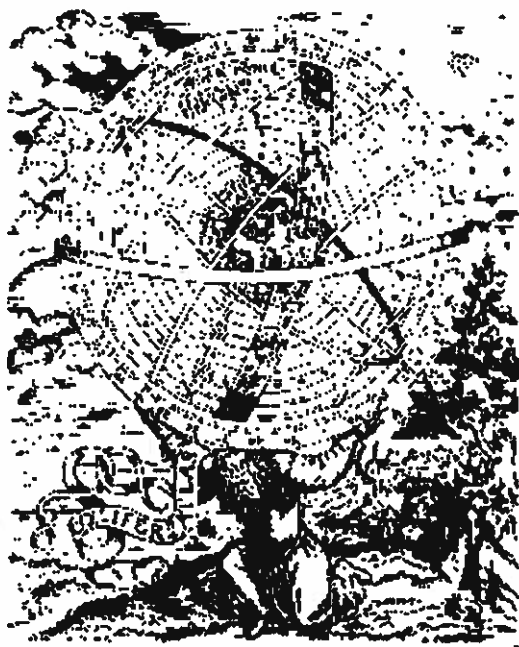


# Chips



June, A.S.  
XXXI, 1997

# Next Shire Moot:

There will not be an official June Shire Moot but a close fascimile will be held sometime Saturday night at Jubilee faire.

## Shire News and Business

Although the Great Site Search goes on, at our May moot/Tornado party, the shire did agree to a November 15th date. The event will primarily be based on the Ivan Goroh legend, with a themed tournament, children's quest, and a feast based on a period Solstice festival that no doubt pre-dates the Christianization of Russia just before the turn of the first millennium. Next month's *Chips* will have more details on this festival, so people can begin planning early.

For both new fighters in training, and veteran fighters who want to work at improving their skills, Udo will be organizing a bi-monthly Sunday practice at his home in LaGrange, from now until the weather no longer permits outdoor practice. These practices will focus on actual skills drills – pell work, footwork, trying new techniques, etc., rather than armoured sparring. Each month, we will list in *Chips* which Sundays these practices will be held on. For additional information, contact Udo.

Since the Vanished Wood web page debuted at the turn of the year, we have been receiving numerous visits from interested newcomers, and transplants to the Chicago area. I'd like a chance to welcome those new people who may be dropping in to visit us in the near future, and remind them that should they have any questions or need information that the web page does

not provide, they should feel free to call me at home, any time between 7 and 10 p.m.

While speaking of new people, here's a question aimed directly at our newest members or guests: what can the Shire do to help new folks get involved? Particularly for those of you brand new to the Society, what resources can we provide to help you acclimate yourselves to our little subculture? There has been some talk of putting together a new members booklet. What would you new people like to see in it? What do we old foggies think need to be included?

'Bout it folks. Hopefully we'll see ya'all at Jubilee.....

## The Vision of Sister Katherine and the He-Goat of Kildare....

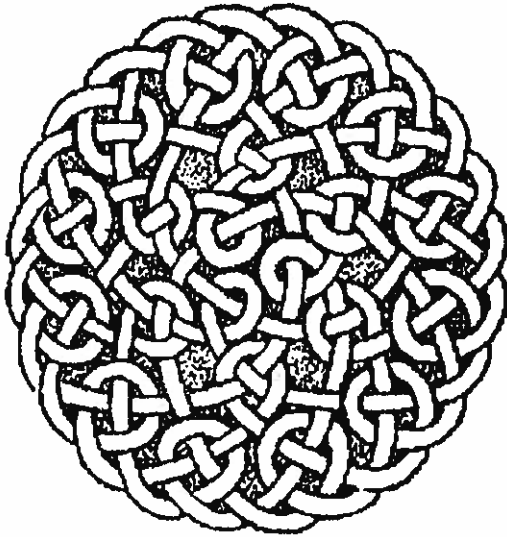
*Editor's Note: The following was found during the ongoing excavations of the ruins of Our Lady of the Invisible Joy Convent, near Shropshire. Archaeological teams found what appears to be a hidden library adjoining the convent's wine cellars via a small, false door. Along with several strange manuscripts by the long suffering chronicler of some half-mad Welsh nobleman, a rather non-descript pisspot, and an amazingly preserved wine cask, there was also found a curious series of tracts, written in the mystical style made famous in the late 12th Century by such visionaries as St. Hildegarde of Bingen. Although the majority of the manuscript is damaged and decayed to the point of complete illegibility, several long passages, seemingly modeled on the Apocalyptic style of the*

