Cockatrice

Portrait of Helene by Mistress Eloise Darnell

This print is produced by the intaglio method called drypoint, with the first extant drypoint prints dating from the 1480's executed by the Master of the Housebook. The artist uses an etching needle, or scribe, directly on the surface of a copper plate to develop the image. The scribe creates a fine burr and a very shallow line on the surface of the plate. It is this burr and shallow line which holds ink for the printed image, however, the burr compacts after each pass through the intaglio press, and usually only between 3 and 6 useful images can be produced from a drypoint plate.

May A.S. 51

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From the Editor

Greetings!

My Lord, Miss T and myself are in the final countdown to our trip to May Crown. As this is our first trip to an event in mainland Lochac we are all rather excited! Or will be once the last piece of frantic sewing is done. I am hoping to see many of you there!

This preparation has made me reflect on the importance of Households to the Arts and Sciences in the SCA.

Somehow our personal sewing projects have turned in to household ones (despite the fact we are the only ones going to Crown!), and I am forever grateful for the inspiration, guidance and help provided by the other members of my household. I am sure you all have people around you who are a similar part of your A&S voyage; whether they are household members, friends or those guiding lights who have provided you with that 'light bulb moment'.

Do take the time to tell them so as I can guarantee it will make their day!

To contact the Editor email:

editor@cockatrice.lochac.sca.org

Cockatrice Website:

http://cockatrice.lochac.sca.org

En servicio

Elisabetta Foscari

Cockatrice Calendar AS 51 (2016)

August 51 Edition	Submissions due	1 July
	Published	1 August
November 51 Edition	Submissions due	1 October
	Published	1 November

Cockatrice Team

Editor: Signora Onorata Elisabetta Foscari

Deputy Editor (Website): Lord Theophrastus von Oberstockstall

To contact the Cockatrice team email: editor@cockatrice.lochac.sca.org

The Relief and Intaglio Printing Methods

Mistress Eloise Darnell

Any form of art which has a physical presence (which means I am excluding purely digital and/or electronic art) has, by its nature, texture and depth, and a world of technical information which lies beyond the image, but which can add to our appreciation of it. Once that work has been reproduced in another form, something is lost. We've all had that moment of getting to finally see an artwork in the flesh (so to speak) that we've long seen in a book and gone – Ahhhh! It's bigger/smaller/brighter/shinier/duller than I thought, or – look, she's wearing earrings, I couldn't see *that* in the book.

And so it is with a print, which is produced by physical, manual and mechanical means, using a matrix to print multiple images. In modern terms, printmaking is seen as a *technical* art process, but in historical terms, printing is arguably also the first *mechanical* art process, not just because of the machinery which may be involved, but because one is using a matrix to produce multiple images, instead of creating a unique state. The matrix can also be seen as an art object in its own right, as well as the images produced from it – or it can become a valuable tool or object which can be sold, bought, inherited, re-used in a different context, or even cut up into multiple matrices for re-use.

The physical process of printmaking is sometimes essential to, or sometimes influencing, the end result itself. Like painting, the technical process is there to be seen and appreciated, is limited by what it can physically be, can add to our knowledge and enjoyment. And like painting, this is lost in modern book printing, by necessity of course. We get the basic information and/or enjoyment we crave, but we lose the finer details.

The vast majority of people who are interested in historical research and re-enactment are continually accessing prints (alongside other artistic methods) as primary sources, without much knowledge of what they are looking at, how it was produced, and how to place it into an artistic or historical context. While that may not be the primary reason for viewing the material, I believe it could add to their knowledge and enjoyment. And with that in mind, I would like to present an article on the two methods used in printmaking prior to 1650 – relief, and intaglio.

Relief printing process

In relief printing, we are talking about a matrix which can be inked and paper pressed against it, to produce an image. The ink sits on the surface of the matrix, and direct downwards pressure on the paper is applied, using either hand-rubbing or a press, to transfer the ink from the matrix to the paper.

In this way, 'relief' refers to the inked image standing in relief to the background on the block or plate. The earliest surviving European woodcut is believed to be the Bois Protat, produced in the very late 14th Century, but there is still some controversy as to whether it was made to be used on wood, or cloth.

The Bois Protat surviving block and the image printed from it

For the purpose of describing this process, I'll be using a woodcut as the matrix. Some of the equipment used will be modern equivalents, but the basic process has remained the same since the method was developed.

It is worth noting at this point, however, that to produce a woodcut, the plank, or grain, of the wood is used. If the end-grain is used, this is called a wood engraving, and is not generally considered a pre-1600 Western European technique.

The difference between along the grain (plank) and end grain

To begin the process, the block or plate being used should be clean from dirt, dust, oil, or anything else which would prevent an even coat of ink being applied.

Woodblock ready for inking. This block has been inked before, so the surface has been stained by prior use

There needs to be a flat, clean, smooth surface for the printing ink. Traditionally, relief ink is oil- (or for modern uses, can be plastic) based. Water-based inks can dry too quickly on the matrix. A glass or marble slab is ideal, but any very smooth surface can be used. A portion of ink is set out on the slab and worked to ensure it is neither too stiff nor too soft, and that there is no dried ink or foreign matter present.

Working the ink to check for consistency and/or foreign objects

After working the ink, it is spread as a thin coating on an area of the slab. An even layer of ink is applied to surface of the matrix. This is achieved through a number of thin coats (or passes) in varying directions, to achieve an even coating. In this demonstration, a brayer (printing roller) is being used to transfer the ink from slab to matrix. The most usual method in period would have been to rock the ink on with an ink ball. Ink and paint rollers are generally regarded as being developed in the 19th Century.

Above left: the modern printing brayer and right: inking balls from the Rembrandt museum

If there is not enough ink on the matrix, the image will be insubstantial and patchy. If, however, there is too much ink, it can be forced down the sides of the carved areas, and be forced onto the paper when pressure is applied, creating a blurry line with thick, uneven areas of ink around the edges of the carved lines.

Here, you can see that there is enough ink to form a light 'bead' texture on the surface of the wood:

An even coat of ink across the surface of the block

The matrix is placed on the bed of the press, or if is to be hand rubbed, in a clean area away from the inking area. A piece of clean paper, cut to a size to suit the image, is placed carefully on top.

If the image is to be hand-rubbed, any flat, firm utensil can be used on the back of the paper. A Japanese baren is affordable, easy to use, and gives good results. My own feeling is that something very similar would have been used in Western Europe before the development of the relief press, and that perhaps it was made from a disc of wood wrapped with leather.

Above left: a Japanese baren, showing the handle and right: the rubbing surface

The paper is used in the dry state (not dampened), and not too soft or flexible. This is so that the paper is not driven too far into the block as pressure is applied. If there is too much pressure, or the paper is too soft, one or several issues may occur. The crisp line of the cut image could be blurry, the paper could be damaged, or pick up ink which has accidentally gone into the background crevices, or even pick up the texture of the cut away areas. If the image is hand-rubbed, the paper must also be capable of withstanding that process, or be covered with another piece of paper, but this extra piece may move about and cause problems.

If the image is to be produced by means of a press, the paper and matrix are covered with a protective layer before being placed under the platen (the upper plate in a relief press which is lowered onto the matrix). This is to soften the direct impact of a large amount of force on the matrix.

This protective layer may be several/many layers of clean scrap paper, cardboard, woollen felt blanket, smooth rubber matting (a modern choice), a wooden backing board, or a combination of any of the above. Different combinations may alter the end result in a number of ways. A felt blanket directly above the paper, for example, will allow the paper to be pressed further into the matrix than using a rubber mat or piece of cardboard.

Above left: matrix and paper on the bed of the press, and right: rubber matting on top of both

The bed of the press is now ready to be rolled under the platen, which is the large, flat surface which will apply pressure. The platen is then lowered to make contact with the bed. The pressure forces most of the ink from the matrix onto the paper.

