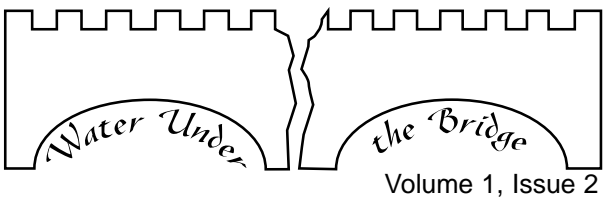
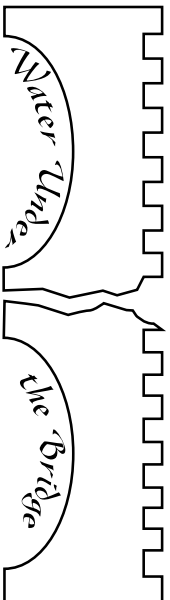


The Proposed Canton of the Broken Bridge



Broken Bridge

From: Christina Itermann
190 Ocean Parkway
Brooklyn, NY 11218



W.U.T.B. is a publication of the proposed Canton of Broken Bridge, the downtown Brooklyn area of the Society for Creative Anachronism, Inc. It is not a publication of the SCA, INC., and does not delineate SCA policies.

Please Forward.
Address correction requested.

November 1997 ASXXXII

List of Officers

Canton Seneschal:	Ben Rivera	718-436-6278
Deputy Seneschal:	Albert Ward	
Knight Marshal:	Django Lowe	718-398-1718
Herald Pursuivant:	Daniel Myers	718-857-4732
A&S Minister:	Pacita Prasarn	718-857-4732
Chronicler:	Chris Piner	718-230-0839
Chatelaine:	Criss Ittermann	718-436-6278

* * * *

Current openings exist for deputies in all positions, please contact the appropriate officer or seneschal if you are interested.



Cover art: *David battles Goliath* from the Breviary of Martin of Aragon. Spain, Catalonia. 15th Century.

Attention:

This is a courtesy issue.

Our database is old, so in order to conserve postage & paper, the incipient Canton of the Broken Bridge requests that all members send address confirmations if they wish to receive future issues of *Water Under the Bridge*. Please fill out the following form and mail it to:

Database Update
c/o Criss Ittermann
190 Ocean Parkway
Brooklyn, NY 11218

or call and leave a clear message on the answering machine at (718)436-6278, 9am to 10pm. We will soon be clearing out our database and discontinuing mailings to non-registered Ostgardr members. If you are interested in attending meetings and workshops in Broken Bridge, or receiving articles of interest to SCA'dians, we urge you to notify us in a timely manner.

Note: if you know of anyone who joined Ostgardr in the last two years, or is newly joining, their name may not be on our mailing list. Please let them know about *Water Under the Bridge* and give them a photocopy of the form below so they may receive our newsletter.

My apologies if you have already responded to this request.

Thanks in advance,
Criss

New Member Confirmation Correction

Mundane Name _____

Society Name _____

Address _____

Phone _____

email address _____

Interests _____

Skills _____

Do you have spare gear/garb/fighting equipment? The canton has much storage space, and many new members who are as yet unequipped. Enclose a note regarding what you have, and what conditions you would be willing to part with or loan stuff under.

Would you be interested in an Adobe Acrobat version of our newsletter (email rather than paper & postage) when available?

Not something that was terribly useful. Perhaps stitching to a form, then boiling in oil?? Any ideas?

<Diarmuit> Now that you mention it, I have a leather bottle that I made last year that, for reasons better left unmentioned, I soaked to the brim with Neatsfoot oil, and then left in the window of my spare room to let the oil settle. I forgot about it, and after three months of the Northern Ansteorran summer sun on it, the puppy had baked hard. I had a similar experience with the front flap of a map case I left in the rear window of my conveyance. It too had been heavily oiled with Neatsfoot oil.

A. Linseed Oil as Varnish

<Al Thaalibi> We've all heard the mistaken notion of boiling leather in *oil* to harden it. It was recently pointed out to me that boiled *linseed oil* is a varnish. Has anyone tried this as a medium. I'm going to give it a try with some sample pieces once I'm done with my current slate of projects, but if anyone else has come across this and tried it, I'd love to hear.

