

**DISTINGUISHING CHARACTERISTICS OF CLASSICAL FENCING WHEN
COMPARED TO MODERN FENCING**

by

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ABSTRACT

This study examines the characteristics of classical and modern fencing to better understand the differences between fencing in the two periods in order to better ground the teaching of classical fencing. It identifies 7 distinguishing differences between classical fencing, as stated by modern classical fencers, and modern fencing, and 4 broad categories of differences not identified by modern classical fencers that should be considered. A qualitative content analysis was used as the basis to compare and contrast the classical perspective with the categories identified as meriting further consideration. Although classical fencing and modern fencing clearly differ in technique, it is reasonable to suggest that a wide variety of factors in the environment surrounding fencing, as well as in the mechanics of fencing are the actual differences between classical and modern fencing. Those differences suggested by classical fencing are signs and symptoms generated by the actual differences.

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Note: The original text of this thesis was submitted in 2006. Because of its value in characterizing the differences between classical and modern fencing, the author, at the request of the Academy, has updated and expanded it to include recent sources that further contribute to understanding the research question.

I. INTRODUCTION

A. The Research Question

This study examines the characteristics of classical and modern fencing to better understand the differences between fencing in the two periods in order to better ground the teaching of classical fencing.

Subordinate Questions:

1. What are the distinguishing differences between classical fencing, as stated by modern classical fencers, and modern fencing?
2. Are there other differences that are not identified by modern classical fencers that should be considered, and, if so, what are they?

B. Background

Classical fencing appears in the late 1990s and first decade of the 2000s as a reaction to the continued evolution of the sport of fencing. Books by Nick Evangelista (1996, 2000), and

Adam Adrian Crown (2003) and *Fencers Quarterly*, a now defunct magazine edited by Evangelista, provided the impetus for the limited growth that classical fencing clubs achieved. In addition to Evangelista's books, Gaugler's (1997) manual of Italian fencing provided a technical bible that continues in use in the classical fencing community to this day. It is important to note that modern classical fencing as a discipline is not a continuation of the stream of fencing as it was in the 1880s through 1939, but rather a revival. Before the 1990s there were no modern classical fencers, just fencers.

Common wisdom, adhered to equally by modern and classical fencers, is that the two forms of swordplay are significantly different. With this comes the belief among classical fencers that what they do is pure fencing, a far more realistic way of using the sword in an age when the dictum was to hit without being hit. Modern fencing is seen as corrupt and lacking the sportsmanship, fine manners, and decency of the classical period, fatally flawed by the introduction of electronic scoring, and with its technique destroyed by the introduction of the pistol grip and the flick. If these assertions are true, then Classical fencing should have significantly different characteristics from modern fencing, characteristics which address both the social and technical shape of its practice.

It is important to understand that there are two versions of classical fencing, the way fencing was in actuality, and the way modern practitioners of classical fencing portray the activity in which they participate. These are not necessarily the same thing. And understanding which is which is complicated by the reality that almost none of those who profess expertise in classical fencing today actually fenced in the classical period, and that few actually studied under a Fencing Master who was trained during the classical period.

C. Assumptions

This study assumes that the statements in articles, books, and fencing manuals are an accurate representation of both the technical and tactical character of fencing and the attitudes of authors at or near the time of publication.

D. Definitions

Classical period: For the purposes of this study, the classical period extends from approximately 1880 CE to 1939 CE, the characterization used by the Classical Academy of Arms (2005). The period prior to 1880 may be characterized as historical fencing, and after 1945 as modern fencing. This definition of the Classical Period is based on two key events: at the start, the essential abandonment of the sword as a practical military weapon after the American Civil War of 1861-1865 and the 1870 Franco-Prussian War, and, at the end, the start of World War II which halted international fencing and set the stage for the development of the Soviet sports factory model and truly modern fencing.

Electrical scoring: The registration of the materiality of hits in a fencing bout by use of an electrical system including a scoring machine and weapons designed to use electrical current and contact with the target to register a hit, and the determination of their validity by a Referee.

Salle: A *salle d'armes* or *salle d'escrime*, literally a “room of weapons” or a “room of fencing,” a fencing school operated by a fencing master.

Tactics: The combination of technique, speed, distance, timing, initiative, planning, and psychological factors with the objective of scoring, or preventing the opponent from scoring, a touch. By extension, tactics includes the combination of the tactics of phrases to result in victory in the bout, and thus can be subdivided into tactics of the phrase and tactics of the bout.

Technique: The mechanics of physically executing a specific footwork, blade, or combined footwork and blade action.

Visual scoring: The registration of the materiality of hits by a Jury and the determination of their validity in a fencing bout by a President (also known as Director depending on the time-period) based on observation of whether or not a specific hit landed on the opponent.

E. My Perspective

I am a Maitre d'Armes, certified by the Academie d'Armes Internationale after passing my examination in all three weapons in 2005 at Bad Kharlshafen in Germany at the Academie d'Armes Internationale Animateur-Moniteur-Prevot-Maitre Course. My training has included study under Maestro Giorgio Santelli, Maitre d'Armes Raoul Sudre (United States Fencing Coaches Association), Provost Ron Cullum (British Academy of Fencing), Maitre d'Armes Vincent Bradford (United States Fencing Coaches Association), Maitre d'Armes Arnold Mercado (United States Fencing Coaches Association), Fechtmeister Mike Bunke (Akademie der Fechtkunst Deutschlands), and Maestro di Scherma Stuart Kaufman (Accademia Nazionale di Scherma). I studied under a Master trained in the classical period (Maestro Santelli), and competed in Amateur Fencers League of America tournaments fenced dry in the 1960s and early 1970s. Starting with the acquisition of a core collection of classical period fencing manuals in 1971, my study of classical fencing has always paralleled my study of modern fencing, each informing the other. I believe that a firm grounding in classical technique will well serve any modern competitive fencer, and that classical fencing can be an important part of any program that offers recreational fencing.

II. LITERATURE REVIEW

A. Literature of the Classical Period

A large body of surviving contemporary literature addresses the technique of classical fencing. Fencing in the classical period can be divided into at least seven schools that achieved sufficient prominence to be recorded in that literature:

- French School
- Italian School
- Modern Spanish School of Fencing
- The Evolving International School
- Hungarian Sabre
- Kreusslerian Stossfechten (Shock Fencing) Tradition
- German Cut-Fencing (academical fencing)

Of these, the French three weapon, Italian three weapon, and Hungarian Sabre schools have sufficient material available either in contemporary English sources or in modern translations to allow a classical fencer to easily access and study the technique.

It is important to understand that the performance of skills in each of these schools was not necessarily uniform. Alpar (1958) highlighted in his discussion of fencing schools that the characteristics attributed to each school were valid as a broad construct. However, excellent Fencing Masters did not uniformly teach the same school in identical ways, and superior fencers did not uniformly fence in the same way. Individuality and personality of both Master and fencer shaped the school in different ways among the population of its adherents.

French School: The French School is commonly regarded as being almost monolithic, with a clearly defined and largely unchanging body of technique. This is not an entirely accurate

appreciation of the development of French fencing. First, like in the development of any set of fencing techniques and tactics, there were changes in technique throughout the classical period. As an example, the coupe as taught by Cordelois in his 1872 *Lecons d'Armes par Cordelois* is performed with the forearm bent further back and upward from the guard, the wrist flexed, and the blade 15 to 20 degrees from the vertical over the fencer's head (although not intended as a flick the position would be recognized by modern fencers as a preparation for the flick). In contrast, Castello (1937) shows the forearm and weapon raised to approximately 45 degrees from the vertical to the front, just clearing the tip of the opponent's blade.

Cordelois's (1872) foil text in French just precedes the classical period (a very similar text by Antoine J. Corbesier in 1873 is in English, but is not readily accessible), and is followed by Rondelle's (1892) comprehensive manual on the foil and sabre, now available in facsimile reprint. Immediately after World war II, three manuals provide a thorough coverage of the French School as it had evolved. Lidstone's *Fencing* (1952) includes a catalog of three and four part actions that characterize the complicated blade play at the end of the classical period. Crosnier's *Fencing with the Foil* (the first edition appeared in 1951, the second edition with minor changes in 1967) was designed as a manual for fencing coaches and provides detailed explication of technique. And Deladrier's *Modern Fencing* (1948) provides guidance on how to structure group classes in all three weapons. The last classical text devoted to the French School is Jules Campos's 1981 catalog of the technique of Salle d'Armes Jean Louis. In between Cordelois and Lidstone there are a dozen or more English language texts that capture the French School as it evolves, including a 1908 translation of the French *Manual d'Esgrime* issued by the school of Joinville le Pont (France, n.d.).

Second, there are two French Schools, one predominantly focused on the weapon of the Salle, the foil, although admitting that the sabre exists, and the other dedicated to the epee. In the late 1800s the deficiencies of foil fencing and salle technique, as preparation for the use of the heavier epee on the dueling ground, had become apparent. A group of French Fencing Masters critically assessed what was necessary for the duel and built a new lexicon of technique, creating the modern epee. Maitre Claude La Marche's 1884 text *L'Epee* is available in translation as *The Dueling Sword* (2009) and provides a through explanation of the new weapon.

Third, there is an underlying ferment in the French School between traditionalists and naturalists, such as de Bazancourt (1862) and Burton (1911). The latter, even before the evolution of the epee as a fencing weapon in the salle, strongly advocated the simplification of technique in a body of skills that could be rapidly learned and easily perfected.

Italian School: The term Italian School is an oversimplification of a complex technical and political development history of fencing in Italy (see Gaugler 1998). Italian fencing in this period, and still to some extent, is divided into two camps, the northern Italian and the Neapolitan, or southern Italian, schools. Each was distinguished by its own schools for Fencing Masters and by its own distinct doctrine, the discussion of which sometimes descends to the most picayune level of detail (see, for example, Cote de Golfe 2016).

The northern Italian school is well represented in the currently available literature with *The Art of the Foil* (1932) and *The Art of the Sabre and the Epee* (1936) a combined sabre and epee manual by Luigi Barbesetti, a modern translation of del Frate's text based on Radaelli's sabre technique (Holzman 2011), Pecoraro and Pessina's mixed system *Sabre Fencing* (2016), and reprints of Masiello's sabre technique (Wright 1889 and War Office 1895). Barbesetti's sabre and epee volume was originally written in 1895 as a text for the Austro-Hungarian Normal

Military Fencing School of Wiener-Neustadt, and the 1895 translation of Masiello was adopted as the sabre training manual of the British Army.

The conflict between the Northern Italian School and the Neapolitan School culminated in an official competition to determine the system of fencing to be taught to Fencing Masters of the Italian armed services. In 1884 the Neapolitan School emerged from the competition as the winner, the Military Fencing Masters School at Milan was closed, and the new Scuola Magistrale Militare di Scherma was established in Rome. Generoso Pavese's *Foil and Sabre Fencing* (1905), available online, provides a contemporaneous English language translation of the technique of the Neapolitan School, and Masaniello Parise's collected writings are available in translation (2015).

One Italian text, *Right and Left Handed Fencing* by Leonardo Terrone (published after his death in 1959), deserves special attention. A graduate of the Military Fencing Masters School at Rome, Terrone is a unique advocate of the bilateral technical and physiological development of fencers. He advocated a bout format in which both fencers alternated between using their right and left hands to encourage balanced development of the body – as might be expected, this an innovation that did not attract the positive attention of the fencing establishment.

A substantial portion of modern classical fencers have adopted a modern textbook as their guide to classical Italian technique. Gaugler's *The Science of Fencing* (1997) provides a detailed explanation of all three weapons, accompanied by the synoptic tables favored by some Italian sources. Gaugler describes his volume as “an accurate and complete description of the pedagogical method of the Scuola Magistrale Militare di Scherma at Rome” as well as

“preserving in my text certain of the key elements of Maestro Nadi’s sabre and epee instruction” (page xxxiii).

Modern Spanish School of Fencing: Materials describing the Modern Spanish School of Fencing are difficult to locate. Prior to development of the Spanish School, examination of the foil section of Cucala y Bruno's *Tratado de Esgrima* (1854) shows a system visually similar to French foil technique. Cucala y Bruno's fencers are shown using a foil similar to the French foil. Cucala y Buno's title provides an insight into the probable status of his work: Gentleman Lieutenant Major of the Kingdom and Examiner in the Science of Philosophical and Mathematical Skills of Weapons in all Domains of Spain.

Thim (1968) lists one intermediate title, Maestro Adelardo Sanz's 1886 *Esgrima del Sable y Consideraciones sobre el Duelo*. The actual development of the Spanish School can be dated from Sanz’s invention of the Spanish grip in 1895 (Bacarreza 2016) and appears to be last mentioned as an active form of fencing in Bossini’s (1946) 2nd edition of *La Esgrima Moderna*. Castello (1937), himself a product of the competing French school in Spain, characterizes the Spanish School as a middle ground between the French and Italian schools, based around the characteristics of the Spanish grip, allowing stronger blade actions than the French grip, but also allow greater finger control. Notably, the Spanish school used the eight guards of the French school, with an added Ninth Guard, a high semi-circular guard.

No detailed English language description of the Modern Spanish School technique exists. The Classical academy of Arms is publishing a series of translations of Spanish newspaper articles that provide some information. However, Adelardo Sanz burned his draft fencing book prior to his suicide (Bacarreza 2016), and any writings by his leading student and successor, Angel Lancho, most likely were destroyed during the Spanish Civil War.

The evolving international school: Toward the end of the classical period, the first examples of an international school, built from elements of the existing French and Italian schools, appear. By the 1930s, it was becoming more difficult to assert the primacy of the traditional schools.

In the first such attempt, Sanz's Spanish School appears to have been essentially the same as Carbonel's (1900) Spanish language description of French technique, with the addition of a modified Italian weapon, a glide in fifth, and other fusing of Italian and French technique (Bacarreza 2016). Carbonel himself talks of the necessity to simplify technique and incorporate successful methods from other schools.

Although the Spanish School does not survive, individual Fencing Masters started to describe their technique as either weapon specific or as a fusion of schools. For example, Castello (1937) describes his teaching as French foil, Italian sabre, and a personal eclectic style of epee. And one of the two most famous "Italian" fencers, Aldo Nadi, states in his 1943 text *On Fencing* that his preference is for the Italian foil, but that his method was a synthesis of French and Italian technique based on the elements that he found most effective. Nadi stated that the French and Italian schools were merging, and that the best fencers of both schools fenced in very similar ways.

Hungarian sabre: The technique of Hungarian sabre derived from the existing characteristics of Hungarian sabre play combined with the introduction of Italian sabre technique by Maestro Italo Santelli in 1896. The result was a style of fencing and methods of training that dominated world sabre competition into the 1960s (Cohen 2002). Although not published during the classical period, two books in English provide a description of Hungarian sabre that is probably applicable at the end of the classical period. John Kardoss's 1955 *Sabre Fencing* is the

older of the two, and is a good description of the core techniques. The authoritative description of Hungarian sabre is Beke and Polgar's 1962 text *The Methodology of Sabre Fencing*. I feel confident in that assessment as that was the description of the volume by Maestro Giorgio Santelli, the student and son of Maestro Italo Santelli, when I purchased my copy in 1966 at Salle Santelli. Beke and Polgar provide an exhaustive description of technique for foot and bladework, drills, and tactics.