The bed is rolled under the platen and ready for the handle to be pulled

The process is then reversed – platen raised, bed rolled out, and any protective layer is carefully removed so as not to disturb the paper and matrix. Sometimes embossing, an impression of the force used to transfer the image, can be seen in some way on the verso.

Detail of verso (oriented sideways) showing embossing

Finally, the paper is removed from the matrix to reveal the image. It is hung, or placed on a rack to dry, usually for several days. The slab, bed of the press, and equipment are cleaned down.

Above: the relief matrix and resulting print

The Intaglio Printing Process

In the intaglio method of printing, we are talking about using a matrix which has the image below the surface.

When ready for printing, ink sits in the lines below the surface of the matrix, and pressure is applied using a rolling motion with an intaglio press, forcing the ink out of the inked lines in the matrix onto the paper.

The word intaglio comes from the Italian *intagliare*, to cut, and refers to the method of cutting, or incising, lines into a surface, to produce an image. Jewellers and sculptors have been using this method since antiquity, but it was not until the 1430's in Western Europe that this technique was first applied to a flat piece of metal with the express purpose of transferring the image to paper.

The Queen of Flowers, Master of the Playing Cards, Engraving, German c1430–40

To describe this process, I'll be using an etched copper plate as the matrix. The three main methods of producing an intaglio plate before 1600 were engraving, drypoint, and etching. Some of the equipment/method used will be modern, but this will be noted. However, in essence, the modern method is still very close to its 15th Century counterpart.

Copper plate etched image based on the Sebald Beham engraving, Luna, 1539

Before the very first printing of a prepared metal plate, the edges must be filed. They are filed down at a 45 degree (approximate) angle away from the upper surface. This prevents the sharp metal edges of the plate from cutting the paper, or the blankets of the press. The blunt edge of an unfiled plate can also cause the plate to skip in the press, giving an unusable print.

The filed edge of the copper plate

The ink is then made ready. As with relief printing, there needs to be a flat, clean, smooth surface for the printing ink. A glass or marble slab is ideal, but any very smooth surface can be used. A portion of ink is set out on the slab and worked with a knife or palette knife to ensure it is neither too stiff nor too soft, and that there is no dried ink or foreign matter present. If the ink is too stiff, a little boiled linseed oil may be added, or the plate may be warmed on a hotplate – but not too hot, or a metal matrix may be damaged through buckling or cracking. If the ink is too soft, some pigment may be added.

Intaglio ink is oil-based, as water-based inks can dry too quickly on the matrix. Furthermore, because the paper used is damp, water-based inks may result in the image bleeding. For the most part, modern intaglio inks are still made the same way as early inks, using a mixture of boiled linseed oil (oil varnish), pigment, and sometimes rosin, in varying amounts. Each intaglio printer would make their own inks up according to their own preference, or to achieve different results.

Ink is now forced into the incised/etched lines on the matrix, and in doing so, the entire surface becomes covered, in order to drive the ink below the surface uniformly. This is done using a dauber, also known as a dabber or tamp – or if it is very small, sometimes called a dolly (from the French, poupee, especially if there is more than one colour being used on the plate). Most follow the same form of either a roll or pad of tarlatan, a coarsely-woven form of muslin.

Above left: a dauber ready for use and right: ink is applied to the entire plate

The matrix surface is then wiped clean, using a ball of tarlatan which has been teased and rubbed to soften the sizing (which is usually added so that the material has enough body to be rolled onto a bolt). If the sizing is not softened, the tarlatan can leave scratch marks in the ink.

Tarlatan cut from the bolt and softened for wiping

First there are broad strokes to remove the bulk of the ink. Then, there are smaller, gentler, circular motions, to ensure the plate is not wiped more in any one direction, which may accidently result in overwiping (removing ink from the lines, instead of just the surface).

Above left: initial wiping of the matrix and right: almost finished with tarlatan wiping

Finally, the matrix may be finished by either hand-wiping – using the heel and pad of the palm (usually with a light coat of whiting, which is washed white chalk) or very gently wiping with a soft, clean pad of rag, to remove any residue of ink or marks left by the coarse weave of the tarlatan. There is no firm evidence that hand-wiping was used before 1600, but it was a standard method for wiping engraved copper plates by the 17th Century. The whiting prevented any oil on the hand from transferring to the plate, and gently polished the copper surface. Too much whiting on the hand, however, can result in loose particles ending up in the inked lines, preventing a good result. Certainly soft rags were used, but either way, it must be done very carefully, because it is at this point that overwiping can easily occur – a balance must be made between cleaning of the surface, and retention of ink. The corners are then carefully cleaned with a rag, and the matrix is ready to be printed.

The inked intaglio matrix ready for printing

The matrix is placed on the bed of an intaglio press and covered with a dampened sheet of printing paper and the press blankets.

Inked matrix and paper on the bed of an intaglio press, about to be covered by the blankets

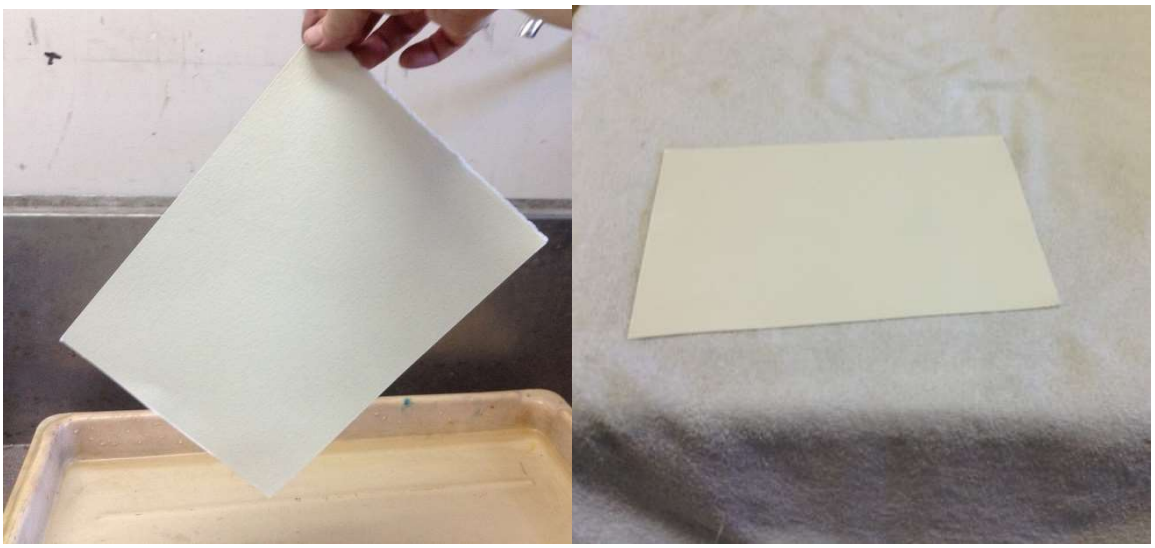
It is passed through the rollers of the press at high pressure by manual turning of the press wheel. The roller action forces the ink out of lines on the matrix onto the paper.

The blankets, made from felted woollen cloth, create a 'buffer' which protects the paper and the plate from the force of the rollers. They also help push the paper into the matrix, and absorb excess water from the paper. Consequently, they are damp at the end of a day's printing.

The paper is dampened so that it is flexible enough to be forced into contact with the inked, recessed lines without buckling or tearing. Usually this is achieved by soaking in a tray of clean water, with the length of time determined by the thickness (weight) and rag content of the paper. Western Europe used pulped linen rag for paper production almost exclusively in the time period we are discussing, as cotton was not widely used in cloth manufacturing, and wood pulp had not been developed.

