methodologies must all coincide so that proper targets for this particular weapon are selected and used instinctively. For example, hitting the head with a fist results in far more danger to the puncher than hitting the carotid, jawbone, or cheekbone/sinus cavity.

A number of weapons can be derived from proper orientation and use of human body parts, which include: palm strikes, finger thrusts, chops, elbow strikes, knee strikes, and kicks. All must be properly aligned (and properly released) to prevent injury to the user and ensure optimal results. The concept of Hung Fa Yi **structural space** (dealing with body alignment) complies fully with this requirement (above). In short, any motion or structure that defies natural body alignment of bones and muscles (alignment dictated by human genetic code), will by its very nature result in less than optimal efficiency and effectiveness. This leads to the second criterion.

Optimum Efficiency

This criterion stipulates that an effective hand-to-hand combat system must use optimum efficiency in accomplishing its goals. In doing so, it must exhibit directness while employing an absolute minimum amount of motion, energy and time. Directness itself results in the minimum required amount of motion, energy, and time – all of which must be carefully protected and wisely used when engaging a stronger, faster enemy. A wise defender always makes the safe assumption that his/her opponent is stronger and faster and, therefore, should not be underestimated. Taking the shortest distance to target counters the opponent's greater speed. Using the least amount of energy and motion counters his greater strength and endurance. In a life and death struggle, there is no room for ego-driven moves or strategies. For example, many movies have depicted martial fighters catching one another's fists in mid-air. In reality, only a simple redirection was required while **simultaneously** destroying the attacker using the weapon. Observe the emphasis on simultaneous action. True efficiency allows for both offensive and defensive actions simultaneously, further limiting energy expenditure by conserving time and resources.

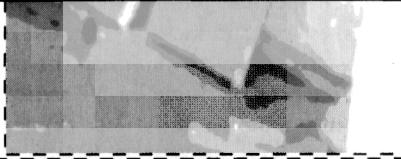
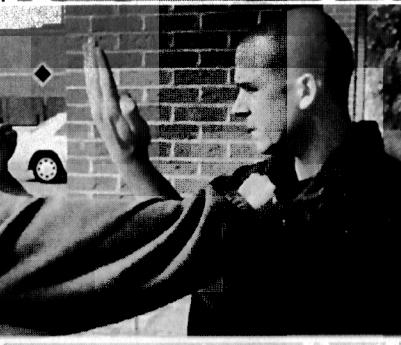
A truly valid system of self-defense will focus on maximum power projection with minimum motion, time, and energy expenditures. After all, energy (and energy reserves) constitutes one's ammunition in hand-to-hand combat. If one runs out of energy, he/she runs out of ammunition.

Logical to Learn, Effectively Retained

Valid self-defense must be rooted in human physiological and genetic science. This is the only way that basic truths can be divined and trained. They will survive the test of time because they describe the most efficient way to prepare and use human body weapons. Inherent in the definition of truths is that they are stable (remain the same until genetic code is altered). Consequently they are enduring rather than transient. As such, they provide structures, strategies, and tactics that will function over long expanses of time. The methods employed for teaching these basic truths must follow a consistent philosophy, giving rise to consistent principles and concepts that cooperate with human design and impulse. Any other approach will ultimately degrade into a strength contest with the stronger, faster opponent winning hands-down.

A competent training methodology must result in muscle memories and instincts that allow continuous flow of weapons to target. These same muscle memories must be akin to those of riding a bicycle – once learned, they can never be forgotten. Likewise, they can be employed efficiently with little refresher training. Examples of such methodologies are the arm bridge and leg bridge training of Chi Sim Weng Chun and Hung Fa Yi Wing Chun. Another example is Hung Fa Yi's detailed sticking hands **striking point** training. Again, emphasis must be placed on the logic of both the fighting platform and the strategies and tactics for using it. That which is not natural and logical simply will not be used in moments of high duress. Effective retention requires a system designed from the ground up around a logical, consistent philosophy that gives rise to consistent, scientific principles and concepts. If this preliminary groundwork is not done to perfection, subsequent inconsistencies (and resulting inefficiencies) may not be spotted or corrected.

The ability to engage and counterattack simultaneously is always more efficient than a 1-2 sequence.



Most often, a flying kick is used for demonstration and entertainment purposes. In real combat, a technique such as this is unrealistic as it requires a large amount of energy and takes a lot of space, requiring too much time to execute.



To defeat a stronger opponent, one must control battlefield time

Left:
Recognizing
the threat



Above: Reacting to the threat. Engaging the threat from the flank allows a smaller force to overcome a greater force.

Lethal, Yet Flexible in Deployment

True hand-to-hand combat must be structured and trained to yield a victor in seconds. In reality, that is the maximum time one could ever hope to afford before having to face a second attacker. This means every weapon must be deployable with lethal power. Every range and stage of combat must be provided for with lethality as its ultimate outcome. Single-hand kills are essential. At the same time, laws and socially acceptable conduct of defense must also be provided for. The lethality of the attack must determine the lethality of the response – not personal preference. If the defender is to survive the legal and moral ramifications of his/her actions, then the system trained must provide for natural employment of minimal force to accomplish the task of defense.

The requirements for maximum lethality and minimal use of that lethality might appear to be in conflict with one another. In truth, one gives us the room and "comfort zone" for the other.

