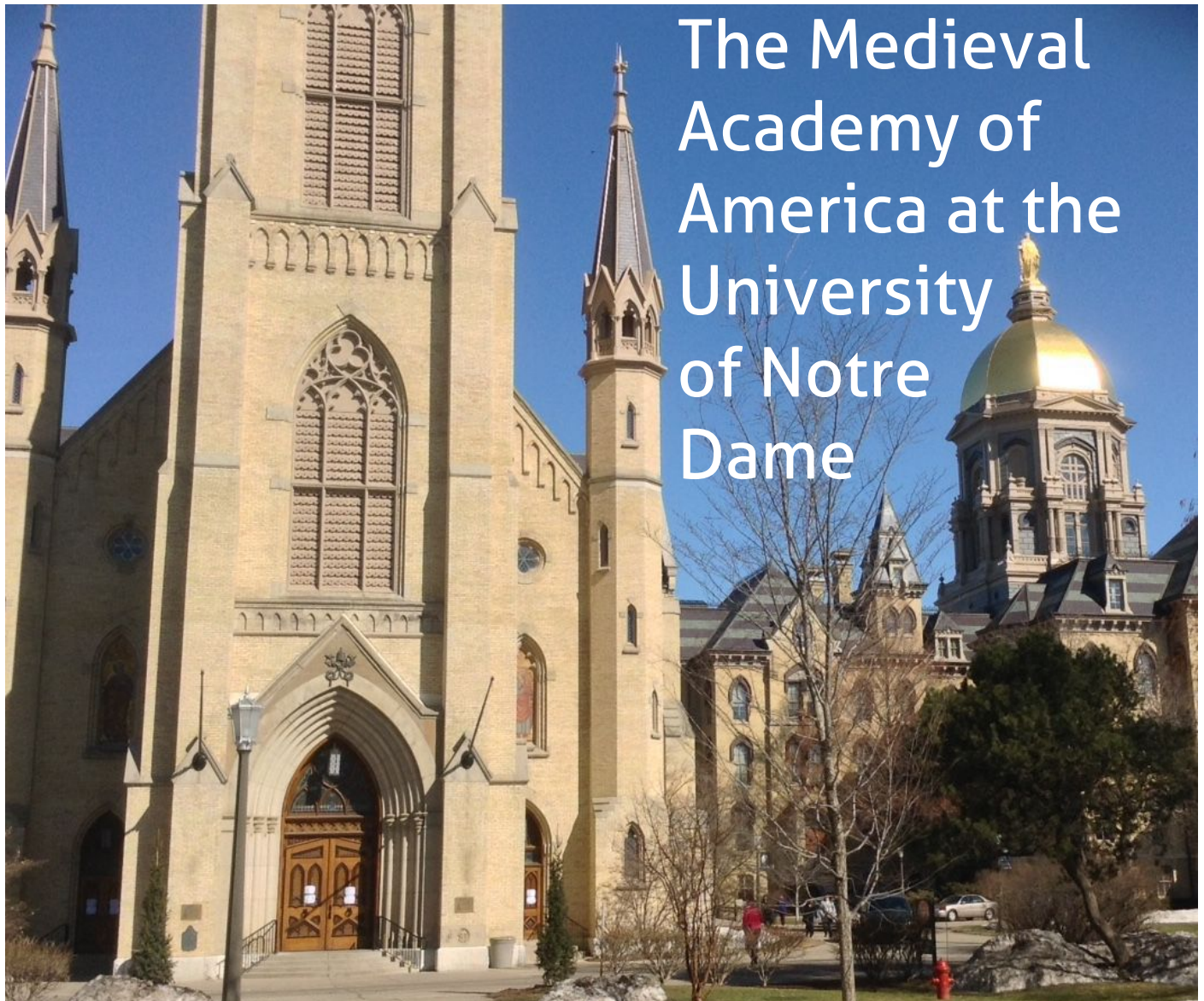


# The Medievalverse

Volume 1 | Issue 7 | March 16, 2015



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**INSIDE:** Discovering Malaria in the Early Middle Ages

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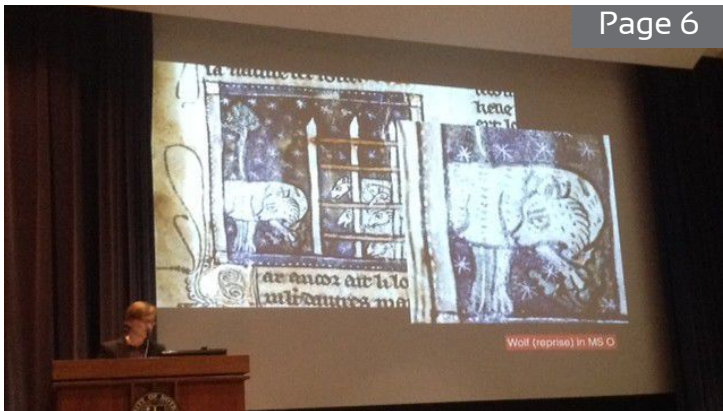
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## Malaria in the Early Middle Ages