*Books of Daniel and Revelations, still survive. The following is one such, which do to its nature and its revelation to the good sister Katherine on the Feast of St. Bacchus, seemed particularly worthy of its inclusion here.*

**“In the days when sinners have reached their measure,  
Norsemen wear flowers about their necks, claiming to rule over  
mythical lands, And false prophets stumble and drunkenly  
blather venomous words; When a king, named for a horse  
gifted with Man’s speech, impudent and skilled in intrigue, sits  
the Dragon Throne.**

**A light shall appear, like the lonely last candle in an ale house  
before dawn, one annointed by the Lord of Casks and Cases  
and gifted in wisdom. He shall be strong and powerful, bringing  
about fearful ruin, to the liver of king and commoner alike.**

**The nets of his wrath shall encircle the earth, trapping the base**



and unworthy as if in a web. He shall destroy the poor tastes of powerful peoples; his cunning shall thwart the ploys of fried hog skins and villainous vintners alike. By confusion, and lightness of heart (and head) shall he succeed.

He shall be proud of heart, and thick of tongue, speaking in tongues and languages without vowels, he shall undo many by the stealth of his ever-filled cup. Then shall all false kings and prophets tremble before the Truth, spoken by drunkards and fools, who are ever watched over by the Lord, and all Men shall know that the Prince of Princes stands before them.

Their paeans shall be uttered to the heavens: "He is drunkest, he who leads us." The vision of the evenings and mornings is true, as spoken: Do you, however, keep this vision undisclosed, until the 25th year of the Great Jubilee Faire, for the days of darkness are to be long, And His wrath an intoxicant to the many.

Then a banner, with a curious glyph, comprised of a wreath of grapes surmounting three times the letter "w" blazed in the sky. And I, Katherine, grew weak and ill, and fell into a swoon, as if from a long night's war waged against the sinful nature of ale. For some days I was such, then I arose and attended to my sisters' affairs. But I was appalled, and frightened at the vision, which I could not understand.





## A Brief Discussion upon Rapiers; Their Properties

*Now that June is upon us, the Schlager blade has become the only usable blade for fencing in the Middle Kingdom. For those proponents of this weapon, as well as those who have argued that an epee could be considered a suitable substituted for a period rapier, here is a reprint of a rather interesting article on period rapiers, and their dimensions.*

So you want to get a real reproduction rapier made. What do you tell the metal worker? How can you get hard information on period weapon specifications unless you work for a museum (or break into one)? Do you buy one from a commercial company and take their word that it is made from measurements?

At last here is some data on the subject. I have been able to get in contact with a Professor James Jackson, who was Dean of the English Department at George Mason University (now retired) and wrote the book "Three Elizabethan Fencing Manuals" in 1972. This book is still in print by Scholars' Facsimiles & Reprints, Inc., P.O. Box 344, Delmar, New York 12054, (518) 439-5975, for \$75 plus \$4 shipping and handling (hard cover, acid-free paper), and contains Elizabethan English translations of Saviolo and Di Grassi as well as both of Silver's works (Paradoxes of Defense and Brief Instructions).

In the 1950s Dr. Jackson taught fencing at the Air Force Academy, and he has combined his interest in rapier work (he had reproduction rapiers made and tried them in practices) with his interest in Shakespeare to publish an article in Shakespeare Quarterly about the sword exchange in Hamlet and its relation to an exchanging move shown in Saint Didier.