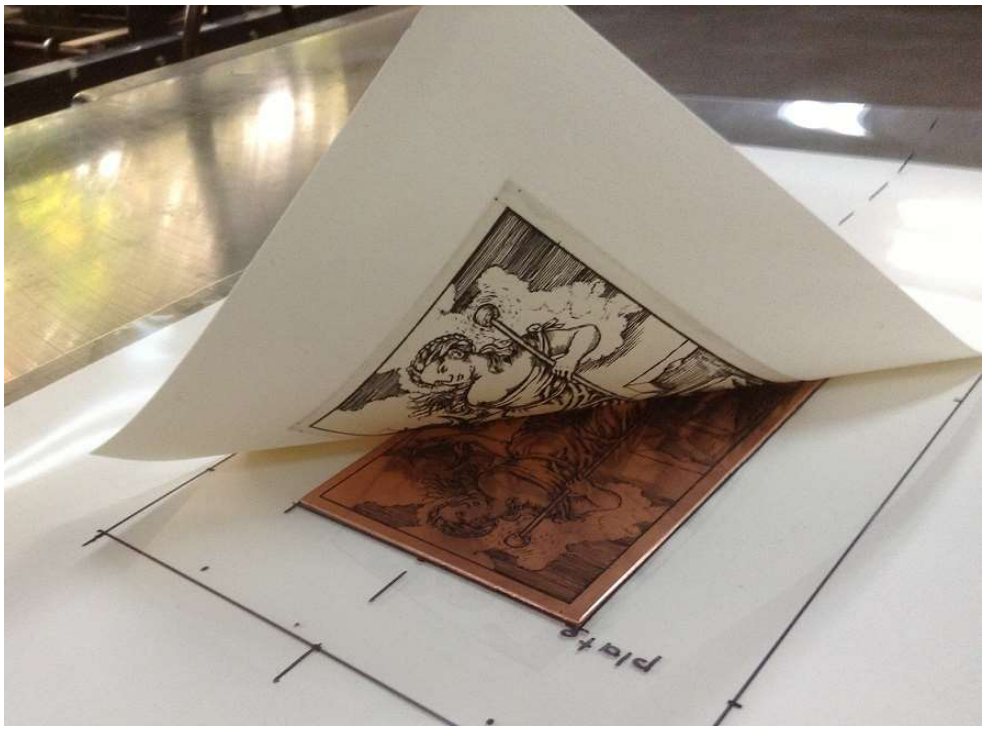
Intaglio papers are not usually sized, as sizing interferes with absorption of water, and transfer of ink. A modern printing paper is usually a rag/pulp mix, and is soaked for about 10 minutes. If many sheets are being soaked at once, they can also be drained and wrapped in a bundle to prevent drying out, and used over the course of some hours or a day. Before each piece of paper is used, it is placed on a clean towel, covered with another, and gently smoothed/patted to

remove excess water, but not pressed with the hands – the paper must not be distorted or have too much water removed.



Above left: paper being removed from the water tray and right: blotting with a towel

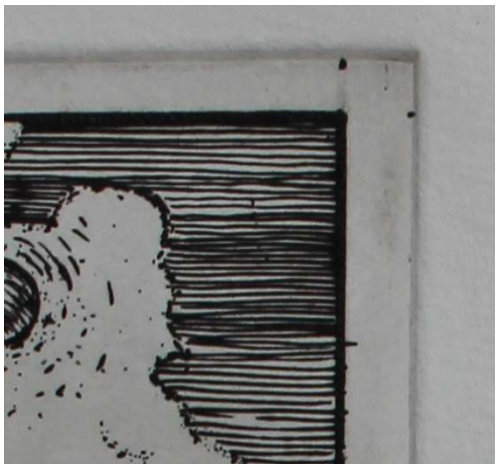
After the plate and paper have passed through and are fully clear of the rollers, the blankets are folded back carefully, and the paper is peeled/pulled away, to reveal the print.



The paper is lifted and the intaglio matrix is revealed

The pressure of the intaglio press flattens the texture of the paper where it makes contact with the matrix. The edge of the matrix should leave a smooth, firm, uniform impression where it made contact with the paper – which is why the edges should be cleaned well. Often the lines of

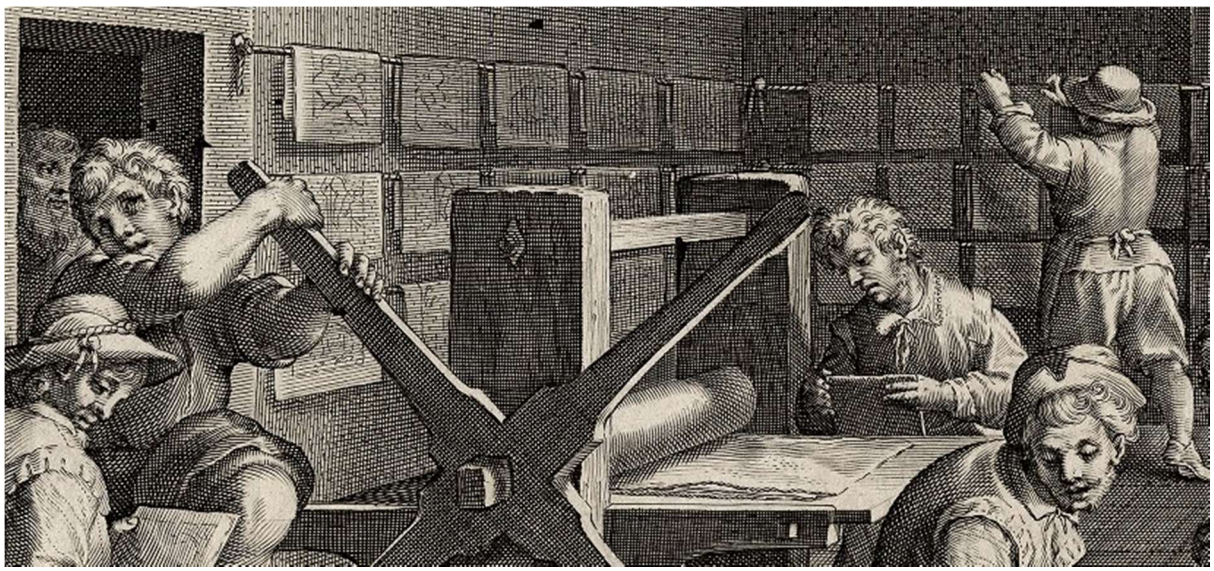
the image can be seen on the reverse (verso) of the paper, sometimes even after the print is flattened.



The impression of the edge of the matrix. It is also possible to see that the texture of the paper has been flattened and smoothed by the pressure of the press on the matrix

The damp print now needs to be dried, for both the ink and the paper are still wet. In the time period we are discussing, this seems to have been a two-fold process.

In images of intaglio printing studios, multiple prints can be seen draped over rods or ropes, image facing upwards, bending in half as they dry. This will ensure that the ink dries faster (perhaps 2-3 days) with air contact, but leaves the paper distorted. The print would have to be dampened again, once the ink is dry, so that it can be pressed flat between boards and weights.



Detail of a Jan van der Straet engraving, c1600, showing intaglio prints being draped over a rod or rail to dry

In modern methods, this is also sometimes done, but it is much more common to press the print as soon as it is removed from the bed of the press. It is placed, with paper and ink still damp, on a sheet of cardboard, and covered with clean scrap paper (such as newsprint, which is bought unused in a ream) which acts as a blotter. This results in very little transfer of excess ink from the image, because the blotter is more likely to absorb water from the paper than oil-based ink from the image. The next sheet of cardboard is placed over the top, and the process continues to create layers of cardboard, print, and scrap/blotter, which are then finished off with a final sheet of cardboard, and sheets of wood, over which are placed heavy, even weights.

In this way, the paper and ink dry in one process, but takes longer for the oil-based ink to dry (5-7 days), because of the lack of contact with the atmosphere. However – and this is why I believe it was not used pre-1600 – this method takes up a large amount of paper product. In this time period, paper was finally being mass-produced, allowing printing to be economically viable, but not in any quantity approaching modern standards. The concept of using virgin paper, even of cheap quality, as scrap or blotter which cannot be reused would probably have been seen as wasteful and expensive.

