A Poor Craftsman Will Always Blame His Tools! - Ude: A brief look at utilising the forearms in combat

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The art of karate incorporates many methods in which to transfer your power into an opponent. By changing the shape of the weapons used to transmit energy, a whole host of resulting combat benefits can emerge. The common notion of striking with a closed fist is viewed by the traditional and more practical karate-ka as simply one of a vast amount of striking formations that are possible with the upper limbs. Almost every part of the hand can be accentuated for use as a striking weapon including the digits and thumb, foreknuckles, wrist, the back of the hand and palm. Even the tips of the fingers can be used in an almost ‘whip-like’ fashion to attack the eyes etc. Each of these unsurprisingly comes with its own advantages, disadvantages and perhaps more critically, the most appropriate time for exploitation.

Likewise, the use of the forearms is an important consideration for those karate-ka who view their art as a practical means of self-protection. Simply carrying out a mere superficial glance through the traditional kata can reveal a whole host of ways in which the forearms can be used as effective striking tools and more. In this brief article, I’d like to focus on this particular aspect and hopefully expose how adaptable the forearms can be to aid overall effectiveness during close range altercations.

Before we look at the benefits and limitations to which the use of the forearm can offer in combat, I’d like to first devote a few words to its physical composition. The human forearm is generally defined as the area of the upper limbs between the wrist (articulatio radiocarpea) joint and elbow (humeroulnar) joint. It consists of two long bones, which are called the radius and ulna not surprisingly coming together to form the aptly
named *radioulnar joint*. These bones are connected by a fibrous ‘sheet’ called the *interosseous membrane*. As far as musculature goes, the forearm carries numerous including the superficial muscles that control the motion of the hand at the wrist, the flexors/extensors of the fingers, the *brachioradialis* used to flex at the elbow joint and of course not overlooking the pronators/supinators, which are employed to twist the hand to face different directions (i.e. rotating palm up or palm down).

Collectively, the makeup of the forearm can be split up into two distinct sections or *fascial compartments*. The first being the *posterior compartment* that contains the extensors, which are supplied by the radial nerve. The other is the *anterior compartment* that contains the flexors, which is mainly supplied by the median nerve. In addition to these, there is also a third ulnar nerve that runs the length of the forearm. Blood is provided to the forearm primarily via the radial and ulna arteries or more specifically throughout their many branches.

![Photo 2](image)

Although the seemingly complex makeup of the human forearm can lead to a number of inherent weaknesses (examples of these include of course the fact that the arteries run very close to the skin or the easily accessible radial nerve below the elbow joint on the ‘thumb side’ of the forearm), a well conditioned limb can still prove to be a extremely versatile striking implement indeed. It must also be remembered that when the forearm is pronated (i.e. palm facing to the ground), the radius and ulna bones cross over to a point at which the palm will no longer turn any further. It is this occurrence that is usually exploited throughout the numerous wristlocks found in karate. Therefore in order to use the forearm effectively as a strong tool for transmitting energy, its innate limitations need to be understood somewhat, so that they can be either avoided or (as in some instances) systematically strengthened by conditioning drills designed in such a way as to ‘stress’ the forearms in a controlled environment in order to bring about a positive adaptive response.

In almost all aspects of life, the human body has a fantastic ability to adapt and change according to the specific environment it’s subjected to. If and when the conscious decision is made to step outside of our comfort zone to develop, the body will respond by changing to suit both the new challenge and the specific situation. For instance, if a weightlifter is used to pressing 100lbs and then makes the effort to press 110lbs, then an improvement will be
required. The body will thus respond to this by becoming stronger. Conversely though, if the weightlifter then decided to instead attempt 200 or 300lbs, then a negative response would most likely occur, inevitably leading to injury. This fundamental principle of ‘reasonable overload’ is the key to almost every part of our martial training. Without it, we would never improve.

Throughout the traditional forearm conditioning methods found in karate, the same principle described above is applied. The idea is based upon the human body’s restructuring of bone and surrounding tissue in proportion to a slow but consistent application of physical stress (i.e. reasonable overload). When receiving repetitive and controlled impact against the forearms, the tissue and bone can develop over some time, become more dense and strong, whilst simultaneously reducing the number of ‘active’ pain receptors. In short, the body will become more accustomed to the new challenge placed upon it and as a result, grow positively in response.

In karate there are many traditional methods in which to condition the forearms and these were originally deemed necessary because of the natural emphasis placed on these areas during close-range altercations - the range in which karate originally specialised. Since visual reaction can’t be relied upon at distances breaching that of arms length, the most common subconscious reaction is to quickly raise the arms in order to defend the vital areas such as the throat or eyes and if skilled enough, to obtain a ‘tactile reference’ with the opponent. In these kinds of instances, one of the first parts of the body to clash will invariably be the forearm. Regrettably, the intention and word limit of this article doesn’t offer me the space to digress any further into forearm conditioning – although perhaps this can be an interesting subject for a future piece?
On the surface, the more ‘modern’ methods of karate seem to have completely disregarded the combat usage of the forearms. Yet, it’s well worth pointing out the fact that all the basic so-called ‘blocking’ maneuvers found in the art such as gedan barai, uchi uke, soto uke, age uke and otoashi uke etc, use the forearm exclusively as the primary means of contact. I personally believe that this is in no way a coincidence and that these movements cover all the fundamental directions of force or energy projection. The simple viewpoint of considering these techniques as strikes alone would certainly show the importance of the forearm within the combat philosophy of karate. Furthermore, taking these potential applications beyond the realms of just striking illustrates the clear malleability of such a weapon. In fact with this idea in mind, it would be reasonable to assume that in most cases and within more pragmatic combat ranges, the use of the forearm would probably even surpass the use of the much more commonly taught fist. This argument is also reinforced by the fact that many of the traditional shuri-te kata (even the modern Pinan kata of Anko Itosu) are literally rife with techniques that potentially employ the forearm – surely a sign of how valuable these were originally deemed.