<Balderik> Boiled linseed oil has additives to make it dry faster. Not sure what these will do to the leather. If the varnish dries stiff, you may have problems with cracking. I have dressed leather with unboiled linseed however. Because it oxidizes at a lower temperature than other oils, it yellows the leather much more quickly than neatsfoot oil. The end result is that you end up with a partial oil tannage. I'm not sure about the long-term stability, as the leather I dressed was some alum-tawed, hair-on, moose hide from which I made my first suit of armour (candidate for one of the most offensive suits of armour of all time - both in looks and smell). It hasn't been used in ages, and the leather is falling apart. Not sure if it's because of the linseed, the tawing recipe, or the repeated cycles of being soaked in sweat and then dried. I give away bits to people who tie flies.

<Diarmuit> I hadn't considered it, since Linseed Oil can be (I am informed) somewhat explosively flammable.

<Al Thaalibi> True enough, the commercially prepared stuff has drying agents (without reading the can, probably alcohol or mineral spirits). Based on Cennini's *The Craftsman's Handbook*, Theophilus' *On Divers Arts* and Alessio Piemontese's *The Secretes of Alexis of Piemont*; and their instructions for boiling linseed oil down into a varnish, both with and without the addition of lac resin, starting with the raw stuff and adding the leather to it or vice versa might work. In fact, the place where Cennini discusses rendering the oil down by sun-cooking makes me wonder if applying the raw oil to a piece and subjecting it to slow heat (sun or low oven). I think that I need to pick up a gallon and start tinkering...preferably outdoors on a hot plate or propane stove, all of the period writers mentioned above make a point of pointing out the flammability of the stuff. As far as the stiffness factor, I've used tung oil varnish for a finish on a couple of belts, and it made for a nicely flexible finish. I'm hoping that linseed oil will behave in a similar fashion.

Contributors

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A word from our Seneschal...

Greetings to all!

First I'd like to extend a warm welcome to our newest member, Reuben (the Curious) Williams. Reuben has been in the society somewhere on the order of nine plus years but somehow managed to take a two year hiatus while we were in the process of getting this group organized. In the interim he's lost his armor, garb and fencing equipment in an unfortunate incident. Reuben currently has some spare time on his hands and has agreed to help us in building our gold key. This should hopefully work out to benefit all involved as he will then be able to use the gold key as intended.

While on the subject of old members returning, I'd like to make a request: I am aware that Brooklyn has had spurts of activity in the (distant?) past which had resulted in small households becoming active for a while then disappearing into the sunset never to be seen again, or to be heard from only briefly. I have managed to contact a few of the people thus involved previously and at least started a dialogue concerning their possible future involvement in the society. Needless to say the SCA can be a very time-consuming activity for certain people and mundane life clearly takes a certain amount of precedence. I am, however, looking to contact folks who might wish to have another go at it who are not aware that they have a newly forming group in their own backyard. If you receive this newsletter and know of such or come across the same in your travels, take a few moments to pass the good word and a copy of the database update form along. It will go a long way toward keeping activity levels high. If you're a member of a household or group that previously were active but have fallen by the wayside, contact us, please! Just a quick note to say hi, or drop in on a class, or a phone call is all it will take. We wish to ensure that we remain a group open to all, and that we maintain an active policy of inclusion.

Also, I'd like to put out a call to all current and aspiring teachers, peers, Knights, Laurels, Pelicans, craftsfolk and any of the good Lords and Ladies of the East who might have any knowledge or resources they can share: We are a newly forming group. We need your help to move forward and would greatly appreciate any assistance you can render, especially the expertise you have developed as you yourselves went through the same or similar processes. Please contact us and volunteer to run a class, help run a demo or event and or generally help inspire a new crop of members. Remember, this is how we perpetuate ourselves and help foster a sense of community within the society. Again, the phone number where I can be reached, evenings until 10:30pm is: 718-436-6278. Thank you!

