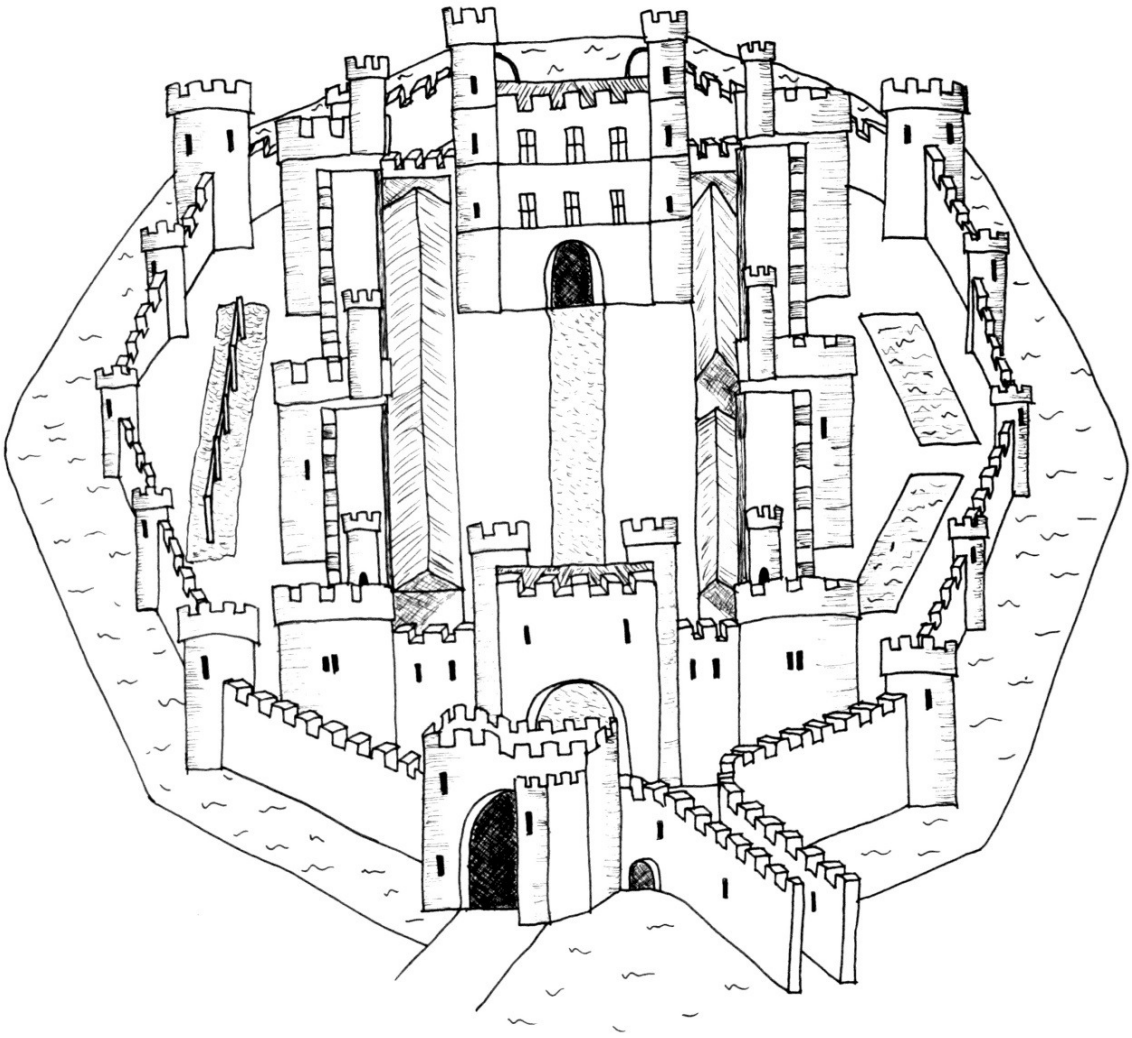
# Cockatrice



Beaumaris Castle by Honey of the Forest

May A.S. 49

# Table of Contents

Articles



Columns



**This is the May AS 49 (2014) edition of Cockatrice, a publication of tl Kingdom of Lochac of the Society for Creative Anachronism, Inc. (SC Inc.). Cockatrice is an email publication only via subscription with tl editor. It is not a corporate publication of SCA, Inc., and does n delineate SCA, Inc. policies.**

**Credits for this issue:**

| | |
|---|---|
| Cover Art: | ©2014, Honey of the Forest, Used with permission |
| Clipart: | Medieval Woodcuts Clipart Collection (http://www.godecookery.com/clipart/clart.htm), pp. 11, 19, 28, 36, 37<br>Retrokat (http://www.retrokat.com/medieval), pp 16 and 17 |
| Articles: | p. 4 Nicholas Sheppard, ©2014, Used with permission<br>p. 13 Rachel Horne, ©2014, Used with permission<br>p. 18 Sandra Wheeler, ©2014, Used with permission<br>p. 20 Belle Sibley, ©2014, Used with permission<br>p. 30 Nigel Presland, ©2014, Used with permission |

# From the Editor

Happy SCA New Year! I hope AS 49 treats you kindly.

I will keep my column short this time as we have an action packed edition. Please note the new column – Cockatrice Cooks. I would love this to become a place where the cooks of Lochac can share their redactions of period recipes. But for this to happen we need YOU! I have coerced Lady Mýrún in to sharing one of the dishes she cooked for the recent excellent feast for Southron Gaard's Baronial Anniversary to give you an idea of what can be done for this column. I would, however, love to see recipes from all over the kingdom. So if you are cooking a feast or even cooking in the privacy of your own kitchen then please let us know what you are up to!

**Elisabetta Foscari**

To contact the Editor email:

elisabettafoscari@gmail.com

# Cockatrice Calendar AS 49 (2014/15)

| | | |
|---|---|---|
| August 49 Edition | Submissions due | 1 July |
| | Published | 1 August |
| November 49 Edition | Submissions due | 1 October |
| | Published | 1 November |
| February 49 Edition | Submissions due | 1 January |
| | Published | 1 February |

## Cockatrice Team

**Editor:** Signora Elisabetta Foscari

**Deputy Editor (Website):** Lady Christine Bess Duvant

**Deputy editor:** Lady Leonor de Alcocer

To contact the Cockatrice team email elisabettafoscari@gmail.com

# Don't Try This at Home: Curious Adventures in Mediaeval Science and Technology

*Lord Ælfred se leof*

## Introduction

While researching mediaeval kites for an arts and sciences competition and *Cockatrice* article some years ago, I read that one Giovanni della Porta (1535 - 1615) suggested some curious uses for kites in his *Magia Naturalis* of 1558 (se leof, 2006). Having considered (actual) kites bearing kittens and puppies into the air, della Porta suggests that a man could be taught to fly by training him from birth to beat large wings attached to his arms.

So far as I know, no one has ever attempted to validate della Porta's theory by supplying their children with wings. That's probably a good thing, but I nonetheless felt that thinkers like della Porta deserved recognition for the, ahem, unusual scope and originality of their ambitions. So I set out to compile a collection of what we would now call 'mad science'.

Any definition of 'mad science' is somewhat subjective: presumably the philosophers mentioned in this article thought that their ideas were perfectly reasonable. As any crank will tell you, many ideas that seemed ridiculous at first are now widely accepted. (Of course cranks fail to mention that many more ideas that seemed ridiculous at first continued to seem ridiculous after the second, third, fourth and all subsequent examinations.) In this article, I've selected a range of ideas that are at once 'scientific' in the sense that they are based upon theories developed by study of the natural world (however flawed) and 'mad' in the sense that their ambition lies outside the range of what we would consider 'normal'.

So far as I am aware, no one has established a comprehensive and authoritative repository of crazy ideas throughout history, though the *Annals of Improbable Research* (http://www.improbable.com) perform this service for modern scientists and I first encountered several of the ideas mentioned in this article in Reto U. Schneider's *Mad Science Book* (2008). I've consequently been reduced to collecting these stories haphazardly over the time I've spent reading about the history of science. Any readers knowing of other ideas fitting the theme of this collection are welcome to send them to me via e-mail.

## Language

While I haven't heard of anyone teaching their children to fly, plenty of thinkers throughout history haven't been afraid to experiment on children in other ways. One experiment purported to have been carried out several times in antiquity and the Middle Ages intended to find out which language is the original one spoken by humans (Sułek, 1989).

