

Chips

Oh Oh our event is
only 3 months
away!

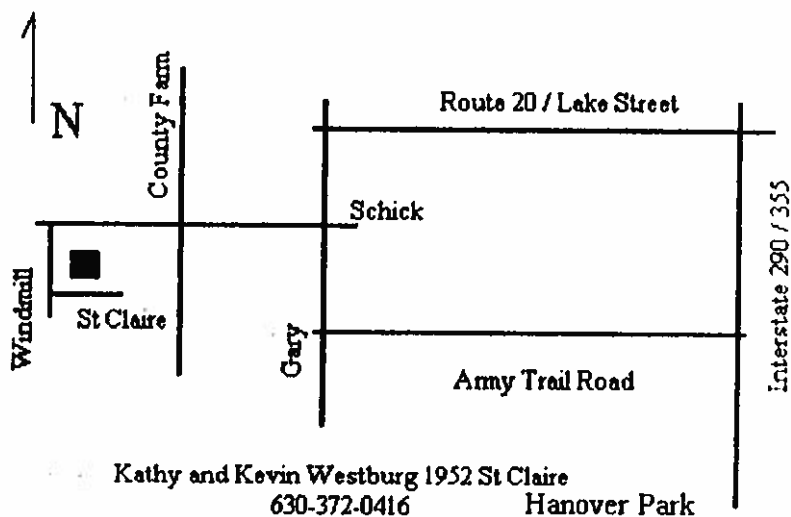


February 1999

Next Shire Moot

The February shire moot will be Sunday, February 21 at the home of Kevin and Kathy Westburg. Moot starts at 6:30pm sharp. Call them if you -630-372-0416 have questions.

Also mark your calendar for March 21st , which is when the March shire moot will be at the home of Earl and Maxine Bless.



Event News

Ethelwulf

Last Saturday, I cooked the entire feast including the feast size portions. Except for some minor changes to the recipes everything tasted great. However, due to some of the portions, I decided to change the courses to the final menu below. Feast will be \$12, \$10 three weeks in advance.

Course 1: Marinated Olives, Crusty Bread, Fritters, Sherried Sausage and Garlic Soup

Course 2: Pork loin Stuffed with Pine Nuts, Stuffed Eggplant, Peaches in Wine.

Course 3: Crusty Bread, Braised Oxtail, Sweet Potato Confection

Course 4: Torta with Garlic Aoli, Beef in a Garlic Sauce and Fresh Fruit

We will, over the next two moots, be seeking volunteers for serving, kitchen help, day help etc...if you would like to help with the event but cannot make the moot, call myself or Max at 630-351-5802.

To Like to Be, Under the Sea... Part 2

By Culwyn

Last month, we discussed a "history" of the medieval diving suit. Or a least, a history of the mediaeval theories on how such a suit would work. While it is impossible to ascertain whether the diving suits of the middle ages were in fact used, the written evidence regarding actual salvage operations could suggest that some form of breathing apparatus was used, however taking into consideration the basic shortcomings of the ideas, it would soon become apparent that a surface air supply would be necessary during use.

The Medieval Centre, a living history museum in Denmark, set out to determine whether such a suit could have been used by reconstructing a suit from the various manuscript designs, and using only 15th century technology. With the edition of a simple air pump, based on a blacksmith's bellows, the researchers felt certain that 15th century sailors could work for extended periods underwater. So what did this "reconstruction" look like?

The Dress

The dress that was built, tested and displayed at the Middelaldercentret was that portrayed in the Hussite (see last "CHIPS") manuscript, with a number of details taken from the other two contemporary sources, Kyeser and Taccola.

Since much of the "technology" of the suit was either hypothetical or unknown, comparative research to find an early 15th century solution was adopted. For example, when fitting the glass lenses of the eyeports a technique used in the medieval art of stained-glass making will be used.

Below is a list of the individual items of equipment, and the individual sources that were used in the reconstruction:



Helmet

Since style and fashion played a substantial part in the ever changing appearance of armor and it would be appropriate for the diving helmet to be influenced heavily by the pattern that was in vogue around 1420-30. The so-called "great bascinet"

of the late 14th/early 15th centuries and with a solid plate gorgets (neck guards) closely resembles the shape of the Hussite drawing. The reconstructed helmet was produced by a with flange, in the top rear of the helm to connect the air hose. This hose contained contain a simple non-return valve to prevent the helmet flooding should a loss of air pressure occur. The "clack valve" and "plate valves" were known since classical times and were often used in Hellenistic automata. The 12th c. Islamic engineer Al-Jazar' also made use of these devices in his hydraulic systems and his manuscripts were well known to later medieval scholars. The two small, round vision ports will be hand-made using clear flat, clear glass and were riveted into place with a rebated disk of lead.

Finally, to reduce the effects of pressure inside the Eustacian tube (which connects the ears to the back of the throat) a strong nose clip will be necessary. In this case it will be a slightly oversize "paper clip" of the type used by medieval monks and scribes to hold manuscript sheets together was worn beneath the helmet.

