EXPLORING THE MIDDLE AGES

POSTERS

Bergen, 2015

EXPLORING THE MIDDLE AGES

Knowledge about the Norwegian and European Middle Ages is decisive for our understanding of the modern cultivation of knowledge, urbanisation, development of democracy and the principles of equality between individuals, indeed for the whole of our modern culture. Knowledge about topography and landscape and their role in history gives us an understanding of the social, economic and legal continuation of local communities, legal understanding and social self-understanding. Taken together, these are all relevant themes in today's society, and yet, as viewed in a distant mirror, many of them are already reflected in medieval literature. The Middles Ages is central and foundational for the history of Bergen, the West of Norway and all of Norway, and it places Norway securely in a European context. The University and Museums sector in Bergen constitutes a large and diverse academic community in the field of Medieval Studies.

More than 50 posters are on display during the conference Exploring the Middle Ages at the University of Bergen, November 2015. They cover a wide range of topics and research disciplines and thus indicate the quality and quantity of Medieval Studies in Bergen today. The posters present both individual projects, collaborative projects and projected fields of research groups. Many of these are the work of younger scholars educated in Bergen. As such, they bear witness to the traditions and the high level of activity in the field of Medieval Studies. Through these posters you are welcome to explore the richness of Medieval research in Bergen.

The steering committee

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Jens Eike Schnall
Jørn Øyrehagen Sunde
Geir Atle Ersland
Gitte Hansen
Jostein Gundersen
Henning Laugerud

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An Extraordinary Viking-Age Grave with Smithing Tools from Western Norway

The Nordheim grave in Sogndal dated to around 800 AD, was rescue excavated by the University Museum in 2013. The grave was undisturbed, and stands out as the grave context with the so far largest number and variety of black smithing tools in Western Norway.

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Fig 1 Photo of the grave exposed after removal of stone slab

Where, when and what

The grave was situated close to the edge of a terrace facing the Sogndal valley, a district in which the archaeological records reflect a high density of farming settlements in the Late Iron Age. However, the location of the grave appears as isolated and remote in relation to the distribution of other Iron-age finds in the area. Artefact typology and radiocarbon dates of charcoal suggest that the burial took place at or just before the transition to the Viking period, around 800 AD.

The majority of objects recovered are related to metalworking in both iron and softer metals, comprising hammers and anvils of different sizes, chisels, forging tongs, forging stones, plate cutting scissors, drawplate and a crucible tong, but also weapons (sword, axe and arrow heads), carpentry tools, farming tools and some personal equipment were found.

The excavation recorded a total of 200 artefacts or fragments of artefacts, of which 34 complete or fragmented objects that can be identified by function. Out of these 20 objects are related to metalworking, 6 objects relate to carpentry and 2 objects relate to agriculture activity. Weapons (4) and personal equipment (3), the most common features in Iron-age graves, are relatively sparsely represented.



Fig 2 Location

Research focus

The excavation gives detailed information about the construction of the grave and the placing and arrangement of the grave goods, which seems to be intentional and not accidental. Even more intriguing is the number and variety of smithing tools and their positions and alignment in relation to other objects in the grave, clearly reflecting a strong intention of the living to underline metalworking skills as an important element in the burial ritual.



Fig 3.The sword handle (under conservation)



Fig 4.A selection of smithing tools from the grave (under conservation): Hammers and chisel (above), tong and anvils (below)

These empirical aspects of the grave will be the point of departure for further research with a focus on two main questions: Can the structural features of the grave add new knowledge to our understanding of burial rituals and mortuary practice in the Late Iron Age, and how can the grave contribute to the ongoing debate about the significance of smithing tools in graves, a debate which today questions the traditional interpretation of graves with smithing tools as simply "smiths' graves".

An attempt to illuminate these questions will be based on a detailed functional and intra-contextual analysis of the grave content and a regional comparison of other graves from the Late Iron Age, with a specific focus on cremation graves and graves with metalworking tools.

Preliminary interpretations

The grave visualises at least two stages in the death ritual, first cremation and then the final burial ritual by deposition of grave goods added after the cremation. It contained 90 scattered iron nails of which many are visibly burnt, fragments of a fire cracked bone comb and a partly melted glass pearl, suggesting that the dead was cremated in a wooden coffin with clothes and some small personal adornments.

The object and layer stratigraphies of the grave indicates that a circular pit was dug, and that the artefacts were carefully deposited from bottom to top in parallel to the infilling of residual sediment from the cremation. From the functional composition of the artefacts and their careful arrangement it is appropriate to regard the deceased as a person related to metalworking.



Fig 5. Objects exposed in the middle level of the grave

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Ancient DNA from Pre-Modern Trondheim

This poster presents the results of the DNA analysis of 97 mediaeval and post-mediaeval skeletons from Trondheim, which give a picture of a heterogeneous population.

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As part of the project "Immigration and mobility in mediaeval and post-mediaeval Norway"*[1]*, 97 skeletons, stemming from five different archaeological sites in Trondheim, were subjected to DNA analysis. The skeletons date to the period between ~1150 and 1890. One of the main aims for this research is to create a better understanding of the historical background for the multicultural society developing today.

Three analyses were performed. Firstly, the sex of each individual was determined genetically, secondly, the Y-chromosome DNA was analysed for all male individuals, and thirdly, the mitochondrial DNA was analysed for all individuals, both male and female.

The results show that genetic sexing will correct misinterpretations made when skeletons are morphologically sexed. The Y-chromosome and mitochondrial DNA analyses show a heterogeneous population with 8 Y-chromosomal and 11 mitochondrial haplogroups detected.

Sexing results

Molecular genetic sex-typing gave interpretable results in all typed samples with 38 being female and 49 male. A discrepancy between the morphological and the genetic sexing results was observed in 8 cases. The results confirm that genetic sexing will improve the accuracy of the sex distribution in skeletal samples (Figures 1 & 2).

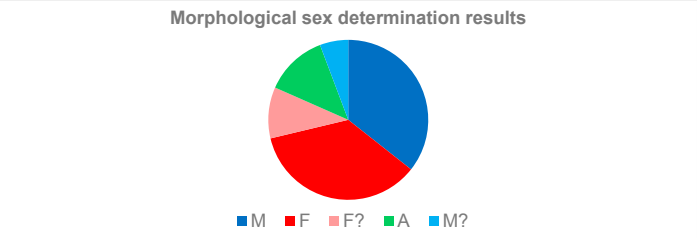


Figure 1: The distribution of morphologically sexed skeletons (N87). (M=male, M?=probably male, F=female, F?=probably female, A=ambiguous).

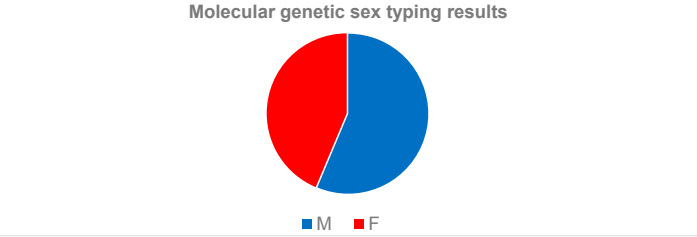


Figure 2: The distribution of genetically sexed skeletons (N87). (M=male, F=female).

Y-STR typing and haplogroup prediction results

The 49 male individuals were typed for Y-chromosomal markers and revealed eight Y-chromosomal haplogroups, concordant with previously published datasets. The following haplogroups were identified: I1,R1a,R1b, G2a, G1, Q, I2a,I2b1 (Figure 3).

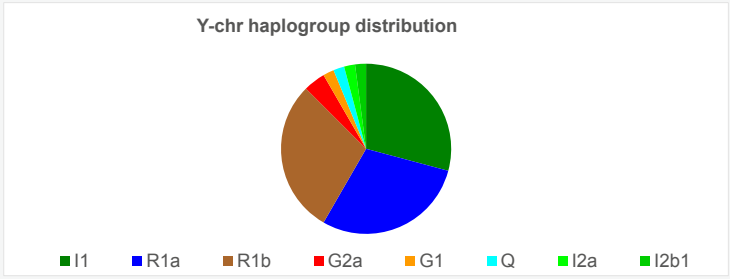
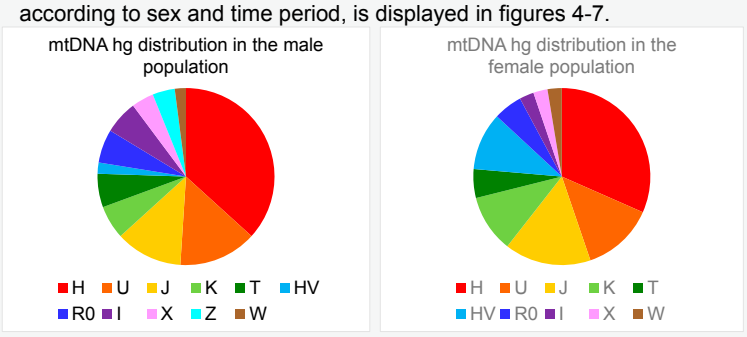


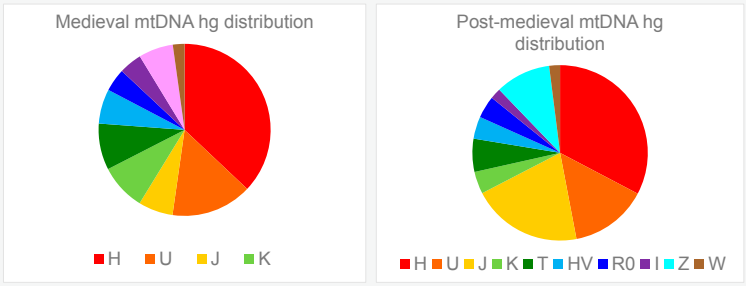
Figure 3: The distribution of Y-chromosomal haplogroups

mtDNA sequencing results

The mitochondrial DNA sequencing was successful for all of the 97 individuals in the study. The following eleven mtDNA haplogroups were identified: H, HV, I, J, K, R, T, U, W, X and Z. The haplogroup distribution, according to sex and time period, is displayed in figures 4-7.



Figures 4 & 5: The distribution of mitochondrial haplogroups according to sex



Figures 6 & 7: The distribution of mitochondrial haplogroups according to time period (mediaeval & post-mediaeval)

Reference

[1] http://medieval-immigration.b.uib.no

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EXPLORING
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Beads and Bones: Preliminary Results from a Research Excavation

Five delicate glass beads shed new light on the Iron-age mortuary custom in Hardanger, Norway

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The Hereid terrace and the trench containing an Iron Age flat grave (red circle). Photo: Jan Berge



Photo: Anne Drageset

Fresh from the ground

The Iron-age cemetery at Hereid in Eidfjord municipality is one of the largest in Norway, and it is certainly exceptional within the Hardanger region. Still, the approx. 400 burial mounds and cairns found here has constituted a poorly investigated burial ground. These now form part of the focus in an ongoing PhD-project on landscape and mortuary practices in Hardanger.

In order to illuminate some of the related issues, a research excavation was carried out in October 2015. The dig uncovered what at first seemed to be an inconspicuous pit at the site of Sjohaug. Nevertheless, half sectioned and sieved, the feature proved to be an Iron-age cremation burial.

The burial

The excavation trench was dug at a location where known burial monuments once characterized the landscape. With time, land cultivation erased these manifestations.



The burial ground at Hereid, the relevant find marked with red circle.
Map: Anne Drageset, survey: Hordaland County Council.

What appeared during the unearthing, however, were not the remnants of these, but a previously unknown flat grave. This burial was not marked above ground by the means of a mound or cairn. It was discerned by a pit comprised of humus, charcoal and small stones. The surrounding ground was mottled with the same fill.

Based on this find, it is reasonable to believe that more flat graves are hidden between the visible monuments at Hereid.

The beads

Among charcoal and a small amount of burned bones, rested five annular, monochrome, glass beads. The beads are all undecorated and <1 cm in size. The find is composed of:

- Two opaque white beads
- Two translucent turquoise beads
- One translucent celadon green bead.

The beads are manufactured using the winding technique, where hot glass is wound around a metal wire and given its annular shape by turning it inside a clay furnace. The technique is identified in the turquoise bead far right on the photograph. It is recognized by the edge where the glass rod was folded.

The road ahead

Radiocarbon results are underway, which will date this find, as well as providing information on the Hereid cemetery timespan in its entirety. The perforation on one of the white beads concealed a tiny textile fragment. A microscope analysis will tell us more about how the beads were strung. Finally, a XRF analysis is planned in the investigation of the glass beads.

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- Asbjørn Engevik at The University Museum of Bergen

EXPLORING
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Cultural Memory in Medieval Arcadia

Medieval towns in Greece were built on, and of, ruins of large ancient urban structures. How did this intimate physical relationship with the spectacular ruins of an ancient civilisation influence the medieval Greek view of the past?

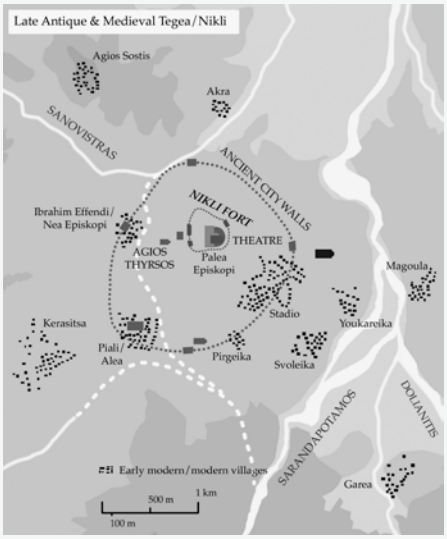
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Reconstructed Middle Byzantine church at Nikli resting on the foundations of the ancient Theatre of Tegea.

THE PROJECT

Cultural Memory in Medieval Arcadia is a study of medieval reuse of places, monuments and visual culture from deserted ancient urban sites in the highland region (Arcadia) of the Peloponnesian Peninsula, Greece. The main case study is the ancient Greek city-state Tegea, called Nikli in medieval times. Several Norwegian archaeological campaigns have been undertaken here during the past 25 years. Other Arcadian sites (Mantinea, Megalopolis) and examples from other Peloponnesian regions are also included in the study.



THE HISTORY OF TEGEA/NIKLI

In Antiquity Tegea was an important city-state. The first indications of activity at Tegea after the city was abandoned around 600 AD are fragments of Slavic pottery from the 7th century. When Byzantine administration is re-established in the 10th century a new fortified town with monumental ecclesiastical buildings rose from the ruins of ancient Tegea, but the memory of the ancient city appears to have been erased. In medieval sources the town is referred to as Nikli. After the Fourth Crusade (1204) there was a brief intermezzo of Frankish rule at Nikli, and by the time of the Ottoman conquest of the Peloponnese (1450s) the Byzantines had abandoned the site. Some of the villages in the area were probably established already during the early Ottoman period (16th century).



Byzantine gold coin from the era of John II (1118-43) found in a secondary burial context in the ancient sanctuary of Athena Alea.



Late medieval urban fortifications of Nikli.



Fragments of decorative building blocks from ancient and medieval buildings in a gate to an Ottoman farm-house. In the Ottoman period such displays of antiquities were used by local farmers to document their agricultural rights.

ARCHAEOLOGICAL FIELDWORK

The Norwegian Archaeological exploration of Tegea/Nikli goes back to the Excavation of the Sanctuary of Athena Alea (1990-1994). More recent investigations include the urban site (1999-2013) under the direction of Knut Ødegård (Univ. of Oslo), and an archaeological survey of the Tegean countryside directed by Jørgen Bakke and Hege A. Bakke-Alisøy (2009-2012) from the Univ. of Bergen.



Field team of the 2012 season in front of remains of an early Byzantine building discovered in 2012. From the left: Jørgen Bakke and Hege A. Bakke-Alisøy (both Univ. of Bergen), Anthoulla Vassiliades (Australian Archaeological Institute, Athens), Jonatan Krzywinski (City of Bergen Agency of Cultural Heritage Management).

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REFERENCES

- J. BAKKE, *Forty Rivers. Landscape and Memory in the District of Ancient Tegea* (Doctoral dissertation), Bergen, 2008.
- J. BAKKE, "Finnes det et bysantinsk Tegea? Problemer og hypoteser i den peloponnesiske middelalderarkeologien, *Viking*, 2010.
- N. DROCOURT, "Tégée/Nikli et la période byzantine", in ØSTBY (ed.), *Tegea II. The Sanctuary of Athena Alea*, Athens, 2014.

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Drilling For Data

Archaeological deposits are non-renewable resources. Once destroyed, they can never be replaced. Bergen's medieval centre rests on deposits that reach thicknesses in excess of 10 metres.

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ABSTRACT

Archaeological assessment of state of preservation forms one of the mainstays in the overall work of environmental monitoring with regard to the organic deposits found in Norway's medieval towns. Specialists in the field of geo-chemistry have frequently stated that such state-of-preservation assessments represent essential data in connection with their own analysis and interpretation of preservation conditions below the ground surface. And heritage managers naturally rely heavily on the archae-ological assessments, since it is difficult to manage such a complex phenomenon as a medieval town without knowing the current condition of its buried components. This poster will therefore present aspects of the archaeological side of monitoring work (drawing primarily on work at the UNESCO World Heritage Site of Bryggen).


Photo: Dunlop, NIKU

Drilling for data

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NIKU's Bergen office has partici-pated in the deposit monitoring programme at Bryggen since 2000, focusing primarily on doc-umenting the state of preserva-tion of the deposits that support the standing historic buildings. Many of these deposits are highly organic and therefore extremely vulnerable to decay.

Monitoring wells

Most of the work has comprised investigations in connection with the installation of monitoring wells by means of auger drilling.