Kreussler Stossfechten: Roux (1849) provides a detailed description of the Kreussler Stossfechten tradition. The Roux dynasty of fencing masters, founded by Heinrich Friedrich Roux (1728-1791), continued to teach the Kreusslerian method through the 1800s (Amberger 2008). Two texts available online provide detailed instructions for shock fencing: Fehn's 1851 *Die Fechtkunst mit Stoss- und Hiebwaaffen* and Roux's 1849 and 1857 editions of *Die Kreussler'sche Stossfechtschule* (available in a partial English language translation by Treichel). They have not been translated completely into English, the distinctive pattern of foil used in shock fencing is not available as a commercial product, and there does not appear to be any interest in this school in the United States. However, there is at least one club, Fechtboden Zimmerman (2016), currently studying the Kreusslerian method in Germany.

German cut-fencing: The particularly German academical fencing with the heavy sabre (fechtsaebel) or the basket hilt schlaeger (haurapier) is generally restricted to a limited population, university students, and has peculiar characteristics adapted to its environment (Amberger 2001). As a result it is generally not included in most discussions of fencing. I have been unable to locate any English language translation of training materials associated with the use of the fechtsaebel or the haurapier, and have seen no evidence that academical fencing is being actively studied in the classical fencing community.

B. What Is Classical Fencing?

There is no single, widely accepted definition of classical fencing. To some degree this is an outcome of the small size of the community, the lack of any governing body, and differences in the objectives and programs of the individual classical fencing organizations. The unifying focus is that classical fencing is pure fencing that is decidedly not modern. At times the issue of purity has extended into the unrealistic, the hostile, the conspiratorial, and the counterproductive.

For example, David Achilleus, in discussing the activities of the United States Fencing Association, asked in reference to the role of the Association as a national governing body for fencing (2000, page 18):

But why are the responses from these people so bent upon devaluing the right to choose how and with whom we are to fence? Could it be that this is a modern witch hunt to burn away all other possibilities other than that by which the USFA will profit?

I don't think so, but it does nothing for fencing and little to portray such organizations in positive light.

... And finally, I hope that if we discover an institution monopolizing a product or an idea, whether it be Microsoft or the USFA, we crush it mercilessly!

It is important to understand that the Amateur Sports Act of 1978 and its successor legislation, the Ted Stevens Olympic and Amateur Sports Act of 1995 (36 U.S. Code) gives the United States Olympic Committee the authority to recognize national governing bodies for amateur sports and assigns to those bodies specific legal powers over the administration of their sports. USA Fencing, the current title of the United States Fencing Association, is recognized by the United States Olympic Committee as the national governing body for fencing.

Achilleus criticized modern fencing as lacking in intelligence, not encouraging engagement by the participants, being unaffordable, and as lacking martial content. He defined classical fencing as (1999, page 14):

Classical Fencing is a long-term instructional path towards mastering the Technique and Form of Fencing using the three conventional weapons in a desired environment of Western Ritual Combat, i.e. the Gentlemen's Duel.

Rockwell Classical Fencing Equipment (2009) described classical fencing as "the practice of fencing with the foil, sabre, and epee as they were fenced prior to the introduction of the electric scoring apparatus... Other than the lack of electricity, the thing that sets classical fencing apart is form and technique."

Nick Evangelista (2005/2006) preferred the term "traditional fencing," based on the principles of hitting without being hit and of considering fencing in terms of what would be appropriate if the weapons were sharp. He was specifically critical of several trends in classical fencing:

1. teachers who lacked a connection to traditional fencing, and who are interpreting an increasingly mutated form of fencing.
2. authoritarian teachers who operated cult-like programs,
3. an emphasis on form, ritual, and affectation rather than on function.
4. teachers with claimed expertise in an impossible number of weapons and schools.

The Classical Academy of Arms (2005) definition of the classical period, based on the years 1880-1939 and on identifiable changes in the use of the sword, was chosen to simplify discussion and to use markers that are, as far as possible, objective. The exact dates do not preclude texts and approaches to fencing from earlier dates which may have survived into the classical period. Neither does it exclude texts from later than World War II which most likely are based on practice from 1939 or before.

Maitre d'Armes Charles Selberg addressed fencing in modern and post-modern terms. Modern fencing in his view is fencing in the classical period, and post-modern fencing is

fencing with the right of way changes introduced by electrical scoring and the flick (Heggen 2006). This view seems to conflict with common usages of the terms "modern" and "post-modern." A survey of online dictionaries suggests that the post-modern period is characterized as:

noting or pertaining to architecture of the late 20th century, appearing in the 1960s, that consciously uses complex forms, fantasy, and allusions to historic styles, in contrast to the austere forms and emphasis on utility of standard modern architecture. (Dictionary.com, 2016)

of, relating to, or being any of various movements in reaction to modernism that are typically characterized by a return to traditional materials and forms (as in architecture) or by ironic self-reference and absurdity (as in literature). (Merriam-Webster, 2016)

of or relating to art, architecture, or literature that reacts against earlier modernist principles, as by reintroducing traditional or classical elements of style or by carrying modernist styles or practices to extremes. (The Free Dictionary, 2016)

As dictionary entries, these are obviously condensed statements of a complex and sometimes contradictory philosophical construct. However, they suggest that the classical fencing movement is itself a postmodern reaction to the changes engendered by the growth of fencing as a modern sport, rather than being truly modern as Selberg suggested.

The Association for Historical Fencing defines the Classical Period as the second half of the 19th Century. In the Association's (2016) view:

The use of the sword as a sidearm, for personal self-defense, was no longer a concern of fencers during this era. Rather, they focused on training in fencing for its own sake as an art form and personal accomplishment in addition to its use in personal combat. This age is distinguished by the art of the foil, which masters thought to be the fencing "weapon" par excellence. However, the use of the sword as a deadly weapon was always borne in mind, and the training was serious in nature.

Palm Beach Classical Fencing (2016) describes classical fencing as "a Western martial art that focuses on the practical application of the sword and its use in preparation for self-

defense and personal combat. It differs from modern fencing in which the martial aspects of the weapon have been largely forgotten."

The Accademia di Scherma Classica (2016) describes its mission as "preservation of fencing techniques taught during the late 19th and 20th century by the Italian masters."

Maitre d'Armes Adam Crown (Crown Academy of 2016a) defines classical fencing in terms of the differences between fencing as a sport and fencing as a martial art:

1. The goal of a sport is to achieve mastery over others; the goal of a martial art is to achieve mastery of yourself.
2. In a sport, winning is the end; in a martial art, winning is the means.
3. A sport is most concerned with the product; a martial art is concerned with the process.

C. The Destruction of Fencing – The Classical Fencer’s Perspective

Discussions of the differences between classical and modern fencing by modern classical fencers generally focus on a collection of elements which classical fencers characterize as being destructive to the art and science of fencing.

The Sword as a Practical Martial Art

Adam Crown describes classical fencing in a martial arts context, with a statement that links classical fencing to self-defense. He conflates fencing with chivalry and romanticism and calls for heroes with a montage of graphic novel superheroes (Crown Academy of the Sword 2016a, 2016b, 2016c, 2016d). Although it is unclear whether his intent is to establish classical fencing as a modern, practical martial art, he later emphasizes that fencing is training for the realities of real combat. The reader is left to ponder how they could use a sword today (Crown Academy of the Sword 2016d):

It is important to remember that fencing is emphatically not a military art. We do not concern ourselves with the use of the sword by soldiers in battle, but rather, we study its use as a civilian weapon for self-defence "on the street" as well as an arbiter of private disputes in the formal duel.

Palm Beach Classical Fencing (2016) is more direct in their claim that classical fencing is useful preparation for self-defense. Achilleus (1999) did not specifically make this claim but alludes to the need to rethink training for the three conventional weapons to emphasize their use as training tools for sharp weapons.

Hitting without Being Hit by a Sharp Sword

The principle of hitting without being hit is an article of faith, widely quoted by classical fencers (Gaugler 2004, Evangelista 2006), and grounded in the idea that you should fence as though the points (foil and epee) or the blade (Sabre) of the weapon is sharp. In their view modern fencing is unrealistic because it no longer treats the fencing weapon as an actual weapon and that it routinely accepts the validity of actions that would be impossible in an actual encounter with sharps. This translates into a condemnation of any attack that starts without a full extension of the arm to establish an unmistakable threat the opponent would be forced to parry to avoid being wounded.

Castello acknowledged that hitting without being hit is a foundational concept in fencing and provided a different rationale for its importance rooted in the naïve understanding of the child's response of "I got you too" applicable to many situations (1958, page 2):

... I will cite several personal experiences relating to this same problem. While I was touring in exhibitions, many occasions arose when I was forced to fence with individuals who were not well versed in the rules of the game, and after I had touched them they would in turn hit me too. This provoked the individual to state "you touched me first, but I touched you too." Since most of the audience were equally unfamiliar with the rules, you can easily see that the only way to prove myself superior was to touch and parry and touch as many times as was necessary.

The abandonment of hitting without being hit is symbolized in the change in how touches are recorded. In classical fencing touches were scored against the fencer, as opposed to by the fencer. The touch thus symbolized the failure of the fencer to avoid being hit rather than the success of the fencer in hitting. When this change was made (well into the modern period) a winning score for a fencer in a bout with 9 touches shifted from 4 or fewer touches against to 5 touches for.

The Orthopaedic Grip

The general adoption of various varieties of orthopedic grips is widely cited as eliminating the ability to do complex, high quality blade actions. Achilleus (1999, page 14) stated that in classical fencing, fencers use: “French and Italian grips only. This really shouldn’t have to be discussed. The pistol grip is an abomination and does not allow the fencer to use weapon or technique properly.”

Evangelista believed that the introduction of the pistol grip represents the start of the degeneration of modern fencing. He attributed to the pistol grip everything from increased injuries and all the blade related fatalities in the 20th century to the success of the flick and the dumbing-down of fencing (2003). Gaugler (2004) concurred that the use of the orthopaedic grip can cause accidents because of the great force that can be developed. Gradkowski (2003) stated that one of the solutions to the degenerate state of modern epee fencing is to require that fencers only be allowed to use the French or Italian grip, commenting that (page 48):

In the old days, when people fought with sharp blades, there were no pistol grips. This was not because our ancestors were mechanically deficient. They simply saw no need for such a cramping grip. Anyone with a basic knowledge of kinesiology recognizes that the pistol grip inevitably leads to gross patterns of motion, with a subsequent loss of the ability to apply fine motor skills.

In Evangelista's view the negative influence of the pistol grip was so great that the moment fencing students "wrap their fingers around that modern invention all the depth and subtleties of traditional fencing will be lost to them forever" (2003, page 14).

Electrical Scoring

Even worse is the adoption of electrical scoring. Fencers at the time welcomed the accuracy of electronic scoring and its value in evening the playing field through elimination of hits awarded because of reputation in doubtful circumstances. However, modern classical fencers assert that it drove the decay of good fencing technique by allowing actions and touches that either would not have been successful with visual scoring or would not have been permitted in the classical period. These include attacks with a bent arm, the shift to footwork over bladework, and the degeneration of foil fencing into a game of tag (Lazar 2003).

Achilleus also condemned electrical scoring because it makes referees unthinking automatons, and is not needed because of the high quality of classical fencing (1999, page 14):

The original intent of the electrical equipment was to aid Directors in the adjudication of touches, now it simply replaces their brains and does nothing to clarify the action of an assault. In a Classical Assault the technical actions are clean and precise, actions are easy to follow and touches are obvious or otherwise not awarded.

The Flick

The flick is widely excoriated as poor fencing (Fleming 2003) symbolic of the decay caused by orthopedic grips and electrical scoring. Allegedly, flicks allowed attacks to score without landing with the point; the very hard impact of the flick would result in the scoring machine registering a hit even if the point did not arrive in the traditional perpendicular to the target. In turn the bent arm required for the flick destroyed the principle that the arm must be extended completely to gain right of way (Evangelista 2003).

The Loss of Intelligence

Closely related is the theme that modern fencing is an intellectually inferior and degenerate form of fencing, both for the fencers and in the decay of the competence of fencing coaches. Achilleus embraced this for both fencers and trainers in his list of the specific conventions of classical fencing (1999, page 14):

Classical Fencer's [*sic*] value knowledge of the Art and Science as much as the practice. Our education does not stop at mere intro classes nor is it limited to coaching competition savvy.

Evangelista more specifically commented on the negative effects caused initially by the adoption of technology (2001, page 7):

Unfortunately, the modern embrace of technology removes and devalues the human element from the fencing equation. By taking the tech as our guiding force, we simultaneously subtract intelligence, logic, and skill from the equation; we let the tech do the thinking for us. The science (form, skill, technique) goes first; then we lose the art (strategy, timing, traditions, courage). Leaving ... what?

He grouped several deficiencies of modern fencing, including its near universal ignorance, the use of electricity based technology, and gimmicks in interpretation of the rules to state that modern fencing is so distant from the actual fencing world as to be useless as a measurement of fencing skills (2003).

This is a theme to which Evangelista and others routinely return. For example, Gaugler (2006) argued that Masters and fencers in earlier days were provided classical training that resulted in a thorough grounding in fencing theory. However, he suggested that changes in teaching methods in the 1970s had resulted in a general trend toward fencers lacking any theoretical understanding of fencing, and coaches lacking the foundation to develop well-rounded fencers.

Even German academical fencing, the highly ritualistic and tradition laden world of the mensur, was seen as having experienced decay. Amberger commented that his experience fencing with a young Corps member from Gottingen revealed that modern schlaeger fencers were ignorant “of the combative fundamentals of the system.” Further he believed the failure to teach the exploitation of fencing time and proper blade control means that the mensur “faces extinction, not for lack of practitioners, but for lack of understanding” (Amberger 2001, page 30).

The Destruction of Manners, Protocol, and Civility

Gaugler (2006) described what he believes to be the standard of conduct in modern fencing (page 7):

... fencers in international competition can be seen with regularity executing something before an encounter only vaguely resembling the traditional salute, turning their backs on the adversary and walking off the strip, failing to shake the opponent’s hand at the completion of a bout, or attempting, during the course of an encounter, to intimidate the director (referee) by glaring angrily at him and adopting an enraged simian, squatting posture, accompanied by raising an arm with a clenched fist in menacing fashion.

To classical fencers this represents the decay of conduct from the standard in which fencers were completely honest, always acknowledged touches, uniformly fenced with good form, behaved in a most sportsmanlike manner, and conducted themselves as gentlemen. The ceremonial trappings of the sport including formal positions and movement sequences on the strip and adherence to rigid protocol are reflected in current video of various classical fencing events (Capstick 2015, Martinez Academy of Fencing 2015a and 2015b, Salle Saint George 2015).

III. METHOD

A. The Method

This research question appeared to be suited to examination by a qualitative approach. The absence of previous rigorous examination of the distinctive characteristics of classical fencing suggests that a descriptive analysis of classical fencing and a direct comparison with modern fencing will provide a useful basis for comparison. Therefore, I conducted a qualitative content analysis of the four groups of literature. This analysis focused on the identification of key themes supported by significant amounts of text, and employed the grounded theory method to examine these themes to form a coherent list of classical fencing's critiques of modern fencing. These themes were heavily value laden.

I then posited four contrasting themes, with associated subthemes, that offered a countervailing set of value neutral explanations for the changes in fencing from the classical period to modern fencing. I compared the classical perspective themes with the contrasting themes to identify areas in which classical fencing's characteristics can reasonably be identified and explained. Based on this comparison, I suggest in the Conclusion a model for teaching classical fencing in a way supported by the evidence.