Regardless of method, the process of flattening the print reduces the amount of the physical impression visible on the surface – for example, it will flatten most of the impression left by the edge of the matrix.

Above left: the resultant print and right: the intaglio matrix

After being flattened the print is then more suitable for use, for example, as leaves/pages in a book, or tipped (glued) into an existing book, as an image to be pasted onto a wall or inside a box (sometimes called Coffrets à estampe), put into a display cabinet, or folio, or any number of other uses the purchaser may have in mind.

Finally, at the end of the printing day, the press blankets are removed to be hung and aired, the towels for paper must be dried, the ink cleaned from the slab, the bed of the press and the matrix cleaned. The matrix would be wrapped in a clean cloth, perhaps first with a thin layer of oil applied. If a metal plate was not going to be used again for a very long period of time and put into storage, it might be coated in pitch or tar to preserve the image and protect it from moisture. Tools such as daubers would have been wrapped in damp cloths to prevent their drying out – speaking as someone who lives in modern-day Sydney, this is something not being replicated. The best and closest practice is probably to wrap tightly in aluminium foil.

Luna, after Sebald Beham
Copperplate etching and print
Eloise Darnell

This is a copper plate and resulting print produced by the intaglio method of etching. The first extant prints produced by etching can be dated back to the early 1490's with images by Daniel Hopfer. The artist covers a copper plate with an acid resistant coating, and uses a sharp instrument such as an etching needle or scribe to draw an image into the coating, revealing the copper. When the plate is immersed in acid, the image is etched, and it is these etched lines which hold the ink for the image to be printed using an intaglio (roller) press.

Call for Presentations

Laurels, teachers, presenters, and educated riff-raff
are invited to submit abstracts, ideas or concepts of presentations
within the overall framework of Medieval Science
for the inaugural

MEDIVEAL SCIENCE IN YE TAVERN

To be held at The Great Northern War, Northern Reaches,
2016.

Contributors are expected to be attending The Great Northern War.
Drones, Golems, voodoo animated corpses or electronic witchery
will not be considered in the absence of the presenter.

Medieval science topic presentations are envisaged to be 20-30 minutes in duration, limited by the lack of modern electronic presentation tools, but voluntary accompaniment of mannerly consumption of Tavern drinks in moderation.

Why should you consider being a presenter?

It is envisaged that this part of the Great Northern War Program will be an enjoyable opportunity to share your medieval science interests with others. Perhaps, it will be an occasion to promote your medieval science interests outside your local Barony. Maybe, it will be a chance to form new connections with like-minded medieval science interested people. The meeting is in the Tavern.

Publications

All presenters are strongly encouraged to consider transforming the exposition material into an article for *Cockatrice*.

For more information email: Theophrastus.von.oberstockstall@gmail.com

A Chant for a New Peer

Lord Lowrens Wilyamson

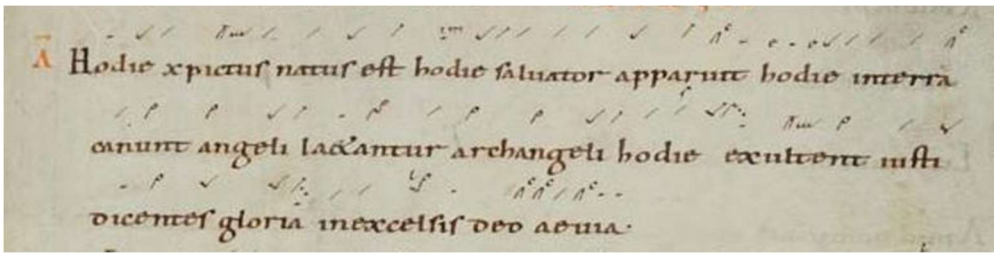
For some years, I have wanted to do a plain chant piece in an SCA setting, but this needed an occasion. In period times (and in the mundane present day), chant is used within a ceremonial setting. An SCA use also needs a suitable ceremony with a well-established ritual. Elevation to a peerage is such a one. I was moved to put pen to paper when I saw Don Gregory's plainchant setting of the Crown's peerage proclamation for Mistress Anna de Winter's elevation at Canterbury Fair AS 50.

I did not manage to get *Hodie* finished in time for Anna's elevation, but another opportunity was soon to hand, and I sang this as part of Mistress Ginevra della Visconti's admission to the order of the Pelican a few days later, where it was well enough received.

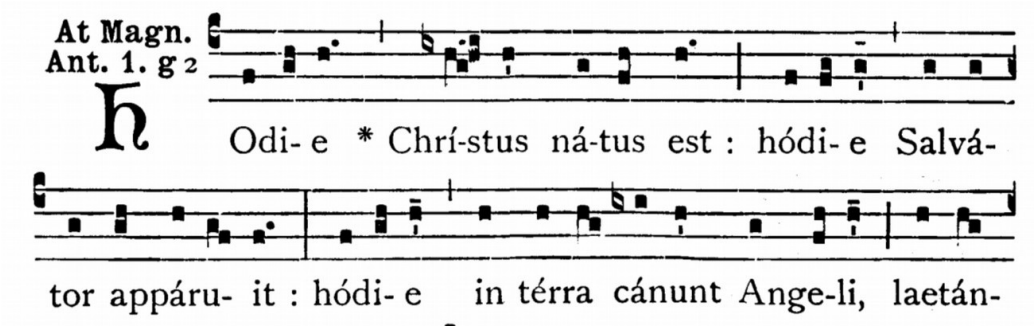
Creating a chant melody from scratch is no small undertaking, as Don Gregory would have found when composing the anthem for Mistress Anna. It is rather easier to reuse and adapt an existing theme that has a suitable structure. This allows a choice of a line that has the right emotional temperature. It is also a very period thing to do.

The basis

This work being aimed at a particular occasion, an existing chant also intended for a particular occasion would be a good start. My choice was *"Hodie Christus Natus Est"*, which is the antiphon upon Magnificat at Vespers on Christmas Day - "this day Christ is born". It is part of that mass of mediaeval chant recovered or reconstructed as part of the 19th century revival of chant in the Catholic church. *Hodie* is a short piece with a simple structure that is quite adaptable. An identifiable version of the chant appears in the Hartker Antiphonary dating to c.1000AD [1], although that book uses the St Gall neumes, which assume that you already have some general idea of the melody.



I have started from the more modern Solesmes reconstruction of the melody [2], set in the French square notation, which gives an absolute indication of pitch, and is easier to read.



The text

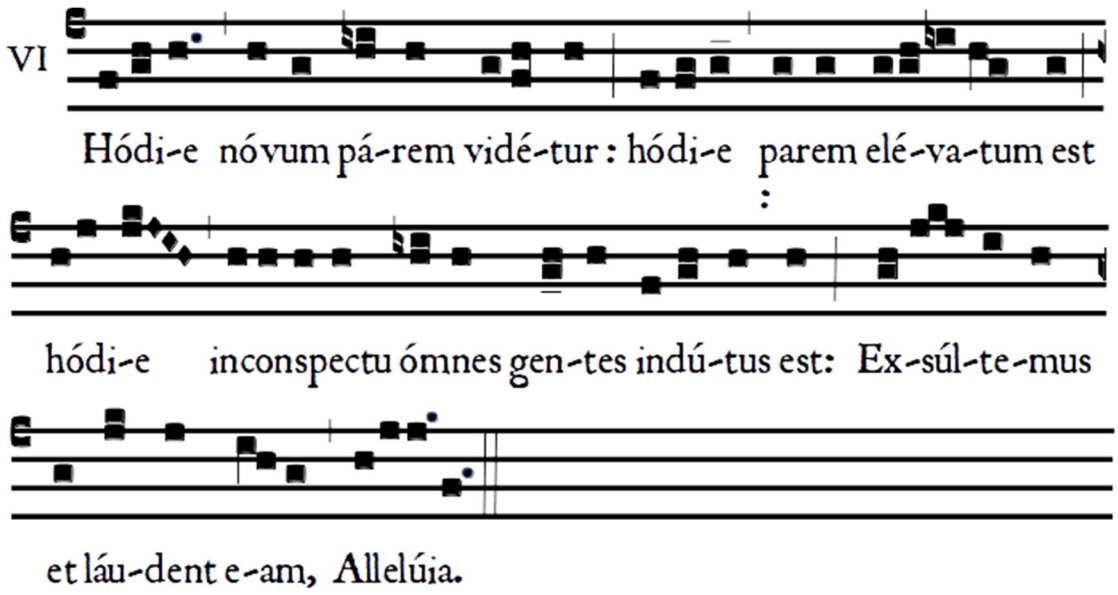
The words of a ritual occasion are rarely of any great subtlety, and this chant is no different, being a simple set of statements which are given some extra gravitas to modern ears by being sung in Latin.