Auger drilling is the only practicable way to access deposits that in places may reach thicknesses in excess of 10 metres. A monitoring well is simply a PVC tube with a filter that allows groundwater to be sampled at any desired depth. And sensors can be mounted in the wells to record a wide range of physical and chemical parameters. Over 40 such wells have been installed in and around the Bryggen area alone so far in connection with the Groundwater Project (Rytter & Schonhowd 2015), with about 20 more in other parts of medieval Bergen.

Drilling and recording

When monitoring wells are in-stalled, drilling is done using a 10-cm-diameter auger, basically a large screw, whose "thread" length is normally one metre. The auger is driven down under rotation one metre at a time and then retracted without rotation. The archaeologist can then inspect the adhering soil - after having scraped away the outermost material, which can become "contaminated" through contact with higher strata - in order to record the stratigraphic sequence (cf. figure below).


Photo: Rotevatn, Riksantikvaren

Recording is carried out in accor-dance with Norwegian Standard NS 9451:2009 (Standard Norge 2009). Each individual stratum in the sequence is described in detail, and its state of preserva-tion assessed. The state of preservation can be assigned an alphanumeric value by reference to the State of Preservation Scale (cf. figure below).

STATE OF PRESERVATION SCALE

		DEGREE OF PRESERVATION						
		NONE	LOUSY	POOR	MED-IUM	GOOD	EXCEL-LENT	
POSITION IN RELATION TO GROUND-WATER	OVER	A0	A1	A2	A3	A4	A5	A
	OVER/IN	B0	B1	B2	B3	B4	B5	B
	IN	C0	C1	C2	C3	C4	C5	C
		0	1	2	3	4	5	
Fill etc. later than ca. 1900		D0	D1	D2	D3	D4	D5	D

Drilling also makes it possible to take soil samples for analysis of the chemical composition of selected strata, along with samples for radiocarbon dating. And it is not as unusual as one might imagine for the auger to bring artefacts and ecofacts up to the surface (cf. figure at top right corner, where a scrap of leather can be seen).


Photo: Dunlop, NIKU

Once and future data

In conclusion, it is important to point out that all the information is not just for current use, but represents baseline data that can be used subsequently for purposes of comparison. For instance, to detect whether the state-of-preservation situation is stable or not.

REFERENCES

Rytter, J. & Schonhowd, I. (eds.) 2015. Monitoring, Mitigation, Management. The Groundwater Project – Safeguarding the World Heritage Site of Bryggen in Bergen. Riksantikvaren.

Standard Norge 2009. Krav til miljøovervåking og -undersøkelse av kulturlag. Norsk Standard NS 9451:2009. [English version 2012: Requirements for environmental monitoring and investigation of cultural deposits.]

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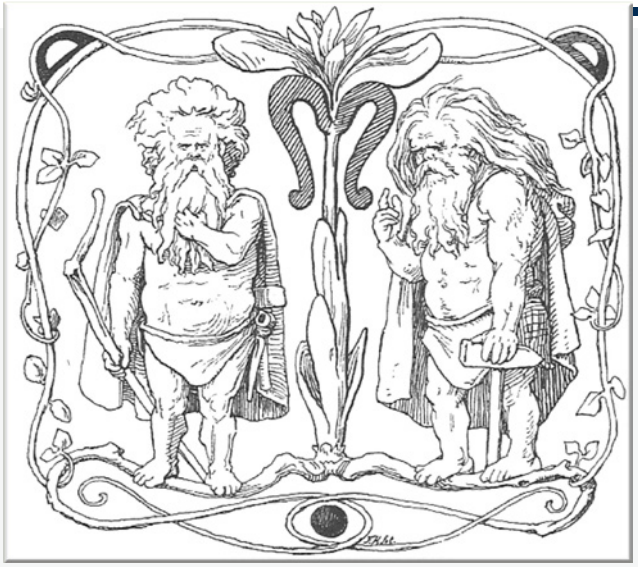
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THE MIDDLE AGES

Dwarfs and Humans – Friendship and Hostility

Are dwarfs predominantly friendly or hostile towards humans in Old Norse sources and Nordic folklore? How does reciprocity work in the relationships between dwarfs and humans?

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ABSTRACT

Relationships between dwarfs and humans are described in different kinds of sources, including Old Norse sagas (primarily legendary and romantic sagas), Faroese ballads, Icelandic and Norwegian folktales. In addition, there is one runic inscription which arguably describes the role dwarfs were believed to play in human people's life. Dwarfs in the different sources are depicted as healing, illness-engendering, grateful, vengeful, devoted to human heroes or perfidious, and reciprocity plays an important role in many narratives.

Healing dwarfs

In several sagas, dwarfs are able to heal humans and even to reattach amputated extremities. Egill One-Hand in *Egils saga einhenda ok Ásmundar berserkjabana* is healed by a dwarf. In *Göngu-Hrólfs saga*, Möndull the dwarf says: "I have such an aptitude for healing the sick that I can heal everything that has some life in it within three nights; I would also like to inform you that I am a dwarf from the underground", before he reattaches Hrólfr's feet that had been chopped off by Vilhjálmr.

Illness-engendering dwarfs

The runic inscription from Ribe (dating from the first part of the 8th century) refers to a dwarf that was held responsible for having caused an abscess. The father of the suffering person carved runes on a fragment of a human cranium, and prayed to Óðinn for help for his son.

Folktales from North Norway tell about cattle injuring dwarfs. An animal disease was known as *dvergskott*, literally 'a dwarf's shot'.

Grateful dwarfs

As a thanks for a gift or a favor, dwarfs usually reward the human hero. Even if the human protagonist is reluctant to accept rewards, the dwarf knows what is the right thing to do, as shown in *Þorsteins þáttr bæjarmagns*. When Thorstein Mansion-Might said, after having rescued a dwarf's child, "I'm not in the habit of taking money just for showing my talents", the dwarf's reply was "That doesn't make my duty to repay you any the less".

Vengeful dwarfs

When brutally forced to do a favor, e.g. to produce a weapon, dwarfs have the power to curse their own production. In one redaction of *Hervarar saga ok Heiðreks*, King Svafrlami forced two dwarfs, Dvalinn and Dulinn, to forge a sword for him. The king received a victorious sword in time, but Dvalinn pronounced the following prophecy: "May your sword, Svafrlami, be the death of a man every time it is drawn, and with it may three of the most hafeful deeds be done; may it also bring you your death!" Indeed, Svafrlami is later killed by Arngrímr, who uses the cursed sword.

Devoted dwarfs

In more than one saga, the relationship between a dwarf and a human hero is characterized as *vinátta mikil* 'great friendship'. Several dwarfs are foster-fathers of human heroes in the sagas, and Litr the dwarf in *Þorsteins saga Víkingsonar* risked his own life in order to help his human foster-son.

Perfidious dwarfs

Perfidy is by no means unknown to dwarfs. Reginn incited Sigurðr to kill Fáfnir, while he in secret plotted against Sigurðr himself. The story is best known from *Völsunga saga*, although it is only in *Norna-Gests þáttr* that Reginn is explicitly called a dwarf. Möndull, the wicked dwarf in *Göngu-Hrólfr's saga*, becomes loyal to Hrólfr, but not before Hrólfr has threatened to kill him. This does not mean that Möndull becomes a good person; his wickedness is from now on directed against Hrólfr's enemies.

Reciprocity

Reciprocity works in many cases both ways in the relationships between dwarfs and humans: Dwarfs reward their benefactors, and are often vengeful when treated unjustfully. A dwarf's help is significant for the human protagonist's later success.

REFERENCES

Fornaldarsögur Norðurlanda, Vols. 1–3. Guðni Jónsson and Bjarni Vilhjálmsson (eds.). Reykjavík: Bókaútgáfan forni, 1943–1944.

The Saga of King Heidrek the Wise. Tolkien, Christopher (trans.). London etc.: Thomas Nelson and Sons Ltd, 1960.

Grønvik, Ottar. 1999. Runeinnskriften fra Ribe. In: *Arkiv för nordisk filologi*, Vol. 114, pp. 103–127.

Mikučionis, Ugnius. 2014. The Family Life of the Dwarfs and its Significance for Relationships between Dwarfs and Humans in the Sagas. In: *Maal og Minne*, Issue 2 (2014), pp. 155–191.

Olsen, Ole Tobias. 1912. *Norske folkeeventyr og sagn.* Kristiania: J. W. Cappelens forlag (reprinted by Rana museums- og historielag,1987).

ACKNOWLEDGEMENTS

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Image credit: Lorentz Frølich and Wikimedia Commons.

EXPLORING THE MIDDLE AGES

ᛘ emroon

An Etymologically and Morphologically defined Referential Orthography for Old Norse

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Folio 51 recto of GKS 1154 fol. (Codex Hardenbergianus), a copy of *Magnus lagabøtes landslov*

The **Etymologically and Morphologically defined Referential Orthography for Old Norse** (stylized **emroon**) is a frame of reference for the orthographic description of Old Norse written sources. It enables the researcher to describe the regularities (and irregularities) in a particular manuscript without referring to any specific phonology, but rather to **an abstract hyper-normalization** based on the history of the individual sound (**etymology**) and the **morphological** structure of the individual word.

This makes it possible to separate **orthographic description** ("What's going on in the manuscript?") and **phonological interpretation** ("Which sounds does this orthography represent?") into two clearly distinct processes.

Sound positions

Instead of phonemes, **emroon** consists of etymologically defined **sound positions**, that make no claim about a phonological or phonetic reality at any specific point in time or space, but function as **abstract points of reference**, applicable to any form of Old Norse.

Reference morphemes

These sound positions are combined to create **referential morphemes**, representing the morphological make-up of individual **types**, i.e. morphologically distinct words.

Advantages

By describing manuscript orthography in terms of such an abstract referential system, one is able to **describe orthographic regularities** and irregularities **without attributing them *a priori* to any specific phonology** or any specific orthographic principle (orthophonic, historical, morphological etc.).

This attribution or **interpretation is a secondary step**, and all the possible conditioning factors (etymology, morphology, phonology) are represented in the referential framework. This allows for different interpretations to be discussable on the basis on the same orthographic description.

The Database

Instead of encoding each token of a given manuscript corpus with an **emroon** form individually, I propose to tag each token with a reference to a **lexicon of referential types** that contains information about each type's **lemma**, **part of speech**, **paradigmatic form** and **morphological structure**. This structure is given as a sequence of references to a **morpheme list**, where each morpheme is defined as a sequence of sound positions and a class (e.g. radical, derivational, inflectional). Thus, we end up with three databases: the corpus, the referential lexicon and the morpheme list.

Since **every piece of Information is stored only once**, modifications and re-evaluations are easy.

Perspectives

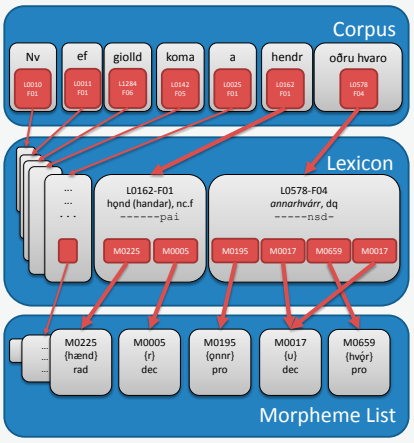
For now, tokens have to be connected to their types manually, and each type has to be created manually. However, software solutions are feasible, both for the automatic creation of further morphological types, and for the (semi-) automatic tagging of manuscript tokens.

Furthermore, **emroon** can not only be used in the orthographic description of manuscripts, but all the established normalizations of Old Norse (ÍF, ONP, Baetke etc.) can be derived from emroon by simple transformation rules. This will make digital editions and dictionaries more accessible and mutually compatible.

My Project

Currently, the **emroon** database contains 6,665 morphological types belonging to 3,010 lemmas and consisting of 1,801 morphemes, covering the 56,639 tokens in the Norwegian part of the law manuscript **Holm perg 34 4to** (written around 1300, containing *Magnus lagabøtes landslov* and other laws).

I will use the possibilities given by **emroon** to describe its orthography thoroughly and discuss possible phonological interpretations.



The interrelation of the three emroon databases

Sound positions for Old Norse vowels and consonants

		front		back	
		spread	round	spread	round
diphthong		ei	øy		au
long	high	í	ý		ú
		é	ø		ó
	low	æ		á, ã	ǫ́, ǭ
short	high	i	y	(ï)	u
		e	ö	(ë)	o
	low	æ, e͡i	ø	a	ǫ
unstressed		ı		ᴀ	ᴜ

		labial	dental	alveolar	palatal velar glottal
plosive	fortis	p	t		k
	lenis	b	d		g
fricative		f	þ	s	h
semivowel		v			j
nasal		m	n		
vibrant			r		
lateral			l		

REFERENCES

Elmentaler, Michael (2003): *Struktur und Wandel vormoderner Schreibsprachen.*

Haugen, Odd Einar & Fartein Th. Øverland (2014): *Guidelines for the Morphological and Syntactic Annotation of Old Norwegian Texts*.

Hreinn Benediktsson (1972) (ed.): *The First Grammatical Treatise* .

ACKNOWLEDGEMENTS

This poster will first be presented at the **22. Arbeitstagung der Skandinavistik** (Cologne, Sep/Oct 2015), and in a possibly modified form at **Exploring the Middle Ages** (Bergen, Nov 2015).

Forskargruppe i mellomalderfilologi
Research Group for Medieval Philology

EXPLORING
THE MIDDLE AGES

Farming, Quarrying, Mining – All the Same?

Did property rights in medieval quarrying and mining evolve from agriculture? Comparing medieval quarrying, coal and silver mining with agriculture shows interesting parallels.

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ABSTRACT

Agriculture, quarrying and mining all depend on land as a production factor. Agriculture was the best-established production sector of the Middle Ages and well embedded in the feudal system. Therefore, it is reasonable to assume that the property rights and royalties, as they were known from agriculture, served as a model for the regulation of mining and quarrying when it became necessary. Elements of the organizational form of agriculture can actually be found in quarrying and mining. In some cases, also the terminology is similar or even identical. In some regions of Europe, where mining and quarrying are represented in the archeological record, written sources are lacking. To reconstruct the organizational form of quarrying and mining in these regions, it is also reasonable to assume that they were organized in a similar way as agriculture. This finding is a byproduct of my research on extraction of stones and trade with stone-products from the eastern Eifel-region in Germany from 800-1800.

REFERENCES

Bartels, C. 2001. Die Zisterzienser im Montanwesen des Mittelalters. *Der Anschnitt 53/2001*, 58-70.

Bartels, C. 2006. *Das Schwazer Bergbuch.* Volumes 1-3. Deutsches Bergbau-Museum, Bochum.

Kranz, H. 2000. *Lütticher Steinkohlen-Bergbau im Mittelalter.* Volume 1 and 2. Shaker, Herzogenrath.

Myking, J.R. 2005. Peasants´ land control in Norway. In Iversen, T. and Myking, J.R. (eds.), *Land, Lords and Peasants*,15-28. Norwegian University of Science and Technology, Trondheim.

Pohl, M. 2012. *Steinreich.* Deutsches Bergbau-Museum, Bochum.

Pohl, M. 2015. The Role of Laach Abbey in the medieval quarrying and stone trade. In Hansen, G., Ashby, S. Baug, I. (eds.) *Everyday Products in the Middle Ages*, 251-269. Oxbow, Oxford.

Schüller, H. 2008. Lehnherr - Erbherr - Layer. In Netz, J. (ed.) *Mayener Basaltlava - Zeitzeuge aus den Tiefen der Vulkaneifel*, 91-110. MAYKO Natursteinwerke, Mayen.

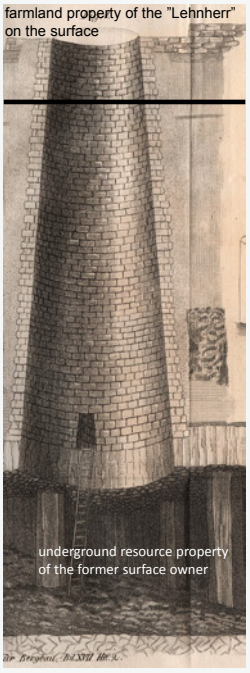
Forest Clearance and Agriculture

Throughout the Middle Ages forests were cleared in Central Europe to gain new farmland. The feudal lord received a proportional royalty of the revenues of the new farmland for granting the right to clear an area. He could claim this royalty even after he had sold the farmland. He could also reserve the property rights to the non-agricultural resources of the cleared land. The percentage of the royalty and its name varied regionally. It went under names such as terragium, champart, Rottzehnt, etc.



Cod. Pal. germ. 164, Eike von Repgow, Heidelberger Sachsenspiegel: http://digi.ub.uni-heidelberg.de/diglit/cpg164/0066

This principle, or parts of it, can be found also in medieval millstone quarrying in the Eifel-area (Germany), coal mining in Liege (Belgium) and silver mining in Schwaz (Austria).



Schulze 1828. Die Mühlsteinbrüche zwischen Mayen und dem Laacher See. *Archiv für Bergbau und Hüttenwesen Bd. 17*, 386 - 422.

Millstone Quarrying

The above mentioned principle is visible in the millstone-quarries in the Eifel-region. A landowner who sold farmland could reserve the property rights to the underground resource - the basalt used for the production of millstones. The new owner of the farmland - the "Lehnherr" (i.e. landlord) - had to accept that the owner of the underground resource could set up a quarry. The worker-entrepreneurs that operated the quarry paid the owners of surface and resource a proportional royalty of the revenue. The legal terms used here are similar to those used in feudal system and agriculture. Free days in spring for planting and ploughing and in autumn for harvesting show a close connection to agriculture.



Bartesl et al.: Das Schwazer Bergbuch, Bochum 2006.