Yours in Society,

Ben of Broken Bridge

A&S Officer's report

Greetings! I am pleased to announce that Broken Bridge Arts and Sciences is coming along beautifully! We have done quite a few workshops and get-togethers and have many more planned. I would, however, like to put out a request for teachers or anyone out there who has an art or science that they would like to share with us. We have many eager pupils and would love to learn! I am centering our activities around Sundays and Monday nights. So keep that in mind when planning your busy social schedules :-)

My thanks to Dona Ana Ravaya de Guzman for her offer of help. I will definitely be contacting her! I am new to this position so if anyone has sage words of advice and wisdom to give, I will humbly be all ears :-)

November's activities are as follows: Mon. 11/3 Sit and Spin — Does the smell and feel of wool roving get you excited in ways that are unusual even for a scottish persona? Can't figure out how to work that stitch into your favor? Get pricked by needles just by looking at them? Then come to our Sit and Spin! Anyone interested in spinning, weaving, embroidery, or any other fabric art is welcome to come and be with like minded friends. <Cont. on pg. 6>

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
					1	2
3 Sit & Spin 7:30	4	5	6	7	8	9
10 Broken Bridge Commons 7:30	11	12	13	14 Ostgardr Commons	15	16
17 Heraldry & Banner Making 7:30	18	19	20	21	22 Agincourt (Ostgardr)	23 Basic Armoring 3:00
24	25	26	27	28	29	30

N O V E M B E R

Events
1997

to be to get the leather hot enough to readily absorb the wax. I've had too many pieces suddenly shrivel up to be eager to risk the extremely hard waxes (although I suppose I will give in eventually).

E. Is there any evidence for waxed leather in period? Do we speculate that the evidence has rotted away? Or is it unlikely that hardened leather was ever used for armor?



Speculation: Is it conceivable to me that, after introducing an organic waste product, such as wax to leather, it might rot away faster than ordinary leather. It is also conceivable that after more than four hundred years of burial, there is no way to distinguish the waxed forms. It is, however, a bit more reasonable to assume that waxed armor was not used either in period, or during any of the classical periods for armor, either because it was too expensive to waste, to difficult to get a regular temperature from an oven that was low enough not to destroy the leather, or some other reason. I would have suspected that the Mediterranean Civilizations might have had trouble with it due to the sun's heat, but I have been informed by the people I have armored in the stuff that fighting under the Texas/Oklahoma sun hasn't posed a problem and that while the leather softens a bit after an all day thing, it rehardens very quickly. Please Note that there is NO Evidence that I know of that Waxed Leather was used for anything other than some Elizabethan era bottles, cups, knife scabbards, etc.

F. Would it be possible/effective to wax the leather piece from the inside instead of outside?

In fact it works better since the wax doesn't have to soak through the skin to get to the flesh. I don't know if heating it will loosen the fur at all, or do other weird things to it.

G. Waxing Oiled Leather:

I have never used the alcohol to work oiled leather, however don't be surprised if residual alcohol doesn't mess up your wax (since that's how you strip wax off of shoes). Waxing the oiled leather may make a horrible mess, but if you are patient it will eventually even out (I have a cup that oozed oily wax for months, but is now a prime example of hard leather).

H. Can I wax tanned hides with fur intact?

They may be chrome-tanned, essentially using mineral salts. The wax *should* harden them, but I've never tried it on pelts, and if you use too much you may get waxy fur.

3. Oil?

<Diarmuid> Some people feel that there should be NO boiling in oil AT ALL. Oil is used to soften leather, and all boiling it has gotten me is a soft squishy mess better left undescribed and buried, not to mention this is how one deep fries meat.

<Balderik> Boiling oil is way too hot. I've never tried the boiling water method described by Reed, but he does specify that the immersion be very brief (depending on thickness, etc.). The hardening only works with vegetable tanned leathers.

<From: RONDEAUB@ropt1.am.wyeth.COM (Ben Rondeau)> One word of warning: do not immerse any leather into the (presumably hot) solution while the leather is cold. I did this once with a lame for a pauldron. I got to watch it deep fry. It came out looking like a piece of bacon.

ed). While I hardened my armour without wax, I added the wax afterwards to enhance the effect.

<Diarmuit> The reason that I suspect that it is the wax that is the prime factor, as opposed to the heat thickening of the collagen, etc. is a combination of the reports I have of wax impregnated leather re-softening to an extent in the summer heat, and the use of wax as an emollient in leather (also reported in Reed). I may be in error here, but it's just an opinion.