> *Hodie, novum parem videtur: hodie, parem elevatum est: hodie, inconspectu omnes gentes indutus est. Exsultemus et laudent eam, Alleluia.*
>
> Today, a new peer is seen: today, a peer is raised: today, in the sight of all peoples he/she is invested. Let us rejoice and praise her/him, Hallelujah.

The Latin setting also gives some flexibility for changing word order to get a good prosody. It is generally hard with English text to get the underlying duple-triple feel, and using an existing chant based on a Latin text becomes that much harder

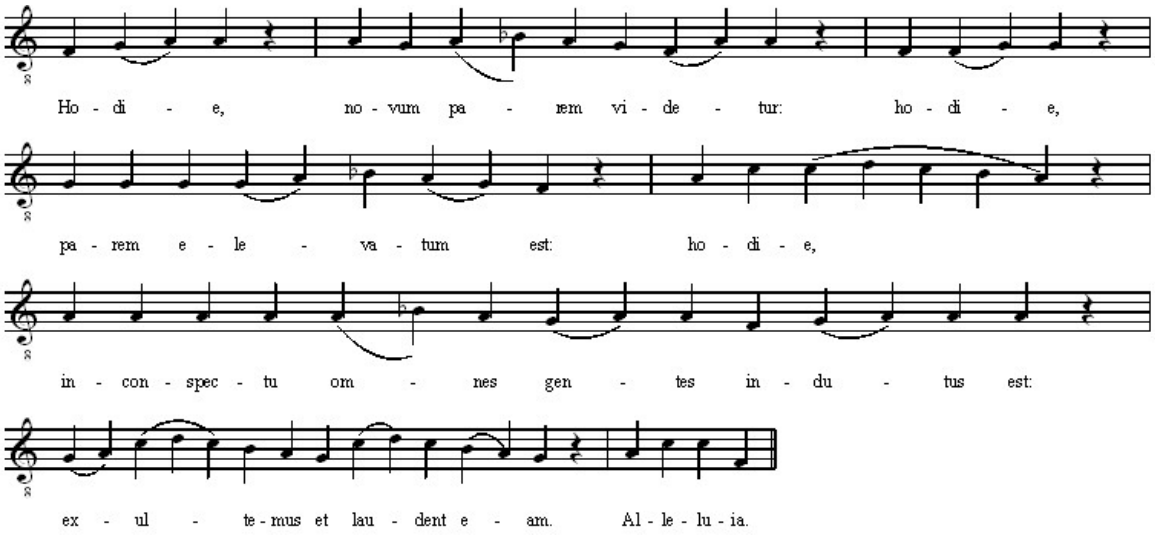
The melody

The original melody is set in Mediaeval mode I (aka Dorian), with a dominant of A and a final of D. I have reworked the melody in places to change the shape of some phrases. Particularly, the final phrase finishes on F, so, with a dominant of A and a final of F, it has morphed into mode VI (aka Hypolydian), although the musical range is not C-C as pure modal theory would require. This, too, is a period situation, especially for later Mediaeval times.



For readers unfamiliar with this notation: the top staff is C; there are no bars or equivalent measures; accidentals only apply where marked; accents over the words show which syllable are more stressed; a horizontal line over a note extends it slightly; a dot after a note extends it more; a short vertical line is an opportunity to lift the voice is needed; the longer vertical bar marks a definite pause at the end of a phrase.

On modern staves, the melody is pitched as in the following, but this captures nothing of the rhythm.



On performance

Sung at the written pitch, this is a comfortable range for most male singers, but, as long as the modality is observed, it can be transposed into any convenient pitch for other voices. It can be comfortably sung by a solo voice. If several voices were available, it could be sung in unison, but

a more interesting effect would be to alternate the phrases between the voices, and coming together in the final phrase.

Plain chant lives or dies according to its delivery. There is no fixed rhythm. To determine the pacing, speak the text aloud as though to an audience, with such dramatic effects as the text itself seems to call for. There it is. Now, repeat this delivery with the melody, without changing the pacing except insofar as the rise and fall of the melody acts to enhance the effect of the words. There is no fixed rhythm. A pause between phrases is as long as it needs to be. Linked notes are sung as a continuous sound, but never slurred. Each phrase builds to one or more little crests and falls away to the end. There is no fixed rhythm.

References

1. I came upon this reference to the Hartker Antiphonary in a blog entry at http://chantblog.blogspot.co.nz/2010/01/more-from-derek-about-hodie.html. A facsimile of the Antiphon itself can be found at http://www.e-codices.unifr.ch/en/description/csg/0390. This page is in German, but there are English notes on the facsimile pages. The image of Hodie in this article can be found on page 51.
2. A facsimile of the 1961 edition of the Liber Usualis from the Benedictine Abbey of Solesmes can be found at https://archive.org/details/TheLiberUsualis1961, along with PDF renditions. Hodie can be found at page 413 in the section At Second Vespers (page 559 of this particular PDF version).

These links were valid in March 2016.

Footnote: I use the term "singing" for performing a chant, but it never feels very right. Even the notion of "performance" is at odds with how chant works. In its original and modern forms, plain chant is about reciting of significant texts, generally of a religious nature, in such a way that the rising and falling pitches support and accentuate the import of the message in the text. Hence, a short but critical phrase can be drawn out over tens of seconds and with much elaboration, whereas a longer but less remarkable phrase may be passed through at speed. As well, it is worth remembering that, to the people doing the chant, the most important audience was not the human one.

Hence, the term "singing" does not feel like a good fit. However, I have not come across a better one for shorthand use, so "singing" it is.

Deos wyrt, heo hælð wundorliche [This plant cures wonderfully]: Part One

Healing in Ængla Land : herbs and other methods. An introductory look at healing practices in Anglo-Saxon England

Yrsa Njalsdottir

Introductory comment

These are notes from a class given at Canterbury Faire 2016. The topic is huge, and obviously can't be covered in one article, so this is very introductory. I'll start by reviewing the sources of information available now, but first a note to clarify…the Saxon period in the UK lasted for several hundred years, and though the extant sources date to the latter end of the period, some at least are based on earlier material. The 6th C & 7th C were pagan, the later years being at least officially Christian. Obviously Christianity had a major influence on healing practices through monastic infirmaries and scribes copying manuscripts, but it seems likely that throughout the period pagan elements/traditions persisted, despite disapproval from the clergy.