Coal Mining and Silver Mining

A similar custom was common in coal mining in Liege. When selling farmland it was usual to reserve the property right to the underground resource. The miners of Liege paid the "terragium" to the mine owners. This proportional royalty has the same name as in agriculture. Mining was seasonal, based on seasons in farming, and the miners had free days for harvesting. Proportional royalties were also common in Tyrolean silver mining. The miners of Schwaz were worker-entrepreneurs like the quarrymen in Eifel and the coal-miners in Liege. They were assigned an area in the mine for the extraction of silver ore, which they sold to the owners of the mine. This was called "Lehenschaft". As in the Eifel-area, this legal term is linked to agriculture and feudal system.

Result

All these parallels indicate a strong connection between quarrying and mining on one and agriculture on the other side. Thus, it seems plausible that property rights and distribution of revenues in quarrying and mining may have emerged from agriculture within the feudal system.

Given this result, it may be possible to assume similar property rights, production organization and distribution of revenues in medieval agriculture and medieval mining in general. This is especially interesting for regions where mining and quarrying are present in the archeological record but written sources are lacking for the relevant period.

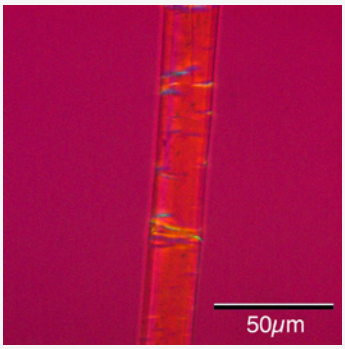
HØGSKOLEN I BERGEN
BERGEN UNIVERSITY COLLEGE

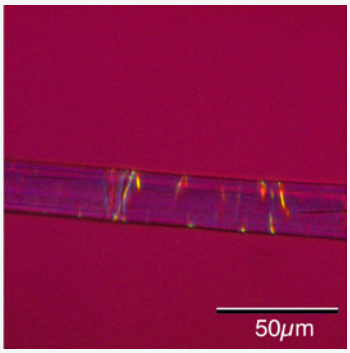
EXPLORING
THE MIDDLE AGES

Fibre Identification in Archaeology

How to identify archeological textiles through optical microscopy
What kind of questions can be answered
How to sample correctly and how much is needed

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The identification of textile fibres is an important task in archaeology. Animal hair can be distinguished from plant fibres by means of light microscopy.

Closer differentiation of animal and plant species leads to insights such as material use, import or authenticity.

Flax, nettle and hemp are plant fibres found in North European medieval finds.

Cotton, jute and ramie are not domestic and can rather indicate that a studied find is not original.

Animal hair consists of layers of overlapping scales with a characteristic shape, which is one of several morphological signs leading to fibre identification.

Silk has a smooth surface with no structure compared to other types of animal fibres. The presence of silk in North European medieval textiles confirms that they were imported.

Morphological characterization of longitudinal direction and cross section of fibres, behaviour of inner structure in polarized light and micro chemical tests are the determining methods applied.

Above: Result of Herzog test showing blue colour in 0°- position and yellow/red in 90°- position.

This attests to the use of flax/nettle. The morphological character of fibres indicates flax. The sample is from a Viking Age double grave from Hyrt/Voss (B4864_g,h).



Textile fragments were interpreted as remains of a women's shift (undershirt), according to a reconstructed micro-stratigraphy of layers.

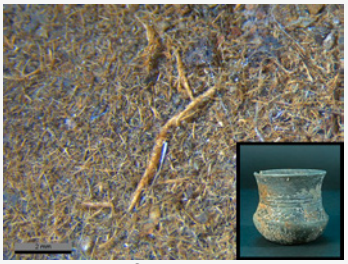
Herzog test

Distinguishing between flax/nettle and hemp can be done by means of a Herzog test. This empirical test, known since 1940, was recently verified and explained theoretically by Einar Haugan and Bodil Holst.

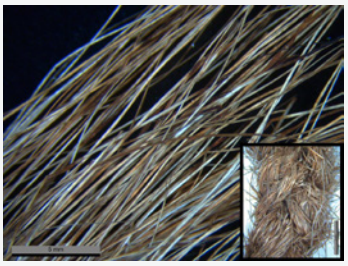


A Video on how to perform the modified Herzog Test

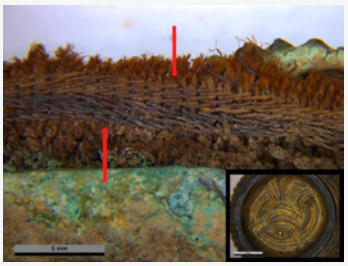
https://youtu.be/sC9GlUKjBDE



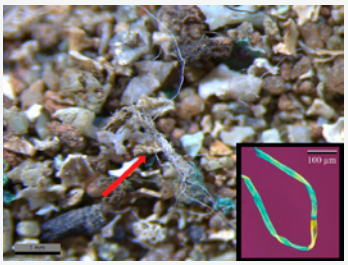
Fragments of original threads have been found on many different objects – an Iron Age urn B_91 containing textile remains.



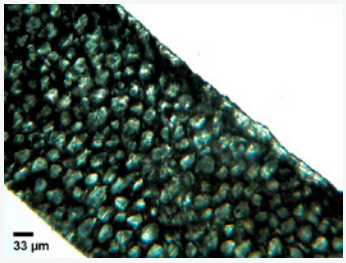
There was a variety of material use; not only sheep wool was used as animal hair for braiding.



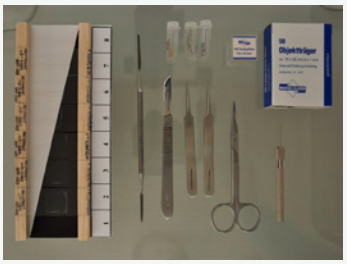
Tablet woven bands from Migration period have been found on cuffs with gilded clasps decorating precious garments. Some bands show patterns in the soumak technique as e.g. the fragment B6092_I_b. It is often cited that "horse hair" was used for this technique, without an analytical verification. Was it really so?



Cotton is a most common pollutant in museum collections. Objects are often contaminated by modern clothing.



Fibres of reindeer (*Rangifer tarandus*) from a fur, dated to the 10th -11th century, were found in the so called Skjoldehamns find (TS 3897).



Sampling process

- Defining of research questions before sampling

- Precise documentation incl. photos of an area to be sampled

- Using clean and appropriate tools (tweezers, tungsten needle, scalpel, surgical scissors) and a reflected light microscope

- Taking as small a sample as possible (less than 1 mg is often enough)

REFERENCES

- Haugan, Einar, and Bodil Holst. "Determining the Fibrillar Orientation of Bast Fibres with Polarized Light Microscopy: The Modified Herzog Test (Red Plate Test) Explained." (2013).
- Bergfjord, Christian, and Bodil Holst. "A Procedure for Identifying Textile Bast Fibres Using Microscopy: Flax, Nettle/Ramie, Hemp and Jute." *Ultramicroscopy* 110, no. 9 (2010): 1192-97.
- Lukešová, Hana. Old Fragments of Women's Costumes from the Viking Age – New Method for Identification. In: K. Grömer and F. Pritchard (eds.) 2015: Aspects of the Design, Production and Use of Textiles and Clothing from the Bronze Age to the Early Modern Era. NESAT XII. The North European Symposium for Archaeological Textiles, 21st – 24th May 2014 in Hallstatt, Austria. Archaeolingua Main Series 33. Budapest 2015.

ACKNOWLEDGEMENTS
Photographs of urn B_91 and textile fragments B4864_g,h are by Svein Skare.

EXPLORING
THE MIDDLE AGES

Fish Trade in Norway AD 800–1400: Zooarchaeological Evidence

Zooarchaeological evidence (bones) can be used to recognise the spread of stockfish in Medieval Norway - from rural sites in the north to the urban settlements in central and south Norway.

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SITES INCLUDED IN THE STUDY:



Trondheim	Erkebispegården,	AD 1250-1532
	Folkebibliotekstomten	AD 1000-1125
	Televerkstomten	AD 900-1350
Bergen	Dreggen	AD 1170-1330
Stavanger	Skagen 3	AD 1100-1272
	Stavanger torg	Medieval
Tønsberg	Baglergt. 3	Ca. AD 1200-1350
	Storgt. 35	AD 1100 and 1200
	Storgt 24/26	AD 1100 to 1500
Oslo	Mindets tomt	AD 1075-1225
	Kansler gt.	Ca AD 1250
	Oslogt. 4	AD1000 and 1100
	Revierstredet	AD 1624-1730
Helgøy		14th and 15th Century
Storvågan		Mainly 13th Century
Blomsøy		13th Century

Abstract

The anatomical distributions within cod bone assemblages from Medieval rural sites in Northern Norway and Norwegian towns suggest that stock fish was produced in Northern Norway.

The oldest Stock fish (*Rundfisk*) signature is found in Trondheim (AD 1000-1125) and Oslo (AD 1025-1125/50). Next is Bergen (AD 1170-1330), with its combination of *Råskjær* and locally caught fish, followed by *Rundfisk* in Trondheim (AD 900-1350) Tønsberg (AD 1200-1350) and (12th and 13th C). Mixed stock fish and fresh fish signatures were found in Trondheim dating to the 12th and 13th centuries and Oslo (AD 1050-1250) and (AD 1200-1350) in Oslo.

The bones are stored in the Osteological collections, Department of Natural History at the University Museum.

In this study 22,000 bones of cod from medieval cultural layers, and the anatomical distribution within the bone assemblages is used to identify the presence of stock fish.

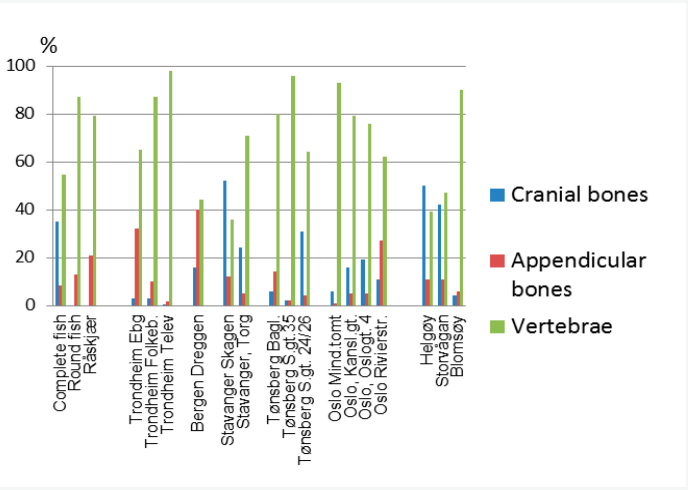
STOCK FISH

Cod (*Gadus morhua*) is the main fish in the Stock fish production. Norwegian stock fish was traditionally prepared either as *Rundfisk* or *Råskjær*.

With *Rundfisk* (English; Round fish), the common preparation method, head and intestines are removed, and two fish tied together are hung on a drying rack.

With *Råskjær*, head, intestines and anterior part of the vertebral column are removed. This method is used for large fish or warm weather. Single *Råskjær* fish are hung over the drying racks, one split half on each side of the stock.

Thus a *Rundfisk* should have no cranial bones, eight bones from the appendicular region (shoulder) and 53 vertebrae. A *Råskjær* fish should have no cranial bones, eight bones from the shoulder and ca 30 vertebrae.



CONCLUSIONS:

- Helgøy and Storvågan produce a typical signature for a stock fish production site.
- The oldest Stock fish signature (*Rundfisk*) is found in Trondheim (AD 1000-1125) and Oslo (AD 1025-1125/50) and the rural site Blomsøy illustrating the presence of stock fish.
- Bergen, Kanslergate 10, Oslogate 4 and Revierstredet resemble stock fish, but with more head bones and a high frequency of appendicular elements. A combination of *Råskjær* and locally caught fish?
- The assemblages from Stavanger give mixed signals and the assemblage from Storgaten 24/26 in Tønsberg gives little evidence for the presence of stock fish

REFERENCES

Hufthammer, AK. Kystliv, Onsdagskvelder i bryggens Museum-III. 59-72

Undheim, P. 1985, Osteologisk materiale fra Dreggen, Hovedfagsoppgave, Zoologisk museum, UiB

EXPLORING
THE MIDDLE AGES

From Manuscript Fragments to Book History

Most of the manuscripts used in medieval Norway are lost, but around 6500 fragments remain. This giant jigsaw puzzle provides new information about Norwegian and European book history.

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Handwriting is both personal and a product of circumstances and training. Foto: Øystein Klakegg



Medieval manuscripts are often colourful. Bergen, University Library, MS 28. Foto: Øystein Klakegg



Book fragments can be quite small. Bergen, University Library, MS 1549, 1a-d. Foto: Øystein Klakegg

ABSTRACT

The manuscript fragments are among our most important sources when studying Norwegian book history.

Most of the fragments are from books in Latin, and pose intriguing questions: Which pieces belong together? What do they tell us about the manuscripts which once existed? Who wrote them, when and why? And where were they used?

The project 'From Manuscript Fragments to Book History' started in 2012 as a four-year research project led by Åslaug Ommundsen and funded by Bergen Research Foundation and the University of Bergen.

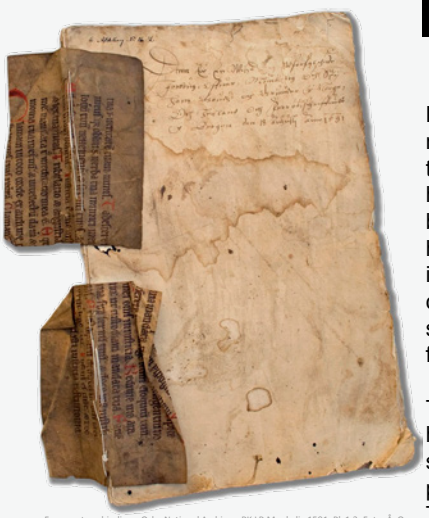


Medieval music. Oslo, National Archives, Lat. Fragm. 889. Foto: Å. Ommundsen

What happened to the books?

In the sixteenth and seventeenth century the medieval manuscripts were obsolete. The solid parchment they were written on, however, could be reused.

The majority of Norwegian book fragments were used in the binding of accounts for the royal Danish administration. The accounts were sent back to Norway in the nineteenth century and stored in the National Archives in Oslo, where the main collection of fragments is still kept.



Fragments as bindings. Oslo, National Archives, RK LR Munkeliv 1591, Pk 1,3. Foto: Å. O.

What the fragments tell us

Most of the fragments come from liturgical books, containing readings, prayers and songs for use in Mass and Office. There are also fragments from books of theology, philosophy, and law. Together they provide valuable information about the books and writings available in medieval Norway.



The style and contents show that this book of hours was made in Rouen around 1470. Bergen, University Library, MS 504. Foto: Øystein Klakegg

Not only the text, but also materials, music, decorations and the style of handwriting can all help reveal where and when a book was made. Each scribe had his or her characteristics, influenced by training, talent and circumstance. Sometimes the same hand can be recognised in fragments from different books.

The various regions of Europe had different liturgical rites, stylistic ideals for writing and practices for book production. These differences help us identify fragments from books made abroad. We also find traces of diverse influence in the fragments from books made in Norway.

Therefore the fragments can increase our knowledge about medieval networks and cultural exchange in Europe, as well as the growth and development of local book production in Norway and its neighbouring regions.

If you would like to see what a 'reconstructed' manuscript can look like, visit us at **fragment.uib.no**.

ACKNOWLEDGEMENTS

Thanks to photographer Øystein Klakegg for photographs and calligrapher Bas Vlam for demonstration of quill on parchment. Thanks also to the University of Bergen Library and the National Archives of Norway for the use of their manuscript material in the photographs. And, finally, thanks to the University of Bergen and Bergen Research Foundation for the support.

BERGEN RESEARCH FOUNDATION

EXPLORING
THE MIDDLE AGES

Graves and Drainage Systems

Minor interventions at medieval cemeteries may cause disturbance to a large number of graves. At the St. Mary's Church cemetery, Bergen, the partial remains of 12 individuals were uncovered in one single drainage pit.

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ABSTRACT

Archaeological investigations within the footprint of a planned drainage manhole at St. Mary's Church cemetery revealed twelve in situ graves and a large number of commingled bones. Preliminary test pits failed to identify potential conflict with in situ burials. The majority of the graves were only partially exposed parts and recovered without further digging into the walls of the pit. This case illustrates the scientific and ethical challenges met when modern devices are to be installed at medieval cemeteries of intensive use.



Graves and drainage systems

Modern interventions at medieval cemeteries, such as the installation of drainage systems, may be necessary to protect historical buildings, but could interfere with the archaeological record below ground.

Archaeological investigations for a drainage manhole at St. Mary's Church cemetery partially exposed 12 *in situ* graves and large amounts of commingled bones from the medieval and post-medieval period. The cemetery layer was not identified in the preliminary test-pitting.

The graves

No coffins or grave accessories were found. The remains of coffins were identified only as iron nails. The *in situ* skeletal remains of at least 12 individuals; 9 adults, 2 teenagers and one young child were recovered within an area of 2 x 2 m and a deposit thickness of 20 cm. Both men and women are are present, and the remains are well preserved. The graves were only partially excavated, for the majority of the individuals more than half to 2/3 of the body was left in the wall of the pit.

Among the most emotive finds was the remains of a 3.trimester fetus still embedded in the woman's pelvis, part of the grave accidentally cut loose from the wall. (see photos below: (1.) adult sacral bone with fetal bones. (2.) fragmented cranial bones.







Skeletal data

Skeletal remains has a potentially high research value for information on health, living conditions and demography in the past. Fragmentation and lack of information on the archaeological context of the remains reduces the scientific potential. Some diagnostic pathological and common criteria for age and sex estimation may be unobservable. The lack of contextual information may obfuscate statigraphy and multiple graves may be overlooked. The ethical implications of exposing and recovering only parts of the bodies are also important to address. The decision whether to preserve in situ or fully excavate should be taken bearing both scientific and ethical questions in mind.