In 1979, he traveled to England, and was able to take measurements of a number of rapier blades made between 1590 and 1616 (the Shakespearean period he was interested in, and around the height of the rapier era). These rapiers are normally displayed in the White Tower Museum in London. In addition to length and weight, he measured balance points on the edge of a ruler, which is information almost never found in other sources. He was able to handle the weapons, and found that they were much lighter feeling and easier to use than his repro-

ductions; even though most were actually longer and heavier, because the period ones were better balanced (see table and explanation).

For anyone who may want to use this data, I have summarized his measurements below and discussed some of the conclusions I could make.

The first column, ID number, is the number assigned to the weapon by the White Tower museum. The next column has the total blade length from pommel end to tip, in inches (all lengths were measured to an accuracy of  $1/16$ " ). Next is hilt length measured from the pommel end to the end of the swept hilt where the free rapier blade starts. Balance point is as a percent of total weapon length, measured from the hilt end (so 20% means  $1/5$  of the way out from the pommel towards the tip). Weight is total, in pounds (measured to the nearest  $1/2$  ounce). Linear blade density is the last column, and this is a rough calculation of the weight of the blade per inch (method is discussed at the end). This is mainly useful if you decide you want a 45 inch rapier vs. a 39 inch one, and want to know how



much it will add to the weight of the weapon. Remember that if you add to the blade weight, you also have to add some weight (more than the extra blade weight, remember leverage) to the pommel to keep the balance point the same.

ID number	Total length	hilt length	balance (%)	weight	blade density
9/24	42.69	6.25	21.67	2.94	0.0227
9/168	45.5	6.62	24.45	2.88	0.0252
9/75	59.31	7	21.29	2.38	0.0135
9/115	48	6.62	20.96	2.62	0.0181
9/789	52.75	6	22.51	3.12	0.0213
9/176	47.88	6.5	25.33	2.31	0.0201
9/107	41.88	5.75	23.88	2.06	0.0191
9/116	47.62	5.88	21.92	2.56	0.0188
9/784	43.62	5.75	23.64	2.12	0.0186
9/109	46.06	5.5	23.88	2.56	0.0216
9/111	53.56	6.25	20.30	2.94	0.0174
9/110	51.25	5.31	21.46	2.53	0.0168
ix-878	47	6.06	23.67	2.81	0.0229
ix-870	47.25	5.81	22.75	2.25	0.0174
none	55	7.12	22.27	2.78	0.0180
average value	48.625	6.162	22.67	2.592	0.0195

As rapier background and description, the first 12 of these weapons were just rapiers in a rack, with no specific history other than being of English make between about 1590 and 1610. Number ix-878 was German, with a heavy acorn-shaped pommel, a highly decorated blade, a simple swept hilt and a ricasso (section between the handle and the end of the swept hilt where you can put your fingers for control) but no clam shells. He made the comment "excellent balance" on his original record. Number ix-870 was Italian, with a long, narrow, lozenge shaped blade and a ricasso, also with "excellent balance". The final rapier with no ID number had just been found a few months earlier in the Thames, with a date of 1594 on the hilt, a long pommel (1 3/4"), two small clamshells, and a lozenge-shaped blade with the lowest 8 1/4" fluted and was in near perfect condition.

Professor Jackson also collected some information on daggers.

Two were made as matched sets to two of the weapons above, ID number x-255 (matched to ix-870 above), total length 18.06", hilt length 4.88", weight 0.78 lb, and ID number x-254 (matched to z-878 above), total length 16.44", hilt length 5.38", weight slightly over 1 lb. Another dagger, x-254 (German), had a simple design, with a highly decorated blade and a side ring shaped like a raised bar.