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## Music in the Bestiary of Love

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## MAGAZINE

Edited by Peter Konieczny

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Website:  
[www.medievalis.net](http://www.medievalis.net)



Cover Image: The Basilica and Main Building of the University of Notre Dame, which was home to this year's meeting of the Medieval Academy of America

# Historian finds evidence of malaria in early medieval Europe

Malaria is one of the most devastating diseases on the globe. According to the World Health Organization, there were 198 million cases of malaria worldwide in 2013, with over half a million people dying from the mosquito-borne illness. Researchers are trying to understand the history of the disease, and some articles have come out that look at malaria in antiquity and the early modern periods. In a paper delivered last week at the Annual Meeting of the Medieval Academy of America, new insights have been offered on the disease in the early Middle Ages.



**Photo of a mosquito, through which the malaria parasite is carried**

**- photo by Eli Christman / Flickr**

In his paper, 'Malaria and Malaria-Like Disease in the Frankish Empire, c.450-950, Timothy Newfield examines over fifty references to illnesses which appear in Merovingian and Carolingian sources such as Gregory of Tours' *Historia Francorum*. The records reveal that malaria existed in parts of both northern and southern Francia during this period, and likely existed in northern Europe prior to the fifth century.

Malaria is a mosquito-borne parasite that gets passed onto humans when the insect bites their skin. The disease ranges in severity depending

on the species of the parasite, but they typically cause fevers that occur every three days (tertian) or every four days (quartan).

Newfield has found 52 references in early medieval written texts that refer to cyclical fevers, which he believes are likely cases of malaria (although he acknowledges that even the sources were unsure of what the causes of these fevers were). Of these cases, 29 involved adults and 5 children, with men infected in 26 cases and women in 8. Newfield also notes that 10 cases involved elite individuals such as rulers, while 14 he described as non-elite.

The size sample is too small to know whether or not malaria was getting worse or better in the region.

Until now, the most common evidence of malaria from historical times is paleopathological research, but this cannot provide definitive proof of the disease. Some research has just begun to find evidence of malaria parasites in DNA, but so far only one successful find from the pre-modern

world - a case from 5th century Italy - has been recorded.

Timothy Newfield is currently a Postdoctoral Research Fellow at Princeton University, and has already done extensive research into medical history and the prevalence of disease in the early Middle Ages. [Click here to see his page on Academia.edu](#)