B. The Sources of Data

We are fortunate that the validity of the assertions made by classical fencers can be tested through an examination of a rich volume of documents that establish the trajectory of the evolution of the use of the sword over 700 years. The sources included in this examination are representative, but not exhaustive. The four categories of literature examined include:

1. Original fencing manuals written during the classical period, including those written before the period, but likely to have been in some degree of use, and those published shortly thereafter, but most likely reflecting technique during the period. These sources are all in English, but include writings by Fencing Masters trained in the French, Italian, and Spanish systems of fencing.
2. Modern translations, transcriptions, and interpretations of period fencing manuals by classical fencers.
3. Writings by modern proponents of classical fencing, largely in one, now defunct, periodical (*Fencers Quarterly Magazine*) and on Internet pages of individual classical fencing clubs.
4. Texts which establish key parameters of fencing from 1945 through today. These include texts by American, English, Hungarian, Italian, French, and Russian authors.

C. The Classical Themes

The analysis of the literature of the classical critique identified seven themes that can be used for comparison with modern fencing:

1. The use of the sword as a practical modern martial art.
2. Hitting without being hit by a sharp sword.
3. The orthopaedic grip.
4. Electrical scoring.
5. The flick.
6. The loss of intelligence.
7. The destruction of manners, protocol, and civility.

D. Contrasting Themes

Any comparison of the characteristics of classical and modern fencing cannot solely be based on the attributes suggested by classical fencing advocates. It is possible that other factors may play a minor or major role in defining the differences between these two forms of fencing. Changes in structural factors in fencing, and for that matter in sports and even societal practices in general, should be considered. For the purposes of this study, I identified the following factors as being of possible significance:

1. The development of international sport as a factor in national policy.
2. Societal and military changes influencing the use of the sword.
3. Changes in the nature of sport.
4. Changes in the character of fencing.

IV. RESULTS

A. The Classical Themes

Classical Fencing as a Practical Martial Art

Although martial arts instruction today often emphasizes self-discipline, personal development, and philosophical values (at least to the level of competence of the instructor), martial arts in the Asian and African context originated for one purpose – employment in actual combat against people the fighter wished to dissuade, harm, or kill to prevent the opponent doing the same thing to the fighter. Japanese samurai did not practice the sword for self-actualization; they did so to be successful in combat. The early Okinawan martial artists did not practice Te for its spiritual content (Florence 2001). The nine dozen Chinese martial artists portrayed in the traditional story *The Water Margin* were not particularly interested in self-discipline or good manners, but they did kill and, in one case, occasionally eat their opponents (Nai'an and Guanzhong 1993). The masters who fought death matches with *escrima* or *kali* were interested in surviving lethal attacks with stick or sword (Wiley 1996). The fundamental purpose of Asian and African martial arts is to win the fight, including in a lethal encounter, in a very real and practical sense to this day (Lee 1975, Orlando 1997).

Two factors combine to make the use of a sword as a self-defense martial arts weapon problematic, suggesting that the use of classical fencing for self-defense may be as dangerous for the fencer as for the other party. First, laws on possessing and carrying edged weapons vary from state to state, but a common theme is some form of prohibition of knives with a blade of more than 3 inches in length. Swords may be considered a like-weapon to a knife, or may be prohibited in their own right. Even transportation of swords may be problematic and subject to

state laws. Brett Snider, writing in the Findlaw Blotter (2014), stated that “while it may be legal in some specific circumstances, carrying a sword in public is typically illegal.”

The second issue is what happens when you actually use a sword for self-defense. Self-defense is a narrowly defined concept, and using a sword in this context requires the user to understand the legal constraints on self-defense. Teaching the use of the sword in self-defense requires that students must be informed of the law, the interpretations of the law, and how police, prosecutors, and the courts will most likely view the fencer’s actions. Instruction in the martial arts often neglects to appropriately or adequately train students in the complexities of how to limit unarmed combat in self-defense, and it is questionable whether the average classical fencing instructor is prepared to do better.

Use of any edged weapon is use of lethal force, with the complicating issues of the appropriateness of the level of force selected. There is a significant probability that the use of an edged weapon with injury or death to the other party will result in your being involved in either criminal or civil legal proceedings as a defendant. There are few recent cases of sword use to draw from, and the legal outcome is obviously subject to the circumstances. However, it is reasonable to assume that juries would regard a sword as at least being equivalent to a knife in the assessment of lethal force and the reasonableness of the fencer’s actions (Brown 1998, MacYoung and MacYoung 2008a, 2008b).

Fencing as Though the Points are Sharp

The underlying critique that modern fencing is unrealistic because it does not treat the fencing weapon as though it is a real sword with a sharp point (foil and epee) or blade (sabre) ignores the reality that in the classical period fencing in the salle and fencing on the dueling terrain had significant differences in character. By the 1850s the critique emerged that fencing

with foils did not resemble the duel, and that changes should be made to bring foil play into line with work with sharp weapons (Cohen 2002). De Bazancourt in 1862 and later Burton, in a plagiarized version of De Bazancourt's work in 1911, are clear examples of this advocacy. By the 1880s reaction to foil technique had reached the point that practice with the dueling sword had started to evolve into a different body of fencing technique. Studies by the Maitres Claude La Marche, Jules Jacob, Ambroise Baudry, and Anthime Spinnewyn between 1884 and 1893 codified this technique into a distinct new fencing weapon, the epee (Cohen 2002).

However, this move to simplicity was not accepted universally. As Deladrier (1948) and Lidstone (1952) demonstrate, foil technique remained complicated with actions requiring as many as four tempos to execute being taught into the 1950s, and epee technique included multiple tempo actions. Admittedly, the student was advised that four tempo actions were impractical in bouting, that three tempos was the most you could hope for, but that learning four tempo actions was a useful training action.

It is also important to note that fencing was not viewed solely as a preparation for dueling. There are at least two other roles for fencing that were well accepted in this time period, as a fitness and recreational activity and as amateur and professional sport. As early as 1851, a fencing section was formed within the New York Turnverein, itself formed in 1848 (US Fencing Hall 2016). The Turnverein movement, originating in Germany, formed an important social and physical fitness function in the United States before World War I, and Turnhalles served the roles of social club, cultural center, and gymnasium for German immigrants to the United States. Fencing was part of the Turnverein athletic program (Turner Society 2016, Wanko 2016).

The Salles d'Armes in France served a similar athletic and social function. Their role certainly included instruction in fencing, but with an emphasis on formal politeness that created

an environment of refined comradeship and harmony between members drawn from differing professions and social classes. As salles started in the late 1800s to transition in private fencing clubs, the addition of many of the same facilities found in any private gentlemen's club increased their importance as social centers for those who followed the freemasonry of the sword. This trend also occurred in Spain, and Maestro Sanz's last salle offered a gentlemen's club atmosphere (Bacarreza 2016). Fencing in the salle was generally with the foil, although the average Maitre d'Armes knew enough dueling practice to prepare a member facing a duel with basic epee instruction (Nye 1993).

The British fencing experience was primarily recreation and sport based. The establishment of the famous Epee Club of London was based on the possibilities that epee fencing offered for international competition on the Continent (Fare, Fildes, and Gray 2000), not on the need to prepare Englishmen to fight duels. In contrast, at least one British fencing club, the London Fencing Club, actively discouraged its members from fencing in competition. The members fenced for exercise in an exclusive club where they could enjoy the company of other men of similar social standing (Cohen 2002).

The history of Champions of the Americas, and similar claimed titles, shows that in the United States in the late 1800s there was a robust market for prize fights between fencing masters ("The Monstery-Senac" 2015, "Classical Fencing Defeats" 2016). Such exhibition bouts continued well into the 20th century, were well attended by large audiences, and supported a number of professional fencers (Nadi 1995).

Commentators of the classical period recognized the changes in technique caused by weapons that presented a greater threat, even if those weapons were not dueling weapons. Maitre d'Armes Ted Hootman, who fenced epee with the *pointe d'arret* competitively, reported

in an interview in *Fencer's Quarterly Magazine* (Cragg 2001) that the hit with the pointe d'arret shredded jackets and created incision wounds on forearms resulting in considerable pain and lifelong scars. As a result, fencers exercised more caution in the bout. A similar caution existed in sabre, not caused by injury, but rather by the efficiency of one method of scoring, the point thrust. In 1936 Luigi Barbasetti commented in his manual on the technique of sabre and epee that (pages 35-36):

Whenever the use of the point is authorized in a combat, the adversaries keep a good distance and do not attack blindly.

In most cases, confronting a danger of this nature, even the cuts are directed to the arm only.

In effect, the combats in which the use of the point is permitted, usually end by a wound in the forearm.

Hitting Without Being Hit

On the face of it, this seems to be an obvious tactical doctrine. However, a deeper review of the literature shows that the doctrine was never supported by reality. Fencing is inherently a risky activity, and the fencer's properly executed action can always result in the opponent's landing on the fencer's body. Because of the conventions of fencing, including right of way, limitations of the target area, and the cultural expectations of fencing as to how a fencer should fence, the simultaneity of hits in epee, lock-out times in electrical scoring and the expectation that a command of halt will halt the action, classical and modern fencers operate in an artificially defined environment.

If for example, a fencer attacks and the opponent parries and ripostes into the fencer's remise, which will land first? In the majority of cases, given a competent fencer, the remise will. Only the conventions of the foil or sabre permit the opponent in this case to claim that he or she hit without being hit. In epee, if an opponent stop hits the fencer's attack, the conventions of

epee allow that stop hit to score if it lands the appropriate time interval ahead of the attack. Absent conventions and with a sharp point there would be an excellent chance that the fencer's point would bury itself in the stop hitter's arm or chest regardless of the stop. The rules create the artificiality and always have (Rondelle 1892, Amateur Fencing Association 1937, Amateur Fencers League 1940).

The rules of dueling: The codification of rules for dueling in the period between 1777 (the publication of the Irish code) and 1858 (the publication of the second edition of Wilson's code) clearly establishes that there was no intent for duels to be single hit affairs (Cochran 1963, Wilson 2009). Wilson in Chapter VIII, Rule 5 states clearly (2009, page 19):

If swords are used, the parties engage til one is well-bloodied, disabled or disarmed; or until after receiving a wound, and blood being drawn, the aggressor begs pardon.

In pistol duels there was a well-established ritual to determine the termination of the duel, limiting the potential for injury to one party. Depending upon the nature of the offense, one fire or multiple fires might be required, and the conditions under which apologies might be made and accepted to preclude further exchanges were rigidly specified (Wilson 2009). This structure results from the relative lateness of firearms becoming the weapons of choice for duels and their perceived increased lethality, along with the simultaneous growth of dueling codes. In the early days of duels with the sword there were few customary guidelines for the conduct of duels, and the resulting encounters were more likely to be uncontrolled and to end with multiple wounds to all concerned. Even when rules were introduced, minor sword wounds would not meet the well-bloodied criteria, requiring the duel to continue and increasing the potential for both duelists to be hit.

The data: A number of sources list the number of participants in duels, numbers killed, and, in some cases, the number wounded, but available data does not clearly indicate the

Table 1. A convenience sample of duels in which both principals were injured

Date	Location	Principals	Outcomes
1578-04-27	Parc des Tournelles, Paris, France	(1) Jacques de Quelus (1a) Riberac (1b) Schomberg (2) Charles de Balzac d'Entragues (2a) Maugerin (2b) Livarot	(1) 19 wounds, died after 33 days (1a) impaled on Maugerin's sword, died after one day (1b) thrust through the body, died on the field (2) wound to arm (2a) thrust through the body, died on the field (2b) severe facial wound
1581-05-04	Island in Loire River near Blois, France	(1) Marquis de Malleraye (2) Livarot	(1) killed by a sword thrust in the back by Livarot's lackey (2) killed
1613 late summer	Antwerp	(1) Lord Edward Bruce (2) Sir Edward Sackville	(1) wounded severely, killed by 2 thrusts through the body (2) wound to arm, thrust through right chest, little finger nearly cut off
Not reported	France	(1) Vallon Lagarde (2) Bazanez	(1) 14 thrusts to the neck and chest (2) 4 penetrating thrusts, part of chin bitten off, skull fractured by pommel
1638-03	France, Paris	(1) Roger de Rabutin (2) Busc	(1) chest grazed, hand wounded (2) perforated lung, died 6 months after duel
1667	Ireland	(1.1) Lord Brabazon (1.2) Captain Fitzgerald (1.3) Ensign Slaughter (2.1) Captain Savage (2.2) Lieutenant Bridges (2.3) Ensign Lloyd Principals not identified	(1.1) wounded (1.2) wounded (1.3) wounded (2.1) killed (2.2) wounded (2.3) wounded
1712-11-15	England, Hyde Park, near London	(1) James, Duke of Hamilton (1a) Colonel John Hamilton (2) Charles, Baron Mohun (2a) General	(1) cut to calf, cut to arm, penetrating thrust to chest, wound of left foot, killed (1a) gash in foot (2) slashed on left side, run through in abdomen, thrust into left thigh, killed by thrust

		Maccartney	through groin (2a) disarmed
1858-1859 Opera Season	United States of America, Louisiana, New Orleans	(1) Emile Bozonier (2) Gaston de Coppens	(1) 5 cuts – sword arm, 2 to chest, non-weapon arm, flank (2) 1 cut to face
1896	Italy, Rome	(1) Leonardo Terrone (2) Guilio Flauto Both students at the Scuola Militare Magistrali di Scherma	(1) 2 cuts – minor, weapon arm (2) 2 cuts - minor, face
1900-04-04	France	(1) Comte de Lubersac (2) Michel Ephrussi	(1) thrust through neck (2) 5 centimeter penetration of right chest
1924	Italy, Milan	(1) Aldo Nadi (2) Adolfo Cotronei	(1) forearm wound (2) 3 thrusts to arm, 3 thrusts to chest
1924	Near Hungarian border	(1) Imre Kovacs (2) Oreste Puliti	(1) several cuts (2) excessive loss of blood
1967	Argentina, near Buenos Aires	(1) Admiral Benigno Varela (2) Yolivan Biglieri	(1) ear almost severed from head (2) several wounds

Note: Principals are numbered (1) and (2). Where the duelist who was the principal is unknown the participants are numbered (1.1), (1.2), etc. Seconds are numbered (1a), (1b), etc.

Sources: Nadi 1995, Landry 1950, De Gall 1958, Terrone 1959, Tonks 1976, Cohen 2002, Holland 2003, Kirchner 2004

type of weapon, or whether injuries are single or multiple. However, when a convenience selection of sword duels in which multiple injuries occurred and were reported is examined, the potential for multiple wounds to one party, and in fact wounds to all parties (including in the earlier days of seconds engaging as well as principals), is clear (see Table 1 above). Although the level of violence subsided overtime, and affairs became more strictly regulated, the potential always existed for any participant, including both the victor or the vanquished, to be hit and wounded.