Clothing

Since both the Hussite and Kyeser drawings depict the diver clad in a simple workmans' tunic typical of the period, this is what the Medieval Centre decided to use in their reconstruction. Apparently,

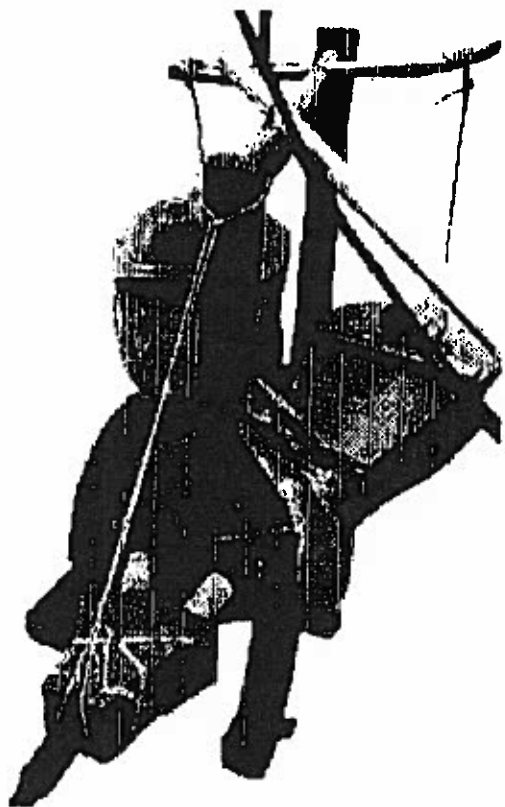
Kyeser suggests that the dress be made of leather, presumably because of its water resistant properties, and thus the reconstructed coat was made of supple, well greased, naturally tanned leather, the sewing style will be copied from archaeological finds.

The Hussite helmet appears to extend beneath the outer coat which could suggest that it was somehow attached to another garment underneath. This makes sense, since the air filled helmet would be extremely positively buoyant. The solution was to design a garment like an arming jack, which would also be made in leather. The helm would be fastened to it in the same way as a tournament helmet, via straps and buckles in the front and back.

Medieval boots with "pattens" of lead were designed to maintain good underwater stability, and counterbalance the rather large, buoyant helmet.

The Bellows

According to the Medieval Centre researchers, the twin bellows system was well known to metal workers of the middle ages. "A written description of their manufacture is given in the 12th century treatise *On Divers Arts* (*On diverse arts*) by the Benedictine monk author



known as Theophilus. The basic blacksmiths' configuration shown in medieval illustrations would comprise two, large, single-chambered bellows (multiple chamber bellows are not seen until the 16th century). They are mounted in tandem, with weights and connecting levers

to assist the pumping action, as one bellows blows, the other takes in air. This allows for a constant stream of air which would be essential to ensure a reasonably constant air pressure rate within the helmet at a given depth. The bellows will be large enough to deliver at least 60-80 liters of air per second at the surface."

But did it work? Since, obviously, such a diving suit would be entirely experimental, and dangerous, the initial tests were conducted in large water tank used to train professional divers.

Initial dives tested the effects of the helmet, the bellows, etc., before any actual underwater dives were undertaken. This was followed by a series of shallow dives, and then finally, a full fledged test of the diving suit.

To see how the dive turned out, turn the page for the Medieval Centre article on their test dives of July 1998. (All Text and Images copyright the Medieval Centre, and used with permission.)

[http://www.middelaldercentret.dk/
projectindex.htm](http://www.middelaldercentret.dk/projectindex.htm)

(This is the link for the one page review of the dives.)

Local Event Schedule

Event updates can be found on the Midrealm website:
<http://www.midrealm.org> navigate to the midrealm calendar.

March

- 6 Fighter's School, Appleton WI
- 13 Middle Kingdom RUM, Moline IL
- 20 Rites of Spring, Peoria IL
- 20 Northshield A&S, Milwaukee IL
- 27 Event, SW Chicago Suburbs IL.

Shire Activities

Tuesday: Arts and Sciences at Kris and Michelle Southerland's from 6:30 pm until whenever they kick you out (Subject to confirmation — please call before coming and for directions). Phone 630.510.3468.

Thursday: Fighter Practice at the Rokkehelden site, 7:30-9:00pm. Call Earl Bless 630.351.5802 for directions

Brewers Guild: Meets on an as need basis, call either Earl Bless 630-351-5802 or Kris Southerland 630-510-3468 if you want to brew.

Sewing Guild: Meets on an as need basis, call Maxine Grief-Bless 630-351-5802 for time and place.

Submission Guidelines

We welcome all submissions. If the information is time sensitive please call the chronicler, to reserve space, but in general, submission deadlines are 7 days before the next moot. Submissions are best if they are in Word (Win95) format and can be either dropped off on disc or send via email to ebless@aol.com. If you can only provide a printed copy, please set your type style to Times Roman and font size to 14points (its easier to OCR that way). Art can be in any form, we have a scanner. The chronicler reserves the right to refuse or edit any submission.

Shire Officers

Seneschal: Arywn of Ravenspur, Maxine Grief-Bless, 306b Morningside Drive, Bloomingdale IL 60108, 630.351.5802, vanishwood@aol.com

Exchequer: Kiyohara Yoshiki No Wakasa, Mike Arndt, 1537 Norway #2b, Palantine IL 60067, 847.670.7856, kiyokage@aol.com

Marshall: Culwyn Bleidd Caernarfon, Greg Mele, 1760 College Lane, Wheaton IL 60187, 630.260.9233

Chatelaine: Ashley Daralis, Dayle Harding, 137 Fairwood Drive, Bolingbrook IL 60440, 630.378.5413, djc137@aol.com

Minister of Arts and Sciences: Jaie Ashpaugh, 1025 South Ardmore, Villa Park IL, 60181, 630.530.8424, jajedrake1@aol.com

Herald: Gavin White of Westburg, Kevin Westburg, 1952 St. Claire Lane, Hannover Park IL 60103, 630.372.0416, knkw@aol.com

Chronicler: Ethelwulf Kildare, Earl Bless, 306b Morningside Drive, Bloomingdale IL 60108, 630.351.5802, ebless@aol.com

Minister of Children: (need replacement)

Note: Shire policy dictates that officers change every two years unless there is no successor in line. If you are interested in a position, contact the Seneschal who will inform the current officer. Final decisions regarding officer changes is up to the current officer and the Seneschal.

Earl R. Bless
306 B. Morningside Dr.
Bloomington, IL 60108