Summary of sources

There are several extant medical/medicinal texts from Anglo Saxon England, the most important of which I have seen, but not in manuscript form. I haven't examined them in any detail as yet. The most well known of the actual medical texts are as follows:

Firstly, a manuscript in 3 parts, the first two forming **Bald's Leechbook**. It appears to have been written ca. 950 AD at Winchester, and is thought to be a copy of a Latin text written possibly 50 years earlier in the last years of the reign of Alfred the Great. It is called Bald's Leechbook because it contains a note stating that Bald was the owner of the book, which he had instructed Cild to write. Book I consists of 88 chapters dealing with diseases which manifest mostly externally, and arranges them in a head to foot pattern, and Book II deals largely with internal diseases and is comprised of 67 chapters. Both draw upon Mediterranean sources i.e. Greek, Roman, North African and Byzantine. The third part of the manuscipt is called Leechbook III, consisting of 73 sections. This is a medical recipe book - a collection of remedies with little discussion of symptoms, diagnoses or prognoses. It is also arranged in the head to foot order, and contains more

so-called magical elements, such as charms and remedies containing a magical element as well as a physical component.
Eg. There is a herb or ivy that is wont to grow on any statue whatever; picked in a waning moon and bound about the head it takes away the pain. If it is bound about the head or the temples tied in a red cloth with a red thread, it alleviates migraine effectively. (Cameron, 1993, p. 37)

Each leechbook begins with a long table of contents briefly listing the illnesses to be discussed and treatments recommended. They contain many instructions for the preparations of herbal mixtures as well as charms and invocations indicative of the survival of pagan practices, but include Christian invocations as well.

NB. A Leech was a physician, and a leechdom was a remedy.

Secondly, the **Lacnunga** is a work thought to have been compiled later than Bald's Leechbook, in the 11thC, but it is reputedly more overtly pagan in content, though there are Christian influences. It is a collection of remedies presented in 122 chapters which is regarded by scholars as somewhat commonplace, lacking the organisation of the other texts. It includes many remedies in the form of charms. The concepts of disease being transmitted by 'elfshot' (elves firing darts at a person) and the countering of that is a common theme, as is that of the 'worm' (serpent or snake) causing illness. It should be noted that these themes were not unique to Anglo Saxon England, but occurred in Europe as well.

Thirdly, the **Old English Herbarium** is an Anglo Saxon text from about 1000 AD. It is a translation of a 5th C Latin text called the **Herbarium of Pseudo-Apuleius**, which contains information on medicinal plants, the names and conditions for which they are beneficial, and directions for making remedies. The HPA draws upon information from several classical authorities, such as Galen, Dioscorides and Pliny the Elder. It was written somewhere in a Mediterranean locale by an unknown author(s), and was very popular in the early Middle Ages. Many manuscript copies survive from throughout Europe.

All of the above were translated by Oswald Cockayne and published in a work called "Leechdoms, Wortcunning and Starcraft of Early England" in 1864-66. As the first available translations, Cockayne's work had substantial influence on later scholars. Unfortunately his opinion of the works as largely beyond the intellectual capabilities of the Anglo-Saxons combined with his presentation in an archaic style of English lead to an attitude that these texts were rather interesting from a literary point of view, but useless to Anglo-Saxon healers. It seems he was in fact more interested in the literary effort of the

translation, rather than any actual study of Anglo Saxon medicine in any case (Van Arsdall, 2002).

There is a new and much more accessible translation of the OEH by Ann Van Arsdall, and it is this I have drawn upon for most of the information in the body of this article.

A fourth source of information for the use of herbs and other methods of healing is archaeology. Harvey lists some 'weeds' found in the excavations at Jorvik - chickweed, groundsel, mugwort, nettle, poppy, devil's bit scabious and sorrel - which may have been grown and/or used medicinally (1990). Fell (1984) notes grave goods such as single beads, perforated boars tusks worn as pendants, crystal balls and cowrie shells may have been thought of as having some sort of magical, protective or healing power. They are found in the graves of men, women and children, but mostly women. That the rock crystal balls in particular were used in healing rituals has been suggested. Needless to say, although plant remains have been found in a context suggesting possible medicinal use, and objects have been found in graves which may have been used in conjunction with remedies and/or charms, the nature of this type of evidence means such usage cannot be confirmed.

The fifth source which should be mentioned is other extant written sources which whilst not relating directly to Anglo Saxon England nevertheless include pertinent information on plants in a European context. By recognising a European healing tradition which Anglo Saxon England was firmly a part of, they are relevant to this talk. Charlemagne's 'Capitulare de villis' (decree concerning towns)which is a meticulous piece of work from the early 9thC comprising a series of ordinances dealing with the social good, contains a list of plants which the Emperor wanted grown in gardens on crown lands in all cities in his empire. It includes 73 herbs and 16 fruits and nuts. Charlemagne definitely had contacts in Anglo Saxon England, notably the scholar Alcuin of York who eventually resided at Charlemagne's court (Harvey, 1990). It indicates plants which could be cultivated in northern Europe, and includes plants with medicinal as well as culinary and other uses.

The other such extant document is the plan for an ideal monastery, made reasonably soon after Charlemagne's death in 814, and now held at the abbey of St Gall in Switzerland. It was addressed to Gozbert, Abbot at St Gall from 816-836. The plan shows 2 gardens and an orchard. At the NE corner of the site is a square infirmary garden (*herbarius*) which was to contain 16 beds, each with a named herb: kidney bean,

savory, rose, horsemint, cumin, lovage, fennel, tansy or costmary, lily, sage, rue, flag iris, pennyroyal, fenugreek, mint and rosemary.

The plan includes a much larger kitchen garden with all sorts of vegetables indicating a good awareness of the importance of vegetables to a healthy diet as well. Some of these also have healing properties, such as onions (Harvey, 1990).

Who were the healers in Aengla Land?

Basically there were three categories of healer – monks in their infirmaries, lay physicians and women/wise women (some males?) in homes and villages, but likely in higher levels of society too.

Monastic Healing

Many monasteries had their own infirmary with dedicated staff for the care of sick monks, and also to house the very elderly. Bede made mention of Caedmon, a 9thC poet of the monastery at Whitby who died in the infirmary at that establishment (Rubin, 1974). Some monasteries later in the period had a separate infirmary to help the general population in their neighbourhood. Monasteries were also important in that they had gardens in which medicinal herbs as well as food plants were grown. Notably, these gardens were often enclosed inside cloister walls from which heat would radiate, and were well tended and sheltered, thus allowing the cultivation of less hardy medicinal plants. Given the contact between religious organisations within Anglo Saxon England and on the continent, plants that could not grow in their own country could easily have been traded in dried form (Van Arsdall, 2002).

Physicians and Surgery

It is believed physicians were the people who used the leechbooks and other medical treatises. They would have had training in medical matters to start with. Physicians were as far as is known generally male, but women of high rank who could read might well have taken an interest and been active in this field. They either belonged to religious orders or were lay people – there are a couple of manuscript illustrations of untonsured physicians (Cameron, 1993).

Secular hospitals existed –St Peter's in York was founded ca. 936 with the help of King Athelstan, and at Flixton in Yorkshire another was founded to help poor travellers and pilgrims as well as care for the sick (Rubin, 1974)

Little definite evidence has survived for the performance of surgery, but there are at least three references to it in Bald's Leechbook. One is advice on dealing with gangrene ie amputation if all else fails. Interestingly, it is recommended that the cut to remove the affected part is made in healthy tissue above the diseased tissue, which would promote better healing of the wound. Another tells how to drain abscesses on the liver, and the third gives instruction on how to mend a hare lip, which I'll quote:
"For harelip: pound mastic very fine, add white of an egg and mix as you do vermilion, cut with a knife, sew securely with silk, then anoint with the salve outside and inside before the silk rot. If it pulls together, arrange it with the hand, anoint again immediately".
(Mastic is an antiseptic resin, egg white ensured the salve would adhere to the wound, and cutting the two adjoining surfaces of the wound would make it easier for the two surfaces to fuse as one. It also recognises that a sutured wound may pull apart if suppuration occurs) (Cameron, 1993, p. 169).