Change of plans

It was clear that the rest of the planned drainage holes would cause extensive destruction and fragmentation of graves and skeletal remains, and could change the preservation conditions of the skeletal remains as a result of infiltration of water in deposits above ground water level.

It was decided to channel the surface water from the church to the Bryggen water-management system by means of connectiong ditches at the Schøtstuen complex. This turned out to be to the benefit of both graves and cultural lays both places.



Conclusion

- Minor interventions at medieval cemeteries may cause great disturbance and have scientific and ethical implications
- Methods for preliminary investigations at cemeteries may need revising
- The infiltration of water into cemetery deposits may not be the best choice preservation-wise
- The scientific potential of fragmented and commingled remains is significantly reduced if proper contextual information is missing

REFERENCES

Hobæk, H. & Lorvik, K. 2015 NIKU Oppdragsrapport 149 (*in prep*.)

Lorvik, K. 2014 Human Skeletal Remains Information Potential and Archaeological Practice. In: Sellevold, B. (ed.) Old Bones. Osteoarchaeology in Norway: Yesterday, Today and Tomorrow.

Rytter, J. & Schonhowd, I. (eds.) 2015 Monitoring, Mitigation, Management. The Groundwater Project – Safeguarding the World Heritage site of Bryggen in Bergen. Riksantikvaren.

ACKNOWLEDGEMENTS

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Norwegian Institute for
Cultural Heritage Research

EXPLORING
THE MIDDLE AGES

Hallingskeid – Feasting, Competitive Games and Barter in the Mountains

Located far in the mountains between eastern and western Norway are four mythological sites named Hallingskeid. Archaeological investigations combined with folktales, myths and written sources contribute to a broader understanding of past assemblies.

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During historical times, people from eastern and western Norway met at seasonal assemblies or festivals (Norwegian "stevne") in the mountains. Little is known about the development and function of these sites other than through oral tradition and myths.

The limited research regarding these sites has mainlybeen oriented towards their association with horse fighting and other competitions.No systematic archaeological investigations have been carried out. Taking account of the dispersed settlement patterns during Viking Age and historical times in rural Norway, we regard the development of seasonal meeting places in the outfield and mountain regions as an important field of research. The aim of the present study is to get a broader and more nuanced picture of past assembly sites by uncovering their multiple layers of meanings and histories.



Case studies, fieldwork and data collection; 1. Hallingskeidsanden, Lærdal, 2014, 2. Hallingskeid, Fødal, Lærdal-Hol, 2015, 3. Hallingskeid, Ulvik, 2015, and 4. Hallingskeid, Eidfjord 2016.

Case studies and research strategy
Four festival sites in Western Norway, named Hallingskeid, were chosen for closer study. Completion and publishing of the project is planned in 2016.

Based on archaeological investigations combined with folk tales and scant written sources we want to investigate how these assemblies were organised and perceived. The project is based on small scale, time efficient and low cost fieldwork predominantly based on surveying for features and structures in the landscape combined with the use of metal detectors in promising areas as well as test pitting. In addition, interviews with local informants as well as literature- and maps studies are being carried out.

Location and results
The geographical position of the Hallingskeids can be related to a number of historical paths and trails, making up complex networks of communicational lines linking mountain regions and inner coastal areas. The name signifies the Skeid of the Halling and is an indication of who met at the skeid: Hallings from the east with "westerners" from the fjord areas of inner Hardanger and Sogn. Getting to the Skeid meant a walking distance of up to 80km in rough mountain terrain with a climb up to 1400 masl.

The investigated sites share a number of common traits including: locations at borders in the landscape, large flat areas suitable for horse race in the mountainous terrain, the presence of horse shoes and horseshoe nails related to traffic /transportation and possibly the horse race itself, a number of other finds pinpointing human presence and activities. In addition, the surveys revealed a number of structures suitable for short time habitation on each site.



Each year the horse bites well shall bee a good year (Bishop Nils Glostrup 1618, about locals sayings concerning horse-fights at a mountain Skeid in Fyresdal).

The Mountains festivals
The Skeid festivals are one of a number of similar assembly sites in the mountains where people from several regions met, usually in the autumn. Apart from folklore and written sources from the 17th to the 19th century rural Norway, the Hebrides and Iceland, these phenomena are mainly known from the Icelandic Medieval sagas.

At the core of the festivals was a broad spectrum of different competitive elements; such as animal fights, horse racing, running and jumping contests, competitive dances and storytelling all arenas for displaying oneself, acquiring status and prestige. Alongside the games were small-scale barter and feasting involving a broad range of food as well as intensive alcohol consumption. The festivals were also important areas for young people seeking spouses and kinship alliances

A world upside-down
Place-names containing Skeid indicate utilization of the area during the Viking Age. The toponymy relates to multiple meanings related to roads/paths, separation and possibly to an origin linked to holy places for horseracing and cultic ceremonies. Horse fights (hestavíg) is described in Norwegian and Icelandic medieval law texts. The Norse sagas give us a few glimpses into the larger gathering of hestaþing.

Another side of Skeid and mountain festivals was their carnivalesque qualities, where a number of oddities, customs and habits indicate a situation where norms, ideas and truths were endlessly tested and contested. In this way festivals could act as an escape from the rigid social structures of society. It has been suggested that a number of the abnormalities at play in fact involved explicit mockery of law, and perhaps even the Thing or assembly itself with its fixed procedures and reliance on the written law.

Superstition and belief systems
In local folklore and belief systems many of the Skeidplaces are considered specifically potent or dangerous locations in the landscape. There are also a number of stories related to death, violence and killings: at Hallingskeidsanden, people were allegedly buried, and males took off their hats/ saluted the dead as a gesture of respect when passing the Skeid. Hunja Barbro, a mythical female troll who had turned to stone guarded the area so the easterners (Hallingdølene) did not take the girls from the westerners (Sogningene) and vice versa, and the outlaw Eyvind Fredlaus was said partly to have inhabited/built some of the housing structures found here.

Gatherings and communication centres
Assemblies in the form of seasonal markets, Thing meetings, skeids and the like would have been important for social interaction and made possible efficient distribution of innovations and ideas. Because assemblies of this kind gathered people from a wide array of regions at a specific time, they should be regarded as potentially decisive in connection to the development of cultural norms.

The mountain festivals seem to open up for a wider range of interpretations for past assembly sites far beyond the realms of neo-evolutionist approaches, formative models or substantive theories. However, proper analytical concepts to describe such places are lacking, and it seems difficult to label them in a straightforward manner. They bring forward the complexity involved at many past multifunctional sites where there was most probably no strict separation between ritual activities, feasting and consumption, formal conducts and social arrangements, production and trade, or games, entrainment and recreation.







From left to right: Hallingskeid, Ulvik. Hallingskeid in Fønsdal. Hallingskeidsanden Lærdal. One of the latest accounts from Skeids describes a gathering at the Hallingskeid in Fønsdal with dancing, fiddling, wrestling, horse-trading and horse-fights as well as the "first meeting" between Elling from Hallingdal and Mette from Lærdal (Reinton1939).

Litterature
Reinton, L. 1939.Villandane.Ein etterrøknad i norsk ættesoge, Det Norske Vitenskaps-Akademi.
Solheim, S. 1956. Horse-fight and horse-race in Norse tradition. Studia Norvegica Ethnologi Folkloristica, vol. III, 1-173.

For more project information;http://norark.no/aktuelt/moteplassar-pa-fjellet-hallingskeidsanden

EXPLORING
THE MIDDLE AGES

Holy Heroes – Heroic Saints

Interdependency, Integration and Transformation of Discourses on Model Conceptions in Early and High Medieval Scandinavia. Project funded by the Deutsche Forschungsgemeinschaft (DFG)

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Death of king Knud IV at St. Alban's church in Odense: "The onrush and assault of the rebels shook the earth … [but] hearing the Vesper calls the devout hero retreated with all his men to a nearby church." *Vitae Sanctorum Danorum* ed. by Martin Gertz, p. 116. (Translation by Fiona Fritz)

HERO VS. SAINT?

In both secular and heroic tales and poems, Scandinavia's pagan past was very much alive even as late as the 12th century, when Scandinavia was converted to Christianity and began to strive for independent ecclesiastical structures. Some researchers have therefore assumed a continuing antagonism between a Christian idea of saintly conduct and a Germanic mindscape of warlike heroism. This project challenges this strict differentiation between the concepts "hero" and "saint" in 11th to 13th century Denmark, Norway and Sweden.

Aim

Our research aims at showing how the hagiographic construction of saints as exceptional figures shapes and transforms conceptions of role models. We want to analyse which functions these conceptions fulfill during a time that is characterised by the establishment of dynastic traditions as well as political and ecclesiastical centralisation .

Sources

Latin hagiographic writings from early Christian Scandinavia are the central sources for this project. The depiction of Scandinavian saints is thus at the heart of the investigation. We distinguish between several types of saints, i.e. royal saints, missionary saints, and episcopal saints as well as female saints. The depiction of their lives and miracles will serve as the basis for the analysis of narrative strategies and intended functions for discourses on model conceptions.

Methodology

The investigation of the source material will be mainly conducted in the theoretical framework of discourse analysis to identify conceptions of role models. Furthermore, the analysis of cultural transfer processes enables us to focus on interdependencies and transformation of pagan, Christian, Scandinavian, English or continental influences.

First miracle occurring after the martyrdom of Olaf II: Royal attendants wash the body, the blood-stained water cures a man from his blindness. Cf. *Passio Olavi*, ed. by Carl Phelpstead, p. 32

The Project: Phase 1

In the first phase of the project we will analyse to what extent Scandinavian royal saints occupy a special position regarding sanctity and heroism and how their characters are constructed in hagiographic writing. Comparing two 12th century Latin hagiographic works, we will examine the strategies and rhetoric employed in the construction of royal saints. We explore the question in what way and to what extent facets of the heroic and of sanctity are interwoven to shape and influence discourses on model conceptions and images of exceptional figures.

Olaf II and Knud IV

The12th century works describing the Norwegian king Olaf II (*995-†1030) and Danish king Knud IV (*1042-†1086) use different strategies in constructing the sanctity and heroism of the royal figures

Knud IV is explicitly described as a hero in the narration of his life (*Gesta Swenomagni*). The focus of the *Passio Olavi* is on the depiction of miracles, leaving only a small part of the entire text for the narration of Olaf's life.



The Project: Phase 2

After investigating the royal saints, the perspective will be widened to include missionary saints (i.e. St Ansgar, Theodgar of Vestervig, David of Munktorp, Botvid), bishop saints (i.e. Gunnar of Viborg, William of Aebelholt) as well as female saints (i.e. Margareta of Roskilde).

Digital Hagiography

The historical research on Scandinavian hagiographies is complemented by the development of a collection of digital resources on and for hagiographic research. Alongside the digitisation of editions (the Vitae Sanctorum Danorum are already available for everyone via open access, cf. QR-Code), an online platform for hagiographic research will go live later this year.

REFERENCES
Gertz, Martin (Ed.) (1912): Vitae Sanctorum Danorum, Copenhagen.
Phelpstead, Carl and Devra Kunin, (2001): A history of Norway, and the passion and miracles of blessed Óláfr, London.

PICTURE CREDITS:
Top left: *The death of Canute IV of Denmark in the Church of Saint Albanus (1086), Painting by* Christian Albrecht von Benzon (1843).
Bottom middle: Olav den Helliges død, Illustration by Peter Nicolai Arbo (1859)

Project Structure

Prof. Dr. Andreas Bihrer (Project Supervisor)
Prof. Dr. Jens Eike Schnall (Project Advisor)
Fiona Fritz (Research Fellow)

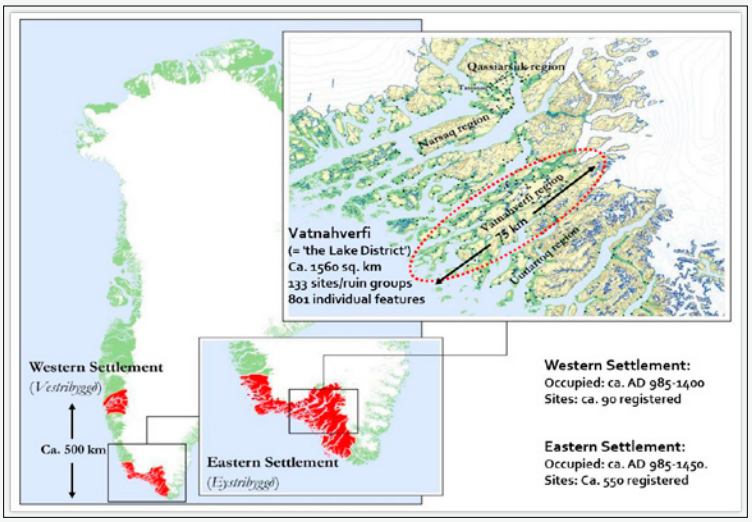
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Philosophische Fakultät

EXPLORING
THE MIDDLE AGES

Hunting and Farming in Norse Greenland

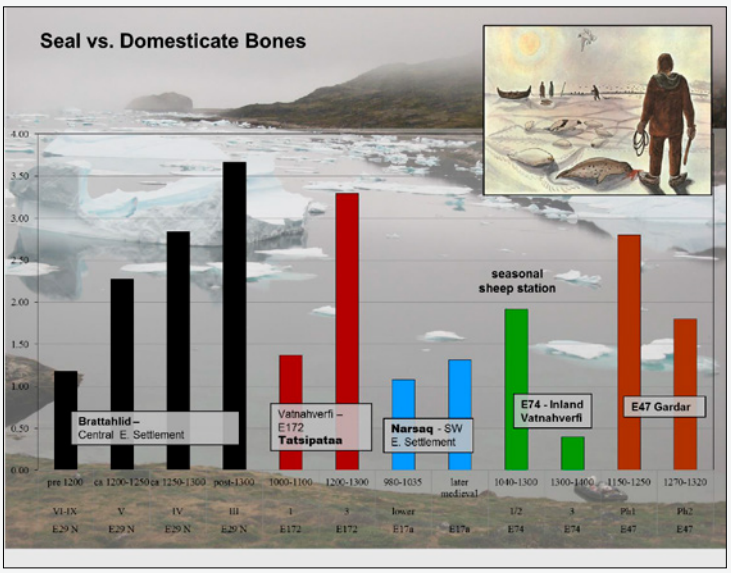
Interdisciplinary Zooarchaeological Study of Subsistence Strategies and Environmental Change ca. 1000-1450CE

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Abstract

Settled ca. 985CE and abandoned ca. 1450CE, this Arctic outpost of the European Medieval society was directly affected by the changing environmental conditions throughout its existence. The climate fluctuations of 1250-1300CE tested the limits of resilience of the settlements in the North Atlantic. In Greenland, the increased storminess, and unpredictability of weather and sea ice, caused a decline in farm productivity and contact with continental Europe. The domestic animal herds were reduced in size, and a shift towards more resilient animals (more goats/sheep, less cattle) is evident in zooarchaeological collections from recent excavations. Greenlanders also heavily increased their reliance on the communal seal hunt, but unlike the Icelanders, they were not able to join the international dried-fish and wool trade. This resilient society was able to survive another 150-200 years, before a new climatic shift contributed to its collapse and disappearance around 1450CE.



Project Background

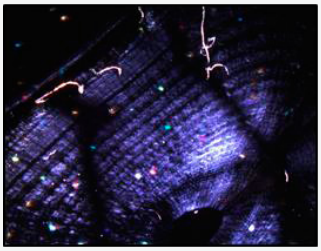
Between 2005-2014 as part of the Vatnahverfi Project, The international Polar Year (IPY) and Comparative Island Ecodynamics Project (CIE) international teams carried out a series of excavations and surveys in Greenland's Eastern Settlement. Main excavation focus was placed on farm middens in the Vatnahverfi area, and surveys and geoarchaeological sampling were extended to the southernmost part of the Eastern Settlement.

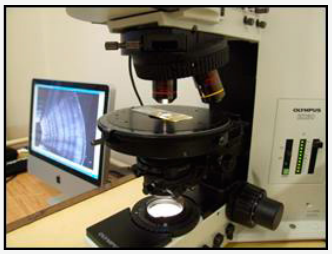
Some Results

Zooarchaeological analysis shows significant reduction of numbers of domestic animals, with low and middle size farmers affected most, while magnate farmsteads were able to still afford high status animals. The top-down organization of the settlement and control exercised by large magnate holdings may have been a reason for this uniform changes at virtually all sites in Norse Greenland.

Seals played a significant role in the subsistence and trade economies, and at most sites seals comprised more than 50% of all bones. In Iceland, there were two locally breeding species familiar from homelands in Scandinavia; harbor seal (*Phoca vitulina*) and grey seals (*Halichoerus grypus*). In Greenland, in addition to the two local species, the Norse encountered an extraordinary seasonal migration of harp (*Pagophilus groenlandicus*) and hooded seals (*Cystophora cristata*) in numbers never observed in Europe.

Studies of Incremental Growths Layers (IGL's) of seal teeth dentine and cementum point to a tightly organized, annual communal seal hunt for these migratory seals in the spring. Because the labor and boats were mobilized from throughout the settlement, the catch was redistributed to all participating farms. Archaeologically seal bones have been found in high numbers in all excavated sites in Greenland.





REFERENCES

Smiarowski, K. (2014) 'Climate related farm-to-shieling transition at E74 Qorlortorsuaq in Norse Greenland', in Harrison, R. and Maher, R. (eds.) *Human Ecodynamics in the North Atlantic: a Collaborative Model of Humans and Nature through Space and Time*, pp. 177-194. Lanham: Lexington Publishers.

Ogilvie, A. E. J., Woollett, J. M., Smiarowski, K., Arneborg, J., Troelstra, S., Kuijpers, A., Pálsdóttir, A., McGovern, T. H. (2009) 'Seals and Sea Ice in Medieval Greenland'. *Journal of the North Atlantic, 2,* 1, 60-80.