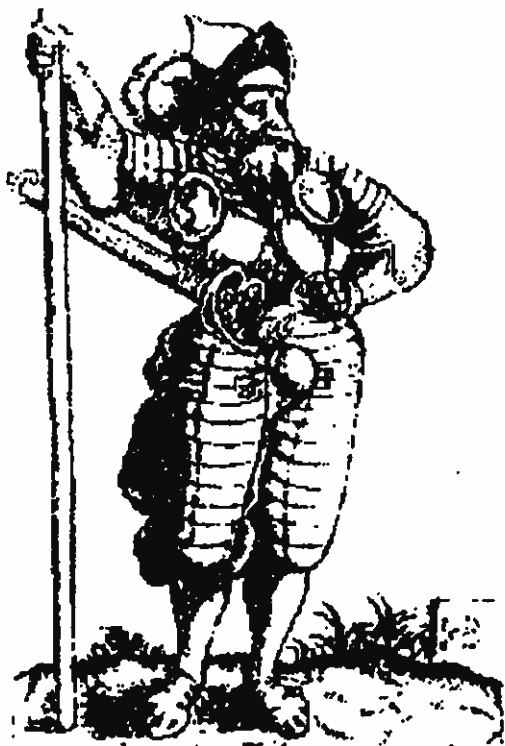
A final dagger had been pulled from the Thames with the unnumbered rapier, but may not have gone with it. It was dated to about 1590, and had a long, stiff tapering blade with a raised rib on each side. A side ring appeared on one side, and on the other the rib was flattened as though for ones thumb. It was a very stiff, strong dagger. He did not get balance points on any of these, so they are not in the table (if you have used daggers much, you will realize that balance point is not as important with these, since Professor Jackson's comments about rapier cross sections were that some had almond-shaped cross sections, and some had flattened triangular cross sections (half of a diamond)).

He did not record which weapons had which, but when plotting data I did not see two separate groupings, so I suspect that most weapon parameters were similar for the two. In phone discussions he said that the weapons had very good balance, much better than his reproductions which had balance points near 31% (compare this to the 22% or so in the table). They were very well suited to thrusting techniques, but based on experimentation he felt that all of them would be too slow for cutting moves or parrying by moving the weapon tip; your opponent would skewer you while the tip was out of line.

I crunched some numbers and found out some interesting things about these rapiers. First, you can see in the table that

there is very little difference in the balance point (in % blade length) among the weapons, even though lengths vary by a foot and a half, and weights vary by more than a pound. The biggest variations in this group are only  $\pm 2.5\%$  with a standard deviation of  $\pm 1.4\%$ . This very tight spread includes the two blades made in different countries (Germany and Italy).

Calculations show that you will get a change of 2.5% in the balance point from an addition or subtraction of just 0.86 oz spread out along the entire outer blade. Adding less than 3" of blade length without re-weighting the hilt will cause a 2.5% balance shift as well. All of these blade makers have converged on a very similar balance point for these weapons, which is not surprising given the decades of rapier development by 1590. Since peoples lives depended on these, I argue that this balance



point is very well optimized for use in combat. Serious thought should be given to copying this balance point on rapiers we make with realistic weights, or even the heavier simulated weapons such as schlagers.

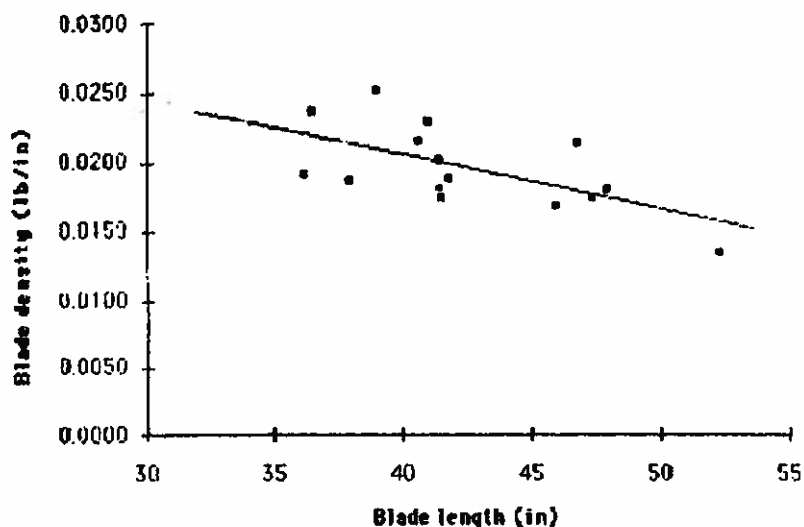
Several other points were interesting: weapons were longer, at an average of 48", than most of the ones I have seen in catalogues. Modern reproductions I have seen described average 37-39", almost 10" shorter than those discussed here, and shorter in fact than the smallest weapon in the table (41.8").