From archaeological evidence, some Anglo Saxon skulls from burial sites have remarkably even sided and cleanly cut holes, which may or may not be evidence of the primitive surgical technique known as trepanning.

<u>Women in healing at village level</u>

That women use whatever healing skills and knowledge they have to care for their families is a given and always has been. That some women have a special gift for healing is also true, then as now, and hence the wise woman phenomenon. Of course there is no concrete proof that such healing happened as the lives of ordinary folk were not recorded. These women (plus some men?) acquired their skills by experience with a mentor, and the knowledge was passed on via oral tradition. This still happens today.

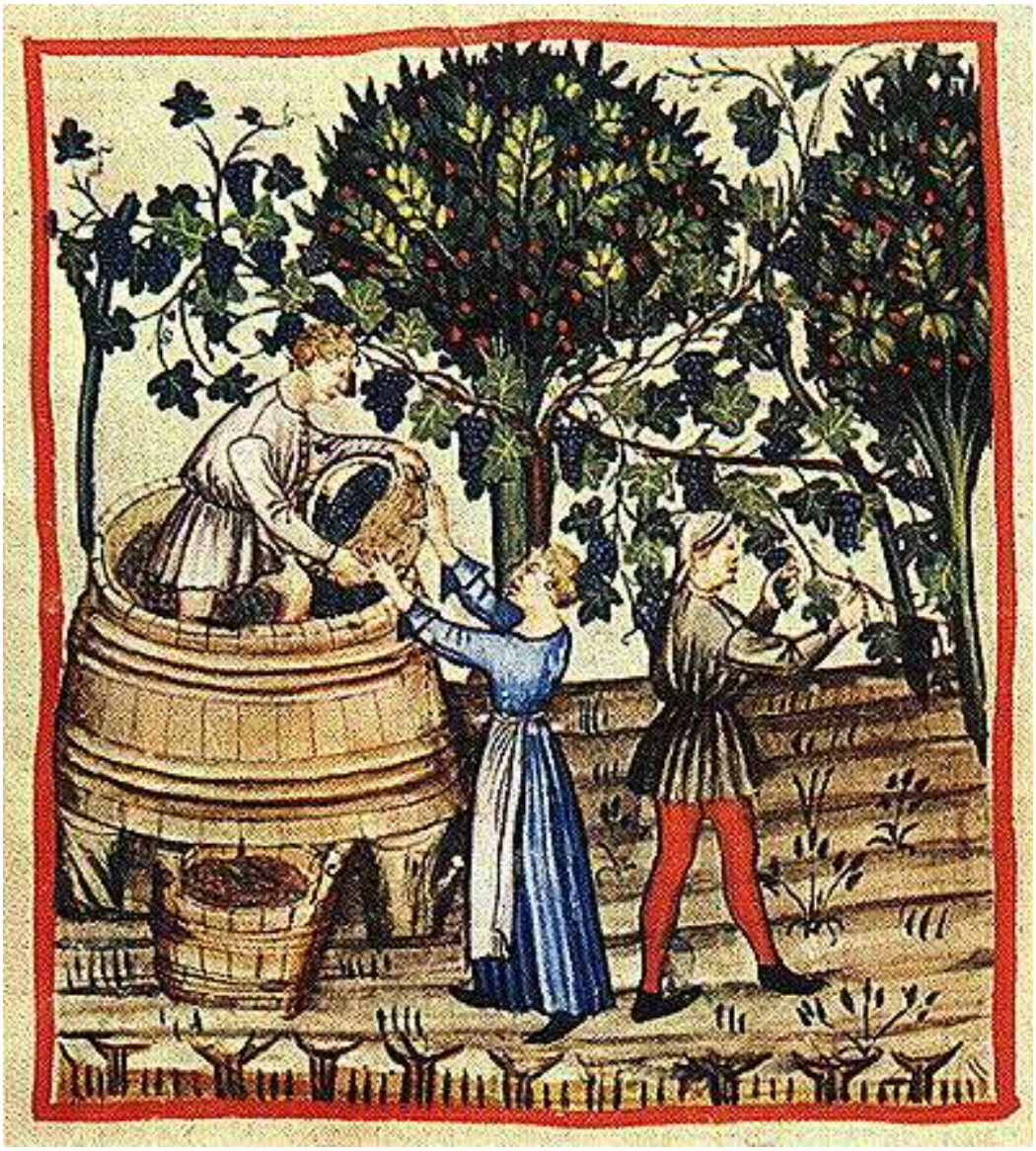
There are some remarks in extant documents which to my mind provide some kind of proof the existence of wise women. Most of these are from documents by churchmen, or the law books of King Alfred, and reflect the male Christian attitude to anything they considered pagan or redolent of sorcery, or that threatened their authority. For example
"If a woman acts with wizardry, enchantment and drugs, and succeeds, let her fast 12 months [on bread and water]" (Meaney, 1989, p.20, from Spindler *Confessionale).* It may be argued that it wouldn't be necessary to make such a statement if the wise woman tradition

wasn't real. There are other similar statements involving penance of one kind or another, but never death as in the later Middle Ages. All the same, such attitudes were reason for such healing practices to remain of low profile.

Some kind of possible evidence may be found in linguistic material.
"*wiccan*" to Aelfric (a noted A/S scholar), this meant a woman healer, and he said "…a Christian ought not to ask a foul witch about his health" (Meaney, 1989, p.19).

"*wyrtgætsre*" seems to mean an enchantress with herbs, which implies deliberate actions with medicines and incantations (Meaney, 1989, p.19).
There has been much discussion about the translations of such words, and of course not a little disagreement!

Part Two and Reference List will appear in the August edition of Cockatrice



On the A-team: Part Four

Lord Anton de Stoc

Avicenna

Avicenna, the Prince of Physicians wasn't from Latin Christendom, and never used the name Avicenna. His was nicknamed that by Latins, and his name was ibn Sina, and he was born in Bokhara in Transuxania, in modern Uzbekistan, in 980, and died in northern Persia in 1037. He was a master of logic, of mathematics, of physics and of metaphysics, but it is the fact he wrote the book on Medicine that, in my opinion, earns him undying fame.

I am not a doctor. I don't know enough to assess just how good the Prince of Physicians medical knowledge as imparted in the Book of the Canon on Medicine was, either of itself, or for its time.

So I'll let Seyed Mohammad Ali Madineh M.D. do this for me, by quoting from his 2009 article in the Journal of Urology (Urol J. 2009;6;138-44 if you want the full cite). This is a partial extract in that article, beginning with translating a section of the Book of the Canon of Medicine dealing with certain matters of Urology, and then reviewing it according to early-21st century medical knowledge.

Book III, Part 19, Treatise 1, Chapter 12

Chapter 12 is on blood coagulation (clotting) [jomoud dod dam in Arabic] in the bladder:

Occasionally, blood can be clotted in the bladder and remain there in coagulated form. Symptoms of blood clotting in the bladder are:

(1) the patient is severely depressed;
(2) sometimes, the patient faints;
(3) on palpation, the extremities are cold;
(4) the patient has short respirations;
(5) the patient's pulse is weak and rapid;
(6) the patient has cold perspiration;

(7) the patient has nausea;
(8) sometimes, hematuria and fever or rigor are seen;
(9) sometimes, blood clots in the bladder after trauma due to direct hit to the bladder or falling down on the bladder.

Discussion 1. Please note that how accurate is Avicenna's description of intravesical hematoma and signs or symptoms of hemorrhagic and septic shock due to hematoma. His notes are comparable to the modern medicine. Avicenna describes shock and its signs such as restlessness, depression of body functions, tachypnea, hypoperfusion of the extremities and coldness, accelerated pulse, and cold perspiration.

Discussion 2. Severe hematoma is one of the predisposing factors of urinary tract infection and septicemia, especially with urinary tract manipulation and catheterization. Today, this complication has been reduced by antibiotics and aseptic manipulation and surgical techniques.