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EXPLORING THE MIDDLE AGES

Isotopic Investigation of Differences in Diet between Men and Women from Bergen, Norway in the 12th-13th Century CE.

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1. Abstract

Thirty individuals from the cemetery of *Mariakirken* in Bergen, Norway, were analysed using carbon ($\delta^{13}C$) and nitrogen ($\delta^{15}N$) isotopes. Individuals with caries and/or periapical lesions were compared to those without, and males were compared to females. No differences in diet were found. The isotope ratios indicate a wide range of food sources ranging from a diet almost completely reliant on terrestrial foods to a mixed diet with significant proportion of marine foods.



Figure 1: The preservation of the human remains.

2 The Human Remains

The skeletal remains (Fig. 1) were chosen based on age, sex and health status from previous analysis[5]. The individuals died ~1170-1248 CE[5], within the early High Middle Ages (1150 to 1350 CE in Norway[2]). Seven of the individuals had caries (Fig. 2a) and/or periapical lesions (Fig. 2b)[5] and are included as a link between diet and caries, and between caries and periapical lesions, has been suggested[3].



Figure 2: Examples of (a) caries, (b) a periapical lesion.

3. Stable Isotope Analysis

Stable isotope analysis provides information about diet on an individual level, in contrast to zooarchaeological information at the population level and written sources which primarily portray high status diets[6].

In a European context, $\delta^{13}C$ and $\delta^{15}N$ values inform us about the consumption of terrestrial and marine foods and to some extent the proportions of meat and vegetable protein in the diet[7].

Collagen samples (mostly from ribs) were prepared by standard methods[4] (Fig. 3), passed accepted quality control criteria[1] and were analysed by isotope-ratio mass-spectrometry at Durham University.



Figure 3: Bone in the process of demineralisation.

All figures are by the first author

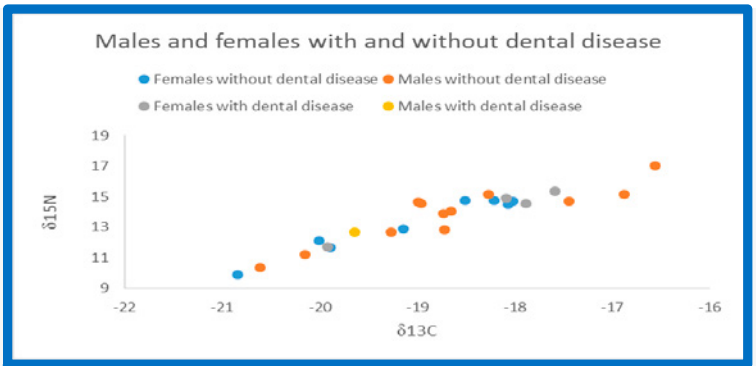


Figure 4: Isotope results by sex and dental disease status.

4. Results

The results (Fig. 4) show that there is no statistically significant difference between the diets of males and females in the High Middle Ages in Bergen. Nor is there a difference between people with and without dental disease. However, the $\delta^{13}C$ and $\delta^{15}N$ values show a large range in diet and variation between individuals. This wide range in values indicates a variety in diet from purely terrestrial to a large proportion of marine resources.

5. Conclusions

This study is the first to use isotopes to examine diet in medieval Norway. The lack of difference in diet by sex is comparable to some other sites in other countries (e.g., Ribe in Denmark[8]), but contrasts with others (e.g., Fishergate, York in England[9]). One of the six comparative studies showed similar isotopic values as the population in Bergen, a population from Viking Age Norway[10].

6. References

1. DeNiro MJ. 1985. Postmortem preservation and alteration of *in vivo* bone collagen isotope ratios in relation to palaeodietary reconstruction. *Nature* 317:806-809.
2. Helle K. 1986. *Bergen og omland gjennom tidene: Hovedtrekk i Bergens Historie Del 1.* Bergen, NAVFs Edb-senter for humanistisk forskning.
3. Hillson S. 2002. *Dental anthropology.* Cambridge University Press.
4. Longin R. 1971. New method of collagen extraction for radiocarbon dating. *Nature* 230:241-242.
5. Lorvik K. 2009. Life and death in the early town. An osteoarchaeological study of the human skeletal remains from St Mary`s churchyard, Bergen. In: Øye I. ed. *Bryggen Papers Supplementary Series No 8.* Fagbokforlaget: 19-111.
6. Müldner G & Richards MP. 2005. Fast or feast: reconstructing diet in later medieval England by stable isotope analysis. *Journal of Archaeological Science* 32:39-48.
7. Schoeninger M & DeNiro M. 1984. Nitrogen and carbon isotopic composition of bone collagen from marine and terrestrial animals. *Geochimica et Cosmochimica Acta* 48:625–639.
8. Yoder C. 2006. *The late medieval agrarian crisis and black death plague epidemic in medieval Denmark: A paleopathological, pathological and paleodietary respective.* PhD Thesis,Texas A&M University.
9. Muldner G & Richards MP. 2007. Diet and diversity at later medieval Fishergate: the isotopic evidence. *American Journal of Physical Anthropology* 134:162-174.
10. Naumann E, Price TD & Richards M. 2014. Changes in dietary practices and social organization during the pivotal late Iron Age period in Norway (AD 550-1030): Isotope analysis of Merovingian and Viking Age human remains. *American Journal of Physical Anthropology* 155:322-331.

7. Contributions and acknowledgements

This work was conducted by MNE for her dissertation as part of the MSc in Palaeopathology at Durham University, supervised by ARM. AKH supported the work at *De Kulturhistoriske Samlinger* . DG conducted the mass-spectrometry. MNE thanks Tore A. Fredriksen and Johnny Magnussen, at *De Naturhistoriske Samlinger,* for all their help, for the fun and new knowledge that was part of her stay there, and Katarina Lorvik for sharing her knowledge of the human remains. We thank Dr. Gitte Hansen, University of Bergen, for helpful insight into the Middle Ages in Bergen and for guidance that made this project possible, and the National Committee for Research Ethics on Human Remains for permitting the project. The Norman Richardson Postgraduate Research Fund, Ustinov College Durham, funded MNE's visit to Bergen.

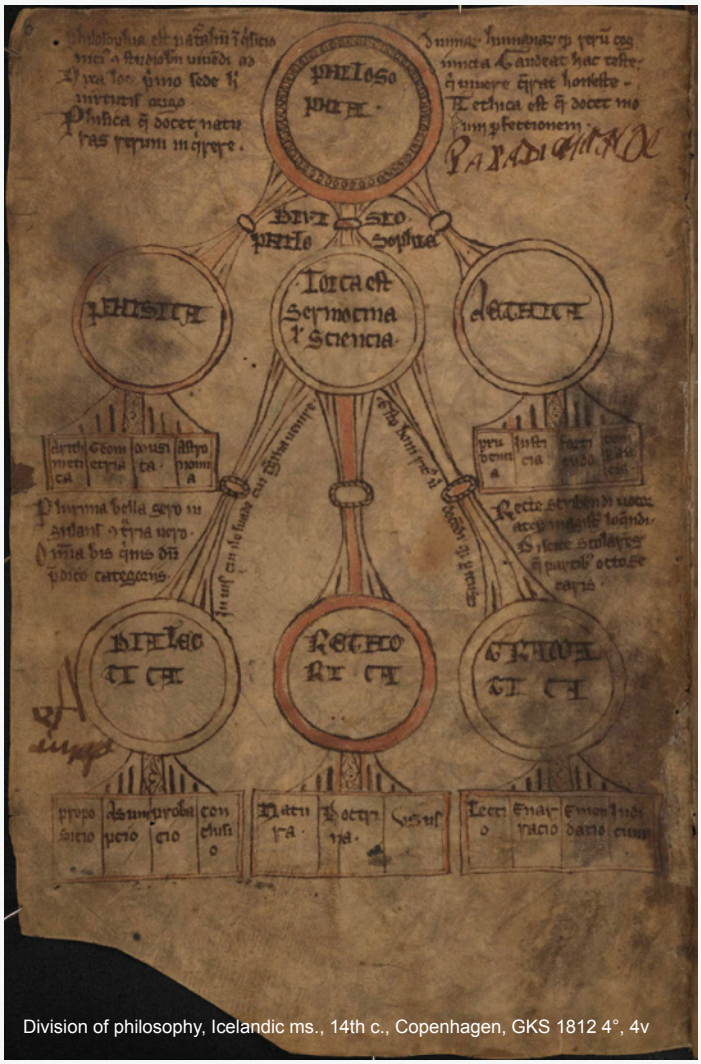
Durham University

EXPLORING THE MIDDLE AGES

Knowledge of the North

Medieval Scandinavian learning within European traditions. Media and milieus: Acquisition – organization – circulation of knowledge.

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ABSTRACT

Our collaborative project *Knowledge of the North* investigates the nature, applications, and prestige of learning in the Middle Ages and Early Modern times. The focus lies mainly on medieval Norse societies; these are looked upon within the frame of European learned networks, traditions and practices. How did knowledge circulate in these societies and networks? In which media? What were its relations to oral and social practices? How was medieval knowledge transformed and reorganized in Early Modern urban centers?

Main aspects

We approach this complex matter along three lines:

(1) transmission of knowledge in medieval Iceland and Norway

(2) organization of knowledge on manuscript page / within codices

(3) circulation of knowledge in urban culture of Scandinavia

Science & Learning

Materials from the Middle Ages include encyclopedic codices and miscellanies; manuals of courtly behavior and grammatical, mathematical, astronomical, mythological, and juridical literature, and, from later in time, printed works and letters. The sources from Iceland and Scandinavia will be seen in a European context.



A. Schiøtt: *Kvöldvaka*, traditional practices and oral transmission of knowledge on Icel. farmstead

Methods

A Textual Culture approach combines traditional philology with cultural history, literary sociology, book history, and the history of reading. Weight is accordingly given not only to the texts themselves, but also practices of learned literature, performative aspects and extra-textual ideological, and cultural circumstances that were decisive for textual production, reception, and preservation.

> *But wisdom has many forms, for it springs from roots which have many branches. And from these roots of wisdom rises the mightiest of all stems, which again divides into large boughs, many branches, and a multitude of twigs of different sizes* […].
> (The King's Mirror, ca. 1260, transl. Larson)

Models, Mapping, Mediality

Part of the research project is devoted to the identification of images and metaphors used in the Middle Ages and Early Modern Time that serve to structure complex matter. They give a form to abstract ideas and permit a discourse about them. Common examples are *tree*, *building*, and *journey*.



Zodiac, Icel. ms., AM 736 b 4to 6r, 14th cent.



Grammar and the tower of philosophy - Gregor Reisch: *Margarita philosophica.* Freiburg 1503



Practices of knowledge: *Museum Wormianum* (installation by Rosamond Purcell)

REFERENCES

George Lakoff & Mark Johnson: *Metaphors We Live By*. Chicago 1980. / Jonas Wellendorf: Lærdomslitteratur. In *Handbok i norrøn filologi*, ed. Odd Einar Haugen. Bergen 2013: 302–355. / Jens Eike Schnall: Recht und Heil. Zu Kompilationsmustern in Handschriften der *Jónsbók*. In *Gripla* 16 (2005): 75-114.

ACKNOWLEDGEMENTS

Seed Grant from Peder Sather Foundation 2013-2014. – Image credit: (L to R) Den Arnamagnæanske Samling, Copenhagen, Natural History Museum of Denmark, and Wikimedia Commons.

EXPLORING
THE MIDDLE AGES

Life in the Medieval Countryside
– A Case-Study of Five Farms in Western Norway

This PhD-project aims to study rural everyday life in medieval Western Norway. Who were the people living here, and how did they interact with their local environment and the larger society?

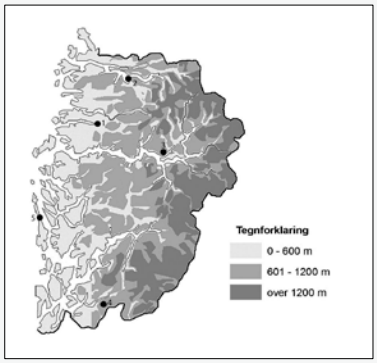
Therese Nesset
University Museum of Bergen
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House remains from the deserted medieval Hellaug farm.

Everyday life

An important part of the PhD-project is to study different aspects of everyday life on medieval farms in Western Norway. The study concerns source material dated from the Viking Age (ca. 800 AD) until the end of the Middle Ages (1536 AD).



The chosen aspects for the study concerns available resources and the utilization of these; production and trade; living conditions; demography; and changes over time. To be able to investigate these aspects, a wide range of archaeological, as well as natural and historical, sources will be studied from five medieval farms. The culture historical context of the farms will be an important framework.



Good conditions for extensive husbandry use in Western Norway

Different locations

The map above shows the Hordaland and Sogn og Fjordane County where the five farms are located. They have different topographical conditions: 1. *the Osen farm* and 2. *the Hjelmeset farm* have close connection to the fjords, and have strategic locations to both land-based and sea-based travelling routes. 3. *the Rutlin farm* is located centrally in its rural community on a sunny terrace with good agricultural conditions. *4.The Hellaug farm* is a deserted medieval farm located in a small inner mountain valley. 5. *The Høybøen farm* is also a deserted medieval farm located in connection to the Western Norwegian coast outside of Bergen.

Subsistence systems

The fragmented topography of Western Norway represented both limitations and possibilities for the medieval rural community. Although the farms cultivated small fields quite intensively close to the settlements, the practice of animal husbandry had a larger economic importance. In this period we also find strong indications of an outland expansion. This is especially evident in the shieling activity, but also with the increased utilization of other resources.



Fish hooks, net sinkers, line sinkers and a fishing spear from the Høybøen farm

Utilization of marine resources were important, especially by the coast, but also by the fjords. The fishing tools pictured above are from the Høybøen farm. The net- and line sinkers are made of soapstone, another important outland resource much used in the Viking Age and Middle Ages in Western Norway. The same goes for the iron. The raw material came from local, regional or national trade networks, and were probably further processed and made into objects at the farm.



A reindeer pit in connection to the shieling sites close to the Hellaug farm

It is thus important to investigate the different aspects of resource utilization and agrarian and non-agrarian production at the farms. This study should also include the use of outland resources. How are these aspects represented at the different farms?

The households

The medieval rural society are often associated with outside activities. However, many activities were also conducted inside, especially in the winter months. What kind of activities are represented in the households, and who were the main actors here?



Remains of different building phases of houses and other farmyard structures from the Iron Age and the Middle Ages at the Hjelmeset farm.
Photo: Thomas Bruen Olsen, University Museum of Bergen

Network and trade

Different approaches will be used to study the farms' economic and cultural networks. To what degree were they part of, and affected by, different economic and cultural impulses from the larger society and the urban centres?



Fragments of an urban drinking- and dining culture are found at some of the farms in the medieval periods.

ACKNOWLEDGEMENTS
This is an ongoing project and aims to highlight important aspects of everyday life in the rural medieval society. In this study it is important to incorporate results of recent and ongoing archaeological and interdisciplinary studies of material culture, focused on the Western Norwegian material. Thus, the medieval archaeological research community in Bergen is an important asset to this project.

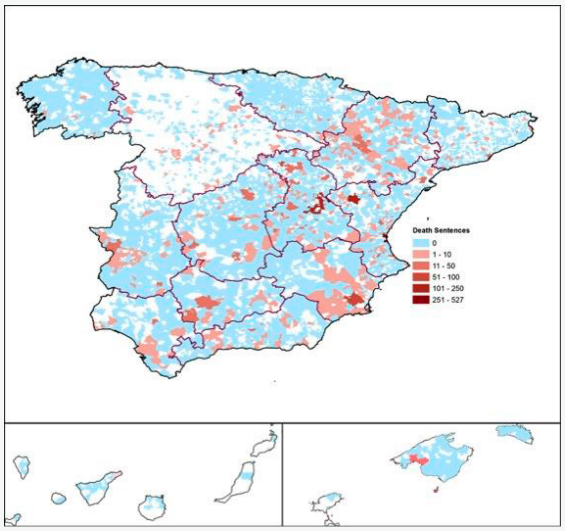
The study is a part of the Norwegian Research Council *Forskning i Fellesskap*: http://norark.no/utmarka

EXPLORING
THE MIDDLE AGES

Long-Run Effects of the Spanish Inquisition

What were the effects of the Spanish Inquisition in the long run? Did it make popular attitudes more conservative? Did it lower their trust? How does the level of repression then relate to modern attitudes and voting patterns?

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ABSTRACT

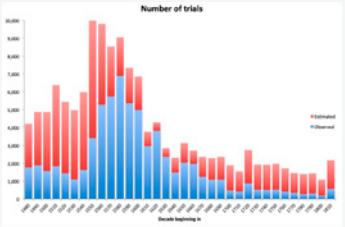
In this project, we will explore the long run effects of one of the most extensive and long-lived interventions in the private lives and religious conscience of ordinary citizens: the Spanish Inquisition.

By examining a period spanning over four and a half centuries, we will link past efforts at social control to economic, political, and societal outcomes today. We thus expect to inform debates on the effectiveness of policies designed to encourage a particular form of societal vision among the population, as well as to the effects of state-sponsored religious uniformity.

The central hypothesis of the project is that the Spanish Inquisition, through the psychological, legal, and physical pressure it exerted over individuals, had profound and long-lasting effects on social, cultural, and economic traits of Spanish society; and that these effects are identifiable in modern-day variables.

Inquisition Data

Data from more than 55.000 trials have been registered in a database hosted on a server at UoB. The data is being geocoded and contains detailed information on sentencing which allow the measurement of relative severity.