I looked for a number of trends in plotted data for these weapons, first of total weapon weight vs. total length; surprisingly, there was no trend for this. The longest weapons had, on average, similar weights to the shortest ones. Of course, a longer one would be harder to swing saber-style in cutting moves because of a longer lever arm. Blade length vs. hilt length did not show a trend, so a longer weapon did not need a longer hilt to wield it. There was a slight trend towards balance points further out with denser (heavier per inch) blades, but it was small enough that it may be noise. It was interesting that the two "foreign" blades (German and Italian) fell right in with the groupings for all the other weapons, in no case were they at extremes.

In fact the only trend that definitely showed up was with Blade Density vs. Blade Length, plotted below. It does seem that the longer the blade (and total weapon), the lighter the blade per inch (this explains why weapons did not get heavier as they got longer). Professor Jackson supported this, saying that the longer blades got very thin. This certainty is good if you want to move it quickly; what we don't know is the effect it has on weapon strength and stiffness. What happens if you are fighting against a Scottish claymore (claidheamh mor, or great sword),

such as in the recent movie *Rob Roy*? There we get into matters of metallurgy and skill in crafting the rapier.

Blade length (in)



To summarize the most interesting discoveries, longer rapiers were not heavier; rather, the blades got lighter per inch as they got longer to keep an roughly constant total weight. In addition, balance points were very consistent at around 22.7% from the pommel between different makers and three different countries. By this point in history (around 1600) rapier makers seem to have converged on this value as the best for survival of the wielder. finally, these elizabethan weapons are longer than most modern replica rapiers, by as much as a foot.

While shorter, less balanced weapons may be fine for the use most SCA folk put them to, as we are hopefully not using them on each other, I hope that the information here will help to move both buyers and makers of period reproduction rapiers

towards an understanding of real blades, on which lives depended in many a duel.

## Appendix:

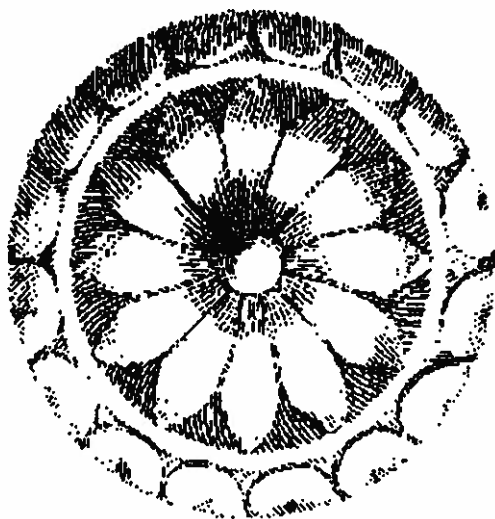
For those who are interested in the nitty-gritty details, blade density was estimated by balancing moments of inertia about the measured balance point. Half of the total weight is on either side of this point, so I assumed that on the blade side it was equally spread along the blade (I realize this is not perfect since the blade is not an equal bar, but it gives a working value), while on the hilt side it was concentrated towards the pommel, which is a heavy counterweight (Dr. Jackson noted that some pommels were larger than golf balls).

In particular, the blade weight was assumed to be at the half-way point to the tip (from the balance), while the hilt weight was assumed to be  $\sqrt{3}$  of the way towards the pommel. Solving the moment equations and the total weight equations simultaneously gives:  $F_b = W / ( 1 + 4L_b / 3L_h )$  where  $F_b$  is the blade



force (weight),  $L_b$  is the length of the blade from the balance,  $L_h$  is the length of the hilt from the balance and  $W$  is the total weight of the weapon. All these numbers can be calculated from the data in the table above. If an assumption in the calculation is bad, it should cause a systematic error which could displace the plot shown vertically but not completely eliminate the trend seen.