The impact of technical and tactical superiority: Could superior fencers facing less talented opponents fence to hit without being hit? Certainly they could. Reports of bouts fenced

by Jean Louis and the Chevalier de Saint-Georges include a number of cases where they humiliated opponents by inflicting either a decisive hit or numerous hits while avoiding any themselves. However, even among the fencers recognized as the best of their time, there was a chance of being hit. The Chevalier de Saint-George at age 16 was recognized as a superior foil fencer, fast and with a superior sense of timing. He defeated a Master who had insulted him 27 hits to 3. But at the height of his powers in 1787 he was defeated by a score of 7 hits to 1 by the Chevalier d'Eon, aged 59 and fencing in full female attire. In the famous bout fenced by Maitre Louis Justin Lafaugere against the highly regarded amateur fencer the Comte de Bondy in 1816, Maitre Lafaugere systematically destroyed the Count's silk jacket, winning the bout 48 hits to 3, and resulting in the Count taking to his bed for three days in shame. Jean Louis, in his role as Maitre d'Armes of the 32nd Regiment of Light Infantry, fought in 1812 what is probably the exceptional demonstration of hitting without being hit in a duel with the Fencing Masters and Prevots of the 1st Italian Regiment of Infantry. Jean-Louis killed or wounded 13 hardened, experienced swordsmen with 27 thrusts without receiving a hit (Morton n.d., Evangelista 1995, Cohen 2002).

Single hit duels: There remains the curious case of previously agreed single hit duels, the only framework in which one could be assured of a hit without being hit. Duels fenced to first blood created conditions in which agreement between the principals, social conventions, or pressure by the seconds and physician artificially halted the fencing. By the late 1800s, it appears that most duels with either sabre or dueling sword had become single hit duels. However, there was no assurance that a combat would end with the first blood drawn (see, for example, Nadi's duel with Cotronei in which 7 wounds resulted, Nadi 1995), and there was equally no assurance that the first hit would not be fatal.

The experience of German academical fencing: The German academical bout, or mensur, with either the schlaeger or the dish hilt rapier, provides yet another example. At first look this system of fencing appears to be a hit-without-being-hit system. However, in reality, absent a seriously bleeding wound, multiple minor wounds on one or both of the participants are possible, as the mensur is fenced to the number of exchanges prescribed in the comment (the code of rules, which varied from one university community to another). Theoretical outcomes of the mensur are (1) neither fencer being hit, (2) one or two fencers hit but not seriously enough for the mensur to be ended, (3) one fencer being injured seriously enough for the mensur to be terminated, or (4) one fencer disqualifying himself through stepping back or other evidence of cowardice. In considering these outcomes, it is important to understand that being wounded was a desirable outcome; the dueling scar carried with it significant social prestige at various times in Germany in the 19th and 20th centuries (Amberger 1999, Amberger 2001, Holland 2003).

Option (1) assumes that the fencers could reach the limit of exchanges established by the comment without causing a bleeding wound, an unlikely, unreported, and undesirable outcome. Option (4) disgraced the fencer and his student dueling corps and thus must have been an infrequent occurrence, although J. Christoph Amberger provided a translation of a fictional account from 1918 of such an instance in Otto Lulius Bierbaum's "Gamasche der Pommernfuchs." The overwhelming majority of mensur ended in Options (2) and (3). Over time, and a series of mensur, it was unlikely that any corps member would remain unwounded; even Bismarck, the German chancellor-to-be, a member of four student corps, and a prolific and very highly skilled fencer, had one scar (Amberger 1999, Holland 2003).

Amberger is one of few, and possibly the only American, English language writers to chronicle a schlaeger mensur. His experience is an important one because he was a member of a

German student dueling corps and fought mensurs. In his account of one mensur, he sustained three wounds before making the final cut that ends the mensur (Amberger 1999).

The evolution of epee: There is one final trend in classical fencing that should demonstrate the fallacy of hitting and not being hit - the evolution of fencing with the dueling sword (epee). Originally dueling sword bouts were fenced for a single touch (and Modern Pentathlon bouts are still single touch bouts). By 1913 there was general acceptance in France that the single touch put too great a premium on luck. To compensate the number of touches required to win a bout was increased to 3, and finally to 5 by the end of the classical period, although this progression was not uniform. The Epee Club, for example, fought bouts to best of 3 hits, 3 hits, best of 5 hits, and 5 hits before World War II (Fare, Fildes, and Gray 2000). This suggests that hitting without being hit was recognized by the fencers of the period as being a matter of some degree of skill, but equally some degree of luck.

The Orthopaedic Grip

One of the primary objections of classical fencers to modern fencing is that the recently invented orthopaedic grip has destroyed the artistry and skill of fencing. Only the Italian and French grips allowed the finely controlled finger play needed for true fencing (the contemporary Spanish grip, a grip with the straight handle of the French grip and cross bars and arches reminiscent of the Italian grip, is generally ignored in this discussion). This assertion is widely repeated and is accepted as a revealed truth by its adherents (Gradkowski 2003). It is also demonstrably false.

Orthopaedic grips are not an invention of modern fencing; they were in common use in the later years of the classical period. Kokochashvili (2016) identified two general categories of

Table 2. Dates of Introduction of Orthopaedic Grips

Approximate Date	Grip	Notes
1902	Spanish	By Maestro Adelardo Sanz. A modification of the Italian grip with different sized arches designed to be held with the crossbar vertical.
Early 1900s	Terrone	A straight grip designed by Maestro Leonardo Terrone for right and left handed fencing.
Early 1900s	Terrone-Perez	A straight grip designed by Maestro Leonardo Terrone with assistance from Giuseppe Perez for right and left handed fencing.
Early 1900s	Parise-Terrone-Perez	A straight grip with modified crossbar designed by Maestro Leonardo Terrone as an improvement to the Terrone-Perez model with assistance from Maestro Massaniello Parise for right and left handed fencing.
1905	Cugnon D'Alincourt	A straight grip with a paddle near the pommel
1908	Eugene-Louis Doyen	A straight grip with finger projections designed to be custom fit to the fencer.
1910-1920	Athos di San Malato	A pistol grip with a long rearward extension.
In the 1920s	Gardere	A straight grip with finger hooks designed by Maestro Andre Gardere
1920	Athos di San Malato	A pistol grip with a wrap-around rear projection and a thumb trough.
1920-1925	Herminio Eccheri	A grip with either a shaped or straight handle and two large circular loops apparently held horizontally designed by Maestro Herminio Eccheri.
1920-1930	Visconti	A pistol grip designed by Maestro Francesco Visconti.
1922	Souzy Aine	A straight handle with a paddle before the pommel and two short vertical crossbars.
1924	Domenico Triolo	A short straight handle with two shaped crossbars.
1929	Agésilao Greco	A straight handle with a single arch on the bottom side of the grip.
1936	Michele Alajmo	A straight handle epee grip with two gently curved crossbars.

Sources: The New Spanish Sword 1902, Terrone 1959, Kokochashvili 2016.

Notes: The grips listed are not a complete catalog of patterns. For example, the Cetrulo and Belgian Pistol grips are almost certainly pre-1939 in origin, and there are a variety of patterns of Spanish Grip that precede at least 1948, and almost certainly 1939. The list only includes those for which an approximate date and likely source could be established.

grips: (1) classical or traditional grips and (2) pistol, orthopaedic, or anatomical grips. Table 2 above summarizes identifiable examples of orthopaedic grips from the period.

The fencers who used orthopaedic grips were successful classical fencers, in some cases who had suffered injuries that made use of the French or Italian grips impossible. However, as the table above illustrates, the variety of contemporary grips is extensive enough that hand injuries are unlikely to be the sole explanation. The presence of molded finger placements on the grip has been cited by modern masters as offering better manipulation of the blade by the fingers than was possible with the French grip, a skill set specifically identified in the new Federation International d'Esgrime fencing manual for international fencing development courses (Tyshler and Logvin 2015):

The decision of changing the straight grip to 'pistol' grip is taken by the coach, taking into consideration the increase in contact area of the palm and fingers with the grip, due to several protrusions on the 'pistol'. This makes control of the blade easier, and, mainly, simplifies control of the point displacement.... As a result the change to 'pistol' grip should be combined with the improvement of blade movement technique. (Tyshler and Logvin 2015, page 14)

Similarly, Kokochashvili (2016) identifies the strengths of the wide range of orthopaedic grips as including:

- the ability to customize the grip for individual requirements,
- enhanced security of the grip without sacrificing finger control, and
- reduced fatigue for the fencer.

While it seems clear that the orthopaedic grip was not as prevalent in the later classical period as it has become in modern fencing, it is equally clear that the orthopedic grip first appeared in the classical period. The variety of grip designs suggests that these grips were developed in an attempt to improve the performance of the traditional grips (Kokochashvili

2016). For example, the purpose of the Spanish grip invented by Adelardo Sanz (“The New Spanish Sword,” 1902) is described as follows:

The Spanish weapon is a modified form of the Italian cross-bar; so shaped as to facilitate the action of the thumb and index finger in securing the dexterity of the French weapon while preserving the strength of the Italian sword The modification of the cross-bar principle allows much greater finger control than is possible with the Italian foil, and yet gives stronger parries than the French foil. (Castello, 1937, pages 4-5)

Electrical Scoring

Efforts to introduce scoring methods, other than visual scoring by Jury of four Judges and a President, started as early as 24 June 1896 with the demonstration of an electrical scoring system designed by a Dr. Muirhead Little at Salle Bertrand. The description in the *Daily Courier* noted the reasoning behind such a device (De Beaumont 1949, pages 13-14):

Everyone who has watched a bout with the foils knows that the task of judging the hits is, with a pair of amateurs, difficult enough, and with a well-matched pair of Maitres d’Escrime well-nigh impossible. To accomplish his responsible work satisfactorily it is necessary for the judge to possess the eye of a hawk and the agility of a tiger in order to keep the lightning-like movements of both points well under observation.

Although Dr. Little’s invention was termed a success, it was not adopted. Similarly, Ray Gross’s 1937 invention of a system that used suction cups and a torso plate with target zones failed to attract approval (Cohen 2002). The early version of the current design of electrical scoring in Epee was first tested in 1931, and was employed at the British epee championship in 1932. Electrical scoring in epee was not officially adopted until 1933, and was first used in the Olympic Games in Berlin in 1936. In 1937 the Federation Internationale d’Escrime established a project to develop a similar scoring system for the foil (de Beaumont 1949, Fare, Fildes, and Gray 2000, Fare 2002). Electric scoring was finally introduced in foil at the 1955 World Championships (Crosnier 1961).

Introduction of electrical scoring in foil caused a significant shift in the character of foil competition, fundamentally changing the nature of the sport in a way that brought foil into alignment with other forms of athletic endeavor. Like in epee, the scoring machine removed favoritism and reduced outright cheating by signaling hits regardless of the identity of the fencer scoring them. Experienced international Alan Jay highlighted this reality along with the general improvement in scoring accuracy when he stated (Crosnier 1961, pages 10-11):

... as a practical matter, there are infinitely fewer mistakes made in a foil bout with the electric apparatus than there are or were, without it. For example, in the event of only one hit arriving, there is no problem of whether it arrived at all, and if so, where.

As a 'steam foil' international, I well remember that a French or Italian foilist had only to shout 'he la' and a hit was scored against his opponent. Not only this, but with four judges, it was virtually inevitable that at least one judge was of the same nationality as one of the competitors in the pool. In this event, it often occurred that the decision of one or more judges was dictated by the interests of his fencing compatriot.

However, this desirable result was by no means the most important outcome. Maitre Roger Crosnier, a noted French fencing master and British National Fencing Coach from 1949 to 1954, described the change signaled by the success of Hungarian fencers, distinguished by their athletic ability, in this way (Crosnier 1961, pages 15-20):

Fencing was no longer the art of opposing skill to mere physical ability.

However, there was a lesson to be learned from these first reverses. Nations like France and Italy had probably enjoyed their supremacy overlong. Having at their disposal schools which produced masters of great renown, they felt safe because of their superior technique. They failed to realize that athletic qualities were also necessary assets and that they should be added to the other qualities inherent in fencing.

The electric foil did demonstrate that there was no reason why a foilist should not be an athlete. Technicians and all those concerned with fencing were guilty of not understanding this simple truth sooner. They should have insisted that, while maintaining a high standard of technique, it was equally important to be in perfect physical condition if a fencer wished to participate in competitions, or represent his country.

The Flick

The modern flick starts to appear in the 1970s as a means of exploiting flexible blades, with heavier points, and a very short dwell time on target for activation of the scoring system. These early flicks, when delivered by unskilled fencers, tended to be wide, heavy actions. In addition, the wide trajectory of the point in motion essentially vitiated attempts to parry, defeating the essential phrasing of the bout. These outcomes were generally recognized by the modern fencing establishment as not being in the traditional practice of fencing. As a result, modifications to the rules of fencing have significantly reduced the flick's tactical utility, but it remains a useful technique (Handelman 2014). Correct execution of the flick addresses the problem of how to accelerate the final movement of the blade to gain the maximum point hit speed, complicating the opponent's defensive problem, posited (in epee but applicable in all weapons) by Harmenberg (Harmenberg, Vaggo, Schmitt, Boisse, Mazzoni, and Pingree 2015). To achieve this, modern technique has emphasized wrist, hand, and finger execution (Handelman 2014, Pezza 2014, Toran 2012), in place of large, easily countered arm movements.

The Loss of Intelligence

Suggestions that classical fencing is more scientific and more intellectual than its modern counterparts may be examined by a comparison of the content of typical fencing texts of the classical and modern periods. When the contents of representative texts are examined, the result is as shown in Table 3.a. and 3.b.

Table 3.a. Comparative Topic contents of Classical and Modern fencing texts – Classical Texts

	La Marche 1884/2009	Parise 1884	Rondelle 1892	Grandiere 1906
Terminology				10
Characteristics of the fencer			2	
Footwork (<i>note 1</i>)		1		3
Technique	84	211	193	102
Tactics	130	3	3	
Training, training methods, lesson structure, and conditioning (<i>note 2</i>)		1	1	
Tournament analysis				
Sports psychology				
Sports medicine				
Duelling	43			

	Bertrand 1927	Barbasetti	Castello 1933	Grave 1934
Terminology		2		3
Characteristics of the fencer				4
Footwork (<i>note 1</i>)		5	4	3
Technique	99	122	185	39
Tactics	15	11	14	2
Training, training methods, lesson structure, and conditioning (<i>note 2</i>)		14	5	4
Tournament analysis				
Sports psychology				
Sports medicine				
Duelling				5

Table 3.b. Comparative Topic contents of Classical and Modern fencing texts – Modern Texts

	Wojciechowski Ca. 1992	Barth and Beck 2007	Vass 2011	Rogers 2013
Terminology		4	8	3
Characteristics of the fencer				
Footwork (<i>note 1</i>)			8	6
Technique		149	243	105
Tactics (<i>note 3</i>)	35	15	13	1
Training, training methods, lesson structure, and conditioning	90	99	4	14
Tournament analysis	6			
Sports psychology		10		
Sports medicine		20		
Analytics				

	Lukovich 2013	Handelman 2014	Tyshler and Logvin 2015	Harmenberg 2015
Terminology		15	9	5
Characteristics of the fencer				15
Footwork (<i>note 1</i>)	30	27	17	4
Technique	63	142	89	4
Tactics (<i>note 3</i>)	7	40	8	69
Training, training methods, lesson structure, and conditioning	130	167	30	9
Tournament analysis				47
Sports psychology		20	2	11
Sports medicine		25		
Analytics				19

Sources: Are as indicated by the titles of the columns.

Notes: The total number of pages excludes introduction pages and pages that do not offer significant content, and is approximate to the degree that pages which separately address two topic areas in different sections are credited as whole pages for each of the topics.

(1) these are pages specifically dedicated to footwork. In many sources footwork is addressed in an integrated manner with tactics and technique.

(2) in many of the classical texts technique is subdivided into a series of chapters presented as lessons. These are essentially descriptions of technique grouped together in the order of their presentation, not lesson structure in the context of how to teach the techniques.