The Greek historian Herodotus records a story, apparently well-known at the time, of the Egyptian Pharaoh Psammetichus (664 - 610 BC), who reasoned that children brought up without being exposed to any language would come to speak whatever language was natural for humans. So he took two new-born children and left them in the care of a herdsman, who was forbidden to speak to them. After two years, the children were heard to speak the Phrygian word for "bread", leading Psammetichus to conclude that Phrygian was the natural language of humans.

There are several flaws in Psammetichus' reasoning, even if we put aside the unjustified assumption that there *is* a universal human language. Most obviously, one word does not a language make, and it seems eminently plausible that the children (if they existed at all) simply produced some random babbling that happened to sound like "bread" to the adults around them.

Later experimenters of this sort include the Holy Roman Emperor Frederick II (1194-1250), King James IV of Scotland (1473-1515) and Akbar the Great of India (1556-1605). Frederick's attempt is the most widely known, but was terminated by the deaths of all of the children involved, supposedly due to the lack of affection shown to them. Akbar's subjects survived, but were unable to speak.

## Medicine

Medicine is such a magnet for crazy ideas that English has a special word – "quackery" – to describe nonsense of a medical nature. Mediaeval medicine, based on theories of Galen that we now know to be hopelessly misguided, is notorious for treatments that were both gruesome and ineffective, if not downright harmful. David Wootton's book *Bad Medicine* (2006) chronicles dangerous medical practices from antiquity to the present day, but he doesn't include any of the following treatments – possibly because they actually worked.

In relating the history of a sixteenth-century Italian surgeon by the name of Gaspare Tagliacozzi (1545 - 1599), Gnudi and Webster (1950) quote the story of an earlier Spanish surgeon who happened to be on hand when one Messer Andres Gutiero had his nose cut off during an altercation with a soldier. Aware of the antiseptic properties of urine, the quick-thinking surgeon promptly urinated on the severed nose and re-attached it to its owner. The operation appears to have been successful.

Tagliacozzi himself gives instructions on how to re-construct missing noses, which you can find summarised on his page at the UK's Science Museum (http://www.sciencemuseum.org.uk/broughttolife/people/gasparetagliacozzi.aspx viewed 16 February 2014). Tagliacozzi cuts a flap of skin from the patient's arm, then sews the flap (still attached to the arm) over the nose's former position. Around twenty days later, the skin of arm grows into the nose, and the arm can be cut free. A further fourteen days later, the flap is ready to be shaped into a nose.

Unless you're a plastic surgeon, you probably won't much opportunity to replace anyone's nose (and, if you are, you probably have more efficient procedures than Tagliacozzi's). But if you've ever tried to lose weight, you might appreciate the achievement of Sanctorius Sanctorius (1561 - 1636), an Italian physician known for his contribution to the measurement of body mass.

Sanctorius meticulously weighed himself, all of the food that he ate, and all of the urine and excreta that he emitted for a thirty-year span near the end of the SCA period (Schneider, 2008). He published his observations in *De Statica Medicina* in 1614, including his famous finding that a person who eats eight pounds of food a day will typically lose five pounds in "insensible perspiration", that is, not into the toilet.

## Aviation

I've already mentioned Giovanni della Porta's scheme for getting people into the air. Lynn White Jr. details several even earlier attempts in an article entitled *Eilmer of Malmesbury, an Eleventh Century Aviator* (1961). Eilmer was a monk at the abbey of Malmesbury in England. The same abbey was later inhabited by the well-known historian William of Malmesbury (c. 1095 - c. 1143) who, writing around a century after Eilmer's time, records that Eilmer "fastened wings to his hands and feet ... and, collecting the breeze on the summit of a tower, he flew for more than the distance of a furlong." (A

furlong is a distance of about 200 metres). Eilmer subsequently fell out of the air, breaking both legs and leaving him lame for the rest of his life.

Eilmer is, in fact, the second person reported to have achieved this feat, including its disappointing conclusion. The seventeenth-century Moroccan historian al-Maqqarī, apparently using earlier sources that no longer exist, records that an Andalusian by the name of Abbās ibn Firnās undertook a remarkably similar venture in the ninth century. al-Maqqarā's sources report that ibn Firnās "covered himself with feathers ..., attached a couple of wings to his body, and ... flung himself into the air." After flying "a considerable distance", he managed to return to his starting point, only to hurt his back in the landing.

White thinks that Eilmer's wings "were intended to flap like those of a Bird", though it seems equally likely to me that both Eilmer and ibn Firnās simply glid over the distances that they are reported to have travelled, something like a modern hang-glider. But the English friar Roger Bacon (c. 1214 - 1294), an early proponent of experimental science, clearly envisaged the flapping of wings in *On the Marvellous Power of Artifice and Nature* when he wrote "it is possible that a device for flying shall be made such that a man sitting in the middle of it and turning a crank will cause artificial wings to beat the air after the manner of a bird's flight" (quoted in Hannam 2009, p. 146).

Leonardo da Vinci (1452 - 1519) took things a step further by proposing and drawing several flying machines, a concise summary of which can be found in Charles Gibbs-Smith and Gareth Rees' *The Inventions of Leonardo da Vinci* (1978). Few people would describe da Vinci as a "mad scientist", and he at least seems to have had the sense not to get into any if his proposed contraptions. But, ultimately, his ideas had no more success than those of Eilmer and ibn Firnās.

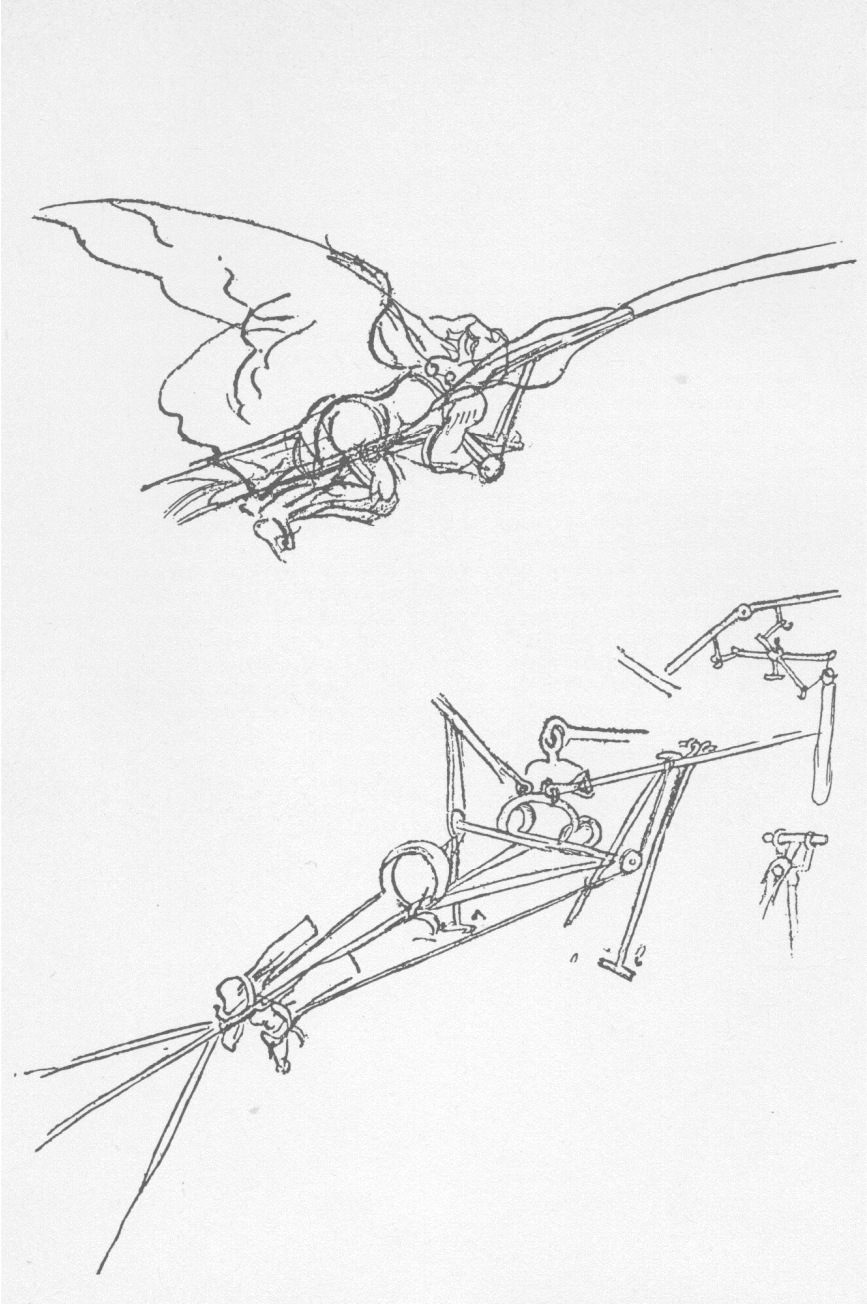


**Figure 1 One of da Vinci's ornithopters.**

That such things might fly probably seemed obvious to people who had only ever seen birds and bats fly, but Gibbs-Smith and Rees observe that (a) humans simply do not have enough muscle power to flap bird-like wings and (b) birds actually obtain their lift from the inner part of their wing rather than the down-beat of their feathers.