Civil War Data

The Spanish government has recently released an online portal containing information on all the documented victims of the Civil War and the Franco dictatorship. Importantly, these data contain geographical information for each victim.

Modern Day Data

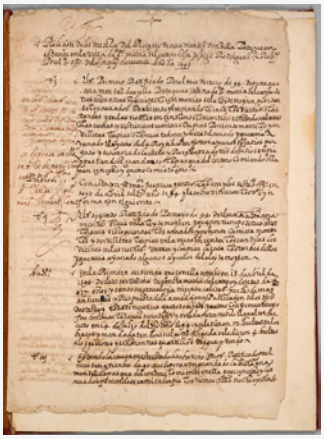
We will use a number of variables from the European Values Survey related to religiosity, political views, attitudes towards social mores and gender roles, and measures of trust. We will also use measures of social capital and tax compliance as proxies for state capacity, as well as a wide range of demographic and geographic covariates.

Hypotheses

- Inquisitorial pressure increased both religiosity and religious compliance.
- Inquisitorial pressure increased conservative political views.
- Inquisitorial pressure resulted in more conservative social mores.
- The effect of inquisitorial pressure on interpersonal trust is ambiguous. By encouraging anonymous denunciation, inquisitorial pressure undermined trust between neighbours. However, by effectively eliminating those who didn't conform to the mainstream religious doctrine, it increased social homogeneity, and hence promoted trust.
- Inquisitorial pressure resulted in increased compliance with state-mandated activities (such as paying taxes), and hence had a positive effect on state capacity.
- Variation in inquisitorial pressure resulted in variation in social and cultural values across Spain, eventually resulting in social and political polarization. This polarization had an effect on internal conflict propensity. We expect this to be reflected in initial allegiance and in initial Republican casualties during the Civil War.

The Inquisition Database

The database of Inquisition trials used for this project contains more than 31.000 trials from the Portuguese Inquisition in addition to more than 55.00 trials from the Spanish Inquisition. It is also being used for other MA and PhD projects at the University of Bergen.



Financing
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EXPLORING
THE MIDDLE AGES

Medieval Queens in Translation

What happens to the queens of medieval French romances when they are translated into Old Norse? How do they change in translation and transmission?

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ABSTRACT

Old French stories of chivalry originating from a variety of genres were translated into Old Norse, during the 13th and 14th centuries. With few exceptions, the queens in these texts tend to be nameless, distant and dead, but are nevertheless present. However insignificant to the narration these queens might be, they seem to remain in the texts both in translation and the following transmission.

What happens to the continental chivalric queens when translated into Old Norse? Are they altered in translation; adjusted in order to fit into the target culture?

Context

From the first half of the 13th century and onwards, Old French romances were translated into Old Norse, and, judging by the number of manuscripts, some of them became quite popular. These translations and later indigenous imitations are referred to as *riddarasögur*, sagas of knights.

Sources

A selection of riddarasögur, preferably with:

1) extant Old French sources

2) several later Old Norse copies



Example from *Partalopa saga*, the Norse translation of *Partonopeus de Blois*

Ten manuscripts containing *Partonopeus de Blois* are digitized and available online.

The Norse mss tradition has ten manuscripts with textual significance.

Marmoria, the Norse queen, derives from the OF empress of Byzantium, Melior.

Melior is referred to as “reine” in the Old French manuscripts, but it is clear that she has been prepared for and taken on the political role of a male ruler.

The ON mss refers to Marmoria as

- Empress
- Emperor’s daughter
- King’s daughter
- Queen
- Virgin

But the oldest manuscript in the ON tradition (15th c) also introduces Marmoria as maiden king, “meykonungr”.

The motif of the maiden king is considered to be both indigenous and Oriental of origin. The “meykonungr” herself is young, cruel and nobel and introduces herself in ON literature during the 14th c. She reigns her own kingdom and rejects suitors, until a male hero outwits and conquers her.

The use of the term “meykonungr” both fictionalizes Marmoria and emphasizes her role as political ruler to a greater extent that the OF text.

The references to “meykonungr” disappear from the younger ON manuscripts, and are replaced with “dróttning” through transmission (mss from late 15th-18th c).

Historical context

The Scandinavian late medieval queens had a political and economical key role, lasting from appr. 1350-1500. After 1500-1520, their external power diminished, and they were confined to the court.



REFERENCES

Illuminations found online:
- Lancelot and Guinevere (1316)
- Couple from Codex Manesse (ca. 1300)
- Couple from Hortus Deliciarum (ca. 1170)

Primary sources:
- *Partalopa saga*, (1983) ed. Lise Præstgaard Andersen. Editiones Arnamagnæanæ series B, vol. 28,
- *Partonopeus de Blois* digitized online: http://www.hrionline.ac.uk/partonopeus/main.html

Key secondary literature:
- Steinar Imsen on late medieval Scandinavian queens (1995)
- Jóhanna Kartín Friðriksdóttir and Marianne Kalinke on the meykonungr

NLA University College

EXPLORING
THE MIDDLE AGES

Medieval and Early Modern Food Cultures

How did food cultures in Europe develop from 500 to 1600?
Establishing an interdisciplinary research network in Bergen.
Outreach to public: presentations, lectures, exhibitions.

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Bayeux Tapestry, detail (1070-80)

ABSTRACT

The aim of this collaborative project is twofold, focussing on both research and public outreach.

(1) Research

We want to deepen our understanding of historic food cultures in Scandinavia and other parts of Europe. What do different sources from the Middle Ages and Early Modern Time tell us about traditions and changes in food cultures? How did these reflect and interact with other domains of the respective cultures?

The approach is interdisciplinary, involving the fields of e.g. archeology, history, literature, art history, religion, sociology, and life sciences. Thus, findings gained by disciplinary methods can be discussed from different angles.

(2) Outreach

We wish to communicate the relevance of Humanities and to engage in a dialogue with the public. *Food culture,* being one of the most complex areas of human culture, is ideal for such a purpose.


Jörg Breu: Labours of the Months: January, Augsburg (1531-50), detail

Research

Human culture in a nutshell

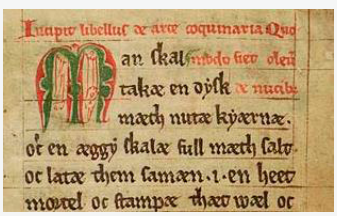
Food supply is a biological necessity, thus important, highly valued and fundamental also for human cultural life. Economy, technology, language, social life, law, religion, art, literature - all major aspects of human culture are in some way or the other connected to food supply and modes of consumption.

Gathering round the table

We expect the project to develop an integrative dynamics. The topic allows the connection of fields of study, research interests and results, methods and ways of thought. It is meant to improve the exchange of thoughts within medieval studies and cooperation with the public.


Myths and stories: Sigurd tastes Fafnir's blood


Cultural transfer: The didactic work *Der Wälsche Gast* on table manners (1215-16)


Almond milk and spices: detail from a Danish cookery book, NKS 66 8vo, 140r (round 1300)


Medievalism – scene from *Game of Thrones*

Outreach

Activities autumn 2015

We want to try out ways to connect interests of a broader public and research activities at UiB and partner institutions. In 2015, the main activities were the stand "Food in the Middle Ages" at the *Forskingstorget* and the start of a series of lectures on historic food cultures at Bryggens Museum.


Forskningstorget 2015, stand *Mat i mellomalderen*


Simon Malmberg during his lecture within the series *Mat i mellomalderen* at Bryggens Museum, 2015

Planned activities

Series of lectures *Mat i mellomalderen* to be continued in 2016.

Contacts with University schools and partner schools in Bergen in 2016, e.g. at the *fagleg-pedagogisk dag*.

Pursue project within the frames of the new UiB strategy (cluster).

Collegues/partners involved so far
Forskningstorget: research groups, researchers and students from UiB (LLE, IF, Universitetsmuseum) / Series of lectures: Bryggens Museum, lecturers 2015: Marialuisa Caparrini (Univ. of Ferrara), Simon Malmberg (AHKR), Jens Eike Schnall (LLE)

Acknowledgements
Image credit: NKS 66 8°: Harpestræng: Liber Herbarum, 140r, Det kongelige Bibliotek, Copenhagen / Augsburger Monatsbild: Deutsches Historisches Museum / photos from Forskningstorget and lecture Jutta Schloon / Wiki commons.

EXPLORING
THE MIDDLE AGES

Medieval Historiography and the Public Sphere

The aim of my PhD project is to examine what function the writing of history served in the public sphere in the European Middle Ages. The main focus is on conditions in the German Empire, c. 950–1150.

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Left: Bishop Odo of Bayeaux, half-brother of William the Conqueror, rallies the Norman troops at the Battle of Hastings in 1066. Bishop Odod is armed with a rough club, as church law prohibited clerics from bearing arms. *Detail from the Bayeaux Tapestry, Wikimedia Commons*

ABSTRACT

In my doctoral thesis I explore the relationship between historical writing and the public sphere in the German Empire between c.950 and 1150. By examining six historians from the period I want to see what functions they intended their works to serve. What audience did they have in mind? What reasons did they have for writing? What points did they want to make? What kind of arguments did they use? Which issues were they concerned with?

My study is focused on what was written about bishops. Bishops were the most important local representatives of the church in this period, while they at the same time contributed to secular politics through royal service. By examining two discourses on bishops – on simony and on their legitimate scope of action in politics – I hope to improve our understanding both how bishops' actions were perceived and how discourses on their high ecclesiastical office fit into the wider public sphere in this crucial period of European history.



Above: One of the Lewis Chessmen, the piece representing the bishop. *British Museum*

About the project

This is the first larger study devoted to placing medieval historical writing into the context of public sphere formation.

The study will first situate the historians under consideration in a communicative context, mapping their intentions, audience, communicative infrastructure. Second, it will examine two central discourses related to bishops in the era, those of simony – that is, buying and selling ecclesiastical offices – and of bishops' legitimate scope of action in politics.

The period of 950 to 1150 saw important changes in the structure of the Western church. At the start of the period the bishops were the most important representatives of the church, cooperating with kings and princes in governing European polities. At the end of the period, however, while the bishops were still central, they had to deal with the consequences of a powerful, reformed papacy.

One contributing factor to the ascent of the papacy, was the various movements working for ecclesiastical reform during the tenth and eleventh centuries. These movements also had a strong impact on the bishops, as they demanded more ascetic behaviour of their clerics. In the course of the eleventh century, even the traditional cooperation between kings and bishops in governing the kingdoms came to be criticised by reformers.

My study, then, will examine what role historical writing about bishops played in this tumultuous time in European history, and give us new insight into how people think about and use the past in eras of rapid societal change.

Acknowledgements
My PhD project is based on my Master's thesis, *Hyrder på ville veier. Kritikk av biskoper i 900-tallets historieskriving*, Norwegian Univeristy of Science and Technology, Trondheim, 2012.

EXPLORING
THE MIDDLE AGES

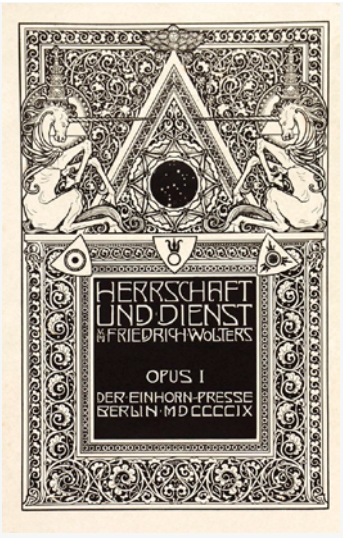
Medievalism in the George-Circle

**Germany around 1900. A poet and a circle of intellectuals.
Why and how did the Middle Ages become important to them?**

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Stefan George with Claus and Berthold Stauffenberg, Berlin 1924





ABSTRACT

The Circle around the poet Stefan George is one of the most fascinating German circles of intellectuals and artists in the modernist period. They had a strong and long-lasting influence on the self-conception of elitist milieus. When Claus von Stauffenberg was executed after the unsuccessful assassination attempt on Adolf Hitler in 1944, were his last words “Long live the secret Germany”. This “secret Germany” did not refer to a real political movement, but to the idea of another Germany, to a culturally defined counter-concept in opposition to the official conception of Germany during the Wilhelmine Empire, the Weimar Republic and the Nazi period. The Middle Ages served as a continuously important period of reference for the George-Circle both for this concept and for a set of other contexts.

Objective

To analyze forms and functions of medievalism in the George-Circle from 1890 to 1933.

Research Questions

- In which ways and by which media does medievalism develop in the George-Circle?
- Which functions are bound to medievalism?
- How does the medievalism of the George-Circle relate to other contemporary medievalisms?

Theory and Method

“Medievalism is the study of the Middle Ages, the application of medieval models to contemporary needs, and the inspiration of the Middle Ages in all forms of art and thought” (Leslie Workman)

Using Workman’s definition as a starting point, I focus on concepts, imaginations and constructions of the Middle-Ages.

My study is situated in the field of literary studies and is strongly text-based. I use a set of historical-philological methods (intertextuality, reception-aesthetics, theories of space and time).

Poetic medievalism

Stefan George gives a modern reinterpretation of medieval poetry in a book of poems called *Sagen und Sänge* (*Legends and Songs*) from 1895.

Esoteric medievalism

Friedrich Wolters explained the hierarchy of the George-Circle in terms of a feudalist society and a mystical realm in his manifesto *Herrschaft und Dienst (Rulership and Service)* in 1909.





Performative medievalism

George dressing up as Dante at a costume ball in Munich 1904. Book artist Melchior Lechter in medievalist clothing and furniture in his Berlin atelier 1901.

Political medievalism

In 1927, Ernst Kantorowicz published a notorious biography of Emperor Frederick II. A statement for the “secret Germany” and against the Weimar Republic.



REFERENCES

Herweg / Keppler-Tasaki (ed.): Das Mittelalter des Historismus. Würzburg 2015.

Schlieben / Schneider / Schulmeyer (ed.): Geschichtsbilder im George-Kreis. Wege zur Wissenschaft. Göttingen 2004.

Schloon: Mittelalter-Rezeption. In: Stefan George und sein Kreis. Ein Handbuch. Berlin 2012, Bd. 2, p. 672-682.

Schlüter: Explodierende Altertümlichkeit. Imaginationen vom Mittelalter zwischen den Weltkriegen. Göttingen 2011.

ACKNOWLEDGEMENTS

Image credit: Robert Boehringer: Mein Bild von Stefan George. Düsseldorf 1968.

EXPLORING
THE MIDDLE AGES

Norse New-Paganism in Norway

I ask what norse new-paganism in Norway really is, and how people with contrasting views can find validation in the same old norse sources, or whether that is really what they do.

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Photo: Public Domain. 12th century tapestry.

ABSTRACT

There are groups in society today that practice what is called 'åsatru' (belief in the æsir). They all supposedly construct their ideology based on Old Norse mythology and/or culture. Nevertheless, their ideologies may be radically opposed to each other.

Lately, there seems to be an increased interest in the formal study of all things Old Norse among modern åsatru or 'pagans', and this has an impact on practised åsatru. Also in the nationalistic 19th and early 20th centuries, some Old Norse scholars were connected to paganistic revival.

The purpose of this study is to examine the phenomenon 'modern åsatru' in Norway. I will also be asking how radically opposed ideologies can draw their inspiration from the same sources, or whether that is actually what they do.

I will be interviewing modern pagans, and doing participant observation, as well as comparing with previous studies from other countries.

What is 'åsatru'?

Åsatru translates to "belief in the *æsir*". The *æsir* are the gods in Old Norse mythology, some of them depicted above. Åsatru is the modern practice of giving religious meaning to Old Norse mythology.



Photo: Kristina F. Svare

The gods

During interviews, I have been told that the gods can be thought of as images of powers in the world. For instance, Þórr may represent physical strength, while Óðinn may represent wisdom. So the images themselves are not the important part, it is rather the meaning they carry for the believers.

On the other hand, many people are convinced of a life after death in one of the several homes of the gods, which implies the existance of physical places populated by physical beings.

Modern pagans sometimes have physical representations of the gods, like the stone carving of Loki below.

Blót

The most important ritual in åsatru is the blót, normaly held four times a year to mark the four seasons. The blót is a way for modern pagans to connect to their gods and each other.



Photo: Kristina F. Svare

The blót usually involves standing in a circle around a fire, ritual drinking of mead, and sacrificing meaningful objects. It can look like the image above, but variations occur.

Some of the blóts are also an opportunity for me to participate as an observer in an otherwise private sphere of life.

Important literature

Gregorius, Fredrik, 2008: *Modern Asatro. Att konstruera etnisk och kulturell identitet.* Lund: Lunds Universitet. Centrum för Teologi och religionsvetenskap. Avdelningen för migrationsvetenskap.

Schnurbein, Stefanie von, 1992: *Religion als Kulturkritik. Neugermanisches Heidentum im 20. Jahrhundert.* Heidelberg (Winter).

Gardell, Mattias, 2003: *Gods of the blood: The Pagan Revival and White Seperatism.* Durham, N.C. Duke University Press

EXPLORING
THE MIDDLE AGES

Norway and the Crusades

My PhD project is a study of the changing relationship between the Norwegian kingdom and the Crusade Movement in Europe the High and Later Middle ages.

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ABSTRACT

The crusades became a familiar feature of the political, social, economic, and religious fabric of Europe in the Middle Ages. My PhD project explores the relationship between the Norwegian kingdom and the Crusade movement c.1050-1380.

Crusade studies is one of the most popular topics in medieval history internationally, but this study is the first modern study of the role of the crusades in Norwegian medieval history.

The project uncovers the dynamics of the crusade movement and the influences it had on several aspects of Norwegian society and contributed to the so-called state formation process in Norway in the High and Later Middle Ages. The project contributes to a better understanding of how to the Norwegian kingdom became integrated into a wider Catholic culture in Europe in the Middle Ages.