(3) these are pages specifically dedicated to tactics. In many sources tactics are addressed in an integrated manner with technique.

This selection of texts was made as a convenience sample, and obviously does not include the full range of published materials in either time period. It also does not attempt to match word counts on each topic, using the cruder measure of page counts, with pages of varying sizes and density of type, and which in turn are susceptible to arguments about the assignment of any given page to a topic. However, the data suggests that there is greater attention to teaching and training methods, footwork, and tactics in modern texts, as well as the incorporation of a wider range of sports science knowledge such as sports medicine and sports psychology. The use of detailed analytic methods, present in the modern literature (including in Borysiuk 2009 in addition to those texts listed in Table 3.b. and Wojciechowski's ca. 1992 tournament analysis), is simply absent in the earlier classical texts. When specialist texts on fencing psychology (Kogler 2005, 333 pages), advanced training, tactics, and doctrine (Czajkowski 2005, 371 pages), and training methods (Szabo 1982, 291 pages) are considered, it appears that the literature of modern fencing represents an expansion of knowledge and a wider application of intelligence, not the reverse.

The Destruction of Manners, Protocol, and Civility

There is significant evidence that fencers in the classical period were not always honest, did not always show good manners, and from time to time fenced with imperfect form. The *Outing Magazine* account of the Tronchet-Senac prize fight of May 1887 offers an example of

form. Both Louis Tronchet and Regis Senac were Fencing Masters, and Senac at various times represented himself as Champion of the America. And yet Senac's "position was not a graceful fencing position, because it was not a fencing position at all," and in fact his fencing was termed "wild, erratic, and without method" (Classical Fencing Defeats 2016).

The 1876 match between Colonel Thomas Hoyer Monstery, also a Fencing Master, and Senac was marked by incompetent refereeing and questionable technique on Senac's part. A comparison of the surviving media accounts suggests that cheating may well have determined the results. In subsequent events with Louis Frederich, Eugenio Pini, and Albert Vaughan, Senac, probably the best known of the 1800s Masters in the United States, was repeatedly criticized for poor form, unfair fencing, and downright cheating (Miller 2015).

In his suggested changes to the rules for fencing with the foil at the New York Athletic Club, Monstery (2015) made specific comments that clearly indicate his concern for cheating (pages 181 and 183):

The rest of the rule, providing that the count in simultaneous thrusts should belong to the party striking the upper part of the body is not only unwise, but directly calculated to encourage and protect the meanest sort of trickery and cheating. It is true that, at present, our amateur fencers, as a rule, fence fairly; but if this rule be persisted in, it is only a matter of time for them to become proficient in this sort of cheating, and to ruin the art of fencing in the United States for ever.

I earnestly recommend the following additional rule in foil contest: "Rule ---. The buttons of the foils must be chalked between each round, and the competitors must wear a black body cover, to show the mark of a clean thrust, and distinguish the same from a glance." This rule, if adopted, will prevent a great deal of cheating – cheating which is sure to ensue if tournaments-at-arms become popular in the United States. At present this cheating is confined to the lowest class of European professionals

That Monstery's concern was not an idle one is an opinion shared by Cohen (2002). He suggested that (page 441):

Cheating has infected fencing, a sport rooted in notions of honor and chivalry, since competitions began just as dueling, a procedure of honor, was always haunted by foul

play. In the early years of international meets, France, Italy, and Hungary were so dominant that it was axiomatic that fencers from those nations would be given preferential treatment by juries, who were either too scared or too prejudiced to award hits fairly.

The recording of hits in epee with the successor to chalking, the *pointe d'arret*, did not eliminate cheating. The epee fencer with a strong nose and a willingness to break the rules would soak the jacket arm in vinegar, dry the jacket, and then allow perspiration to rehydrate the vinegar to erase the mark from the dye in the *pointe d'arret*. The treatment was difficult to detect because a well-used jacket retained a vinegar smell (Cragg 2001).

Among the instances of cheating in high level competition that Cohen chronicles and that fencers of that era remembered are favoritism for the known fencer against relative unknowns by members of the jury and arranged bouts in which fencers deliberately lost to team mates (the final of the 1924 Olympic competition in foil providing a clear example) (Cragg 1998, Cohen 2002). In the United States favoritism in selection of teams for international events based on closeness to the center of power of the Amateur Fencers League of America in New York was a cancer that persisted into the 1950s (Cragg 1998).

Professionals were not above unethical behavior. In one well known exhibition sabre bout a Fencing Master won by using a sabre that was two inches longer than the weapon of the other Master, to the considerable embarrassment of the loser, not to mention loss of professional face (Cragg 2001). But the same type of manipulation of equipment occurred by amateurs. In the 1936 Olympics one fencer progressed to the epee quarterfinals with a blade approximately one half inch too long, long enough to provide a performance enhancement sufficient to arouse the suspicion of the defending epee champion who demanded the blade be measured (Cohen 2002).

There was a dark underside to the classical period which modern classical fencers do not discuss. Fencing was an overwhelmingly white, male, class based activity. Most modern classical fencers lack the money, the family connections, and the social prominence to have been admitted to an exclusive club such as the London Fencing Club (Cohen 2002). Early descriptions of fencing in the United States emphasize the social standing of the participants. For example, a listing of prominent New York fencers in 1890 emphasized that fencers were of the wealthier class of gentlemen who did not seek personal notoriety, including a former ambassador to Spain, an attorney, a stockbroker and breeder of fine horses, a university professor, and a consul and attache of the Russian legation. At the same time the listing emphasized the fencers' memberships in country clubs and the socially elite athletic clubs of the City, and the fencing training that many had received in European salles (Burdett 1890). Fencing was for and of the wealthy social elite of the centers of power.

Women fenced, but women's fencing was carefully circumscribed. Although at least one female Master, Madame Froeschlen, taught women the epee in the 1930s (Fare 2002), in general women were restricted to the foil. As late as the 1950s the women's target stopped at the waist (Amateur Fencers League 1957). Into the 1970s women fenced for 4 touches in 5 minutes as opposed to men for 5 touches in six minutes. These restrictions supposedly protected the weaker women's organs and their dainty nature (Cragg 1998).

These attitudes from the classical period persisted as a blight on the sport. When women's sabre finally reached the Olympics in 2004, the event was accompanied by a particularly misogynistic protest by Richard Gradkowski, a leading American Fencing Master, that centered on women depriving men of a chance to fence in the Olympics and that women fencing sabre was an "unnatural and johnny-come-lately event" (2003b, page 5). In a rare

example of subsequent events slapping a misogynist in the face, Mariel Zagunis won Gold and Sada Jacobsen Bronze in Athens, the first Gold for the United States in the weapons currently fenced, the first Olympic medal since Peter Westbrook in 1984, and the most fencing medals for the United States in one Olympics since 1932 (Wallechinsky and Loucky 2012).

Jews faced prejudice throughout Europe. In France this led to Jews regularly engaging in duels and being particularly quick to issue challenges (Nye 1993). Jewish fencers throughout Europe were swallowed up the Nazi Holocaust (Cohen 2002). In the United States, Jewish fencers were not permitted to join certain fencing clubs, although it is reported that a Jew, willing to change his name to more socially acceptable one, would be welcomed. And Jews were frankly told that they would not be allowed to win certain tournaments. The stupidity of this practice was exposed when electrical scoring was introduced for epee allowing the lights to triumph over antisemitism (Cragg 2002).

In the United States, the Amateur Fencers League of America made every effort to exclude African-Americans from fencing up to as late as the late 1940s. In a famous case the League's Secretary seized and ripped up a black fencer's membership card to prevent her entering a League competition at the New York Athletic Club. Protests by coaches and college teams against clubs and facilities that excluded blacks eventually turned the tide (Cohen 2002, Block 2003).

B. Contrasting Themes

The Development of International Sport as a Component of National Policy

Fencing has long had an element of patriotism and nationalism embedded in the sport. To this day competitive fencers feel a strong sense of privilege in being selected to represent

their countries in World Championships and the Olympic Games (see, for example, Westbrook 1998, Golubitsky 2004, MacKay 2005, Bukantz 2006, Moorehouse 2012).

However, the leaders of Italy and Germany transformed individual patriotism into national policy in sport. In Italy, starting in 1929, Mussolini worked to co-opt Aldo and Nedo Nadi. Unsuccessful with Aldo, the effort prospered with Nedo. After a professional career, Nedo returned to Italy in 1935, was reinstated as an amateur, and assumed the position of president of the Italian fencing federation. His efforts culminated in Italy dominating fencing in the 1936 Berlin Olympics, winning 9 medals for Italy, including medals in all three men's weapons individual and team events Nadi 1995, Cohen 2002).

The 1936 Berlin Olympics were intended to be a showplace for the German Reich. Part of that political agenda was to be the success of German athletes in all sports. In one of the more bizarre episodes in the history of Nazi Germany, a successful effort was mounted to bring Helene Mayer home from the United States to compete for Germany in women's foil, a weapon in which she was one of the most successful fencers in the world. Doing so required the Nazi sports hierarchy to ignore the inconvenient fact that Mayer's ancestry was Jewish. Although Mayer only placed second in women's foil, and Germany only won 3 fencing medals, the Berlin Olympics were a great success for Germany, proving to the German people that a powerful nation was reborn in the Third Reich, and validating the Nazi doctrines of racial purity and the superiority of the Aryan race. Ironically the gold medal winner, Ilona Elek of Hungary, and the bronze medal winner, Ellen Preis, of Austria were also Jews (Cohen 2002, Mogulof 2002).

The Soviet Union initiated efforts to use sport to promote expansion of its influence through the Red Sports International in the 1920s. These efforts intensified after World War II, with first coordination and then central direction from the Soviet Union of sports programs in the

communist countries. Sport was used as a strategic geopolitical tool to promote the communist system and its values, encourage friendly relations with the Soviet Union, and to enhance solidarity in the communist bloc (Girginov 1998).

Societal and Military Changes Influencing the Use of the Sword

The sword in the military: Although the sword was still worn for ceremonial purposes by military officers at the end of the classical period, there was general acceptance among military personnel that it was no longer a primary weapon for general use on the battlefield. Repeating rifles, multiple shot pistols, more effective and longer ranged artillery, and early versions of the machine gun appeared in mass use during the American Civil War of 1861-1865, making even cavalry engagements as much about revolver and carbine fire as about the sabre. After 1861 massed cavalry charges against veteran infantry became increasingly problematic (Backus 2016).

The suicidal nature of the cavalry sabre charge was not just an American experience. An inkling of this came at the Battle of Sadow on 3 July 1866 as Austrian cavalry covered the army's retreat, charging repeatedly at the advancing Prussians. They allowed the main body to escape, but suffered over 2000 casualties in a half-hour (Gilbert 2007). Any hope that the sword could overcome technology was decisively put to rest by the experience of sword and lance charges at the battle of Rezonville in the Franco-Prussian War on 16 August 1870. The Cuirassiers and Lancers of the French Imperial Guard were committed against Lieutenant General Alvensleben's advancing corps, only to be shattered by infantry rifle fire. Later in the day it was Prussian Major General von Bredow's turn to lead the 7th Magdeburg Cuirassiers and the 16th Uhlans against French artillery and infantry, an engagement known as von Bredow's Death Ride. His charge succeeded in disrupting French plans, leading to the eventual defeat and

surrender of the French army, but at a cost in the Magdeburg Cuirassiers alone of 75% casualties (Black Powder 2014).

This is not to say that officers and cavalymen no longer continued to carry swords, and there were cavalry charges in Colonial Wars and World War I. But, despite efforts to resurrect the sword as an effective weapon (see, for example, Hutton's *Cold Steel* 1889), it was obvious that the sword's day was gone. In World War II, the year 1942 appears to be the end-point of the mounted cavalry charge with the sabre. At Isbuscenskij on the Don River the 650 men of the Italian 3rd Cavalry Regiment Savoia charged Soviet infantry with sabres and hand grenades, losing 32 killed and 52 wounded, but routing the Soviets, killing and wounding approximately 450 and capturing approximately 500 prisoners (Trye 1995, Fermani 2011). The last charge of the Italian cavalry was executed as a breakout from encirclement by the 14th Light Cavalry Regiment di Alessandria on 17 October 1942 against Yugoslav partisan forces at Polojie. The breakout and retreat to join other Italian forces was successful at a cost of 70 dead and 61 wounded (Trye 1995, Fermani 2010).

In contrast, the last mounted charge of United States cavalry was executed at Morong, Bataan, the Philippines, on 16 January 1942 by Troop E/F, 26th Cavalry Regiment (Philippine Scouts) against the advanced guard of a Japanese infantry regiment. That charge was executed with pistols, and it was successful (Ramsey 2016).

The demise of the duel: World War I (1914-1918) was the first truly global war, and the first catastrophic blood bath as the culmination of the process toward national mobilization, total war, and widespread destruction of civilian as well as military targets that began with the Napoleonic Wars. The casualty count made the cause of most duels seem irrelevant and frivolous. At the same time, most veterans did not feel any social or personal pressure to prove

that they were not cowards; just surviving the trenches served as a demonstration of bravery. As a result, the number of duels appears to have declined significantly (Nye 1993).

But old habits died hard. As late as 1934, the author of a fencing manual felt it necessary to include in the text detailed instructions for the duel, along with an admonition to Englishmen on how to conduct themselves appropriately if insulted on the continent (Grave 1934). German student dueling revived almost immediately, and managed to survive not only Nazi attempts to suppress the student dueling corps and the post-World War II prohibition by the occupying nations to continue to thrive to this day. And dueling also resumed in Italy, with Benito Mussolini being an enthusiastic duelist (Amberger 1999 and 2000, Cohen 2002).

After World War II it is difficult to find references to any substantial number of duels. Although the farcical Lifar-de Cuevas duel in March 1958 (Duelling Stories 11 1975), is often quoted as the last sword duel, in actuality duels with the sword effectively ended in 1967. The last confirmed duel with the dueling sword occurred in that year between Gaston Deffere, the Mayor of Marseille, and Rene Ribiere, a political opponent, in which a minor wound was inflicted (1967 Epee Duel). In addition, a more serious duel was fought with military issue sabres in Argentina between Admiral Benigno Varela, the former commander of the Argentine Navy, and newspaper publisher Yolivan Biglieri. The Admiral almost had an ear severed from his head, and the publisher suffered several wounds (Tonks 1976).

Changes in the Nature of Sport

The death of amateurism: The application of amateurism in fencing originates in part from Victorian social practices. The amateur athletic movement strongly embraced the philosophy of amateurism, the concept that activities undertaken without self-interest were inherently superior to activities done for pay (Wikipedia 2005). Amateur athletes and their

professional fencing masters originated, in most countries, from different social classes (the most notable exception being Italy), and fencing masters could only achieve acceptance through their expertise and hard work in developing the social skills of the upper classes they served essentially as tradesmen (Terrone 1959, Nye 1993, Bacarreza 2016). Victorian elites actively sought to prevent the lower classes from participating in the same sports as the socially elite – by removing any financial incentive for sports participation, the poor were effectively excluded (Learntoquestion.com 2005).

In addition, there were real concerns about fairness – writers as early as 1910 suggested that athletes who were paid to participate in sports had an unfair advantage in being able to train full time over amateurs who only participated on a part time basis. Exclusions from membership in the Amateur Fencers League of America at its founding, based on this argument, extended even to those who assisted instructors, whether paid or not, or who were regular attendees of a salle (Shaw 2004). However, even these concerns were linked to fears that participation by paid athletes might cause amateurs to abandon the true principles of amateurism (The Possible Unification of the Amateur Definition 1910).