Later on in life, da Vinci came around to the idea of craft with a rotating screw supposed to work something like a modern helicopter. Gibbs-Smith and Rees say that flying toys using windmill-like rotors were actually constructed in the fourteenth century, some 150 years before da Vinci designed his machines, but I haven't been able to find any other documentation for such toys. Numerous web sites also point to the existence of flying

tops as far back as 400 BC in China, which appear on a timeline published by J. Gordon Leishman (2006, p. 7). Leishman himself thinks that da Vinci's design was based on Archimedes' screw for lifting water, and makes no mention of flying tops being available in mediaeval Europe.

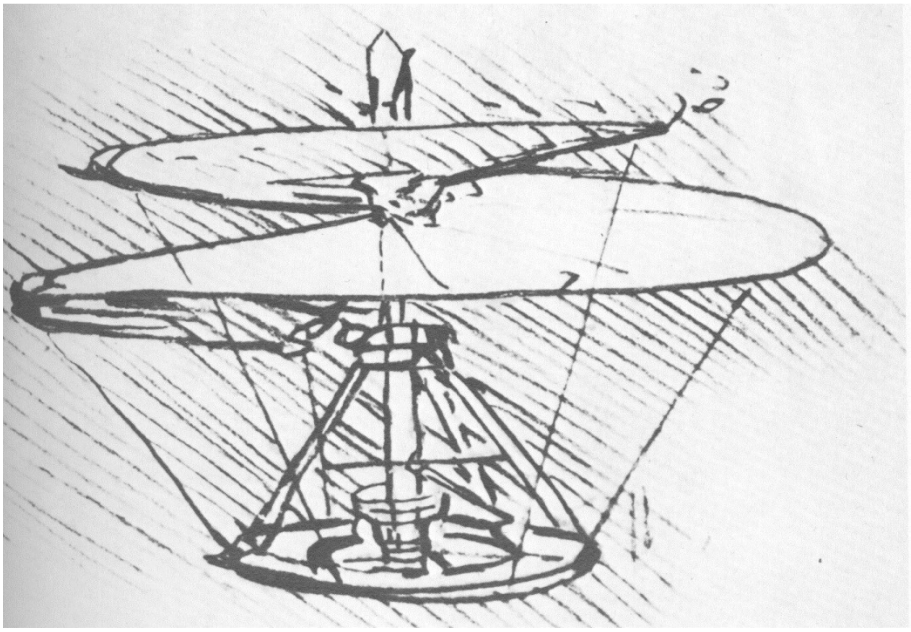


**Figure 2 Da Vinci's helicopter.**

It wasn't until 1783 that Joseph and Étienne Montgolfier achieved (safe) human flight in the world's first hot air balloon, which used a completely different principle to the wing-based ideas espoused by mediaeval aviators (Schneider, 2008). Ibn Firnās and Eilmer, however, arguably have the last laugh in that most air travel today is conducted using fixed-wing heavier-than-air craft.

## Warfare

Whatever one thinks of Leonardo da Vinci's flying machines, many of his military inventions might seem mad if later military thinkers hadn't devised ideas even more terrible. Gibbs-Smith and Rees assert that "Leonardo was a gentle man" (p. 30), but he was nonetheless well-supplied with ideas for destroying fortresses with cannons and other artillery, and mowing down soldiers with chariot-driven scythes (p. 30) and exploding shrapnel (p. 46).

Other military writers of the day, such as Conrad Kyeser (1366 - ?) and Hans Talhofer (c. 1410 - c. 1482), also produced descriptions of war machines including armoured vehicles that modern authors like to refer to as "tanks". John Napier (1550 - 1617), a Scottish

mathematician most famous for inventing the logarithm, proposed not only tanks but "burning mirrors" supposed to set ships alight from afar using a similar principle to the one used by modern school children to destroy ants with a magnifying glass (more on these below).

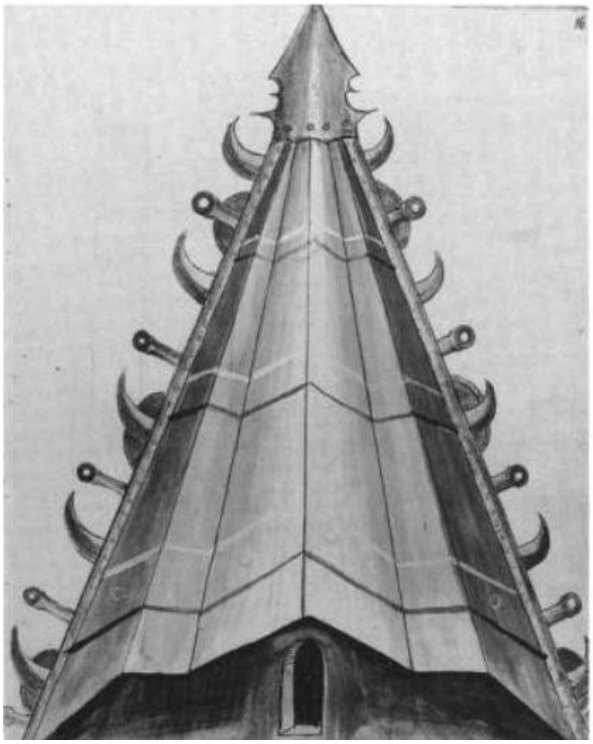


**Figure 3 A "tank" from Conrad Kyeser's Bellifortis (1405), supposedly used by Alexander the Great. Soldiers enter through the door at the bottom of the picture. The attachments along either side are scythes and cannons for keeping the enemy at bay (Long, 2001).**

Napier's letter, known as his *Secrett Inventionis* and re-printed in Mark Napier's *Memoirs of John Napier* (1834), also proposes an artillery device able to lob a projectile into a field and destroy everyone within a certain distance of its landing point. It isn't clear whether Napier ever built his other devices, but Thomas Urquhart (1611-1660) claims that the artillery device was successfully tested on a mile-wide field of Scottish sheep and cattle (quoted in Stewart & Minto (1788, p. 15)). Exactly how it worked is unclear.

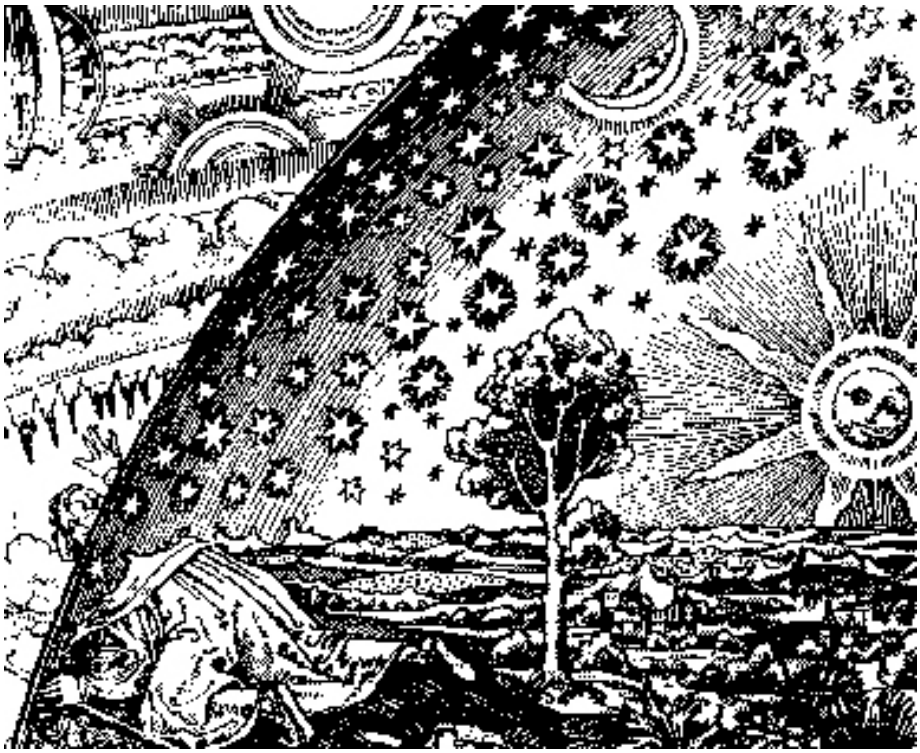
The great grand-daddy of military invention, however, is Archimedes (c. 287 - c. 212 BC). Archimedes lived in Syracuse, a town in Sicily, which was famously besieged by Romans over 214-212 BC. According to Polybius' *Histories* (1922), Archimedes developed machines for hurling missiles at the ships as they approached, and built holes in the city walls through which archers and machines could fire at the invading soldiers. Most impressively, perhaps, he engineered a crane that was able to lift a ship by its prow. A

ship caught by the crane could be lifted until it stood on its stern, and then dropped back into the water.