# Ten Things I Learned at the Medieval Academy of America

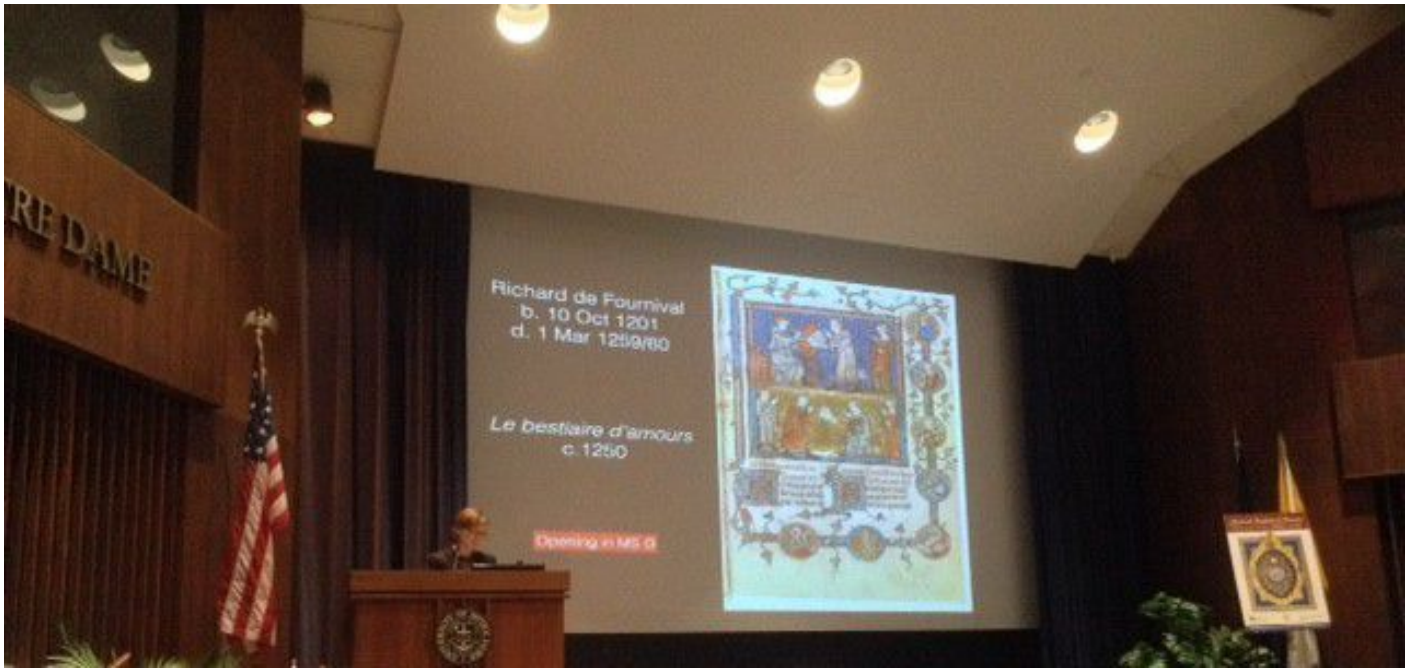
By Peter Konieczny

The University of Notre Dame hosted over 460 scholars last week as part of the annual meeting of the Medieval Academy of America, the largest organization in the United States that promotes medieval studies. The three day conference included over 150 papers and several roundtable discussions. I was able to attend the conference and over the next week I'll be adding reports from on the papers. Meanwhile, here are ten things I learned, both wise and whimsical, during my time there:

- 1. The English delegation at the Council of Constance in 1414 was among the groups who most severely interrogated Jan Hus - and perhaps was the most embarrassed that the Czech preacher was making use of John Wycliffe's theological writings.**
- 2. Jan Hus was a very shrewd individual, and he seemed to have enjoyed the fight against his enemies in the Catholic church.**
- 3. Alfred J. Andrea: "As medievalists it is important for us to walk the streets and walk the sites of the places we study."**
- 4. Sigismund of Luxemburg, who was the King of Hungary and Holy Roman Emperor, got a reputation for being a wild partier and hanging out with prostitutes during his time in Paris in 1416.**
- 5. One might think of pigs as 'mobile fat' for the farmer - he could hide the animals up in the hills when the tax assessor came by, which would have been much harder to do with olive trees.**
- 6. Oh there, Wulfstan, Christopher and Hrotberet the Black are the only merchants we know by name that operated in northern Europe during the Viking Age.**
- 7. The Provenance Online Project looks to be a wonderful resource - see their blog and Flickr photostream to learn more about them.**
- 8. In the Middle Ages it was considered terrible and shameful to beg in public.**
- 9. There is an expression in French that means 'don't fart higher than your ass.'**
- 10. In 1956 archaeologists found a statute of Buddha in Sweden, which was made as far back as the 6th century AD.**

# Discovering hidden music in the Bestiary of Love

The Annual Meeting of the Medieval Academy of America kicked off last week with a keynote paper by Elizabeth Eva Leach of the University of Oxford, where she reveals how one can find the traces of music in a medieval text, which once would have been very obvious to its contemporary readers, but would be difficult to spot for a modern audience.



**Elizabeth Eva Leach speaking at the Medieval Academy of America meetings, held at the University of Notre Dame**

The paper 'Richard de Fournival Across the Disciplines' takes a look at the 13th century scholar Richard de Fournival, who was well known for his works as a poet and musician, and who at the same time wrote about alchemy and served as the personal surgeon to King Philip Augustus. His most famous work was *Bestiaire d'amour* - *The Bestiary of Love* - a French prose work that combines a love letter with a bestiary.

Leach finds that although you cannot find a single musical notation in this work, *The Bestiary of Love* is filled with references to music, something that those who read it in the 13th century would have quickly seen, but that we in the 21st century would be unaware of.

One way this is done is through the presentation of various animals in the bestiary. Fournival does

not pick the usual creatures that are found in these kinds of works, but chooses those that are known for the noises they make, such as the cock and the ass, who are awful to listen too, and the wolf, cricket and swan. The text explains how the cricket sings too much causing it to become hungry, and perhaps starve to death. Meanwhile, "the song of the swan dispenses with hunger topos and simply inverts the relation of singing and death so the imminent death prompts singing and thus beautiful song is indicative of the signer's imminent death."

The most obvious song reference in *The Bestiary of Love* is when the narrator cites lines from a recently written song to support his views about the necessity of equality in love. The lines are taken from a 1230s song written by a French troubadour named Bernart de Ventadorn,

although Fournival slightly garbles them, probably intentionally.