Discussion 3. Avicenna points out to one of the causes of bladder hematoma, ie, bladder and urethral trauma and 2 mechanisms of injury: direct hit to the bladder and straddle injury.

Skipping ahead to the conclusion

Ten centuries ago, Avicenna had described almost all diseases of the bladder. Although treatment methods and medications had not been developed enough, Avicenna's Canon of Medicine is a comprehensive book on semiology. His approach to diagnosis complies with the modern methodology, and even in some interventions such as routes of drug administration and catheterization, his points are astonishing.

Complete copies of the Kitab al Qanoun fi Al Toubb, the Book of the Canon of Medicine is available today ; the American University of Beruit has made available an e-copy edition of the Medici Press 1593 edition and has had the tables of contents translated (yes, it was printed in Arabic in 1593 by the Medici Press in Rome. Yeah, those Medicis)

http://ddc.aub.edu.lb/projects/saab/avicenna/english.html

There is a possibly dodgy summary of the Canon of Medicine on the net. It looks OK, but as I don't read Arabic, I can't compare it to the source text.

http://www.traditionalmedicine.net.au/canonavi.htm

As a side point, in going on about his medical work, I by omission am under-rating his very significant influence as a philosopher. I own an e-copy of his Remarks and Admonitions, and his opening statement of the first part On Logic deserves repeating

Logic is intended to give the human being a canonical tool which, if attended to, preserves him from error in his thought.

Finally, his Commentary on Aristotle's Poetics is well worth reading, as we have an author familiar with the Arabic and Persian poetic traditions commentating on a work by a philosopher about Greek poetry. Cross-cultural enrichment For The Win.

And I've barely even mentioned his Kitab al-Shifa, the Book of Healing, his encyclopedia of knowledge as it then existed.

As well as being the Prince of Physicians, Avicenna is one of those philosophers who permanently moved both knowledge and philosophy forward from where his predecessors left it.

Excellent set of references on ibn Sina here
http://www.farsinet.com/hamadan/avicenna.html

It's an aside, but those wild and crazy guys at Aramco, the best oil company in the world, tell the story of the Medici Press here
http://www.saudiaramcoworld.com/issue/198102/arabic.and.the.art.of.printing-a.special.section.htm

While you're there, get the lowdown on the Al-kitab al-Rujari
http://www.saudiaramcoworld.com/issue/197704/al-idrisi.and.roger.s.book.htm

Cockatrice FAQs

1. **Can I write an article for Cockatrice?**

Yes, you can! Cockatrice is all about sharing your research and your enthusiasm for your particular Art or Science. One of the best things about the SCA is the huge range of 'things' covered under the umbrella of Arts and Sciences from brewing to smithing to philosophy to music to embroidery to costuming to cookery to philosophy to carpentry to shoe-making to textile arts to book binding... Get the picture? The rationale for Cockatrice is to give the people of Lochac a place where they can share their research and passion for an Art or Science and to inspire their readers! This includes anyone interested in Arts and Sciences from Laurels to newcomer.

2. **But what do I write and how much**?

You can write an article on a particular area, like the ones in this edition. I would suggest aiming for around 1000 words as it gives you enough room to express yourself but is still short enough to hold the attention of your reader. If you don't think you could manage writing a full article then there are a number of other ways to contribute including:

- ♣ Write a review of book you have found helpful or interesting. This could be an academic work of research or a popular history or even a work of fiction set in the SCA time period.
- ♣ Write a song or poem. This could be something that you have performed at an event or written for a contest or even for fun!
- ♣ Draw a picture – have you been experimenting with period artistic techniques then send it in!
- ♣ Redact a recipe – send in your versions of favourite period recipes.

3. **But I don't know *everything* about my particular area of interest!**

Firstly, thank goodness! How boring SCA life would be if we did know everything. There are many stages in our research journeys in the SCA and Cockatrice is a place where you can tell other people where you are at this point in time. It doesn't matter if you have been studying one particular area for the last fifteen years or it is something relatively new to you, the purpose of Cockatrice is to give you a platform to tell people about what you have found out so far and to provide them with inspiration in their own journeys in the SCA.

The other point about research in the SCA is that it is often impossible to know *everything* about a particular area, often due to a dearth of primary sources[1]. Other barriers can include difficulties with language and access to resources. One of the fun things about the SCA is the creative part of anachronism – in other words – how did you overcome these particular obstacles. Again Cockatrice is a place where you can tell others about how you have been creatively anachronistic. If you have made modern substitutes then tell us how and why you did so.

Another thing to remember is that part of research is putting our own particular interpretations on period Arts and Sciences. We come up with theories about how and why people in period did things certain ways usually based on our reading of primary source evidence. Cockatrice is a place for you to explain your ideas about an area of interest and describing how the evidence you have collected supports your theories. This may not mean you are definitively right as after your article has been published new information may come to light that may damage your argument or you may rethink what you have said. The important thing to remember is that your article in Cockatrice is a reflection of where you are at on at that stage of the journey and the exciting thing about the SCA is that we always learning new things!

4. How do I reference my article?

There is nothing worse than reading an article full of interesting ideas and thinking where did they get them only to find that there are no references! If you are submitting an article to Cockatrice it is important that at the minimum you include a reference list of all the sources you have included.

For Referencing Websites:
Include the URL of the website and the date you accessed it. The date is important because due to website being often frequently updated this date tells us what version of the website was used.
This could look like:
French Metrology (*n.d.*).*The metre adventure*:
http://www.french-metrology.com/en/history/metre-adventure.asp,
viewed 30 September 2012.

[1] In case you are not sure of the terminology – a primary source is created at the time e.g. a period manuscript, tapestry, dress, embroidery, sword etc. A secondary source is a piece of research based on these primary sources e.g. examining period embroidery examples to present an article on the different stitches used.

For Referencing Books:
Book References should include the author, title, publisher, city and date of publications and look like:
Palmer, John, *How to Brew* (Brewers Publications: Colorado, 2006)

If you are including an article out of a book it should look like:
Geijer, Agnes, 'The Textile Finds from Birka' in N.B. Harte and H. Ponting (ed), *Cloth and Clothing in Medieval Europe*, (Heinemann: London, 1983), pp. 80-99

If it is an article from a magazine:
Gribling, Barbara, 'The Black Prince: hero or villain', *BBC History Magazine*, January 2013, vol. 14, pp. 30-40

For Referencing Images:

All images used in articles must be referenced for copyright reasons. It also pays to check that the owner of the website is happy for you to use their images in your own work! You can either include the referencing with the images in your article or create an image list at the end. This should be referenced like any other book or website.

Looking forward to see your articles!

The Editor

Contributors

Mistress Eloise Darnell is an Englishwoman in the 16th century with an active interest in Italian and German printing and publishing (and fashions!) through her family's merchanting connexions. Mundanely, Louise produces prints using both modern and historical methods when able to access the print studio, and also produces art in a variety of other mediums.

Lord Anton de Stoc has fled the Wars of Religion in sixteenth-century Germany, and is currently living in the Barony of Rowany. He has been known to do science, philosophy, astrology and geometry, and has done various things to advance the Republic of Letters in Lochac. He has been known to occasionally use a sword and teach swordsmanship and footwork.

Yrsa Njalsdotter is a Viking living in the early 10th C Danelaugh, and married to Tidnoth, a Saxon. She was attached to the household of a Lady in Denemark, and there she was a healer as well as companion to her. Having trained an apprentice she was given leave to marry Tidnoth (who worked on a trading vessel running between Denemark and Aengla Land) and leave the household to live in Aengla Land. Here I continue my work with healing, though not all have been happy to seek my advice!

Lord Lowrens Wilyamson hails from somewhere in lowlands Scotland in the 15th century. Somewhere along the way he has learned to read and write and gained some knowledge of music. These days, he lives and works in Southron Gaard as a woodwright, with some pretensions as a luthier.