Later authors, beginning with Anthemius of Tralles (c. 500 AD), additionally credit Archimedes with the use of burning mirrors to set fire to the invading ships (Simms, 1977). While destroying ants in this manner is simple enough, and modern concentrated solar thermal power plants use a similar arrangement of mirrors to produce steam using the sun's rays, engineers of Archimedes' (and Napier's) day faced a number of practical problems with constructing and using mirrors large enough to burn a ship. The earliest histories of the siege, in fact, make no mention of such a mirror existing. The Courant Institute of Mathematical Sciences at New York University provides a detailed refutation of the myth as part of their pages on Archimedes at
http://www.math.nyu.edu/~crorres/Archimedes/Mirrors/legend/legend.html

## Conclusion

Needless to say, I haven't tried any of these. But however dangerous, gruesome, and/or unethical many of these experiments might have been using mediaeval technology, it might be argued that their inventors were often on the right track in that modern technology has actually achieved many of their goals. They just needed a few centuries' further development.



## References

Gibbs-Smith, Charles and Rees, Gareth. *The Inventions of Leonardo da Vinci*. Phaidon Press, Oxford, UK, 1978.

Gnudi, Martha Teach and Webster, Jerome Pierce. *The Life and Times of Gaspare Tagliacozzi, Surgeon Bologna, 1545-1599*. Herbert Reichner, New York, New York, 1950.

Hannam, James. *God's Philosophers: How the Medieval World Laid the Foundations of Modern Science*. Icon, London, UK, 2009.

Leishman, J. Gordon. *Principles of Helicopter Aerodynamics*. Cambridge University Press, New York, New York, 2006.

Long, Pamela O.. *Openness, Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Rennaisance*. Johns Hopkins University Press, Baltimore, Maryland, 2001.

Napier, Mark. *Memoirs of John Napier of Merchiston, His Lineage, Life, and Times, With a History of the Invention of Logarithms*. William Blackwood, Edinburgh, Scotland, 1834.

Polybius. *The Histories of Polybius*. Loeb Classical Library. Harvard University Press, Cambridge, Massachussetts, 1922. Translated by W. R. Paton.

Schneider, Reto U.. *The Mad Science Book*. Quercus, London, UK, 2008. Translated by Peter Lewis.

se leof, Ælfred. Flying dragons. *Cockatrice*, 30, 2006.

Simms, D. L.. Archimedes and the burning mirrors at Syracuse. *Technology and Culture*, 16(1):1-18, 1977.

Stewart, David and Minto, Walter. *An Account of the Life, Writing, and Inventions of John Napier, of Merchiston*. R. Morison and Son, Perth, Scotland, 1788.

Sułak, Antoni The experiment of Psammetichus: Fact, fiction, and model to follow. *Journal of the History of Ideas*, 50(4):645-651, 1989.

White, L. Jr. Eilmer of Malmesbury, an eleventh century aviator: A case study of technological innovation, its context and tradition. *Technology and Culture*, 2(2):97-111, 1961.

Wootton, David. *Bad Medicine: Doctors Doing Harm Since Hippocrates*. Oxford University Press, Oxford, UK, 2006.

# A love poem in the style of trobar leu by a Trobairitz in 12th century Occitan

*Countess Liadan ingen Fheradaig*

My primary persona in the SCA is 12th century Crusader, so when I discovered the work of the Trobairitzs and Troubadours, which exists in the right time and place for my persona, I decided to attempt to create my own poem. After many attempts, and varying degrees of rhyming and too obvious innuendos, I came up with my entry and I am pleased with it. It reflects the style of the Trobairitz in terms of its form, its style and its genre, and it is also entertaining.

## Background Research

Trobairitz (or Troubadour for men) were composers and performers of lyric poetry around the time 1100-1350 in Occitan. There were many different styles of poetry known to be composed by both Troubadours and Trobairitz, and the styles spread from Occitan through to Italy, Spain and Greece. A reasonable amount of the work of Troubadours still exists, although there are many less examples of the work of Trobairitz available

There are many different theories on where the styles of the Troubadour originated from, including that they were heavily influenced by Arab songs which were intense, profane and erotic originating from the second half of the 9th century onwards, or giving credit for them to Christian influences, Celtic influences, classical Latin influences, and even Feudal-social and folklore influences.

Troubadours came from a variety of backgrounds, including high nobility (such as the Duke of Aquitaine), petty nobles (such as Berenguier de Palazol), poor knights, and later on, lower classes such as merchants, fisherman and clerics. This sort of information is gleaned from the *vida*, which is biography of a Troubadour written in short prose, many of which still exist. However, many *vida* are based on interpretations of the work of the subject Troubadour and are therefore not overly reliable.

The use of the word Trobairitz (for women) first sprung up in the 13th century Romance of Flamenca. It is thought that there were around 20 named Trobairitz, although as so

little of their work exists it is impossible to know for sure. Comtessa de Dia had four surviving works, and Castelloza (pictured below) had three or four.

The most popular style used by the Trobairitz is known as trobar leu, meaning light. This style of poem was usually relatively simple and entertaining, and contained metaphors and symbols so that the subject matter of the poem looked to be one thing on its surface but another if you knew the inside story. Most of the trobar leu poems written by the Trobairitz were in the canso genre, meaning they were about love. These poems were commonly 5 or 6 stanzas long and ended with a short stanza that either addressed the subject of the poem, or which commented on the prior stanzas. These final stanzas were called envoi and were quite common in canso. It was common for genres to be mixed together, for example a canso could be mixed with a canso de crozada which would be about a Crusade, or a sirventes, which is about politics.

One of the best resources I accessed was a website titled The Women Troubadours (http://www.umich.edu/~eng415/topics/women/Female_Troubadours), as it provided samples of actual extant poetry as well as information on who wrote it. This assisted me to understand some style and rhythm options, and gave me more context for what I was attempting to re-enact.

## Method

After doing my initial research, I decided to do a canso, but one which didn't have a happy ending as I thought this would be more popularly received. Even though canso are love songs, they weren't necessarily always nice.

I started off by throwing around some basic ideas around Crusades, lovers, metaphors and innuendos. My first few drafts were based on my character seeing the love interest from across Court, and pining for him and the things she wished to do with him.

I tried out using metaphors to describe certain actions in a way that looked innocent on one level, but had a different meaning which only some people would understand. Most of these attempts were not subtle enough, and so I decided to leave that idea for another time. For example, one of the stanzas was:

> As the checking of your provisions progressed into the night
> You did suggest it necessary to inspect each piece under light

I did as you beckoned and was quite pleased with what I saw
For each item you showed to me proved strong and fit for where it was to be stored

After a few different attempts, I decided to try a different approach, where the subject matters of the poem are actually out on Crusade. I had intended to describe a battle as a metaphor for the characters going to bed, but again was unable to do it subtlety enough to make it appropriate for a wide audience. In the end, I decided to avoid the blatant references to bedroom activity, and instead wrote a poem where the subject admires her leader on the Crusade from a distance, and as the Crusade continues she gets more intense in her interest, and eventually, after a particularly bloody battle, she sleeps with the other subject of the poem. The poem reflects what I'm sure is a typical story of that time, where on a Crusade a man accepts the loving embrace of a women or man, that women or man expects some sort of legitimatisation upon their homecoming, but instead find themselves spurned and the subject of gossip. After all, all is fair in love and warre.