The final inclusion of music in the text comes at the very end of *The Bestiary of Love*, where the author adds a refrain that opens a well known polyphonic motet:

*Mercy, from which I  
expected help and aid, is so  
far removed from me.*

Leach explains:

*Outside the Bestiary of Love, these three lines continue to become a fourteen-line poem, set to music. Arguable the musical nature of the refrain aids the memory of the entire text. I'm going to use some modern examples to show how the refrain citation works: If I said 'regrets, I've had a few' you might think – or even sing, at least in your head – 'but then again, too few to mention'. Or 'Twinkle, twinkle, little star' might lead to 'how I wonder what you are...' and so on.*

In these ways, Richard de Fournival gives his readers, who often will be reading their text out loud to an audience, spots where music can come out. Leach finds that:

*The Bestiary of Love shows how music provides intertextual and subtextual information for illuminations, prose and citations. That music could do this without needing to have its own kind of notation was important in eliciting sounds from the memories of its original audience. This lack of music notation means that it is all too easy for this kind of musicality to remain silent in the context of modern academic disciplines; the benefit of attending to the songs an unsung text conjures up is potentially great.*

Elizabeth Eva Leach, who is a Professor of Music at the University of Oxford, has some more details about this text in her blog posts **Richard de Fournival's Bestiary of Love** and **Refrains in odd places**. You can also follow her on Twitter **@eeleach**



**Elizabeth Eva Leach showing an image of a wolf biting his own leg from the *Bestiary of Love***

# Historian awarded €1.8 million to research early Irish texts



**Professor David Stifter - photo courtesy Maynooth University**

Professor David Stifter of Maynooth University has been awarded €1.8 million in funding by the European Research Council (ERC) for a project that will date a large number of 7th–10th Century Irish texts and develop innovative methodologies for dating languages that will be applicable across the world, shedding new light on medieval literature, history, and culture.

The highly prestigious award is viewed as the gold standard for research funding in Europe. Prof Stifter is one of an elite group of recipients in the Social Sciences and Humanities Consolidator grant category this year and one of only two in Ireland. In total, 516 applicants from 29 different countries competed for the funding.

Professor Stifter, Head of Maynooth University Department of Early Irish, will lead a team of five researchers on the project known as the

***Chronologicon Hibernicum – A Probabilistic Chronological Framework for Dating Early Irish Language Developments and Literature.*** “ChronHib” will develop and use innovative methodologies and sophisticated software to perform linguistic analysis on a large body of early medieval texts. By looking for subtle changes in the language over the centuries and by applying advanced statistical methods, Prof Stifter will be able to profile language variations in texts of that period. The major result will be a ChronHib database, which will serve as the key reference point for the linguistic dating of Irish texts and will then provide a model for other old languages in Europe and beyond.

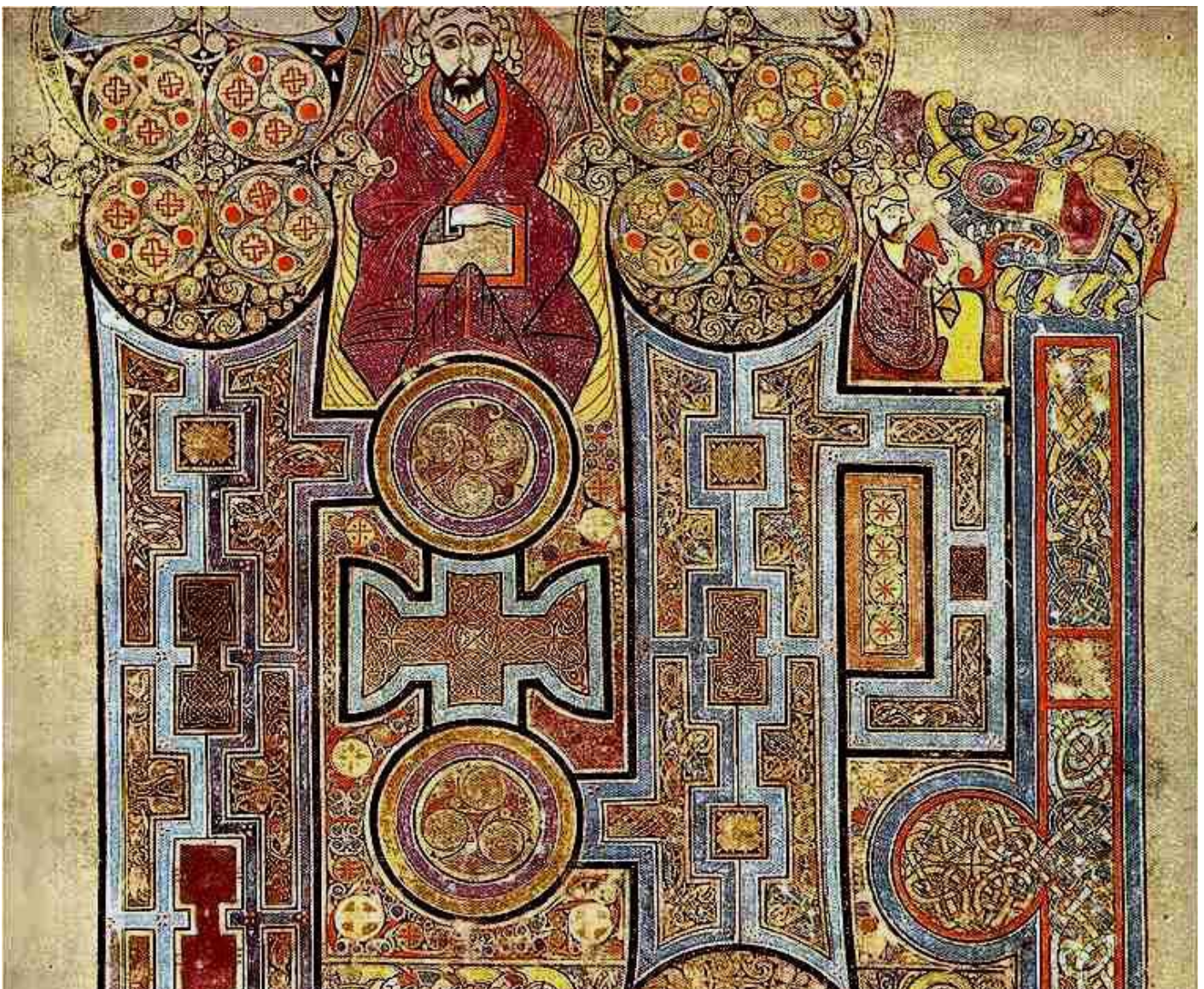
Prof Stifter said researchers around the world will be able to use these new dating methods in a way similar to how tree-rings serve as chronological indicators in archaeology.