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# Electronic Pilgrim

Without any major subject to concentrate on, this month's column is just a random collection of sites that I have found. Many of these sites can be found at the shires website: <http://users.aol.com/vanishwood/welcome.htm>

## **The SCA Music and Dance Homepage**

[http://www.pbm.com/~lindah/music\\_and\\_dance.html](http://www.pbm.com/~lindah/music_and_dance.html)

A nice list of sources and discussion on Renaissance and middle eastern dance, Music and Minstrels. Includes MIDI files, mailing lists and FTP sites.

## **Renaissance Dance**

<http://www.ucs.mun.ca/~andrew/rendance.html>

This site contains primary and secondary sources for dance as well as linguistic and costuming resource.

## **House Maxwell**

<http://www.sisna.com/users/tseverns/hmpenn.html>

Our favorite subjugated household's website...did you all know that Bal is their champion? What he will do for coffee...

## **Ye olde English Sayings**

<http://www.rootsweb.com/~genepool/sayings.htm>

Documents the sources of many well known sayings including "chew the fat" and "burning both ends of the stick"

### **The Making of Wisby Plate**

<http://www.duke.edu/~ricks/wisby/b.htm>

Includes instructions on how to make easy body armor documented from the battle of Wisby in 1361.

### **The Kensington Runestone**

<http://www.sound.net/~billhoyt/kensington.htm>

According to this rune stone 30 Vikings traveled all the way Minnesota. According to some this stone is a hoax, but many believe its true. Check out the site and make up your own mind. Also includes many other links. On a similar note...

### **The Vinland Map**

[http://web-cr01.pbs.org/newshour/bb/science/map\\_2-13.html](http://web-cr01.pbs.org/newshour/bb/science/map_2-13.html)

The interview on PBS's "Newshour Online" with Wilcomb Washburn of the Smithsonian.

### **The Register of Reenactment and Living History Societies**

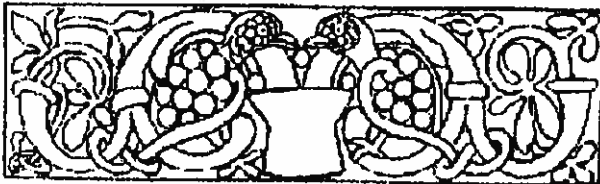
<http://aletha.ukc.ac.uk/SU/Societies/deBec/register/reg2.html>

Actually this site has a variety of links including a ton on other societies. But this portion includes societies on the Vikings, Anglo Saxons and even the SCA.

### **ANON the Myth Behind the Legend**

<http://www.lhup.edu/~dsimanek/anon.htm>

To quote, "Few literary puzzles have inspired such universal apathy as the question "who was Anon?" all I can say is...exactly..."



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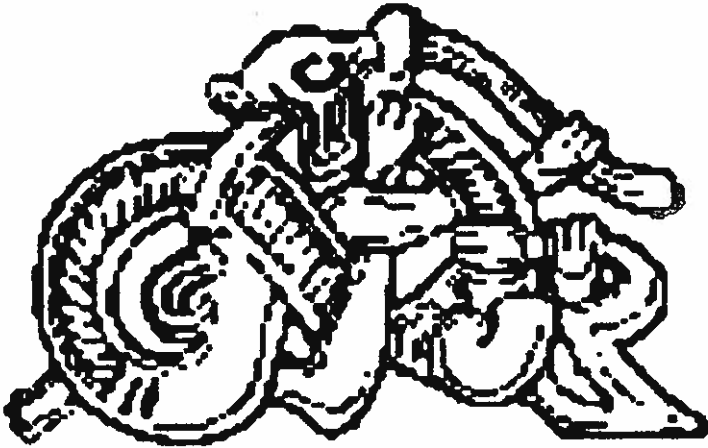
# Upcoming Events

## July

- 12 Barbarian's Jamboree, Three Hills (Kalamazoo, MI)
- 19 Thunder Wars, Lochmorrow (Western IL)
- 26 Simple Day, Sternfeld (Indianapolis, IN)

## August

- 3-17 Pennsic War (Near Pittsburgh PA)



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