Generally speaking, we can make contact with the opponent via the four regions of the forearm. We can use the ‘palm side’, the ‘little finger side’, the ‘thumb side’ or the ‘back side’. Obviously, striking with the thumb or little finger side would involve the ulna and radius bones more, since the palm and back sides generally have more musculature mass. In some cases, having less muscular protection can prove disadvantageous. However, in respect to the practical application of karate movements, the bones of the forearm can still be utilised in variety ways to accentuate a particular technique or strategy. Examples of this could include the application of chokes or arm locking maneuvers whereby extra pressure can be applied via a forceful twisting action of the forearm bones against the opponent’s more vulnerable areas.
Unlike the fist or other similar hand techniques, a forearm strike is not limited by any weaker joint i.e. the wrist. In addition, because most forearm strikes are generally angular in nature (as opposed to thrusts), less emphasis is required on making sure that the body is aligned in such a way as to cope with a large resulting energy. This is of course particularly important for thrusting strikes since at the extreme, effectiveness can always be lost due to the opposing force having a consequential adverse effect on the total power output. Like the elbow, which I suppose is really just another kind of forearm strike, a great deal of power can be generated, which makes the use of the forearm a serious consideration for anyone who wishes to make use of their upper limbs at close range.

Again, with respect to the modern interpretation of karate, it’s clear (and unfortunate) that in the majority of cases, the applications associated with the use of the forearm have either been lost entirely or are seriously under-used. If it wasn’t for the longstanding traditional kata, which concentrates solely on close range practical combat, the remainder of the more extended range karate strategies have simply no requirement for such techniques. Not that I’m advocating that there’s anything wrong with this – it’s just the product of our natural human nature to alter our training in order to serve a particular purpose. In karate competition for instance (to which most modern day practice is geared towards), as soon as two combatants obtain a fighting distance inside that of arms length, the contest is usually stopped via the referee and reset back at long range again. Therefore in this particular environment, there is no need to hone any skills at close range. This occurrence would obviously never occur in reality though and so with respect to this purpose in mind, the weapons and power development strategies that don’t depend so much on distance or time have to very quickly become a priority in these more life threatening situations.

Using the centre line as a reference, we can strike with the forearm by either thrusting away from the body, pulling in towards the body, moving to the outside, moving back in towards the centre, raising upwards or sinking downwards. These six fundamental motions prescribe the gross body mechanics and as already stated above, seem to be intentionally dealt with a great deal via the basic ‘blocking’ techniques found in karate. Again, these movements do not only have to be applied to striking. The pictures found with this article give a number of examples as to how the forearms can be used and hopefully serve to provide some illustration as to the real potential behind these movements. For those who are interested, I would certainly urge you to spend a little time in studying this specific area and I guarantee
that you’ll be taken aback at the amount of adaptable combat applications, which can be extracted and incorporated into your combat arsenal from these seemingly basic techniques.

Photos (1) and (2) show the forearm being used as strikes by incorporating two of the fundamental motions as described above. Photo (3) shows the thumb side of the forearm being used as an effective choke. In photo (4), a joint attack is being shown and in photo (5) another variation is demonstrated that utilises the twisting of the forearm to cause additional discomfort to the area just above the antagonists elbow. Finally, in photo’s (6) and (7), the theme has been broadened slightly to include a very useful close range strike using the very end of the forearm towards the inside of the elbow joint. Although technically, this doesn’t employ the forearm exclusively, it’s such an effective movement that I figured it would be sacrilege not to include it here. It also serves as a means to show that during any form of adaptable analysis, your creative mind should not be held back by any limiting factors. As I always like to remind those in my dojo, ‘karate means empty hand, so then by definition - everything goes!’

To conclude this short article I’d like to re-emphasise the universal fact that many of the combative strategies in traditional karate have inevitably been ‘de-prioritised’ due to the way in which the objectives of the art have changed to form the modern styles we see and practice today. If the primary aim of your practice is taken away from the need to excel in close range self-protection and instead placed in areas such as sport, self perfection, fitness, health, enlightenment or stress relief, then it clearly stands to reason that what was once deemed essential becomes naturally placed near the ‘bottom of the pile’. Without doubt, karate (as it stands today) has many faces and each of us who practice enthusiastically has the right to take from it what they need or what they deem to be necessary. However, if one of your goals does happen to be in the area of self-protection then there’s no need to worry. Everything concerning this aspect that was once prevalent in the art is still very much present – it’s just that we may sometimes either have to look a little harder or increase our understanding in order to uncover it. I suppose, looking at the bigger picture then, the content of this article simply does nothing more than humbly represent a mere drop in the vast ocean that is of course karate.