"Linguistic dating is about to take a huge leap forward into the technological possibilities of the 21st Century. By developing and utilising unique methodologies that help us to accurately date these fascinating medieval texts and create linguistic profiles of their language, we are linking the past with the present. Given the complexity of Old Irish, the success of this project will represent a new model for the study of other languages that researchers all over the world will want to emulate," Prof Stifter said.

Gregory Toner, Professor of Irish at Queen's University in Belfast and Director of the Electronic Dictionary of the Irish Language, is one of many colleagues who congratulated Dacíd on the awrd. "This exciting project provides innovative, cutting-edge solutions to the thorny problem of the accurate dating of medieval Irish texts," he said. "It has enormous potential to solve many issues in the field and contribute to a significant improvement of our understanding of medieval Ireland."

An Austrian by nationality, Prof Stifter's fascination with Celtic languages and Maynooth University's unique reputation internationally in the field of Irish linguistics drew him to Ireland. Professor Stifter recalls: "Studying in Vienna, there was an adage in my department, 'If Maynooth speaks, it is time to listen,' so when the opportunity arose to come to Maynooth, I jumped at it."

Maynooth University President, Philip Nolan, added that, "This award continues the long tradition of excellent research at the Department of Early Irish at Maynooth University, and I have no doubt that Professor Stifter's work will significantly advance our understanding of some of the world's early languages and cultures."



**Book of Kells, Folio 292r**

# Marking the spot of an old Viking 'parliament'



**Steven Harding at Thingwall - photo courtesy University of Nottingham**

The site of one of the earliest known Assemblies or 'parliaments' in the UK has been officially put on the map after years of work by a scientist from The University of Nottingham.

Professor Steve Harding has unveiled a new historical information board to mark the Viking 'Thing' or open air 'assembly-place' in the village of Thingwall on the Wirral in the North West of England. The Professor, together with his colleague Professor Judith Jesch, Director of the Centre the Study of the Viking Age, has been researching the Viking heritage of the North-West of England for many years and has been working tirelessly with local councils and heritage groups to make this legacy much more visible to the modern population. The Vikings arrived on the Wirral in AD902 and their presence remains in the genes of old Wirral families with up to 50% of their DNA being of Norse origin, according to Steve's previous genetic mapping research with colleagues from Leicester.

The board has been designed by Steve with help from the Irby, Thurstaston and Pensby Amenities Society. It tells the story, with pictures and maps, of the Viking migration from Norway to the Wirral and their settlement and influence on the area over time. The Vikings soon established a community with their own leader, a man called

Ingimund, their own language (Old Norse), a trading port on the Irish Sea at Meols and a place of assembly or government, the 'Thing' at Thingwall. The linguistic legacy is also seen in place names like Tranmere, Storeton and the many villages like Frankby, West Kirby and Raby ending in 'by', Old Norse for settlement or farmstead.