The 1940 *Fencing Rules* published by the Amateur Fencers League of America provided a clear statement of amateurism in The Amateur Code at the end of the classical period (pages 19 and 20):

(1) GENERAL PRINCIPLES

... The A.F.L.A. views an amateur as a sportsman interested in sport for its own sake, neither seeking nor accepting, directly or indirectly, any financial benefit from his knowledge of or participation in athletics....

(2) ACTS OF DISBARMENT

A person shall cease to be eligible to compete as an amateur by committing any of the following acts:

... b. *Competing for Money*: By directly or indirectly receiving pay or financial benefits in consideration of, or as a reward for, participating in any public competition or exhibition in any sport; or by disposing of prizes for personal gain*

* *Note on Amateur Coaching*: While truly amateur coaching is permissible, an amateur fencer may not accept non-athletic employment, involving pay or financial benefits, if this employment is in any way dependent upon his ability to exhibit, compete in, or teach any sport. If such athletic activities are obligatory, or regularly scheduled, or a prerequisite to the contract of employment, or if the time devoted thereto exceeds that required by the non-athletic employment, there is an automatic violation of these rules.

Furthermore, an amateur is not permitted to offer instruction or coaching (even if he receives no pay or other financial benefits for his services) in any case where some person or organization assesses a fee or requires a consideration for such instruction or coaching. This also applies to cases where an amateur temporarily substitutes for a professional teacher of fencing.

c. *Coaching for Money*: By directly or indirectly receiving pay or financial benefits in consideration of, or as a reward for, instructing or preparing any person in or for any competition, exhibition, or exercise, in any sport.

However, changes in how professionalism was regarded in sport eroded this “pure” view of amateurism. In 1972 Maitre A. John Geraci commented that by the Munich Olympics the traditional amateur athlete had disappeared from international competition, but that fencers in the United States remained part-time amateurs (page 17):

The International athlete of today is not made in the image of the “amateur” athlete of a generation ago. He is a calculated product of the intense national effort to win modern competitions as an essential part of the struggling world ideologies. The “old-fashioned” amateur did not win the gold at the Munich Olympics. The finalists and medalists were in peak physical and mental condition, and were superbly coached and trained by full-time professional coaches, and were 100% full-time athletes! There was no mercy for the “part-time” athlete.

In his review of the performance of the British team at the 1976 Montreal Olympics, Professor Bob Anderson, the British Chief Team Coach commented that “generally, the individual and team results were as good as could be expected of a country which is rapidly becoming the last Bastion of amateurism.” He noted: “Flash ... It is rumored that certain

continental fencers get paid more money to keep in training than the professional coaches who train them” (1976, page 7).

The traditional border between professional coaches and amateur athletes gradually eroded as fencing coaching as a paid form of work was increasingly regarded as being distinct from the worker competing in sport for which he or she was not paid. Professor H. T. Bracewell, the National Fencing Coach for Scotland, provided a clear statement of this trend in 1976 (page 2):

Much is being said these days regarding the changing status of professional fencers. My own opinion has always been that unless a professional fights for money he is not a professional fencer, but a professional coach – which is entirely different. The sooner we forget this amateur/professional stupidity the better for our sport.

By 1989 even the United States Fencing Association had admitted that amateurism in international competition was archaic and had started to subsidize competition expenses for elite athletes (Fencing A Farewell 1989). But as late as 1991, the Operations Manual of the United States Fencing Association (page 48) restates the Federation Internationale d’Escrime rule:

Any fencer is an amateur who does not practice fencing except for his own pleasure, for relaxation or for his health and without ever gaining any profit from it.

In 1995 the Ted Stevens Olympic and Amateur Sports Act (36 U.S. Code) finally permitted athletes participating in sports governed by the United States Olympic Committee designated national governing bodies to be paid professionals. Today in the United States professional coaches can and do compete in USA Fencing competition up to whatever level their ability allows. And there is an ongoing effort to establish the Professional Fencing League (2016) which is holding its first event on 29 January 2017.

The demand for high performance by fencers has contributed to the departure from amateurism. Data on adult elite fencers from 2011 (Paul, Miller, Beasley, and Bottoms) suggests

that training demands a significant amount of time on a daily basis (see Table 4). The time required to train is at least equivalent to half day part-time employment, and is significantly greater than the time and training intensity requirements of fencers in the environment of the classical period Salle.

Table 4. Adult Elite Fencer Weekly Training Loads

	Paolo Pizzo (Italy)	Sherraine Shalm (Canada)	Seth Kelsey (United States)	Bianca del Carretto (Italy)
Age	28	36	29	26
Years Fencing	21	24	19	20
Club Fencing	9 hours	12.5-15 hours	8 hours	12 hours
Individual Lessons	3	5	2 hours	3 x 1 hour
Weight Training/Strength and Conditioning	0	4.5-7.5 hours yoga substituted	4.5 hours	3 hours
Plyometrics	2 hours	50 minutes	2 hours	2 hours
Other Sport	2 hours	On 1 weekend day	4 hours video games	0
Aerobic Training	3 hours	1 12 km run 5-6 20 minute warm-up runs	1.5 hours	3 hours
Mental Training	0	4 hours	0	0

	Max Heinzer (Switzerland)	Tiffany Geroudet (Switzerland)	Joaquim Videira (Portugal)	Sara Daninthe (France)
Age	24	25	27	31
Years Fencing	19	20	15	26
Club Fencing	4-5 x 2-3 hours	4 x 2.5 hours	6-8 hours	6 hours
Individual Lessons	4 x 1 hour	3-4	1-2 hours	2-3
Weight Training/Strength and Conditioning	Yes	2 x 1.5 hours	0-1 hour only to peak	1 session
Plyometrics	Yes	Included in conditioning	0-1 hour only to peak	0
Other Sport	1 hour	Weekend	0-1 hour	0
Aerobic Training	0	2-3 x 40 minutes	1-2 hours	2-3 sessions
Mental Training	2 x 1 hour a month	8 times a year	1-2 hours	0

	Jon Willis (Great Britain)	Georgina Usher (Great Britain)	Nick Perry (Great Britain)	Hannah Lawrence (Great Britain)
Age	30	39	26	22
Years Fencing	18	28	18	8
Club Fencing	15 hours	6-8 hours	7.5 hours	11 hours
Individual Lessons	3 for 2 hours	2-3 hours	1.5 hours	2 hours
Weight Training/Strength and Conditioning	2-3 x 90 minutes plus daily 15 minute core	2 x 1 hour	1.5 hours	4 hours
Plyometrics	2 x 90 minutes	Included in conditioning	0	45 minutes
Other Sport	Very little	0	Football 1.5 hours	Great Britain squad training 2x 10 hours a month
Aerobic Training	1-2 x 45 minutes	2-3 hours	2 hours	1 hour
Mental Training	0	Almost none	Continuous	30 minutes

Source: Paul, Miller, Beasley, and Bottoms 2011

The development of the sports factory: In the aftermath of World War II, the Soviet Union devoted significant resources to the development of its national sports programs (Girginov 1998). Starting in 1949 Soviet fencing coaches studied Hungarian and Polish fencing in great depth and introduced modern training methods, including individualized nutrition and medical supervision. The Soviet model developed as a structure of thousands of sports clubs aligned in three major organizations allowing early identification of promising fencers and their local training. Better prospects entered a circuit of training camps and competition to the championships level within the organization. Those at the top of the organizations trained in national camps and fenced in national and international competitions. From the bottom to the top, the result was an integrated flow of potential athletes through a series of filters to identify, support, and promote the best athletes (Zold Francis 1958, Golubitsky 2004).

The People's Republic of China further developed the almost industrial production of athletes under the State General Administration of Sports with a delivery pipeline from District

to City to Province to National Team. At the District, City, and Provincial level athletes are identified at an early age (as young as 4 to 5 years in diving), enrolled in Spare-Time Sports Schools where they attend academic classes in the morning and participate in rigorous training for their sport in the afternoon. Approximately 360,000 athletes attend 3,000 sports schools, providing a large training pool and reserve for national teams in those sports in which China wishes to compete (Li, MacIntosh, and Bravo 2016).

Although the Chinese model is the most developed factory model, to some degree all communist nations adopted a national approach to the development of fencing. In contrast, the western European nations have largely allowed the centralized, government supported structure of schools (for example, the École Normale de Gymnastique et D'escrime at Joinville le Pont or the Scuola Magistrale Militare di Scherma at Rome) for fencing masters to atrophy.

The trend to youth: When I started fencing in 1965, the common assumption in American fencing was that a fencer did not reach his or her potential until age 30 to 40, and could expect to remain fully competitive into their 60s. Today in most sports the age range at which physical, technical, and tactical abilities are maximal is between the mid-20s to the early 30s. Then there was no youth training program for teenage or younger fencers outside of high school teams in some major metropolitan areas. Today observation at any national event (North American Cup, National Championships, Junior Olympics) will show a preponderance of fencers in their 20s or younger with fencers in their teens competing at the elite level. Fencing for most fencers in 1965 started in college. Today teenage fencers who expect to compete in National Collegiate Athletic Association Division 1 college fencing should already hold an A classification (National Fencing Club Rankings 2016) with a median of 36.2% of men holding an A, rising to as high as 69% of the fencers recruited by Notre Dame.

Albert Axelrod won a Bronze Medal in foil at the Helsinki Olympics in 1952 at age 31, and was still fencing on the United States Team in 1968 at age 47 in the Mexico City games in 1968 (Cragg 1998). In contrast, in the Rio Olympics of 2016, Geza Imre of Hungary (who had first earned a Bronze medal in 1996) earned a Silver medal at age 41, as the oldest Olympic fencing medal winner since 1952. Imre lost to 20 year old Park Sang-Young of South Korea (Haynes 2016).

The youngest fencer at the Rio games was 16 year old Hamza Mohammed of Egypt. The distribution of ages among the 247 athletes was 16 to 20 years old – 6%, 21 to 25 – 27% percent, 26 to 30 – 38%, 31 to 40 - 29% (Rio 2016). Tsolakakis and Vagenas (2010) conducted a study of 33 fencers who were members of the Greek National Team, classified as elite or sub-elite based on their experience in international competition. Their data showed the median age of the elite fencers was 20.14 years with a standard deviation of 4.01; the sub-elite fencers median age was 19.78 years with a standard deviation of 3.15. Observation of national events and the data from the Olympics suggest a clear youth trend in the sport.

The overall improvement of athletic performance: Results of any studies measuring changes in the performance levels of fencers in a way other than the relative strengths of national fencing performance in annual world and quadrennial Olympic events are not readily available. The combative character of the sport makes measurements, such as those used for speed, distance, and technical purity in other individual sports, difficult to design and conduct. However, there are several markers that can be applied to identify increased athleticism in fencing.

We do know that performance times of anaerobic tasks in track and field events has been reduced significantly over the history of the Olympic Games. For example, the winning time in

the men's 110 meter hurdles (an event that requires both anaerobic performance and technical skill in timing in execution) reduced from 17.6 seconds in Athens in 1896 to 12.93 seconds in Beijing in 2008. The 100 meter time decreased from 12 seconds to 9.69 seconds over the same period (Wallechinsky and Loucky 2012). Similar performance increases can be noted in most Olympic sports that require measurement of time and distance, and can reasonably be attributed to application of better training methods and a more scientific approach to sports performance. There is no reason to believe this is not so in fencing as well.

Fencing Masters at the time of the change to increased athleticism noted its dimensions and impact. Ferenc Zold (1958 page 4) commented on the revolution in fencing observed by United States fencers at the 1956 Melbourne Olympic Games:

... The revolution of foil fencing is right now being staged before our eyes. The returning fencers from Melbourne can bear me out: the conventional game is being shelved in favor of athletic prowess, simplicity of actions and the mile-long lunge followed by two or three lightning jabs instead of the old remise. It was a development unforeseen by our top foilsman.

Now the revolution is beginning in sabre, and in order that we should not be caught with our "sputniks" down, permit me to suggest a few things. The mechanical actions are losing their importance; the sabre parry is often being replaced by the body parry – distance. The total action-readiness, the absolute need to be always in balance, the complete harmony between arm and legs that are required, go beyond the scope of this article. Let us emphasize only that speed and choice of opportunity are the deciding factors in the modern game.

Amberger (2004) referred to a study by Janos Kevey that examined the number of offensive actions per fencing bout. Prior to World War II a bout would include a few dozen offensive actions. In the 1950s to 1960s this number increased to more than several hundred. Subsequently the number increased to over 500 actions in a 15 touch bout. Amberger stated that he quoted from memory and that the numbers may be inexact, but regardless of this, if the

relative frequency is preserved, there is a significantly larger physical demand generated by such proportional increases.

Video evidence suggests the speed of fencing blade and footwork gradually increased during the classical period as both weapons and protective equipment became lighter (note that there may be speed differences in older films available online introduced by the method of film production). It is worth contrasting the speed of fencing actions in (1) surviving films from the actual classical period (Magyar FilmIroda RT 1924, Pathe Pictorial 1926 and 1934, Pathe Revue Olympic 1934, L. U. C. E. 1934, RCA Photophone 1934) with (2) the speed of action of modern classical fencers (Purplepaisano 2012, Capstick 2015, Martinez Academy of Fencing 2015a and 2015b, Salle Saint George 2015) and (3) of modern fencers (Olympic Channel 2012, Sydneysabrecenter 2014, AdamBlight 2016), including youth fencers (USA Fencing 2014). Although this is not a sample of all available video, it is sufficient to suggest that:

- There is a clear increase in the speed of footwork and of overall actions from (1) actual classical fencing to (3) modern fencing (an expected outcome).
- That (2) modern classical fencing is slower in footwork and blade work than (3) modern fencing (an expected outcome).
- That (2) modern classical fencing is slower in footwork and in bladework than (1) actual classical fencing (an unexpected outcome).
- That (1) actual classical fencing appears to more closely resemble (3) modern fencing in the flow of the action and integration of footwork and bladework than it resembles (2) modern classical fencing (an unexpected outcome).

Changes in the Character of Fencing

The development of rules: At the start of the classical period, fencing was not governed by a universally accepted set of rules. Those rules that existed were limited in their extent. For example, the New York Athletic Club rules for fencing with the foil in force in 1878 were eight sentences in length, for broadsword seven sentences, and for singlestick eight sentences (Monstery 2015). In 1892 Rondelle included the “Rules Governing Amateur Competitions” in his text *Foil and Sabre* (page 176-178); these rules included 20 articles, none longer than two sentences. A reasonably thorough collection of fencing rules for classical fencing from 1889 through 1930 is 48 pages in length (Green 2004). The 2016 edition of the USA Fencing *Fencing Rules* is 217 pages in length. In addition, the current rules are regularly interpreted by referees, with that interpretation changing based on the experience and level of the referee. The growth of this body of written rules and their interpretations reflects the general trends in society for more detailed and extensive regulation of conduct to resolve conflict and specify behavior. For example, the necessity for a salute was not specified in the 1878 New York Athletic Club rules, but a salute is not only specified in the 2016 USA Fencing rules, but it is further specified as having to be done before a bout and after a bout, include the opponent, referee, and spectators, and must be done at the end of the bout from behind the on guard lines and be followed by a handshake with the opponent. What was an expected courtesy is now a regulated component of the bout, with a penalty of exclusion for non-performance.