A crusader knight (*crucesignatus*) depicted in the The Westminster Psalter, c.1250. (British Library, MS Royal 2 A XXII).

About the project

This is the first systematic study of the role of the crusades in Norwegian medieval history.

The study is structured around the thesis that changes in the crusade discourse within Europe during the period from ca.1095 to 1370 led to different phases in the Norwegian crusade discourse – from a military to a diplomatic and finally an economic discourse – during the High and Later Middle Ages.

The comparative approach applied in the study underlines the many similarities between general trends within the crusade discourse in Europe and the phenomenon in Norway. But it also uncovers how the crusades influenced and shaped Norwegian institutions – especially the Church and the monarchy – and shoes how the crusades contributed to the state formation process.

The Crusades

A particular type of Christian holy warfare.

- Traditionally understood as the military campaigns fought in the Middle Ages to liberate or hold Jerusalem and the Holy Lands between 1095 and 1291.
- This was challenged in the 1970s and led to a revision which has widen the field, both geographically – Palestine and the eastern Mediterranean, North Africa, Spain, the Baltic, and even within Western Europe – and in time – there's no longer a consensus about when the crusades ended.
- The leading scholary definition (called pluralism) claims that what defined a crusade (a penitential war) was no its destination, but its origins and characteristics.

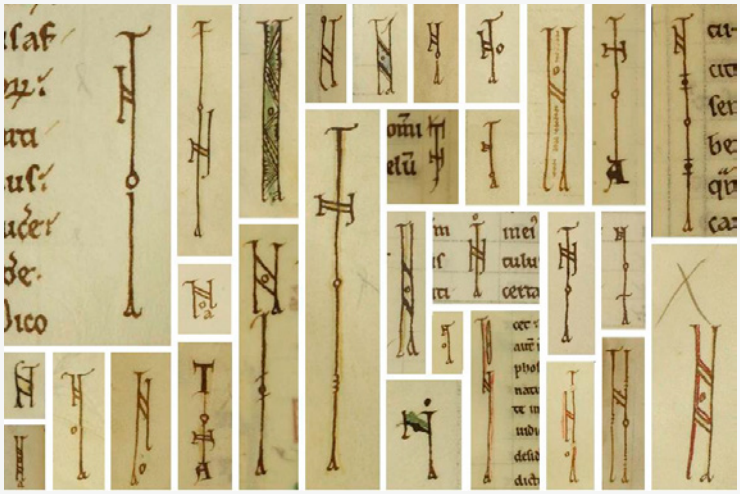
ACKNOWLEDGEMENTS
The text in this template is largely based upon my thesis "Norge og korstogene – En studie av forbindelsene mellom det norske riket og den europeiske korstogsbevegelsen, ca.1050-1368".

EXPLORING
THE MIDDLE AGES

Nota-Monograms in Medieval Manuscripts

Form and function of nota-signs, and possible use for dating and placing, in a late 1200th century Belgian manuscript. Master thesis in progress at the University of Bergen.

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ABSTRACT

The subject of my thesis is monograms of the word *Nota* (make note!) in the margins of one late 1200th century manuscript, Ms.28 in Bergen. My main focus is their possible functions, and what they can tell us about the manuscript.

To shed light on their function, I have used three points of departure:

- *Notae* as keys to understanding the text
- *Notae* as tools for searching
- *Notae* as aids to remembering the text

Results so far:

I have found that at least two of these functions may have been important, to various degrees.

I have also found that the *Notae* can shed some light on how this manuscript was used, who it was intended for, and possibly also about the scribe.

Possible functions:

1. Markers of text:

- What do they highlight?
- Guides to understanding: Key sentences, angles through which the text should be understood.
- Correct understanding

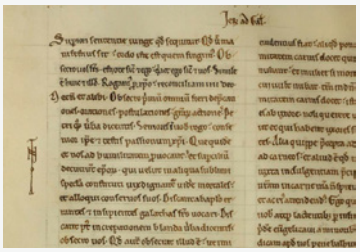
2. Tools for searching

- Marks where important information can be found and refound

3. Memory aids:

- Marks passages of text as worthy of memorizing
- Visual cues to recalling the marked passages

The first option is described by several authors, as mentioned in the next column.
The second option is described in Mary and Richard Rouse's articles on searching tools.
The third is based on Mary Carruthers *The Book of Memory*, and an article by Kirsten Berg.



Monogram together with text, folio 95v

Why Nota-signs?

Very little research has been done in this field. Nota-signs may seem insignificant, but it appears that they can sometimes indicate the origin or purpose of a given manuscript.

What can they tell us?

Intended use and audience:

As suggested in articles by Kirsten Berg and Henry Mayr-Harting, *notae* may point toward the intended use of a manuscript, by what content it highlights. Berg also makes suggestions about who it was made for, based on the same.

Origin:

Used by Neil Ker to identify a manuscript or handwriting to Salisbury, in an article on Salisbury Cathedral Library,.

Scribe:

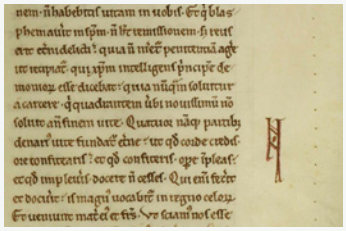
I have compared Ms.28 to four other manuscripts from the same monastery, one written by the same scribe as Ms.28. Based on this I believe that the scribe, Ulbaldus, had a personal style in shaping the monograms. In his second manuscript the signs show the same style of variations as in Ms.28; whereas those written by others are very simple, with little or no variation.



Monogram together with text and initial, folio 74r

THE MANUSCRIPT

- Shelfmark Ms.28
- Owned by the University Library at the University of Bergen
- Made in Belgium, at the monastery of Saint Mary in Cambron
- Contains 6 comments to Biblical texts by St. Jerome
- Colophon at the end gives the year as 1200, and scribe as Ulbaldus, a monk at Cambron.
- Very well preserved, with original binding.
- 107 *Notae*, with variations in size and shape.



Monogram together with text, folio 60r

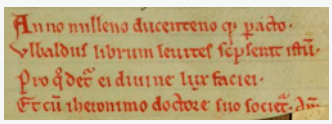
REFERENCES

Berg, Kirsten: 'Homilieboka – for hvem og til hva?' in: Haugen and Ommundsen (ed.): *Vår eldste bok* (2010)
Carruthers, Mary: The Book of Memory (1990)
Ker, Neil: *Books, Collectors and Libraries: Studies in the Medieval Heritage* (1985)
Mayr-Harting, Henry: 'Ruotger, the Life of Bruno and Cologne Cathedral Library' in: Smith, Lesley (ed.): *Intellectual Life in the Middle Ages: Essays Presented to Margaret Gibson* (1992)
Rouse, Mary A and Richard H: various articles from *Authentic Witnesses: Approaches to Medieval Texts and Manuscripts* (1993)

The four additional manuscripts are all at British Library, shelfmarks Add.Ms.15218, Add.Ms.21093, Add.Ms.22797 and Egerton 631. The first is written by the same scribe as Ms.28.

ACKNOWLEDGEMENTS

All pictures are reproductions from Ms.28, used by permission of the Library at the University of Bergen.



The Colophon in Ms.28, folio 165r

EXPLORING THE MIDDLE AGES

Null Subjects in Old English

This poster challenges the view that Old English was a (partial) null subject language on the basis of a substantial quantitative investigation relying on advanced statistical methods.

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ABSTRACT

Recently, increased scholarly attention has been dedicated to the putative existence of a null subject (NS) property at early stages of languages which presently do not allow NSs. For example, van Gelderen (2013: 284) states that Old English (OE), in clear contrast to Modern English, was a 'Romance-style' null subject language (NSL), in which 3rd person NS are licensed by verbal agreement. Walkden (2014) argues that West Saxon (WS) OE was a non-NSL, while Anglian dialects may have featured a partial NS property by which 3rd person NSs are licensed mainly in main clauses.

I challenge these views on the basis of the fact that in a corpus of *c.* 1.6 million words, NSs are vanishingly rare in both WS and non-WS (including Anglian) dialects of OE, regardless of clause type and person reference as well as other linguistic and extralinguistic factors proposed as relevant for the occurrence of the phenomenon.

Data

All data are drawn from the York-Toronto-Helsinki Parsed Corpus of Old English prose (*c.* 1.5 million words) and the York-Helsinki Parsed Corpus of Old English poetry (*c.* 75,000 words). Searches were run to pull out all pronominal subjects – overt (n=77,402) and null (n=1,049).

The phenomenon

The type of subject non-expression in (1)–(2) is the rule in Romance languages, but is standardly ungrammatical in Modern Germanic languages.

(1) Oðde hwa is swa heardheort þæt **[Ø]** ne mæg wepan swylces ungelimpes?
'Or who is so hard-hearted that **he** may not weep for such misfortune?' (ChronE 1086.14)

(2) Hwæðre git sceolon **[Ø]** lytlum sticcum leoðworda dæl furður reccan
'Nevertheless must **we** yet narrate a certain amount of poetry more in short episodes.' (And 1487)

Rates of occurrence in Old English

A corpus-based investigation found that NSs are exceptionally rare in OE, occurring at rates of 1% of all pronominal subjects in the prose. When poetic texts are taken into consideration, that relative frequency increases to 1.3%.

Dialect differences

No significant dialect differences with respect to occurrence of NSs could be identified in a generalised fixed-effects logistic regression model (cf. table 1 (right)). Thus, a dialectally based distinction between WS and non-WS as concerns NSs is unsupported by the data.

Table 1. Log odds coefficients, Wald Z statistics and p-values of OE dialects as measured against an intercept with a West Saxon baseline

Dialect	Coefficient	Wald Z	Pr(>|Z|)
Anglian	0.30	0.39	0.69
Anglian/unknown	-7.10	-0.13	0.89
Kentish	-0.26	-0.24	0.81
Kentish/unknown	-6.99	-0.03	0.97
WS/Anglian	0.13	1.22	0.22
WS/Kentish	0.40	0.69	0.49
WS/unknown	-0.03	-0.12	0.91

Linguistic and extralinguistic variables

In a generalised mixed-effects logistic regression model taking 'text' and 'genre' as random effects, none of the investigated variables were found to exercise much influence on the chance of having a NS instead of an overt subject. Cf. figure 1 below, which gives the predicted probabilities of each fixed effect in the model. Since 3rd person reference and occurrence in main clauses only increase the chance of having an NS instead of an overt one by <1%, OE is unlikely to have been an NS language in the sense of van Gelderen (2013). Figure 2, furthermore, shows that a regression model taking into account the variables of period, translation status, clause type, verb position, person and number provide a terrible fit to the data. This means that these variables – highlighted as central licensors of NSs in traditional grammar and in modern linguistic theories – have little explanatory potential in terms of modelling the occurrence of NSs in OE. I therefore suggest that NSs in OE constitute linguistic 'residue', in the sense of Lass (1997), instead of a productive grammatical phenomenon.

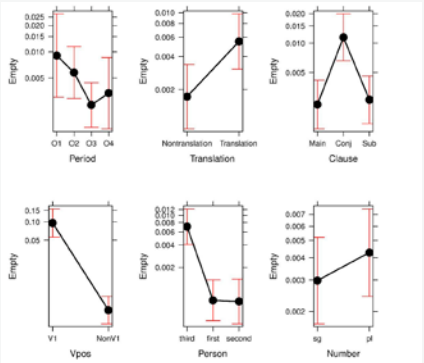


Figure 1. Predicted probabilities of all fixed effects in a generalised mixed-effects logistic regression model taking 'text' and 'genre' as random effects

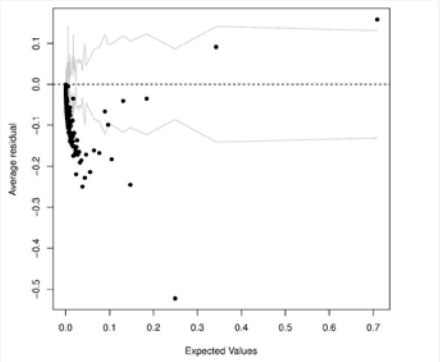


Figure 2. Binned residual plot for the model (parts of which are) presented in figure 1

REFERENCES

Gelderen, Elly van. 2013. Null subjects in Old English. *Linguistic Inquiry* 44: *271–285.* **Lass, Roger**. 1997. *Historical linguistics and language change.* Cambridge: Cambridge University Press. **Walkden, George**. 2014. *Syntactic reconstruction and Proto-Germanic.* Oxford: Oxford University Press.

ACKNOWLEDGEMENTS

Many thanks are owed to the two supervisors of my PhD dissertation, Kari E. Haugland and Gard B. Jenset. I also thank Kristin Bech, Kari Kinn and George Walkden, as well as audiences in Cambridge, Leuven, Nottingham, Oslo, Santiago de Compostela and York, for comments and discussion. All errors are entirely my own fault.

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EXPLORING
THE MIDDLE AGES

Odin – an Enigmatic God

What do we actually know about the Old Norse god Odin during pagan times? In my PhD-project I investigate in a critical way the early sources concerning Odin (4th-12th century AD).

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ABSTRACT

In Old Norse and Latin texts from the High Middle Ages, Odin is depicted as a complex divinity with many functions: the „Allfather", god of runes, poetry and wisdom, god of magic and ecstasy, god of war and the dead, the forefather of royal dynasties and so forth. There are considerably fewer sources originating from pagan times and they are often difficult to interpret. We therefore know little about the conception, cult and functions of Odin before the introduction of Christianity.

First, the sources from pagan times and its interpretations will be critically reviewed. Then, the complexity and the functions of the god in pagan times will be examined. At last, the relation between the high medieval depiction of Odin and the pagan tradition will be analyzed.



Pic: www.roskildemuseum.dk

The so-called „Odin from Lejre" (Denmark, first half of the 10th century)

Sources

For the first time, a corpus will be created containing all sources from all kinds of source categories from pagan times, in order to obtain a result as objective as possible. Besides ancient and early medieval texts this also includes runic inscriptions, place and weekday names, archaeological finds, iconographic sources such as Gotlandic picture stones, pictorial rune stones, gold bracteates, coins, press plates and small figurines.

Interpretation

Because of the diversity in the sources used for this project, an interdisciplinary approach is necessary. Interpretation methods from the varying categories of sources will be combined and adapted to the specific sources concerning Odin as they are diverse not only when it comes to the type, but also in terms of time period (4th-13th century). The interpretation of gold bracteates of the Migration period represents a methodological prototype. The runic inscriptions and pictures on the bracteates have been interpreted reliably by considering Old Norse texts.



Pic: www.kringla.nu

Picture stone „Alskog Tjängvide I" (Gotland, 8th-10th century). Popular but often contested interpretation: Odin is riding on Sleipnir to Valhall.



Pic: http://en.wikipedia.org

Place name *Odensvi* („Óðins-vé") in Småland, Sweden.

Results

The aim is to enhance our knowledge and understanding of the enigmatic figure Odin and his complexity in pagan times (distribution, type and change in functions). That will facilitate future research and give a more reliable and historically correct picture of Odin to people interested in mythology and history.

EXPLORING THE MIDDLE AGES

Provenancing Soapstone Vessels in 9th-12th Century Hordaland

Archaeology and geology hand in hand break the code in provenancing soapstone vessels

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Geological survey of Norway

INTRODUCTION

With a fourth of Norway's known soapstone quarries, the Hordaland region was an important centre for soapstone extraction in Prehistory and the Middle Ages.

Vessels of soapstone are common finds at archaeological sites from the Viking- and Middle Age. The vessels are still a rather under-exploited source in research, much due to difficulties in provenancing the plain everyday objects with some precision.

A combination of geological and archaeological data and methods is used to address the provenance of Viking Age and early medieval soapstone vessels from rural and urban contexts in the Hordaland region.

The study represents an important breakthrough in provenancing soapstone vessels with a high degree of probability and precision.



Viking Age vessel

DATA

Samples of 95 vessels from 11th -12th century Bergen, 51 vessels from Viking Age rural contexts and 38 soapstone quarries in the Hordaland region have been analysed for the content of main & trace- and rare earth elements. Archaeological data include the spatial and temporal context of the vessels, typology as well as geographical information about the quarries.

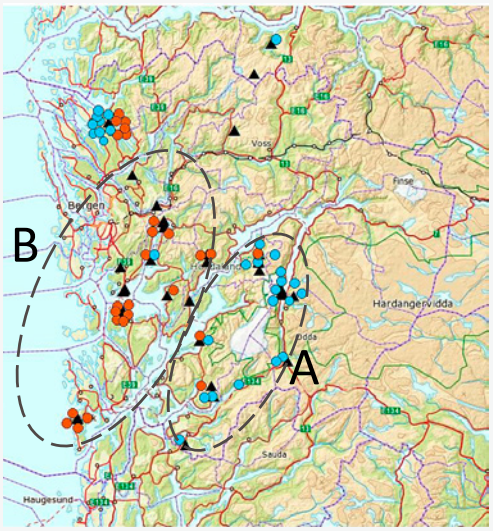




Figure 1.

Legend:
- Sampled quarries
- Viking Age vessel match
- Early medieval vessel match
- *Quarry districts identified through match between vessels from rural Viking Age households and medieval urban households*

METHODS

-The geochemical 'fingerprint' of the vessels is compared with the 'fingerprints' of the quarries seeking a match between vessels and quarries.
-The reliability of the obtained geochemically based matches is evaluated and substantiated by the archaeological data through visual impact analyses.

RESULTS AND IMPLICATIONS

New data

Several previously undated quarries are now dated indirectly through match with Viking Age- or early medieval vessels

Contours of networks

Only a very small share of the Viking Age vessels stem from areas beyond the Hordaland region. In contrast about a third of the vessels in early medieval urban households are strangers to the region.