<Balderik> The cuir bouilli effect, (ie. hardening by heat), is, as far as I know, non-reversible. The softening in the sun would be the removal of any enhanced stiffness imparted by the wax. If the softening is substantial, I would suspect that little heat hardening was achieved. My own armour does not soften much in the sun. In cases where peoples' armour does soften appreciably, I would say that you are correct, that the wax is in fact providing the stiffness. My own feeling is that the added stiffness, density, and water resistance is well worth the increase in weight (but then my life doesn't hang in the balance, as it would for the medieval warrior). Another factor to consider is that the wax may have been a significant expense in Medieval Europe. Bees wax was in high demand for candles. Waxing leather that could be adequately hardened without it might have been regarded as extravagant. Unfortunately, I must plead ignorance regarding the relative market value of wax in period. Perhaps water resistance would have been achieved using something more economical like tallow which would, I suspect, have had little additional hardening effect.

<Master Duncan Saxthorpe of Alnwick (West)> You are welcome to include this in future articles, if you wish: Use a mixture of half pure white beeswax (it smells a bit less sweet) and half pure Grade I carnuba wax (the really, really hard stuff). I use a large commercial roasting pan which barely fits on my gas BBQ and do this outdoors... having some concerns about fires and some real trouble removing the wax mixture from an even stainless steel counter top! I gently heat the wax over medium heat with a barrier of heavy duty tin foil between the grill and the pan, to ensure more even heat distribution. When the wax is fairly hot (a scrap of heavy sole leather forms numerous small, well-distributed bubbles on the rough side within one minute) I "boil" my cut, dried (and dry) leather pieces for about 2 to 4 minutes. As you pointed out, the leather can be cooked and ruined by too much heat, but this heavy grade of leather seems to be more forgiving than even 10-12 ounce leather. Anyway, when the leather appears to be well soaked I remove it from the waxing pan, wipe it clean with a towel I never want to see again, and shape it under running water. The leather sets up nicely within a few minutes and takes about 12 hours to completely cure. This wax mixture holds up very well in our California summer sun with minimal softening (about twice as firm as bees wax armor) and can be re-softened and re-shaped by heating in an oven.

C. From: cwilkey@u.washington.edu (Cliff T. Wilkey) From what I have heard, the leather was placed into a "mold". This mold consisted of two *large* blocks of wood, and the shape of the leather armor was carved into these two blocks. The leather was put into the mold and boiling wax was poured in. Then it was left to cool.



D. What are the relative melting points of beeswax vs parafin etc... would it make more sense to use a higher melting point wax in favor of a lower one?

As far as I can tell, the Beeswax and Parafin will melt at about the same temperature (and mix very well, if you want to stretch the beeswax a bit). Personally, I can't find a wax with a melting temperature hot enough to keep it from softening while worn outside in the sun (in Oklahoma), however, there is a form of crystal (styrene?) but that are available at hobby shops that, when melted into wax raises the melting point. Good results can be had using about a 2:1 ratio of parafin to beeswax. Unfortunately, the hotter the melting point of the wax, the hotter the oven needs