The target: The target area for the three weapons has only remained stable in epee (as the entire body). This is important because the area of the body that counted as valid target can change the technique of the weapon. An excellent example can be seen in the difference between the early foil target and the modern foil target. The early target included the front of the

torso, essentially above the waist. This leads to a division into high and low line with the lines being operationally much smaller than in modern foil. As a result, the execution of the low line parries was made with a bend of the wrist, leaving the forearm in essentially the same position for both high and low line guards and parries (Dunn 1891, Breck 1926, Senac and Senac 1926).

The foil target mentioned in the paragraph above expanded to include the full torso and the back above a line across the tops of the hips (Amateur Fencing Association 1937). The foil target for women remained the torso above the waist until 1 January 1960, when it finally conformed to the entire torso as in men's foil (New F.I.E. Rules 1959).

The bib of the mask was valid target in foil until 1 January 1960, when it was made invalid to conform to the then current target for electric foil (New F.I.E. Rules 1959) (it is important to note that this mention of the bib as target is a passing one, and the earlier rules sets do not mention the bib, but rather define the target as including the neck). Part of the bib has now returned to being target in electric foil (USA Fencing 2016a), in part because of the increased size of bibs on masks.

In sabre, in the early rule sets there is conflicting evidence about the extent of the target. In 1892, one rule set indicated that the sabre target was the same as that for epee, the full body. Both Rondelle (1892) and Breck (1926 but based on internal evidence probably earlier) included a thigh cut as part of the sabre technique, and the thigh cut was included in French technique, probably until the end of World War I. In 1937 and perhaps as late as 1939 the sabre target occasionally included the cuissard (Castello 1937, Amberger 1999). However, Bertrand (1927) addressed the modern target above the waist.

The terrain: The classical piste varied significantly in all of its characteristics from modern pistes. During the classical period pistes varied in location, dimensions, and structure.

In the early days bouts in foil and sabre were fenced on wooden pistes. An 1887 illustration in *Harpers Magazine* depicted a lesson being given on a narrow wooden strip (Landry 1950). A 1912 photograph of a Royal Navy bout at Dartmouth showed such a piste with a rear railing at each end to prevent the fencers from retreating over the rear boundary (McGrath and Barton 2004). An international women's match in 1931 was fenced on a wooden strip of plain boards, not terribly well fitted together; film evidence suggests this strip was 3 feet or less in width and no longer than 20 feet (British Pathe 1931).

Epee was distinguished in the classical period as the quintessential open air weapon, fenced on outside gravel strips. The Societe d'Epee de Paris rules, adopted in 1900 by the Epee Club of London, called for each fencer to have 15 meters available for retreat, measured from the rear foot, (for a total length of approximately 110 feet) on a piste 5 meters in width, with a warning given when the fencer had retreated to 3 meters from the end (Fare, Fildes, and Gray 2000). At the Inns of Court Fencing Club in the 1920s, the gravel path used was long enough and straight enough to permit informal matches among eliminated teams to be conducted simultaneously with the competition matches (Hay 1974). In the 1937 Amateur Fencing Association rules the length of the epee piste was specified as 34 meters (111 feet 7 inches).

At the same time the sabre piste was established as 24 meters in length and the foil piste as 12 meters in length (Amateur Fencing Association 1937). However, the 1940 Amateur Fencers League of America rules established a shorter strip of 12.2 meters (40 feet) for championships and provided for a shorter strip with a minimum length of 9.144 meters (30 feet).

The modern strip has evolved subsequent to 1945 in two specific directions, the development of a single pattern of piste, and the eventual standardization on one strip for all three weapons. By 1957 four strips were in use in the United States, the International Foil piste

with a field of play of 12 meters (39 feet 5 inches), the International Sabre and Epee piste with a field of play of 14 meters (46 feet), the official Amateur Fencers League of America piste for all three weapons with a field of play of 12.2 meters (40 feet), and the Amateur Fencers league of America minimum length piste with a field of play of 32 feet (Amateur Fencers League 1957).

In the 1974 edition of the Amateur Fencers League of America *Fencing Rules for Competition* the optional short strip had been deleted, with the 14 meter strip with 2 warning lines at each end, one at 2 meters for epee and sabre, the other at 1 meter for foil. The effective length of the strip was 14 meters for foil with each fencer being able to retreat for 5 meters, 18 meters for epee with each fencer able to retreat 7 meters (going off the piste once and being replaced at the 2 meter warning line), and 24 meters for sabre (going off the piste once and being replaced at the on guard line).

Today the length and width of the piste is well defined and uniform for all three weapons: a 14 meter strip with on guard lines at 2 meters from the center line, warning lines 2 meters from each end, and a width of from 1.5 to 2 meters (USA Fencing 2016a). However, the Federation Internationale d'Escrime appears to be backing away from uniformity in its continuing 40 year project to reform sabre with the introduction of on guard lines 1.5 meters from the center line on a test basis in 2016 (USA Fencing 2016b). This test met with considerable opposition from sabre fencers (Zagunis 2016), and it remains to be seen if its adoption is permanent.

The number of hits and time limits: The time limits for early epee bouts varied in a wide range. At the Epee Club of London bouts for a single hit were fenced for 5 minutes in 1900 with 2 minutes rest and an additional 5 minutes if neither fencer was hit in the first period. Before World War I time periods of 20 minutes for 1 hit, 7 minutes for the best of three hits, and 15

minutes for 1 hit were used (Fare, Fildes, and Gray 2000). In the 1920s the Inns of Court Fencing Club pool bouts were fenced for 20 minutes, and final bouts for 30 minutes (Hay 1974).

The 1937 Amateur Fencing Association *Rules for Competitions* provided that 1 touch bouts in epee were to be fenced for 5 minutes of fencing time, and 3 touch bouts (best of 5 touches) and 5 touch bouts (best of 9) in all weapons were to be fenced for 10 minutes. The 1940 Amateur Fencers League of America *Fencing Rules* specified fencing times as follows: 1 touch Epee for 5 minutes, 2 or 3 touch epee for 10 minutes, 4 touch (Women's) Foil for 8 minutes, and 5 touch Foil and sabre for 10 minutes. The 1957 Amateur Fencers League of America *Fencing Rules and Manual* provides for all the time periods in the 1940 rules plus 15 minutes of fencing time for 8 or 10 touch bouts and 5 minutes per weapon for three weapon bouts.

In the 1965 rules bouts were fenced for 1 minute of fencing time per touch plus one minute. Thus a men's bout was fenced for 5 minutes, the bout was halted and a time warning given, and the bout resumed for a final minute. Women's foil bouts were fenced for 4 plus 1 minutes (Amateur Fencers League of America 1965). By 1992 the time limit had been reduced to 4 minutes fencing time, with a warning at 1 minute (United States Fencing Association 1992). Today a 5 touch bout is fenced for 3 minutes total, with no time warning. The introduction of direct elimination resulted in a 10 touch direct elimination bout being fenced in two 3 minute periods with a 1 minute break; 15 touch bouts are fenced in three 3 minute periods with two 1 minute breaks (USA Fencing 2016). In reality, sabre bouts in major tournaments are now decided in seconds of fencing time, so fast that referees typically do not keep time.

The number of touches in a bout appear to have stabilized at 1 touch for Modern Pentathlon Epee, 5 touches for pool bouts, and 10 or 15 touches for direct elimination.

Subsequent proposals considered by the Federation Internationale d'Esgrime have advocated lowering the duration of a 5 touch bout to 2 minutes total, without a change in the number of touches. The trend is clearly for bouts to be fenced in less time.

The reason for the changes has not been documented, but it would seem likely that a major factor is the simple scheduling difficulty of managing large tournaments. A pool of 7 fencers, a standard number at North American Cups, generates 21 bouts. If each bout is fenced to the limit of fencing time, the duration is 63 minutes of fencing time, plus the time between halt and fence for referee decisions, administrative time at the start (to check fencers and their equipment) and at the end (to get score sheets signed), and the time it takes fencers to report to the strip, hook up the electrical system and conduct weapons tests. A second consideration for the 2 minute proposal may have been in the interest in making bouts more appealing to a television audience.

The method of determining materiality and validity: Officiating in the classical period was based on the work of a jury of 3 to 6 individuals who determined whether or not an action resulted in an arrest on (or off) the target, the materiality of the hit. The jury could be composed of as few members as a President and 2 Judges, up to a maximum of a President, Vice-President (apparently only used for a short time in the 1930s in England), and 4 Judges. Of this jury, the Judges determined the materiality of a touch (whether a hit arrived), and the President (known toward the end of the period as the Director) determined whether a material hit would result in a touch under the rules of the weapon (the validity of the hit) (Amateur Fencing Association 1937, Amateur Fencers League 1940, Crosnier 1950, and Amateur Fencers League 1965 – the last two sources, although published after the end of the classical period, represent the most detailed

description of the mechanics of visual scoring). As late as 1991 the United States Fencing Association *Fencing Rules* included procedures for the use of a Jury.

Epee progressed through a full range of scoring aids during the classical period, although it is difficult to understand why. Neither foil nor sabre made any significant sustained effort to improve the technology of scoring the hit during this time-period. It may be that the development of epee scoring reflected the newness of the weapon, and represented an attempt to capture the seriousness of the hit in a duel.

The initial effort to improve scoring was the use of chalked points against dark colored fencing Jackets (Cragg 2001, Bacarreza 2016). This was followed by the tin-tack, a pointe d'arret with a single sharp point. By 1906 the tin-tack was joined by the bouton marqueur, a three-point pointe d'arret that used a phenolphthalein coloring solution on a small cotton ball between the points. Both of these approaches damaged jackets, and caused injuries, (Fare, Fildes, and Gray 2000) as well as generating a noticeable stench of accumulated vinegar used to erase the dye (Cragg 2001).

In 1931 electric scoring was introduced in tournaments held on the European continent (Cohen 2002). Although the Epee Club's evaluation in 1932 was that "there can be no doubt of the superiority of the electrical method of scoring," in England, at least, there was significant resistance to change from the pointe d'arret (Fare, Fildes, and Gray 2000, pages 43-44). However, by 1936 electric scoring of epee bouts was well enough established to be used for the first time in the epee competition at the Berlin Olympic Games (Cohen 2002).

The shift of first epee and then foil, and finally sabre well after conclusion of the classical period, to electrical scoring significantly changed fencing. Touches that were not previously seen were recorded by the electrical scoring system, touches that were not actual touches, but

rather errors in judgment by the Jury, did not register, and carefully developed reputations could not influence the determination of whether or not there was a touch (although they could still influence right of way decisions). By 1954 the shift to electric foil was underway; in a test that year 75% of the touches were single light hits determined immediately by the scoring machine, 22% easily determined by applying right of way when two lights resulted, and 3% were subject to differing interpretations. The result was a faster bout requiring simplified technique (thereby doing what de Bazancourt had advocated some 80 years before) and increased athleticism (Crosnier 1961, Cohen 2002).

The balance of blade and footwork technique: Fencing during the classical period utilized a wide variety of technique. The Classical Academy of Arms *Classical Fencing Actions Project* lists 179 separate foil blade actions in its catalog, which is estimated as 50% complete in French technique. Many of these actions are three and four tempo actions. In the same catalog, footwork actions listed are estimated at 90% complete, and number 13 (Green 2016).

In contrast, such modern tactically oriented texts as Harmenberg's (2015), advocate that advanced fencers focus on a very small number of techniques (sometimes as small as 1 attack) and drive the bout to the conditions under which these techniques will be most productive. At the same time, footwork has abandoned many of the old techniques such as the passata sotto, but grown in variety. My observation of foil bouts at the December 2016 Richmond North American Cup identified foil fencers using advance, retreat, half-advance, half-retreat, check step, lunge, lunge with forward recovery and renewal of the attack, forward pass, backward pass, duck, lateral evasions, balestra, jump backward, and fleche, 14 identifiable footwork techniques. Attacks were exclusively simple attacks, and attacks with one preparatory tempo (such as compound attacks and attacks starting with the beat or press). One light, single hit solutions

were frequently facilitated by a strong close-out (a lateral retraction of the attacking blade to block a riposte after the hit landed).

Distance: Distance, as a tactical measure of the space between two fencers, was originally based on the lunge as the normative concept. An examination of several texts, including Campos, Deladrier, and Lidstone as recorders of earlier technique, is shown in Table 5.

Table 5. Classical Distances

	Parise 1884	Pecoraro and Pessina 1912	Barbasetti 1932	Castello 1937
Short (a hit by extension is possible)	Close Distance <i>(note 1)</i>	Narrow Measure	Close	
Half-lunge (lunge of several inches)				
Medium or Middle (a lunge is required to hit)	Firm- footed or Correct Distance	Firm- footed Measure	Right distance	In Distance
Long (an advance is required before lunge distance is reached)	Advancing Distance or Out of Distance	Advancing Measure	Normal Distance	Out of Distance
Outside of Distance (actions more than an advance and lunge required)		Initial Measure of Combat	Yes	

	Vince 1937	Deladrier 1948	Lidstone 1952	Campos 1981
Short (a hit by extension is possible)	Yes		Yes	Yes
Half-lunge (lunge of several inches)			Yes	
Medium or Middle (a lunge is required to hit)	Yes	Proper distance	Yes	Right Measure
Long (an advance is required before lunge distance is reached)	Yes		Out of distance	Marching Forward Measure
Outside of Distance (actions more than an advance and lunge required)				Fleche Measure

Sources: Are as indicated by the titles of the columns.

Notes: (1) Parise states that good fencers should never fence in this distance.

It is important to note that these are defined distances with specific movements serving as the criteria for distance determination. The use of such defined distances continues well into the modern period. For example, Edoardo Magiarotti in his text *La Vera Scherma* (1966) actually specifies ranges of meters for the seven distances in his doctrine. Today, five distances are commonly used: infighting, short or riposte, medium or one tempo lunge distance, long or advance-lunge two tempo distance, and out of distance (Handelman 2014). The changes in athleticism of fencers actually require that we think about these definitions as envelopes determined by initiative, timing, and direction of movement, rather than finite distance given that a well-conditioned fencer can react quickly enough to avoid a lunge in medium distance (Green 2010).

The recognition of infighting distance in which the fencers must fence asymmetrically and use unusual blade movements is important because it is distinctly different from classical practice as currently taught. Parise (1884) stated that good fencers should never allow the bout to be fenced at short distance (which he termed close distance). The front cover of the Spring 2003 issue of the classical fencing magazine *Fencers Quarterly Magazine* showed two fencers at infighting distance attempting to touch each other with around the back thrusts and asked “Evolution or genetic dead end? You decide!” (About the Cover 2003). The implication was that this type of fencing did not use skill and could not be named or taught to other fencers. Today infighting is a standard part of the training of foil and epee fencers (Luckovich 2013, Handelman 2014).

V. ANALYSIS AND CONCLUSIONS

A. Analysis

The Classical Themes

The classical critique of modern fencing assumes that modern fencing destroys the art and science and the beauty of true fencing. Beauty is famously in the eye of the beholder. Classical fencers tend to objectify fencing technique as intricate blade actions from formal positions. The photograph of two modern fencers attempting touches around the back that appeared on the cover of a 2003 issue of *Fencers Quarterly Magazine* clearly was not beautiful in the editor's mind (About the Cover 2003). An equally legitimate position would be to define beauty in fencing in terms of the timing, speed, acceleration and pure athleticism of Daryl Homer's footwork in the pursuit in a sabre bout. Or perhaps beauty is Shin's brilliant choice of tactics in her final direct elimination bout at the London Olympics (which proved unsuccessful in one of the most disreputable incidents in the history of the Olympics) (Shin A Lam 2013). Or beauty could be the sheer speed and intimidating power of Mario Aldo Montano's fleche I observed chasing an opponent down the piste, down the overrun, and into the audience at a Martini-Rossi tournament in New York in the 1970s. Classical fencing done by a classical fencer in the period was as beautiful, or not, as modern fencing done by a modern fencer today – the measure of beauty may be different but it can be described as beauty nonetheless.