**My Poem:**

## On Crusade with You

You shine like a beacon of hope and light
Amongst the chaos of this bloody Crusade blight
You are the leader, the strong and fearless one
Amongst the rest of us who soldier doggedly along

Your voice is like molten steel, all heat and red glow but with an obvious strong hide
Amongst the men on this Crusade with whom I fight alongside
You are the one to who I tie my purpose and my life
Amongst the chaos and confusion you are the shining shield against Saladin's knife

Your profile is like a reflection of the face of the Gods carved in stone
Amongst the burning sun and endless days it gives me hope we will some-day return home
You are the handsome man who I dream about while resting on this harsh ground
Amongst the hardships and sorrow, the imagined feel of you in my arms is profound

Your hands are as gentle as the waves on a summer lake and yet solid as rock
Amongst the endless nights spent sleeping alone I wantonly wait for you to knock
You are the one who I want to keep me warm in my byre
Amongst the fear and the longing, your scant attentions keep me a-fire

Your body is like a fine work of art, all convex and concave and good manly shape

Amongst the shrieks as we charge into war
Yours are the arms that direct and shield us as we fight red haze and enforce Holy law
Amongst the blood and the gore, the death and the spared lifeYou're still standing at the very end and I slowly slip into a dream, and in it I am your wife

The shapes our bodies make as we twine and move together
These are the moments I wish to hold on to forever
Amongst the honeyed words and touching promises I see that you do care
Your love for me is well-veiled but I'm sure that it's there
Your conviction that you will one day make me an honourable woman gives me hope
Amongst the victory and the triumph and the trumpeting salutes
You are the one who makes my heart sing, and I look forward to seeing material proof of your love soon, with a ring.

*My leader and my lover, you will not permit me to mention you by name*
*But surely you do realise my feelings and those of your actions which are definitely to blame?*
*The Crusade was won and we did return safety home*
*But yet I still do not have the ring and your lack of action has led to my shame*
*It is true what they whisper, that you are engaged to another?*
*But now what am I, I thought I was to be your child's mother?*
*The wise folk say that all is fair in love and warre, but for this, oh my thwarted love,*
*I swear that I will see you suffer.*

## Conclusion

I am pretty happy with the poem I have written, and am confident that it will be popular with a broad audience and will garner some laughs. Without being able to access much of the actual work of the Trobairitz, it is hard to definitely say what sort of words and rhythms they would have used, but I'm confident that it's a good attempt. Next time I would try a different genre, perhaps a sirventes, and maybe make some comments on the current Royal Court in Lochac for a bit of fun.

## Resources:

Author unknown, *Trobar Leu, Encyclopedia of Medieval Literature 2013* (accessed 14 Feb 2014, http://medieval_literature.enacademic.com/598/trobar_leu)

Author unknown, *Troubadour*, (accessed 12 Feb 2014, http://en.wikipedia.org/wiki/Troubadour)

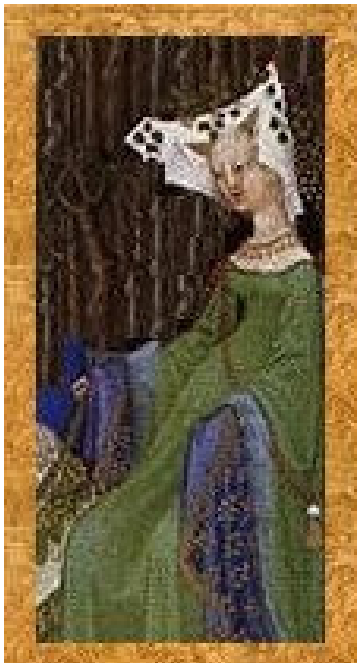
Author unknown, *The Great Crusades: A Woman's Role*, 8 Dec 1997 (accessed 12 Feb 2014, http://www.umich.edu/~eng415/topics/women/women-article.html)

Author unknown, *The Women Troubadours*, (accessed 13 Feb 2014, http://www.umich.edu/~eng415/topics/women/Female_Troubadours.html)

Bogin. M, *The Female Troubadours.* Norton, New York, 2013)

Chaytor, H. J, *The Troubadours*, Cambridge: Cambridge University Press, (accessed 13 Feb 2014, http://www.fullbooks.com/The-Troubadours1.html)

Warren. F. M, *The Troubadour Canso and Latin Lyric Poetry*, 1912, Modern Philogy pp 469-487 (accessed 13 Feb 2014,http://www.jstor.org/sici?sici=0026-8232%28191204%299%3A4%3C469%3ATT%22ALL%3E2.0.CO%3B2-Z)



# Cockatrice cooks!

*Redaction by Lady Mýrún Jóhansdóttir*

## Mishmishiya

From Constance B. Hieatt, Brenda Hosington, and Sharon Butler, *Pleyn Delit – Medieval Cookery for Modern Cooks,* 2nd Edition, (University of Toronto Press: Toronto, 1996), Recipe No. 80

### Original recipe

Cut fat meat small, put into the saucepan with a little salt, and cover with water. Boil, and remove the scum. Cut up onions, wash, and throw in on top of the meat. Add seasonings: coriander, cumin, mastic, cinnamon, pepper, and ginger, well ground. Take dry apricots, soak in hot water, then wash and put into a separate saucepan, and boil lightly; take out, wipe in the hands and strain through a sieve. Take the juice, and add it to the saucepan to form a broth. Take sweet almonds, grind fine, moisten with a little apricot juice, and throw in. Some colour with a trifle of saffron. Spray the saucepan with a little rosewater, wipe its sides with a clean rag, and leave to settle over the fire, then remove.

### Redaction

The following was prepared as part of a feast for 40 people, and with limited cooking facilities and helpers it was prepared to be cooked in the slow cooker/crock pot and to need limited time spent on preparation.
The following quantity will serve 8 people as a main course

- 900g boneless lamb, in chunks
- 1 tsp salt
- 1-2 onions, finely chopped (may be omitted)
- 2/3 cup chicken stock
- 1 tsp each ground coriander, cumin
- ½ tsp each ground pepper, cinnamon
- ¼ tsp ground ginger

- 230g dried apricots, soaked in boiling water 15 minutes, boiled 5 minutes and pureed in a blender
- 60g ground almonds
- 1 tsp rosewater
- Oil for frying

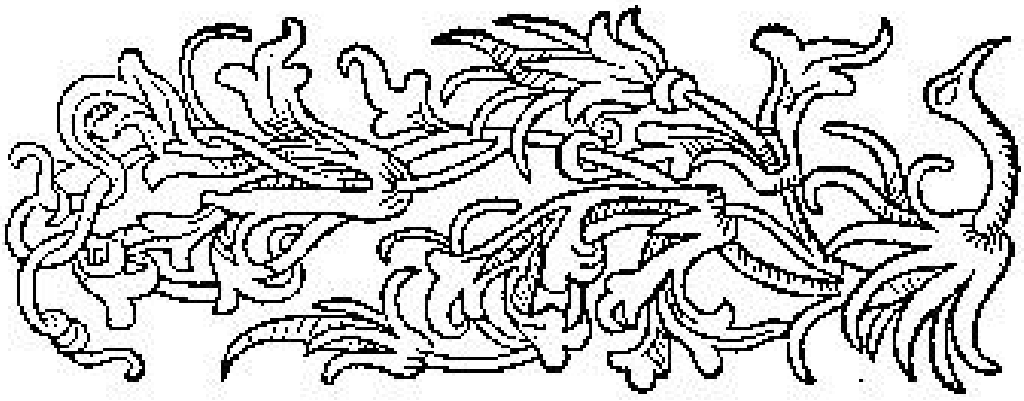
A slow cooker is also required, set to Low.

Brown the lamb a portion at a time over medium heat and with a little oil, ensuring that the lamb is sealed, and then place in the slow cooker. Reduce the heat and using a little more oil, brown the onion and add to the slow cooker. Then deglaze the pan with the chicken stock and add the resulting liquid to the slow cooker. Add the spices, mix thoroughly and then leave to cook for at least 2 hours.

Meanwhile, soak the dried apricots in hot water for 15 minutes, and then puree the apricots with some of the water they were soaked in. Mix in the ground almonds and then add this to the stock pot, along with some more of the apricot water if the mixture looks too dry, the lamb should remain moist.

Allow to cook for another 1 – 1 ½ hrs, checking from time to time to ensure it is not becoming too dry, add more apricot water if it is. Turn off the heat and remove the crock pot lid for about 15 minutes before serving

For serving, spoon into the serving dishes and sprinkle the top lightly with rosewater, or wipe the serving dish lightly with rosewater before adding the stew.