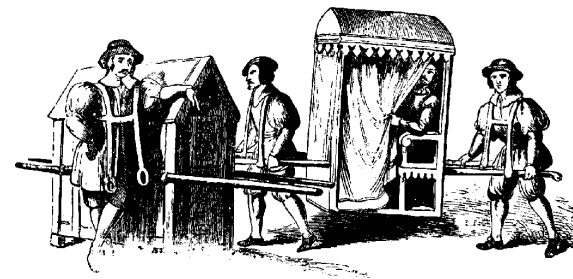
Broken Bridge Activity Calendar

November 1997

- 11/3 Sit & Spin - Hands-on Spinning Workshop:** (7:30pm) at 85 Eastern Parkway, apt 1G (bell #06). Please call Pacita Prasarn at (718)857-4732 for additional directions.
- 11/10 Commons Meeting:** (8:30pm) at 85 Eastern Parkway, apt 1G (bell #06). Please call Pacita Prasarn at (718)857-4732 for additional directions.
- 11/17 Heraldry & Banner Making:** (7:30pm) at 85 Eastern Parkway, apt 1G (bell #06). Please call Daniel Myers at (718)857-4732 for additional directions.
- 11/23 Basic Armoring:** (3:00pm) at 85 Eastern Parkway, apt 6E (bell #40). Please call Django Lowe at (718)398-1718 for additional directions.
- ? **Garb Making Open House:** (Anytime) at 190 Ocean Parkway. If anyone would like to come over & use our equipment or aid in making Gold Key garb, they should call a couple of days in advance and make an appointment, then verify a few hours before coming over. Please call Christina Ittermann at (718)436-6278 for additional directions & ideas on what to bring (but please be courteous and leave your colds behind).

Directions

- 190 Ocean Parkway** (between Albemarle Rd & Church Avenues), Brooklyn, NY.
By train: Take the F train to Church Avenue station, walk down Church Avenue (past "Rite Aid") to Ocean Parkway, turn left. We are halfway down the block.
By car: *From Manhattan & Queens.* Take your best route to the BQE/"Gowanus Expressway" ("West" towards Verrazanno Bridge & Staten Island). Exit at the Prospect Expressway. See "From Prospect Expressway" below.
From Staten Island Expressway & Southwest: Take BQE North to Prospect Expressway. Follow directions "From Prospect Expressway" below.
From Prospect Expressway: Get off the Church Avenue West exit (last exit) and stop before you get to traffic signal. We live on that block.
From the South & Long Island: take your best route to the Belt Parkway. Exit at Ocean Parkway North and drive approximately 4 miles. Make left on Avenue C. Make right on East 5th Street. After 3 blocks make right onto Albemarle Road, then right at stop sign onto Ocean Parkway. We live on that block.
- 85 Eastern Parkway**, apt 1G (bell #06), Brooklyn, NY. a.k.a. "Martha Washington"
By Train: 2/3 train to Eastern Parkway station, walk up and over the hill.
D train to 7th Avenue (in Brooklyn) station. Walk up Flatbush Avenue past the theatre, and Blockbuster video, make a left at Park Circle, walk several blocks to Eastern Parkway, make a left, walk 1½ blocks.
By Car: please call ahead for directions.



<Cont. from pg. 3>Bring your ideas, projects, problems, yourself, and cookies. Perhaps we can brainstorm and work on them...especially the cookies :-)

Mon. 11/17 Heraldry/Banner making — If you want to know how to go about choosing a name and coat of arms then this workshop is for you. If you already have a name and arms but don't have it anywhere on your shield, clothing, favors, or banners, then you should be here too. Bring your persona and ideas, paints and canvas...and, as always, cookies.

Sun. 11/23 Basic Armoring — As always, bring yourself, your projects, and ...umm... COOKIES!

Sincerely,

Pacita

From the Herald

Hello!

This is your friendly neighborhood Herald/fencing fellow here. Heraldry will be on Monday, November 17 at 7:30 pm at my place. We will help you choose a name to go with your persona and a coat of arms. Bring your research, ideas, and source books. Also, if you already have a name and arms, bring paints, art supplies, etc. so we can help you make banners. And, as Pacita has said, anyone willing to share their knowledge is more than welcome. This is a “pot-luck” workshop. In other words, our pots and you’re lucky if you like vegetarian spaghetti.

On another note, I am very interested in reviving Ostgardr fencing and wire key. Anyone who is interested in fencing or who knows a nearby fencing marshal, please call me. We are in the process of trying to get a local fencer authorized as a fencing marshal, as well as searching for a local winter indoor site. If all goes well, we shall be training again soon.

In service,

Chou Fei-Hong
(Daniel Myers)

Chatelaine’s report

Greetings and well-wishes to all gentles.

In light of my current state, my recent flurry of activity in searching for new members ground to a temporary halt. However, I am pleased to announce the arrival of a “caravan”-load (cough!) of sewing equipment into my abode. We now have residing with us a total of seven sewing machines and one serger, in good (if not perfect) running condition. We have also unsewn cloth and trim which belongs to our canton gold key, donated by our seneschal.