Steve said: "It is very appropriate that the new Viking Thingwall Board has been located in the patio of the Basset Hound pub: this directly faces Cross Hill – the location in the village most likely to have been the site of the Thing Assembly. A thousand years ago, when the Vikings assembled for their Thing meet, not only would it have been an important occasion for deciding policy and law, but also it would be an opportunity to meet old friends, some who could have come from afar (such as the Isle of Man, West Lancashire and North Wales – were there were also Viking settlements) ... and the Vikings were known for liking a drink or two!"

Plans are now under way to secure the necessary permissions to build a 'heritage trail' path from the pub to the top of the Thing mound to allow visitors and local people to literally tread in the footsteps of their Viking ancestors.

# Millions of people are descended from Genghis Khan and 10 other Asian dynastic leaders, researchers find



**Statue of Genghis Khan – photo by Ludovic Hirlimann / Flickr**

Geneticists from the University of Leicester have discovered that millions of modern Asian men are descended from 11 powerful dynastic leaders who lived up to 4,000 years ago – including Mongolian warlord Genghis Khan.

The study, which is funded by the Wellcome Trust and published in the journal *European Journal of Human Genetics*, examined the male-specific Y chromosome, which is passed from father to son, in more than 5,000 Asian men belonging to 127 populations.

Most Y-chromosome types are very rare, but the team discovered 11 types that were relatively common across the sample and studied their distributions and histories.

Two common male lineages have been discovered before, and have been ascribed to one well-known historical figure, Genghis Khan, and another less-known one, Giocangga. The Leicester team found genetic links via a chain of male ancestors to both Genghis Khan and Giocangga, in addition to nine other dynastic leaders who originated from throughout Asia and date back to between 2100 BC and 700 AD.

The project's leader, Professor Mark Jobling from

the University of Leicester's Department of Genetics, said, "The youngest lineages, originating in the last 1700 years, are found in pastoral nomadic populations, who were highly mobile horse-riders and could spread their Y chromosomes far and wide. For these lineages to become so common, their powerful founders needed to have many sons by many women, and to pass their status – as well as their Y chromosomes – on to them. The sons, in turn, could then have many sons, too. It's a kind of trans-generation amplification effect."

Another author of the study, Patricia Balaresque from Université Paul Sabatier in Toulouse, added: "Identifying the ancestors responsible for these lineages will be difficult or impossible, as it would rely on finding their remains and extracting and analysing ancient DNA. This hasn't yet been done for Genghis Khan, for example, so the evidence remains circumstantial, if pretty convincing."

The article "Y-chromosome descent clusters and male differential reproductive success: young lineage expansions dominate Asian pastoral nomadic populations", is published in *European Journal of Human Genetics*.



# Crowdfunding project to restore medieval prayer book closes in on goal

In less than two weeks a crowdfunding campaign to restore a 600 year old manuscript has already raised eighty percent of the €25,000 it is asking for.

The Marie of Guelders prayer book was created by Helmich de Lewe in 1415 and is considered a masterpiece of early Netherlandish art. However, the manuscript, which is kept in the Berlin State Library, is in such a fragile condition that extensive restoration is needed. Last month a crowdfunding campaign was launched by Johan Oosterman, professor of Early Dutch Literature at Radboud University, to raise €25,000. Right now, it has already reached € 20,800.

"The book was heavily influenced by the work of the famous miniature painters the Limbourg Brothers and is a crucial link in the cultural history of the Netherlands," explains Oosterman. But how was it made? Why did Mary choose texts in the national language instead of the more common Latin? And what does the book tell us about the early history of Dutch art?

"The Marie of Guelders prayer book deserves a special place in history," says Oosterman. "I'd like to restore the book and make it accessible again so it can be studied and displayed. This requires funding – 25,000 euros would be a good start. Anyone can make a large or a small donation to the project, by adopting a page, for example."

The crowdfunding project launched by Oosterman will be managed by a new platform at Radboud University. "Unfortunately, the funding available for the university's core tasks is unable to cover all of the university's ambitions," says Femke de Jong, head of Relations and Development. "This platform will allow our researchers to showcase socially relevant research and ask the public to contribute financially. In addition to raising money, it will also give the public a new way to engage with science."

Interested parties can support the project by making a donation of 15 euros up to 1000 euros. Rewards vary from a digital scan with an accompanying explanation to a special lecture and a trip to Berlin, where the prayer book is currently being stored in the State Library. Anyone can donate through the **crowdfunding platform** or by transferring money to NL30INGB0003816721, stating 'Maria van Gelre'.

The crowdfunding project will run until 1 May 2015 and the entire process, from restoration to exhibition, is expected to take about four years.



# Ordered Universe



This film examines the Arts and Humanities Research Council funded 'Ordered Universe' project which brings together medieval scholars and scientists to consider the writings of an exceptional 13th Century Bishop, Robert Grosseteste. Research collaboration has inspired a new perspective on Grosseteste's writings as well as new scientific experiments. The film looks at the benefits of inter-disciplinary research and the possibility of working reciprocally between the sciences and the arts and humanities.