However, it is important to note that beautiful technique is not necessarily effective technique. Cohen (2002, page 197) quoted F. C. Groves's introduction to the 1897 edition of W.

H. Pollock's *Fencing*:

... "Pendantry was, as it had been before, the bane of fencing." Some masters had their pupils take lessons standing in tea trays, to teach them to limit their foot movement. One master described a typical bout in which two fellow *maitres d'armes* would place themselves *en garde* and the first would then make an *appel* – a stamp with the front foot

– with a violent “*Voila, monsieur!*” followed by another beat of the foot and an elaborate lunge, perfect stylistically but “not erring on the side of quickness.” His opponent would form, with exquisite precision, perhaps half a dozen parries while the original attacker would attempt to deceive them, but almost in slow motion: “no unseemly scrambling.”

It seems likely that neither de Bazancourt nor Burton would have found this a particularly appealing performance.

What is classical fencing: A significant difficulty in understanding classical fencing is the subjectivity of the criteria used in its definition. Definitions that refer to a specific time period or to the period before the introduction of electric scoring offer the clearest markers, but there is no consistency among classical fencing groups in their definition of the period.

Fencing as a practical martial art: Any focus on classical fencing as a practical martial art, or as study of the duel, is a clearly unrealistic assessment of the practicality of using a sword for personal defense or to settle points of honor in today’s society. The first case is fraught with legal exposures, and the second is a futile exercise in reviving the long dead.

Fencing as though the point is sharp and hitting without being hit: The doctrine of fencing as though the weapon was sharp was not universal throughout the classical period. Fencing was accepted as a gymnastic exercise, as a social activity, and as a form of symbolic combat, as well as for the declining uses of the sword in battle and the duel. The argument of classical fencers as to the superiority of their activity, because they (1) fence as though the point was sharp and (2) hit without being hit, must be regarded as a self-created social construct that in the first case is anachronistic and in the second is only partly true. Sharp swords have not generally been used for either military or civilian combat since World War II, and the last mainstream vestige, the duel with swords disappears in 1967. Therefore, there is no special merit or utility to training as though the point is sharp.

Similarly, the experience of duels, of most fencers (including those of the highest levels of achievement in the sport) in fencing competitions, and of fencers in one touch epee bouts is that being hit is a reasonable expectation of the activity. The idea of hitting without being hit is not exclusive to classical fencers; fencing for one light is a standard tactic used by modern fencers in critical hits and in situations in which the referee may be biased or incompetent. The challenge is to win under the accepted rules and constraints of the combat, whether personal combat or sport.

The exception is German academical fencing, in which the sharp blade and the hit fulfill social purposes more significant to the participants than to the combat.

The orthopaedic grip: Although the orthopaedic grip is regarded as anathema by many classical fencers, excluding it is both incorrect and ahistorical. The use of orthopaedic grips is supported by contemporary reports and modern research. These grips were intended to improve point control and accuracy. In addition, they clearly had a role in permitting fencers with injuries to continue in the sport, making this class of modifications one of the earliest examples of adaptive equipment for sports by the disabled. Given that one of the factors advocated by a number of classical fencers in favor of the Italian grip was its ability to exert greater force with the weapon (see, for example, Nadi 1943), classical community criticisms of the orthopaedic grip for allowing a heavier hand appear disingenuous.

Electrical scoring: Electrical scoring originated during the classical period as an outcome of a long effort to improve the quality of assessment of the materiality of hits. It has changed fencing, although it is difficult to say that replacing biased or incompetent Judges by a system that accurately recorded touches was a bad thing. It was embraced by epeeists as a clear improvement, if for no other reason than saving jackets and forearms and avoiding smelling like

a pickle at the end of the day. Changes in the balance of the blade and its performance characteristics did impact foil fencing, and may have facilitated the emergence of modern athleticism in the sport.

The flick: Classical fencers are correct in asserting that the flick is a modern technique, and this is thus a clear difference between the ranges of classical and modern technique. The flick is an artifact of electrical fencing and the resulting changes in the foil blade (and to a lesser extent the epee blade). It is important to note that the flick represents an attempt to increase speed (much as the fleche increased footwork speed in the classical period) and to access additional target area, traditional themes in the evolution of swordplay.

The loss of intelligence. The argument that modern fencing is less intelligent than fencing in the classical period is not supported by the evidence. In fact, the data supports the opposite conclusion. Modern fencing texts cover a wider range of topics than classical texts. Sports psychology, including detailed understanding of the mental aspects of the sport, and sports medicine did not exist as separate disciplines during the classical period. Tactics were addressed, but only as rules of thumb, not as integrated systems to which entire works are devoted today (see Harmenberg 2015 and Czajkowski 2005 as examples). Technique is significantly simplified in its range in the modern sources, a trend that started in the classical period with authors such as de Bazancourt and Burton. However, simplified technique is not necessarily less intelligent. Indeed, when combined with a broader understanding of the physical and mental activity involved, it represents the intelligent application of a more extensive body of knowledge.

The destruction of manners, protocol, and civility: Classical fencers' attempts to represent the classical period as a halcyon period of good manners, fine sportsmanship, and

perfect conduct are simply not the accurate. Fencers did not universally fence with perfect form, often engaged in brutal and oafish conduct, cheated, etc. Cheating by biased Juries was endemic. As a sport of the wealthy social elite, most modern classical fencers would not have been admitted to clubs or salles of the time. Prejudice against Jews was widespread in Europe and the United States and Europe, and Blacks were routinely excluded from fencing competitions in the United States.

Contrasting Themes

The development of international sport as a factor in national policy: The classical period introduces the role of sport as an element of national policy. At the start of the period fencing was distinctly shaped by nationalistic adherence to schools emblematic of the major fencing nations. However, this nationalism was largely within the fencing community and those who maintained an interest in the sport. The rise of Italian Fascism and German National Socialism changed this. Mussolini and Hitler realized that the development of international sporting competition and its showcase event, the Olympic Games, provided an ideal venue for propaganda emphasizing the power of their nations and the virality of their populations. Following World War II this trend continued with the largest investments in sport by Communist countries as a component of their international propaganda and national security policies.

Societal and military changes influencing the use of the sword: Changes in the sword's function in society occurred throughout the classical period. The sword effectively disappears from the battlefield by the start of World War I in Europe; the subsequent exceptions to this reality are so notable and so infrequent that they can be easily identified. The bloodbath of World War I largely ended dueling as a gentlemanly diversion; World War II put an end to the few remainders. The one exception, German academical fencing, remains a unique focus of a

small subset of German university life, and serves a purpose that is only indirectly linked to the dueling culture of European and American society in the 1800s and 1900s. As a result fencing in the 21st century survives only as a sport.

Changes in the nature of sport: As a result of these forces, fencing has undergone a number of changes linked to national policy. The demand for athletic success generated by international sport has resulted in a change from an amateur sport in which a fencer could lose his amateur status by frequenting a salle more than occasionally into one in which a fencer has to be in training on a daily basis. The resulting workload makes financial and in-kind sponsorship (or employment in the military, police forces, or supportive industry, that is essentially sponsorship) absolutely necessary in place of regular employment. Amateurism as it was in the classical period no longer exists.

At the same time, there has been a steady decrease in the age of competitors, a trend common to many other sports. Higher training workloads and bodies capable of faster reactions and faster execution means that the modern competitive fencer operates in a different performance envelope than the fencer of the classical period.

The junction of this trend to more extensive training and sport as national policy occurs in the sports factory model, pioneered in the Soviet Union and brought to its most extensive form in the People's Republic of China. The development of multi-level (including local, state, and national levels) feeder programs to identify, train, and expose fencers to increasingly high levels of competition screens talent and prepares a national level pool of candidates for international competition. This is a much different environment from the gentleman of the late 1800s stopping by his salle after work to chat with friends and engage in several bouts and even

occasionally in a lesson with the salle's Master. And that gentleman was a much different fencer from the 16 year old A classification fencer competing in a North American Cup this year.

Changes in the character of fencing: At the same time changes internal to fencing have shaped differences between classical and modern fencing. The sport is more standardized and more highly regulated. As an example, the modern table of penalties for rules infractions is longer than any surviving complete set of fencing rules from the 1800s. This well-defined environment certainly makes competition more standardized and may well contribute to more focused training.

Although the target has remained quite similar throughout the period from the 1880s to today, changes in the foil target have resulted in changes in technique and have brought a larger target into play. The introduction of electronic scoring at the end of the classical period effectively increased the target in foil and sabre by making it possible to score on bits of target concealed from the observation of the Jury. The change in blade with a relatively heavy tip on the foil (and to a lesser extent the epee) made the flick possible, further extending the possible target to the shoulders and back.

The impact of the terrain on the character of fencing is significant. The length of the classical piste for foil and sabre was significantly shorter than that of a modern piste. Throughout much of the period the epee piste was longer, sometimes much longer, to accommodate the cautious nature of one hit epee. The shorter strip had the effect of limiting fencer mobility, and reducing the need for fast, accelerating footwork. At the same time there has been a steady decrease in the time limit for bouts, forcing fencers to decrease the time spent on preparations and to increase the speed of footwork and the attack. The modern 14 meter strip,

the shortened time limit for bouts, and the increased athleticism of young athletes combine to force a faster and much more footwork intensive game.

In turn, faster footwork has changed the nature of the use of distance in fencing, and thus changed tactics. Even attacks from lunge distance now require an advance, not to decrease the distance, but to get inside the opponent's decision and reaction time. The ability to collapse the distance to infighting has forced fencers to develop the ability to fence asymmetrically with unusual movements, departing completely from the purely linear movement advocated in most classical technique.

B. Conclusions

Classical fencing and modern fencing clearly differ in technique. When we examine the differences claimed by classical fencers and those suggested as contrasting themes, it is reasonable to suggest that a wide variety of factors in the environment surrounding fencing, as well as in the mechanics of fencing are the actual differences between classical and modern fencing. Those differences suggested by classical fencing are signs and symptoms generated by the actual differences. If this is so, it makes it very difficult to see how fencing can revert to an earlier, idyllic period (in the view of the classical fencers), or even for classical fencing activity to survive in any appreciable percentage of the total fencing population as a representation of that period.

Some of the differences claimed by classical fencers, such as the insistence upon fencing as though the point were sharp and hitting without being hit, were never as clear-cut or as absolute as classical fencers aver. In particular, fencing as though the point were sharp became less and less important as military use of the sword and the duel waned. Fencing to hit without

being hit was always an ideal, not a practical reality in dueling or in combat. Even highly trained swordsmen could not discount the possibility of being wounded in the duel. It is difficult to believe that any massed sword play on the battlefield devolved into one-on-one bouts between antagonists as conducted to the high standard of technique and tactics in the salle (the common name of one battle of the Revolutionary War in 1781, Pyle's Hacking Match, exemplifies the counterpoint.). And it should be noted that hit without being hit remains a viable tactical choice in modern fencing when confronted with a referee who does not understand the rules of the weapon, just not the only tactical choice.

Other differences are simply not supported by the historical record, with the exception of the flick. Orthopaedic grips were first introduced in the classical period, in part as an effort to improve blade control. Electrical scoring was introduced in the classical period, and was welcomed by many fencers as allowing hits that otherwise were not seen by the Jury to score, as reducing the impact of favoritism, as well as being preferable to having one's jacket and arm cut up by pointes d'arret. Classical fencing had as many boors and cheats as modern fencing, and cheating was widely justified as an element of national pride.

What is clearly different between classical and modern fencing is the context. The shift of fencing from a source of pride within the fencing community to an instrument of national policy, and with this the development of the sports factory model of athlete development has driven the death of amateurism in all but name, demanding faster, stronger, and more highly trained athletes for international success. The retirement of the sword from military use, combined with the decay and eventual cessation of dueling, effectively cleared the way for the focus on the pure sport element of the three historical functions of fencing. And fencing has not been immune from the physiological realities that have driven many sports to develop younger

and younger elite competitors. Better training of athletes who can focus on athletic achievement, general improvements in the athlete population's capabilities in all sports, and a younger population of athletes, have all driven fencing to becoming a faster and more mobile sport.

C. Teaching Classical Fencing

As grounding propositions, those who wish to teach classical fencing should accept a rational approach to their efforts. The following precepts are essential to such an approach:

1. Acceptance that the use of the sword has, throughout its modern history from the 1200s CE to date, evolved to meet the cultural and military context of the time.
2. Understanding that classical fencing is different from modern fencing in its range of techniques and their distribution and the demands of athleticism on the fencers.
3. Recognition that historical, classical, and modern fencing are an evolutionary continuum in which each depends on the previous state of the art and from which each develops.
4. Belief that the study of classical fencing is not inherently superior than the practice of modern fencing and that both can benefit from the other.

The teacher of classical fencing has the same responsibilities to his or her students as any modern fencing coach:

1. To train and seek certification as a professional instructor from an organization that has an established, rigorous, and transparent certification structure based on knowledge, skills, and abilities required to be a successful fencing instructor.
2. To study the technique, tactics, and teaching methods of the period from period sources or reliable translations, not just modern sources describing classical fencing, and to apply these in a way consistent with the practice of the time.

3. To encourage the fencer to study the sport, reading widely, observing and participating with other fencers and instructors where possible, and critically evaluating the instruction they receive.
4. To conduct his or her practice in an ethical manner, including accurately representing the scope of what is being taught, and the qualifications, and source of those qualifications, of the instructor.

Classical fencing can be taught in three different models. In the first, it is a free-standing program designed solely for individuals interested in fencing in the particular period. Such programs face substantial challenges, as evidenced by the small number of successful classical fencing clubs. It would seem that focusing on classical fencing as the physical and intellectual challenge of mastering a large body of technique and of engaging in an exchange that is almost entirely a bladework exercise should serve as the basis for a free-standing program.

The second model is offering classical classes in modern fencing clubs that have a substantial population of older fencers, including recreational fencers. A classical class can meet the needs of fencers who have no interest in high speed footwork or modern competition, but who are looking for the challenge that complex bladework offers.

The third model is the integration of classical technique in a fundamentally modern fencing program. In this model, classical bladework is used as a training tool to encourage eyes open fencing, develop the ability to recognize a wide range of actions, and refine point, blade, and body control.

What a classical instructor must not do is present classical fencing as modern fencing. Classical fencing does not prepare a fencer to compete in the modern sport environment, and it

lacks the developed sports environment of the modern sport. Students must be told the difference and be directed to a modern program when their interest is a competitive pathway.

D. Afterword

Research in the development of fencing raises an interesting question – why classical fencing? The literature of classical fencing clearly identifies that it is a reaction, and often a personally hostile reaction, to modern fencing, starting perhaps as early as the late 1980s and certainly gaining traction in the 1990s. Considering that this reaction did not happen when the core changes that shape modern fencing occurred in the 1930s through 1960s, and that the reaction is at times so intemperate (a leading classical fencing teacher once told me that all modern Fencing Masters were evil, despicable, stupid, with illegitimate and bogus credentials, and several other less laudatory terms before I terminated the conversation), one is left to wonder why.

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