# The Egg Test for Period Brewers and Mead Makers

*Mistress Roheisa le Sarjent*

Sir Kenelm Digby, (11 July 1603 – 11 June 1665) was a 17th century English courtier, diplomat, privateer, entrepreneur, natural philosopher and the inventor of the modern wine bottle, but is perhaps best known for his posthumously published cookbook, *The Closet of the Eminently Learned Sir Kenelme Digbie Knight Opened*. Compiled from Digby's lifelong collection of recipes by a close servant and published in 1669, several years after Sir Kenelm's death, it is an excellent source of period brewer's recipes, especially those for honey based drinks.

At least 55 of Digby's recipes (all for meads, metheglens and hydromels) contain the instruction to make your liquor *"to bear an egg"* or words to that effect. The same instruction appears in a mead recipe from the Danish Koge Bog of 1606, and in numerous pickling recipes of the new world colonies. Some versions are as brief as *"try with a new-laid- egg"* whilst others go into considerable detail. In this article I will explore those details and see how the egg test might be applied to historical brewing.

## How does the "Egg Test" work?

The larger end of a bird's egg contains an air cell that forms when the contents cool and contract after the egg is laid. A fresh egg has a relatively small air cell, but the size increases with time as the shell is very slightly porous allowing slow evaporation. An old egg has such a large air cell it will actually float in water and this is often used as the test for whether an egg is fit to eat. A fresh egg, whether fertilized or not, will sink in plain water, however in a solution of sugar or salt the egg will begin to float once the specific gravity of the solution reaches a certain point. This being the case eggs can be used as a sort of primitive hydrometer to test the concentration of a solution. This is especially useful in the case of honey where the level of sugars varies from one honey source to another. A thick, heavy honey will have more sugar per liquid volume that a thin, runny honey. The usual proportions for mead of 1 gallon of water (4.5 ltrs approx) to one quart of honey (1.14 ltrs approx) will result in widely differing sugar levels depending on the quality of the honey used. As the recipe from Digby for MR. PIERCE'S EXCELLENT WHITE METHEGLIN tells us:

> *"When it is blood-warm, put the honey to it, about one part, to four of water; but because this doth not determine the proportions exactly (for some honey will make it stronger then other) you must do that*
> *by bearing up an Egge."*

And the recipe for MR. CORSELLISES ANTWERP MEATH tells us:

> *"When all is dissolved, it must be so strong that an Egge may swim in it with the end upwards. And if it be too sweet or too strong, because there is too much Honey; then you must put more water to it; yet so, that, as above, an Hens Egge may swim with the point upwards"*

The way that Digby's recipes refer to the egg test makes it clear that this was a well-known and often practiced method of testing the honey must (honey and water solution). As with modern cook books the assumption is made that the reader already knows what to do and doesn't need to have the term explained. Most such recipes were never intended to be followed by strangers (let alone 400 years later and on the other side of the world) but written for those already familiar with mead making. Thankfully some of Digby's recipes do appear to have been written for novice brewers and go into greater explanation.

## What is Specific Gravity?

Gravity, in the context of brewing, refers to the specific gravity or relative density of the wort (liquid from the boiled grains for beer) or must (fruit juice or diluted honey for wine or mead) compared to water. Water (at sea level and 20°C) has a gravity of 1.0 whilst the original (starting) gravity for worts is around 1.040, and for musts is in the range of 1.060 to 1.130 SG. In modern brewing we use a hydrometer to take a starting and a finishing gravity in order to calculate the alcohol content of the finished product. For the medieval brewer this was not a consideration. The micro-biology behind brewing was not understood, so the yeast was simply left to do its thing until it was done, and artificially stopping the yeast to achieve a particular sugar/alcohol balance was not practiced. All the medieval brewer needed to know was if he had enough sugar at the start to get the sweetness he desired by the time the yeast stopped working, so only the initial reading was needed. I used a modern glass hydrometer to measure the specific gravity of refined sugar dissolved in plain water and tested this against a variety of eggs, taking their average to produce an "egg test" table which can be used as a

rough substitute for the modern hydrometer. All of my readings were taken at a room temperature of about 20 degrees C at close to sea level.

## How to Select Your Egg

Firstly, Digby is very clear that the egg is to be a new laid hen's egg. Not duck, or goose, or other fowl but hen.

This still allows for a substantial variation in eggs, since the breed of the chicken, age, health and diet also affect the size of an egg. Presumably the experienced mead maker knew the type and size of eggs they had previously used for the egg test, and knew to select a similar egg each time in order to get consistent results. Thankfully MR. PIERCE'S recipe explains;

> *"...put a good number, (ten or twelve) New-laid-eggs into it, and as round ones as may be; For long ones will deceive you in the swiming; and stale ones, being lighter then new,*
> *will emerge out of the Liquor, the breadth of a sixpence, when new ones will not a groats-breadth. Therefore you take many, that you make a medium of their several emergings; unless you be certain, that they which you use, are immediately then laid and very round."*

## What the Groat?

Whilst often the instruction is merely that the liquor *"beareth an Egge boyant"* many of the Digby's recipes add *"so that the breadth of a groat is out of the water"* or other words to similar effect.

A groat is a silver coin, with a value of four pennies. Between 1561 and 1662 the groat was issued irregularly and extant examples are fairly rare. Early groats were hand hammered and varied in size. The more regular milled or machine minted groat only became common in the years just before Digby's death. Information about groats available on the internet is extremely inconsistent however CoinQuest.com tells us that the groat issued during Digby's life time by King Charles 2nd (1625 to 1649) was approximately 20mm in diameter.

> MY LADY COWERS WHITE MEATHE USED AT SALISBURY recipe states: *"and when the Egge riseth above the water, to the bigness of a groat in sight, it is*

> *strong enough of the honey"* SIR JOHN ARUNDEL'S WHITE MEATH says: *"Then put in a New-laid-egg; if the Liquor beareth the Egg, that you see the breadth of a groat upon the Egg dry you may set it over the fire"* and TO MAKE METHEGLIN THAT LOOKS LIKE WHITE-WINE states: *"...that is, till you can see no more of the Egge above the water, then a two pence will cover."*

Between them these descriptions make it clear that the diameter of the egg which shows above the water is the measure being taken.

Other coins mentioned in Digby's recipes (with approximate measurements for Charles 2nds reign) are a two pence (16mm), a tuppence (18mm), a six pence (26mm), and a shilling (30mm). One recipe even calls for the *"breadth of a hasel-nut swimming above"* however the groats-breadth (20 mm) is by far the most common reference.

## When to Test and Why

The recipe TO MAKE METHEGLIN explains that *"the time of the tryal of the strength is when you incorporate the honey and water together, before the boiling of it."* So in fact by the time the yeast is pitched the concentration of sugars will be somewhat higher due to the evaporation from boiling. It is clear, however, that the medieval mead makers did not understand how temperature affects specific gravity. While most of the recipes call for the test to be given when the must is cold, others state that the solution should be blood warm and MY LADY COWERS WHITE MEATHE USED AT SALISBURY says:

> *"When the honey is throughly melted and ready to boil, put in an Egge with the shell softly; and when the Egge riseth above the water, to the bigness of a groat in sight, it is strong enough of the honey. The Egge will quickly be hard, and so will not rise; Therefore you must put in another, if the first do not rise to your sight; you must put in more water and honey proportionable to the first, because of wasting*

*away in the boiling."*

The majority of the recipes clearly state that more honey or more water is to be added until the correct "reading" is achieved. The rest assume the reader knows to do so, but why is this approximate strength consistently recommended?

The previously mention recipe TO MAKE METHEGLIN says:

*"If you would have it to drink within two or three months, let it be no stronger then to bear an Egg to the top of the water. If you would have it keep six months, or longer, before you drink it, let it bear up the Egg the breadth of two pence above the water."*

And THE LADY VERNON'S WHITE METHEGLIN says:

*"and try with a New-laid-egg; and the stronger it is, the longer you may keep it"*

These mead recipes are using ale yeast which generally dies off once the alcohol level reaches
approximately 10%. An alcohol level of between 10-12% will kill off most of the nasties which would otherwise spoil meads and fruit wines. The higher the end alcohol percentage the longer the mead will keep, and the higher the starting sugar level the more potential alcohol there is, however too much sugar at the start has a preservative effect which inhibits yeast growth preventing optimal fermentation.

If you want a dry mead you need just enough sugar for most of it to have been consumed by the time the yeast is killed off, but if you want a sweet mead then you need more sugar than the yeast can consume before hitting that lethal alcohol percentage. In the absence of an accurate hydrometer the egg test gives you a ball park sugar level to work with rather than leaving your sweetness and "use by date" to guess work or luck.