# Salisbury Cathedral opens Magna Carta exhibit

Salisbury Cathedral – home to one of the four original copies of Magna Carta – has opened a new exhibition to highlight the 800th anniversary of the charter.



Spirit of Justice, Power of Words is set in the cathedral's 13th century Chapter House and offers visitors an interactive of the history and influence of the document.

Oriel Wilson, one of the exhibition creators from Haley Sharpe Design, explained, "Our creative design work had to incorporate a range of site-specific media solutions. We have worked carefully within the stunning and sensitive interiors of the Cathedral to develop an exhibition that we believe will appeal to a wide visitor profile with tactile hands-on activities to give visitors the feel of medieval life and touchscreen displays that allow people to explore the continued fight for justice and human rights in the 21st century."

The exhibition was supported through a grant of £415,000 from the Heritage Lottery Fund (HLF), Salisbury Cathedral aims to use the 800th

anniversary year to find new ways to engage visitors with the Magna Carta and its themes.

The Dean of Salisbury, the Very Reverend June Osborne, commented, "So many of the liberties that we hold dear today – and perhaps sometimes take for granted – can be traced back to Magna Carta. Despite its age the document has clearly gained in relevance for a modern audience, and there is a tangible sense of anticipation as we open this new exhibition and launch the 800th anniversary celebrations in Salisbury. I know that the many visitors who will come to Salisbury Cathedral to experience this exhibition will be excited and engaged by what they find and hope they will go away inspired by Magna Carta's enduring values of fairness, universal rights and justice."

**[Click here to visit the Salisbury Cathedral webstie for more details.](#)**

# Medieval Articles

Two new articles we found this week:

## **The Figure of King Arthur as a Mirror of Political and Religious Views**

By Karl Heinz Göller

*Functions of Literature: Essays Presented to Erwin Wolff on his Sixtieth Birthday*, eds. U.Broich, T. Stemmler and G.Stratmann (Tübingen, 1984)

Introduction: Chretien de Troyes said in his Yvain: "I agree with the Bretons that King Arthur's name will live for evermore." This was indeed a prophetic word for Arthur's fame has spread all over the world, and there is scarcely a national literature where he has not found a home. Critics have tried to explain this popularity by pointing out that Arthur is an ideal romance figure, a prototype of the good monarch, an archetype or even a kind of Everyman, and that he therefore rightfully possesses a permanent place in the human heart. Some authors have even gone so far as to maintain that he remains recognizable whatever his guise, that he remains true to himself.

**[Click here to read this article from the University of Regensburg](#)**

## **Flowers, Poisons, and Men: Menstruation in Medieval Western Europe**

By Monica Green

*Menstruation: A Cultural History*, edited by Andrew Shail and Gillian Howie (Palgrave Macmillan, 2005)

Abstract: Menstruation formed the bedrock of medieval concepts about how the female body functioned. In medieval Europe, menstruation was seen as the end result of a whole bodily process of purification, one unique to the female body. Menstruation was also seen as a necessary prerequisite for conception. In fact, many references to menstruation in the context of fertility see the successful completion of its purgative function as key to fertility—a fact crucial to understanding why emmenagogues (preparations for bringing on menstruation) were not necessarily seen as abortifacients but may well have had a deliberately pronatal purpose. This essay examines various notions surrounding menstruation in medieval Europe, including why the menses were called "women's flower," in what circumstances they were likened to poisons, and why in some instances men were thought capable of "menstruating," too. Outside of medical contexts, menstruation is largely seen as nefas, something that cannot or should not be named or spoken about. Thus, medical discussions of menstruation are our main source for reconstructing beliefs and attitudes toward this key aspect of female physiology.

**[Click here to read this article from Academia.edu](#)**

# Environmental Crusading Knight's Impact After the



Photo by Arian Zwegers / Flickr

# g: The Teutonic e Baltic Crusades



By Sandra Alvarez

I visited Poland a few years ago and trekked across the country visiting various medieval sites and cities. Two places that still stand out in my mind are the medieval city of Toruń and the Teutonic Castle of Malbork (Marienburg). These Teutonic strongholds remain my favourites in that month long trip to my family homeland.

Environmental archaeologist and Professor of Archeology at Reading University, Dr. Aleks Pluskowski, examined Malbork and several other sites across Eastern and Northern Europe in his recent paper, *The Ecology of Crusading: The Environmental Impact of Holy War, Colonisation, and Religious Conversion in the Medieval Baltic*. Pluskowski is keenly interested in the impact the Teutonic Knights and Christian colonisation had on the region. His ambitious four-year project on the ecological

changes in this area recently came to a close at the end of 2014. This paper, given at the Institute of Historical Research is an overview of his findings. Pluskowski has contributed to a zooarchaeology project in Venice, castle excavations in Transylvania and Poland, and numerous articles on ecology, crusading, and animals in the Middle Ages.