If you need assistance with sewing, or shopping, I am available to lend aid. If you supply your own materials, you are welcome to come and use our equipment to make your own items. If you have time to spare we are begging your aid in helping us to fill out our gold key, as we have a number of both new members, and old members in need. No experience is necessary. People with skills to teach and with tried-and-true experience would be greatly appreciated in the coming months to hold classes in our home.

Please call ahead if you wish to come and sew. Due to an appointment with a stork in late November, I am available for last-minute appointments in the days & evenings up until labor begins. After the new arrival, there will be a period of about two weeks of unavailability.

Much thanks to Ann Cole & Jordan Weinstein for their patience and assistance in procuring said machines!!

Restlessly yours,

Christina

Compiled by Diarmuid Ui Dhuinn (I. Marc Carlson/IMC@vax2.UTulsa.Edu), based on discussions and material from the rec.org.sca newsgroup.

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Cuir-bouilli

Part II of II—Continued from last issue

2. Wax: I’ve been told that I should use wax to make leather hard, is this true?

A. The other way to make leather hard is to take a piece that has been formed previously, place it into an oven, and dry heat it to about 200 degrees. Then take melted wax (bee’s wax is traditional, but I have gotten just as good results from melted candles). Remember all the safety precautions you learned in art class as a kid for melting wax because it can be dangerous.

When the wax is hot, and the leather is hot, take the leather out of the oven and paint the wax onto the leather (which will then soak it right up). Keep this up until the leather cools enough to not absorb the wax any more.

Reheat the leather, and repeat until you are satisfied that the leather won’t absorb any more wax (a good clue is that it’s all the same color). Then let it cool. It will be extremely hard when it’s done. NOTE: When you are heating the leather for this you will be up at temperatures that will polymerize the chemicals in the leather in the presence of water. What this means is that if you get ANY water on the hot leather it will shrivel up and harden.

B. A discussion on other views of Wax and Hardened Leather:

<al Thaalibi> In my own experience with wax hardening of leather, 200 degrees is way too hot. I normally melt my wax in a “double-boiler” arrangement in a pan set in a nother pan of water. Try water shaping the leather first, then, when it has dried and set into the shape you want, immerse it into the melted wax. High heat isn’t needed just enough to keep the wax liquid. If the piece is too large for your melting pot, heat the piece with a hot hair dryer/heat gun or place it in the oven long enough to get hot then “pain” it with the melted wax, reheating the piece as needed. You really need to stay away from “oil-tanned” or treated leathers for this purpose, use an alum or veg. tannin tanned leather. Only these will absorb the wax properly to decently harden.

<Balderik> To the best of my knowledge, this is somewhat misleading. For an excellent description of the chemistry involved, see Ancient Skins, Parchments, and Leathers by R. Reed, but the gist of it is that it is not the wax that is hardening the leather, but the heat. Cuir Bouilli can be made WITHOUT WAX (although using wax helps by making the leather denser, heavier, and resistant to water). The chemical/structural changes responsible for the cuir bouilli effect are only possible with veg-tanned leathers. Other leathers may be stiffened somewhat by heating and adding wax, but it will not be cuir bouilli. Given that a good deal of hardening can be achieved without resorting to the use of wax (by simply drying under heat) and that waxing provides some enhancement, my argument was that those who wax the leather directly are probably getting most of their hardening from the heating needed to apply the wax, not from the waxing itself.

<Diarmuid> I would have assumed that the hardening was more due to the wax in filtrating the fibre matrix (as Reed suggests that the Tannin Polymers do) and then hardening there. Also there is some concern about the weight added to the leather for the amount of strength given.

<Al Thaalibi>... I’ve used both the cold water/wet molding and the hot water methods of shaping leather as well. I simply find that the addition of wax produces pieces that stand up to the rigors of SCA combat abuse, especially here in the humidity and erratic weather of Trimaris (Florida), far better than the other options.

<Balderik> Oh, there’s no doubt that wax *helps* by increasing the density and water resistance. The point I was trying to make is that the majority of the hardening is related to the heating. Much of the hardening many people achieve may be a result of the heat they apply in order to get the wax to soak in, not from the wax itself (people who use wax hardeners except-