## The Experiment - Subjects

I had access to half a dozen fresh (no more than two days old) farm eggs from a variety of chickens, and also a half dozen supermarket eggs with the longest "best before" date I could find, being 28 days from purchase. New Zealand requires eggs to be labelled with a the best before date of 28 days from laying, so these eggs must have been laid on the day of purchase, likely within a few minutes of each other. They were actually fresher and closer to each other in age that the farm eggs.

The farm eggs came from Silver Spangled Hamburgs, which are a pre-1700 breed, Silkie bantums, a Chinese breed and Brown Shavers, which are primarily used for commercial egg production in New Zealand. The supermarket eggs were all Brown Shaver eggs.

The Hamburg eggs were white, long and relatively pointy so not ideal as Digby says *"For long ones will deceive you in the swiming"*. One reliably bobbed off centre and seems to have been a fertilised egg.

The Silkie bantam eggs were noticeably smaller and rounder. The farm sourced Brown Shaver eggs had pinky shells, and were heavier that the supermarket eggs which were a much browner colour. There was also a giant Brown Shaver egg approaching twice the weight standard Brown Shavers which turned out to be a double yolked egg.

## The Experiment – Method

*Test Egg floating at exactly 20mm*

Each egg was floated in a solution of white sugar dissolved in plain water at a specific gravity of 1.100 as measured using a standard brewing hydrometer. A small dot was placed on each egg at the centre of the portion showing above the surface. The eggs were then removed, washed and dried, and using a drafting template a 20mm diameter circle was drawn on each one using the dot as a centre point.

Each egg was then weighed and measured for diameter. If the egg fit through the mouth of a standard ISO XL5 wine tasting glass it got a tick, or otherwise a note of explanation. The eggs were then re-tested in the sugar solution and the size of the shell showing above the surface recorded on the chart below:

| **Source and variety of egg** | **Number** | **Weight** | **NZ size** | **AU size** | **US size** | **Fit XL5** | **Exposure** |
|---|---|---|---|---|---|---|---|
| Farm sourced Silver Spangled Hamburg egg | 1 | 57gm | 6 | Large | Large | Easily | 26mm* |
| Farm | 2 | 56gm | 6 | Large | Medium | Easily | 18mm |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| sourced Silver Spangled Hamburg egg | | | | | | | |
| Farm sourced Silkie Bantam egg | 1 | 43gm | 4 | Medium | Small | Easily | 20mm |
| Farm sourced Silkie Bantam egg | 2 | 37g | 4 | Small | Peewee | Easily | 22mm |
| Farm sourced Brown Shaver egg | 1 | 65gm | 7 | XL | XL | Yes | 20mm |
| Farm sourced Brown Shaver egg | 2 | 63gm | 7 | XL | XL | almost | 28mm* |
| Farm sourced Brown Shaver egg (double yolk) | 1 | 97gm | ? | ? | ? | No | 26mm |
| Supermarket Brown Shaver egg | 1 | 58gm | 6 | Large | Large | Yes | 19mm |
| Supermarket Brown Shaver egg | 2 | 56gm | 6 | Large | Medium | Yes | 20mm |
| Supermarket Brown Shaver egg | 3 | 56gm | 6 | Large | Medium | Yes | 22mm |
| Supermarket Brown Shaver egg | 4 | 57gm | 6 | Large | Large | Yes | 20mm |
| Supermarket Brown Shaver egg | 5 | 59gm | 6 | XL | Large | Yes | 20mm |
| Supermarket Brown | 6 | 56gm | 6 | Large | Medium | Yes | 20mm |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Shaver egg | | | | | | | |

As you can see from the "Exposure" column there was a surprising consistency in floatation, despite the differences in size and weight of eggs. The odd ones out which are marked with a * are the two farm sourced eggs which floated with off centre air cells, which turned out to be fertilised eggs, and the double yolker which is an oddity in itself. Surface tension gave an error factor in the readings of about 1mm either way.

## The Results – An Egg Test Table

I had six eggs which floated the breadth of a groat above the surface (interestingly at pretty much exactly SG 1.1). I washed and dried these and then marked smaller concentric circles on them at 18mm and 16mm and re-tested them, diluting the solution until the eggs began to sink. Most of the eggs floated at the 18mm mark at approximately SG 1.095, however below this point surface tension on the liquid made accuracy difficult, so I gave up on trying to get a 16mm reading. At an SG of 1.085 most of the eggs were barely touching the surface, and at an SG of 1.080 all had either sunk to the bottom or were hovering at various levels below the surface.

*At an SG of 1,080 the eggs hover or sink*

I then worked in reverse, increasing my solution from SG 1.100 upwards. At SG 1.110 most of the eggs were showing approximately 26mm of diameter about the surface. Up towards SG 1.120 they began to tip sideways and no longer floated reliably point up so the exposed shell became elliptical. (Recall the instruction that it was too strong if they didn't float point up?) The best reading I could get was an average of about 30mm of shell showing.

Combining this information with a Specific Gravity chart for mead makers gives the following "egg test"" table.

| **Mead style** | **End SG** | **Start SG** 10% alcohol tolerance yeast | **Egg reading*** | **Start SG** 12% alcohol tolerance yeast | **Egg reading*** |
|---|---|---|---|---|---|
| Dry Mead | 0.099 | 1.085 | Touches | 1.100 | 20mm |
| Medium | 1.006 | 1.095 | 18mm | 1.110 | 26mm |
| Sweet | 1.012 | 1.100 | 20mm | 1.120 | 30mm |
| Dessert Mead | 1.02 + | 1.100 + | > 20mm | 1.120 + | 30mm + |

* Using a freshly laid hens egg no more than two days old, of the roundest kind, weighing approximately 56g and able to fit into the mouth of a standard ISO XL5 wine tasting glass.

If your new-laid-egg does not float there is not enough sugar to feed your yeast and you will end up with too little alcohol so your mead will not keep. If your egg floats so high that it tips on its side then you have too much honey for the yeast to work properly and fermentation will likely stall. The range at which the average, round new laid hens egg floats point up (SG 1.080 – SG 1.120) turns out to be the ideal range of sugar content for starting a mead.

## Note on Accuracy

The egg test is of course nowhere near as accurate as the use of a hydrometer, for all of the many reasons mentioned above. If accuracy is what you are after then please use modern equipment, however if your aim is to make a period mead using period methods you now have the information need to *"try it with an egge"*.

## References

Digby, Kenelm The Project Gutenberg EBook of *The Closet of Sir Kenelm Digby Knight Opened*, http://www.gutenberg.org/files/16441/16441.txt

*White mead, to make that will be used soon (*from Koge Bog, Denmark, 1616 - Maggie Forest, translator, mis-credited on the webpage)
http://www.medievalcookery.com/search/display.html?kogeb:24:KBB

Specific Gravity – Wikipedia http://en.wikipedia.org/wiki/Specific_gravity

CoinQuest.com http://coinquest.com/cgi-bin/cq/coins?main_coin=15090

The Winemaking Home Page ADVANCED WINEMAKING BASICS Continued - USING YOUR HYDROMETER, http://winemaking.jackkeller.net/hydrom.asp

Rabbit's Foot Meadery
http://www.rabbitsfootmeadery.com/CAGM/guide_to_mead.html

# Wanted

## Past editions of Cockatrice!

Do you have unloved past editions of Cockatrice lying forlorn on your bookshelf? Or if you love them so much you that you are unable to part with them then would you be prepared to scan/photocopy them?

I wish to build up an archive of past editions of Cockatrice as a Kingdom resource for the future. These would be held by whoever is the current editor of Cockatrice as there is no so current resource in the editorial files.

If you are willing to contribute with either unwanted copies or would be willing to scan/photocopy your own ones please email me at elisabettafoscari@gmail.com. I will cover all photocopying/postage costs.

Yours in Service – The Editor

# Pilgrim's Badge, Award or Token

*Lord Ronan mac Briain*

The vast majority of pilgrim souvenirs, badges and awards were of pewter and manufactured by pouring molten alloys into moulds, this was the cheapest and swiftest means of production. Moulds were created from close-grained stone, such as calcareous mudstone, soapstone, slate or shale. The best of all was an exceedingly fine-grained limestone imported from Solnhofen, near Munich, Bavaria (Spencer, pg 8; Campbell pg 214).

From an excavation in Mont Saint-Michel a number of pilgrim object moulds were discovered, the mould fragments could be divided into two groups one of schist the other of limestone. The latter seem to correspond to limestone deposits from the Caen region. As for the former, the provenance of the schist has not, for the moment, been determined (Inrap website: Mont Saint-Michel, Pilgrim badge moulds).