## **Life Before the Teutonic Knights**

The Baltic region around 1200 consisted of various tribal, feuding, non-Christian groups, a true frontier region. Due to its scattered cultural groups, there was no unified response to the Crusades until it was too late. Pre-Crusade culture was booming during the Viking age. Pre-Christian cultures in this area worshipped nature, such as the earth Goddesses Laima and Kurko, a Wolf Goddess, and a Fire Goddess (Gabija). Tribes were often separated by noticeable spiritual boundaries. There was also a proliferation of horse cults which were unique to Baltic region. Horses were typically buried alive between the 10th-12th centuries in Northern Poland.

Renewed missionary activities in the High Middle Ages attempted to convert these Baltic Pagan tribes. Two famous martyrs in this region were: St. Adalbert (d.997 AD), and St. Bruno of Querfurt (d.1009 AD). Holy War used to justify crusading in this area with two Crusades: The Livonian Crusade (1198-1290), and The Prussian Crusade (1230-1283). The Livonian Crusade took 100 years to subjugate the tribal Pagans, and it took 53 years for the Prussian efforts to come to fruition. The two crusades were 'framed as struggle between good and evil'.

## **The Teutonic Order Arrives: Here Come the Castles**

The Teutonic Knights were famed builders. They built strongholds across the Baltic region in two phases:

**Phase 1** – Timber strongholds during the Crusades (Elblag, Poland)

**Phase 2** – Brick and stone castles built post crusading during a period of stability but more akin to 'fortified monasteries'.

Planned towns also became a post Crusade

feature – there were no planned towns prior to this period. Church building expanded, borrowing from "European Elements" during this post crusade expansion. The Teutonic Order found themselves often at odds with the Livonian bishops.

## **Landscape Changes: Physical and Conceptual**

Pluskowski studied a dozen+ castles to try and understand the landscape changes after the Baltic Crusades. He looked at the Teutonic corporation using several approaches: paleobotany, geoarchaeology, zooarchaeology, and historical studies.

Unfortunately, finding medieval material in these castles proved difficult because they have been used up to the present day. Pluskowski employed ground penetrating radar to find medieval archaeological deposits. Pluskowski and his team were able to estimate medieval vegetation in the area; 1m of sediment = 1,000 years. He studied the peat core to look for pollen fluctuations in order to be able to reconstruct medieval vegetation. These detailed analyses uncovered some interesting things about region while it was inhabited by the Teutonic Knights:

### **Animal Bones**

The most frequent find at these castles were animal bones. They gave an excellent indication of food the knight's provisioning. The knights provisioned themselves within the castle walls and ate meat 3 times per week as stipulated by the Order's rules of 1264. Meat processing was done using the same methods applied by the Roman Army – using steel tipped cleavers. Meat can be processed more quickly using these tools and was 'a crusading signature'.

### **Wool Production**

A local wool economy developed rapidly under the Teutonic Order. It was not the best wool, but it was sufficient for their purposes. Finer wool still had to be imported other regions

Horn Working



16th century map of the Baltic region, also known as Livonia

## Horn Working

Goat horns were used in crossbow production by the Teutonic Knights. This became a big industry because of the popularity of the crossbow in this region. The Order also dipped into Skin/Vellum, and candle production when demands grew as Churches were springing up rapidly after the Crusades.

## Pack Horses

These were the animal of choice for the Teutonic Order. They used many horses at a time instead of a few wagons to transport goods because the land was too marshy and wagon wheels would get stuck in the mud. Animal dietary changes during this time were a direct result of the Teutonic Order's husbandry.

The Teutonic Order was a well oiled, corporate manufacturing machine. Within a few years of the close of the Baltic Crusades, they already had

a production surplus and were able to make extra income exporting items like grain.

Given their penchant for mass construction in the region, how did the forests survive the intense timber production? The Order made sure to cut down only specific timber species. They had a very careful, and according to Pluskowski, 'very astute management of woodland'. In addition to the survival of woodland, many sacred Pagan sites survived this Teutonic incursion. They survived where the population lived further inland in spite of the Crusade expansion.

For more information about Dr. Pluskowski's fascinating project, please visit: [www.ecologyofcrusading.com](http://www.ecologyofcrusading.com)

Follow Aleks Pluskowski on Twitter: [@Baltic\\_Crusades](https://twitter.com/Baltic_Crusades)

# Medieval Videos

**Richard III and the Greyfriars Project by Turi King**



Dr Turi King, geneticist and historian, explains the role of DNA analysis in finding Richard III.

## **The Rise and Fall of the Byzantine Empire**



S&F Production created this video to show how the Byzantine empire grew and shrunk on the map year by year.