Hung Fa Yi Wing Chun's *Chum Kiu* and *Biu Ji* skill level tools enable both the required lethality and flexibility. *Chum Kiu* breaks down the structures and defenses so *Biu Ji*'s pinpoint accuracy can be employed. In short, one cannot afford to be merciful if one cannot guarantee successful outcome of the defense scenario. With Hung Fa Yi *Chum Kiu* and *Biu Ji*'s absolute control of the space, time, energy, and lethality of the scenario, pinpoint accuracy is guaranteed and mercy becomes easy to grant. This need for absolute control of space, time, energy, and lethality leads us to the next criterion.

Survivability Against a Superior Attacker

Attackers on battlefronts will, at times, be superior in number or strength. Training to defend oneself via the employment of biggest, strongest, fastest techniques (i.e. blocking) will most likely result in serious injury or death to the defender. To defeat a stronger opponent, one must control battlefield time, thereby jamming the opponent's forces so that superior strength cannot be employed. To defeat a faster opponent, battlefield space must be warped or altered to compel the attacker to take the longer route to target, thereby negating his physical speed advantage. At no time should the system require the defender to give up defensive and offensive options by engaging in limiting conduct such as intentionally wrestling an opponent to the ground, thereby rendering oneself totally vulnerable to other possible attackers.

Until human genetic code is alterable in real time, there truly are (and always will be) optimal points of efficiency in employing human structures and energetics for controlling battlefield space and time. Regardless of techniques and strategies employed by an attacker, proper use of these optimal points of efficiency allow one to control the time, space, and energy of the engagement. Hung Fa Yi Wing Chun kung fu has carefully mapped each of these points of efficiency out, and all of its methodologies converge on training to use them correctly. This *kinesiological mapping* is absolutely essential for any survivable hand-to-hand combat system.



Reactional Versus Eye-Dominated Speed

The eye-brain command and control link for the human body is remarkably slow. Yet the majority of martial arts systems encountered today focus solely on developing and training defensive and offensive tools controlled completely by eye-brain coordination. A quick look at today's evolving science of haptics can highlight the problem. Computer scientists have studied eye-brain dominance versus touch dominance at great length. It is common knowledge that 30 flashing pictures per second can fool the eye-brain into believing that 30 static pictures represent true human motion in 3-dimensional real-time. In the development of force-feedback joystick controllers for computer games they discovered that 1500 pulses per second were required to give the sense of human touch an approximate feeling of reality. In the development of military combat simulators, 15,000 pulses per second are actually required to deceive the sense of touch into believing that a simulation is reality. In essence, the sense of touch is overwhelmingly faster than the eye-brain at responding to outside energies and influences.

Any viable hand-to-hand combat system must employ the reactional speed of touch training to allow close-quarter combat flow to target if a smaller, weaker defender is to control a larger, stronger one. Hung Fa Yi's *Kiu Sau* and *Chi Sau* allow practitioner's to develop the necessary reactional combat speed needed to meet this requirement.

Predictable and Repeatable Results

This may well be the most important of the seven criteria outlined in this article. No competent battlefield commander would commit troops and resources without plans, strategies, training, and equipment that yield an 85% probability of success. The same demand should be placed on any hand-to-hand combat scenario. The tools employed should work the same way every time, on every opponent, if the scientific principles upon which they are based remain adhered to. Only then can an outcome be both predictable and repeatable. Life and death struggle cannot be left predominantly to chance. On a battlefield, every strike must be delivered at optimal striking range. Every redirection must predictably remove the opponent's weapons from the battlefield while guaranteeing space and time for simultaneous attack with optimum efficiency. Hung Fa Yi's *Wing Chun Formula* underwrites its ability as a system to produce predictable and repeatable results, regardless of the size, strength, and speed of its practitioners.

Conclusion

Military research and development projects over the centuries have proven time and again that the above seven criteria can never be fully achieved in a system that is "kluged." A core philosophy must guide the system's development. Ultimately, that philosophy must ensure all technical science concepts and structures, as well as employment strategies and tactics, remain cohesive and mutually supportive. The following triangle depicts total systems knowledge and skill as dependent on all three.

Weng Kiu
Hung Fa Yi Skill and Knowledge
Strategy/Tactics
Technical
Philosophical

In Hung Fa Yi Wing Chun, the core Chan (Zen) philosophy is the Southern Shaolin concept of *Saam Mo Kiu*, meaning "Three Connecting Bridges" (known to the outside world as *Tin Dei Yan* meaning "Heaven, Man, Earth"). *Saam Mo Kiu* guided the development of all technical and strategic/tactical aspects of the system. Today, it guides their training and employment as well. ☺

Grand Master Garrett Gee is lineage holder of the Hung Fa Yi system and head instructor of Hung Fa Yi Wing Chun lineage. Sifu Benny Meng is the principle founder and Curator of the Ving Tsun Museum. Sifu Richard Loewenhagen is one of the founding committee members of the Ving Tsun Museum and currently serves as its Director of West Coast Affairs. All three authors are full-time teachers of Wing Chun kung fu and are available for professional seminars on historical, as well as technical, aspects of the art and its training methods. Garrett Gee can be reached through the Hung Fa Kwoon, 219 Monterey Blvd., San Francisco, CA 94131, phone (415) 587-2898 and emailed at hfywc101@aol.com. Benny Meng can be reached through the Ving Tsun Museum, 5717 Brandt Pike, Dayton, Oh, 45424, phone (937) 236-6485 and emailed at BennyMeng@vtmuseum.org. Sifu Richard Loewenhagen can be reached at Meng's Martial Arts of Arizona, 3029 N. Alma School Rd, Suite 218, Chandler, AZ, 85224, phone (480) 820-2428 and emailed at sifu@mengsofaz.com.