Many of the souvenirs and badges have come from sites beside the Thames dating from the 12th to the 16th century, they were found either in the silt and gravel of foreshore deposits or in dumps of mainly organic refuse, up to 3m thick (Spencer, pg 24).

Pilgrim badges were mass-produced in moulds and were cheap so everyone could afford them. People wore them attached to clothes and hats or around the neck to show where they had been on pilgrimage. Most pilgrimage souvenirs are found in or near rivers, because people thought it brought good luck if they threw them into water (British Museum website: St George Pilgrim badge; Museum of London Website: Medieval Pilgrim Souvenirs).

The creation of moulds became its own specialised craft and it was not unheard of for skills developed in other, well-established crafts to be pressed into service, such as seal engravers and Goldsmiths were sometimes commissioned to make moulds. At certain sanctuaries, particular circumstances brought about the involvement of unexpected specialists, such as the mirror makers at Aachen (Spencer, pg 7; Campbell pg 214).

## My Process

I created the design from the livery badge of Arthur, Prince of Wales, (1486-1502) sourced from the Pilgrim Souvenirs and Secular Badges by Brian Spencer and from photos of the original on display at the Museum of London from the Museum of London's website and placed it on top of a tower to represent the Barony of Southron Gaard. Slight adjustments were made to make it artistically mine while maintaining the look of the original livery badge. Most period badges are intricately detailed, originally I was going to add detailed bricks, windows and door to the tower but chose not to from the artistic view point that the arrows would be lost in the detail and that was not my aim for this design.

I created a three piece casting mould; the base from soapstone, a material used for period moulds that would work best for the more intricate parts of the design. I used plaster of paris for the two upright sections of the mould that would have the sprue (a channel through which metal is poured into a mould) and carved sections for the pin and clasp. The choice of plaster of paris was purely a financial decision.

I created one tool out of a piece of dowel and a pin for defining outlines and fine line work and used a ceramic tool (used for mould cleaning, incising, excising, carving, trimming and modelling) and a set of jewellers screwdrivers as carving tools as this gave me a set of perfectly sized tools for the smaller carving areas.

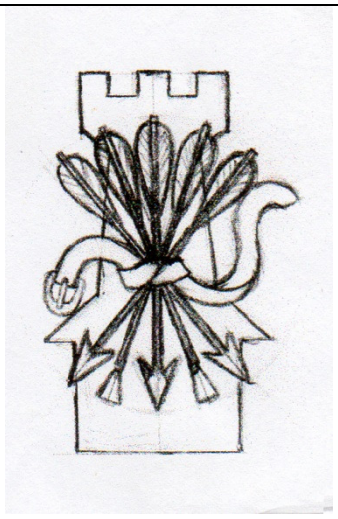
I carefully carved out the design and, when I thought I was close to finished, added air vents to allow air to flow out as the pewter takes up the space therefore no air pockets can form creating voids in the casting. I did a sample cast to get a view of the final piece and to find any faults created by insufficient air vents or from areas not carved deep enough to allow flow of the pewter. You can also check the design of your casting by pushing in blutack or play dough into the soapstone.

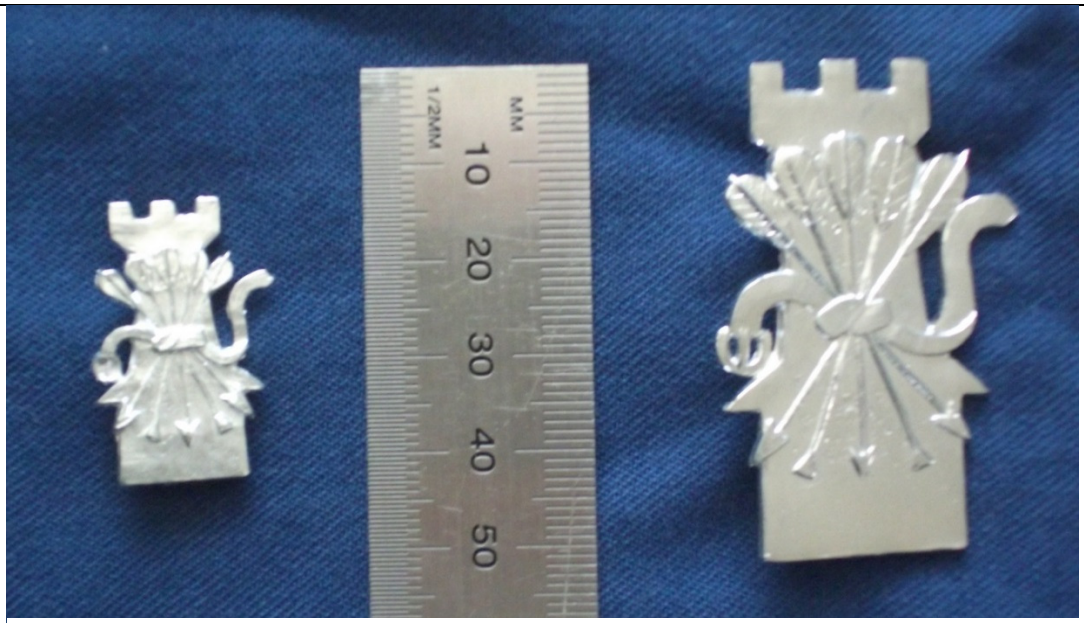
I use a small gas camp fire and an old ladle to melt my pewter, the ladle allows me to have a steady pour into the mould.

Once happy with the finished product I used some cutting pliers on the finished casting to remove the sprue, cut the pin and clasp sections to the correct length and removed any excess pewter from the edges and air vents and then using long nose pliers bent over the pin and clasp.

On the larger version I did use a file for a much cleaner finish and to sharpen the pin but for the smaller version I only used the file to sharpen the pin, most period casting have little finishing work done on them.

Images

| | | |
|---|---|---|
|  |  |  |
| Livery badge of Arthur, Prince of Wales (1486-1502) | My design | Tools |
|  |  |  |
| Soapstone large casting | Soapstone small casting | Plaster of paris with sprue, pin and clasp carved – used for the large casting |




Finished Product

## References - Books

Campbell, Gordon, **The Grove Encyclopedia of Decorative Arts, Volume 2**, Oxford University Press, Oxford, 2006

Spencer, Brian, *Pilgrim Souvenirs and Secular Badges*, The Boydell Press, Woodbridge, 2010

## References - Websites

**British Museum website**
Pilgrim badge depicting St George and the dragon
http://www.britishmuseum.org/explore/highlights/highlight_objects/pe/p/pilgrim_badge_depicting_st_geo.aspx

**Museum of London website**
Livery badge of Arthur, Prince of Wales (1486-1502)
http://collections.museumoflondon.org.uk/Online/object.aspx?objectID=object-28842&start=18&rows=1
Medieval Pilgrim Souvenirs
http://collections.museumoflondon.org.uk/Online/group.aspx?g=group-19998

**Inrap - Institut national de recherches archeologiaues preventives website**
Mont Saint-Michel, Pilgrim badge moulds, Composition
On line since September 15, 2009 · Updated October 6, 2009
http://www.inrap.fr/preventive-archaeology/Events/Virtual-exhibitions/Virtual-exhibitions/Making-Pilgrim-Badges-at-Mont-Saint-Michel/Pilgrim-badge-moulds/p-1481-lg1-Composition.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

**Ælfred se leof** is a dancer, brewer and occasional fighter based in the Shire of Adora.

**Liadan ingen Fheradaig** is currently a resident of the Barony of Politarchopolis, but she originates from Ynys Fawr. She enjoys participating in heavy fighting, combat archery, fencing, equestrian activities and in the Arts and Sciences. Countess Liadan has a particular interest in researching and teaching medieval law, and has presented classes at various events throughout Lochac and at Pennsic Wars. The Animal Trials paper is the first in a series of papers that she plans to write and then teach.

**Mýrún Jóhansdóttir** was born on the Isle of Man shortly before the signing of the Treaty of Perth in 1266.

**Rohesia Le Sarjent** is a member of the "De Courcy" family, hereditary stewards to the Dukes of Normandy, who followed her father to Palestine and now lives in Jerusalem where she serves the Royal household of King Baldwin the V. She enjoys sewing, painting and hunting, and cares for the King's hunting cheetahs.

**Ronan mac Briain** is a tenth century Irish archer who finds time now and then for the finer works of an artisan.