Contours of production scale

The Viking Age quarries delivered vessels to households in the close vicinity and in the region as a whole. Thus perhaps reflecting both small scale household production and larger scale production for sale.



The Raudberget quarry with unfinished vessels.

Quarry districts

Two quarry districts are identified in the Hordaland region (Fig. 1):
-Quarries in District A were the main suppliers of soapstone vessels for rural households in the region during the Viking Age.
-In contrast quarries in District B supplied vessels for early medieval households in Bergen.

The two districts also represent two different geological provinces.



Early medieval vessels from Bergen

FURTHER MOVES

The fact that two different quarry districts are responsible for vessel production in the Viking Age and the Early Middle Ages has vital implications for our understanding of development and changes in production-, social- and economic networks through the 8th-12th centuries.

How and by whom production, distribution and consumption of soapstone vessels was organized in the Hordaland region from the Viking Age and on, are questions to be pursued further at multiple levels - spanning from the local to the international.

REFERENCES

Hansen, G., Jansen, Ø.J & Heldal, T. In Press: Soapstone vessels from Town and Countryside in Viking Age and Early Medieval Western Norway. A study of provenance. 45 p. ill. In: Hansen, G. & Storemyr, P. (Eds): Soapstone in the North. University of Bergen's Archaeological Series UBAS Vol 9. University of Bergen.

The project is part of Forskning i Fellesskap: http://norark.no/utmarka
Supported by The Research Council of Norway

GEOLOGICAL SURVEY OF NORWAY

EXPLORING
THE MIDDLE AGES

Religion and Money

Nuns and Coins in Medieval Bergen

Nonneseter is today best known as a stop on "Bybanen". In the Middle Ages Benedictine nuns were living there. Did the nuns sometimes spend coins when praying?

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ABSTRACT

The project "Religion and Money: Economy of Salvation in the Middle Ages" deals with the interpretation of coins found in Scandinavian churches. The sub-project on Nonneseter in Bergen discusses the coins lost or deposited in this monastic church within the period in which it operated as a nunnery, c. AD 1130 to 1455.

The majority of the coins were found in the choir, where the nuns spent hours every day in their liturgical duties. Since they were never allowed to leave the nunnery, what need of coins did the nuns have? One possibility is that they were offering coins as a part of the liturgy and that, now and then, some of the coins were lost. Some coins may also have been left in graves. Even the workers building the church may have left coin offerings. Money was used as an instrument in the search for salvation in parish churches, and even, it would seem, in a nunnery church in Medieval Bergen.

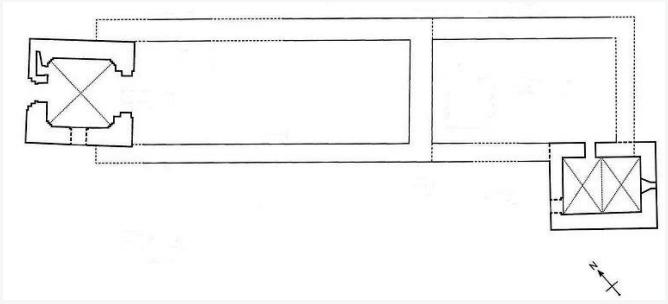
Archaeological coins

The coins were found during excavation of the church site in 1891, before the present buildings were raised. The coins are now in the collections of the University Museum of Bergen.

Liturgical meaning

43 coin finds have been recorded, out of a total of c. 60 coins excavated, which date to the c. 325-year period in which the nuns occupied the monastery. That makes less that one coin every seventh year. However, even though the coins are few in number they seem to reflect activities in the nuns' choir. Not the everyday life in the church, but liturgical events on special occasions such as All Souls Day. The service that day stresses collecting money as a gift to the temple in Jerusalem as an intercession for the dead. The coins are mostly of small value. Could the nuns' offerings symbolize the Gospel's poor widow's gift to the temple?





The Benedictine nuns

In 1320 there were 35 professed nuns and in total between 40 and 50 women including the novices. The new abbess *Jorunn Constantia* was installed and led to her seat in the choir by two priests. In 1326 the abbess *Ingeborg Cecilia* was installed in the same way.

The workers divine gifts?

The church was extended with a new choir c. 1277-1300. Many of the coins found there were minted 1217-63, and most probably not in use by c. 1300. These coins might have been lost by the building workers, or more probably, left as an offering, given the sacred space they were constructing.

Nonneseter today

Only two small stone buildings are still standing of the nunnery. You pass them by "Bybanen". Both are parts of the church (see the ground plan). Bergen Storsenter now occupies the area where the rest of the nunnery once was. In the place where nuns lived and prayed for c. 325 years there is today a shopping centre. Something to think about when you are spending *your* coins there!

Religion and Money: Economy of Salvation in the Middle Ages

The project is based on interdisciplinary and international cooperation using material culture as evidence collected from Nordic museums. The objectives is to investigate the relation between religion and money in a period that created the cultural preconditions for the rise of money economy, the birth of capitalism and the economy of salvation. Nonneseter is the University Museum of Bergen's contribution within the project. It is financed by the Research Council of Norway and directed by the Museum of Cultural History, UiO (professor Svein.H. Gullbekk).



The extant western entrance to the church (left) and the vestry (above), both also marked on the ground plan of the church (below).

The coins (both sides) are (left) a bracteate of King Magnus the Law Mender (1263-80) and (below) an English sterling and a hohlpfennig.-halfpenny



REFERENCES

«Rundt omkring i gruset … fandt man 20 mynter og omtrent 40 brakteater…. Talrigst forekom de i koret, hvor over 3 fjerdedele blev fundet. Med undtagelse af nogle ganske faa tilhørte de alle middelalderen» (B. E. Bendixen, 1893).

ACKNOWLEDGEMENTS

The text in this template is based upon the article "Cons and monastic liturgy in the Middle Ages. An example from St. Mary's Benedictine Nunnery in Bergen, Norway", forthcoming within the project "Religion and Money: Economy of Salvation in the Middle Ages ©. - Image credit: (L to R) . A.T. Hommedal; S. Skare, University Museum of Bergen; Ground plan: S. Bull/P. Bækken.

EXPLORING
THE MIDDLE AGES

Religious Literacy of Christian Nubia

A post-doctoral project at AHKR aiming at defining the character of Nubian Christianity through rigorous analyses of medieval texts produced or used in northern Sudan and southern Egypt

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Manuscript fragment unearthed behind the apse of the church on the Island of Sur in the Fourth Nile Cataract Region. One of the major finds that I studied for my doctoral dissertation.

The libraries that existed in medieval Nubia have been characterized as museums of Christian literacy because they have offered us testimonies of old, forgotten or unknown works of religious literature. In most of the cases, the texts were discovered in undisturbed archaeological contexts, and they were written in Greek, Coptic and Old Nubian. Most of these finds are fragments of original works, sometimes not exceeding a few centimeters of length and width. Their find conditions, rarity and originality render them, however, very important witnesses not only of Nubian Christianity but of Christianity in the Early Medieval period of the Eastern Mediterranean and Northeast Africa in general. My research aims at extracting all the information possible from these fragments, by using both traditional and innovative methods, so as to reconstruct their role in the cultural and religious contexts in which they were produced and used.

In my project, I deal with texts of religious character. This means that they are well-thought literary creations or spontaneous repetitions of very traditional expressions of devotion. In both cases, they bespeak a set of ideas that are prevalent in the religious thinking of their authors – and readers – as well as of the communities that used them.



For example, when the names of the Archangels are rendered in a cryptogrammatic form.

A cryptogram is a number rendered with letters and expressing the sum of the numeric value of the letters of a word according to the ancient Greek system of counting based on the alphabet.

The cryptogram above was engraved on a rock outcrop on the border between the fertile land along the River Nile and the barren desert. The practice suggests that:
1. the Angels had the important role of protecting the integrity of this Christian territory;
2. the (Greek) letters were invested with power and were considered efficient meaning carriers, which is expected by writing holy words, passages or entire texts.

One of the end goals of my postdoctoral research is the preparation of a book about the cult of the Archangel Michael in Nubia. The cult of Michael is not a particularity of Nubia of course, and therefore it is a good criterion for comparisons with other areas of Early Christianity, like Egypt, Syria and Byzantium. Especially with Egypt, there are particular links, as can be expected by the geographical proximity with Nubia. A characteristic example of these links is the literary work known as *Book of Investiture of Michael.*



This work was originally known from three Coptic manuscripts found in Egypt. Three more attestations have been discovered in Nubian sites, one in Old Nubian from Qasr Ibrim and two in Greek. The Greek manuscripts come from Serra East (photo above) and Qasr el Wizz (photo below); both sites were excavated by the Oriental Institute of the University of Chicago. I am responsible for the publication of the textual finds from these sites. I have therefore had the chance to see that in the process of adapting literature coming from Egypt, the Nubians could either translate a Greek or Coptic text to Old Nubian or rewrite it in debased Greek, which in fact clearly reflects the linguistic background of its author.



Beyond the linguistic and philological insights, such manuscripts allow us to better understand the belief systems of Christians in medieval Nubia. The role of the Angels, for example, appears as much more pronounced than what one meets in other parts of the Christian world. The necessity for intermediaries between the divine realm and the earthly existence is reminiscent of apocryphal Christian and Judaic literature, but also reflects the historical depth of indigenous religious practices which would otherwise have been lost for us today.

This is particularly important for the Nubians who survive as a suppressed minority in the Islamic Republic of Sudan, threatened by dam buildings, gold mining and uncontrolled development projects.



Map of Nubia with the sites referred to in this poster

REFERENCES

Ochała G. "Multilingualism in Christian Nubia: Qualitative and Quantitative Approaches", Dotawo 1 (2014), pp. 1-50.

Tsakos, A. "The Liber Institutionis Michaelis in Medieval Nubia", Dotawo 1 (2014), pp. 51-62.

Tsakos , A. *The Greek Manuscripts on Parchment discovered at site SR022.A in the Fourth Cataract region, North Sudan*, Berlin 2013.

Tsakos, A. "On the Medieval Inscriptional Material from M.D.A.S.P.", Meroitica 23 (2007), pp. 235-246.

Welsby, D. *Medieval Kingdoms of Nubia: Pagans, Christians and Muslims in the Middle Nile,* London 2002.

EXPLORING
THE MIDDLE AGES

Resource Exploitation and Landscape Changes

Pollen-based land cover reconstructions reflect environment and land-use practices in time and space

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ABSTRACT

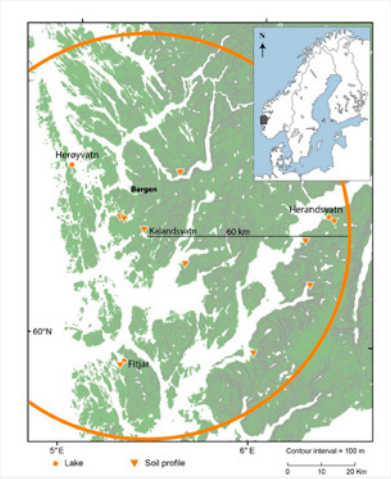
Pollen analysis is the main method to obtain information about vegetation history and thereby the environment of people through time. Since the first international presentation of the method in 1916, important questions for palynologists have been to identify the spatial scale reflected in a pollen sample and the differences in pollen production and dispersal between species. Methodological development and research focus the last decades have produced models for reconstruction of land cover – the area covered by trees, grasslands or heathlands.

The Middle Ages stands out as a time period with exploitation of most of our landscapes. Pollen-based land cover reconstructions combined with data from archaeological sites will increase our knowledge of past settlement and resource exploitation. Secondly, this will give information on economy, daily life, and social networks.

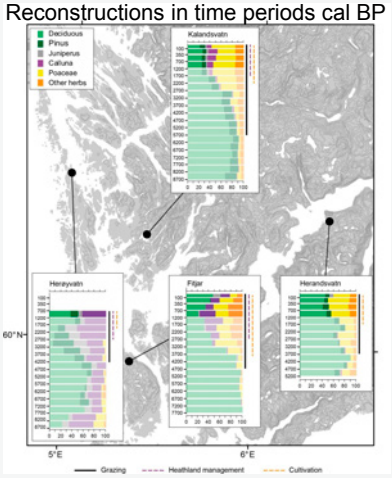
From pollen percentage to vegetation cover

Pollen percentages are transformed to % vegetation cover by using the Landscape Reconstruction Algorithm, LRA. The pollen diagram to the left shows pollen percentages whereas LRA-transformed cover percentages are shown to the right.

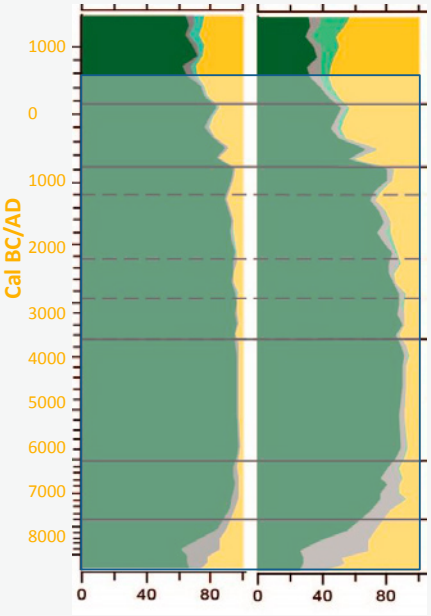
The models have been tested in the region of Bergen by comparing pollen-based reconstructions with modern day vegetation maps. We aim to continue the testing by comparing pollen-based reconstructions with historical data.



Reconstructions in time periods cal BP



Kalandsvatn, Bergen
Pollen diagram



Lakes, bogs and archaeological sites

Kalandsvatn is a large lake that may represent an area of radius 60 km. Within this area pollen data from several lakes, bogs and archaeological sites exist (some shown on the map). Together this gives us the possibility to understand landscape exploitation and farming practices on different spatial scales.

From coast to inner fjords

The first attempts to reconstruct vegetation cover through time, shows marked differences from west to east in the Middle Ages. For the region (Kalandsvatn), openness increases to c. 60%. At the outer coast (Herøyvatn) 50% openness is evident, reflecting heathland management. Herandsvatn by the inner fjord shows c. 50% open landscape, with increase of grasslands and arable fields (cultivation of cereals and flax). Fitjar which is situated between the outer coast and inner fjord reflect 60–80% openness, with a mixture of heathlands and grasslands with cultivation of cereals.



During the Middle Ages a marked differentiation of the landscape with woodlands (dark green), heathlands (light green), and grasslands/cultivated fields (yellow) is seen.
Since a pollen core reflects the continuous development, changes in time and space may be recorded.



Pollen and plant macro fossils from archaeological contexts, such as cultivation layers, show presence of cereals, arable weeds, and meadow plants. This reflects grazing, mowing and arable farming and represents a well-developed agricultural society in the region in the Middle Ages.

REFERENCES
Hjelle KL, Mehl IK, Sugita S, Andersen GL 2015. Journal of Quaternary Science 30:312–324
Mehl IK, Hjelle KL 2015. Review of Palaeobotany and Palynology 217:45–60
Mehl IK, Overland A, Berge J, Hjelle KL 2015. Journal of Archaeological Science 61:1–16
Sugita S 2007. The Holocene 17:229–257

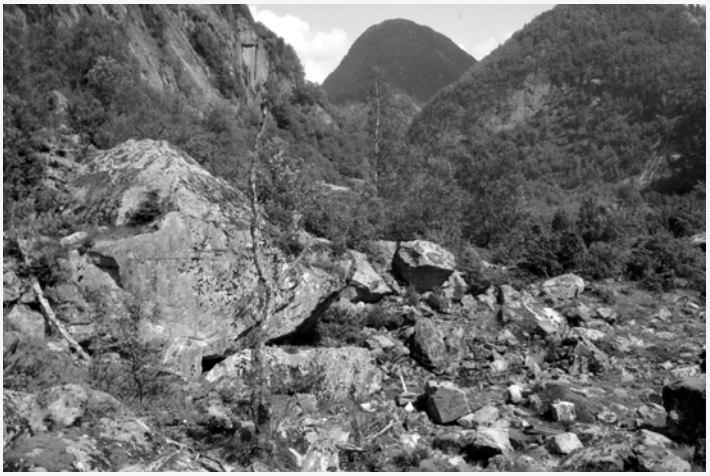
ACKNOWLEDGEMENTS
Thanks to Beate Helle for help with figures

EXPLORING
THE MIDDLE AGES

Rockshelters in Medieval Norway

During the Middle Ages rockshelters were used by ordinary people. Some of the shelters were shielings and hunting stations, but they were first of all smithies or workshops situated close to stone quarries.

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Rockshelters are numerous in Norway and have been shaped by erosion in fault-zones and fissures, or because of rock-fall. The rockshelter *Storsetehilleren* in Masfjorden is situated under a big boulder.
Photo: Bjørn Ringstad, UMiB

ABSTRACT

A widespread notion based on archaeology and recent folklore tradition is that rockshelters in late prehistory and early historical periods in Norway were used only by people on the lower rungs of the social ladder.

According to the current project, which is based on a re-investigation of all known medieval rockshelters in western Norway, these notions should be heavily modified.

The archaeological data indicate that people who used the shelters were not social outcasts nor particularly poor. The artefacts found in the rockshelters show that their users had access to material culture that was common among ordinary people in urban and rural communities during this period. Furthermore, several of the rockshelters were primarily used as smithies, and many smiths enjoyed rather high status in the medieval society.

The rockshelters

Surveys, excavations, and re-examinations of 13 medieval rockshelters in western Norway (map to the right) show that these places were used for many different purposes.

Shielings and hunting stations

The 'shelter- shielings' are situated at some distance from contemporary farms, close to good pastures. At one such site, Storsetehilleren, excavations uncovered pottery, textile tools and fragments of scissors and knives. Large numbers of bones from the consumption of mammals and fish were also present. The hunting stations are strategically placed in terms of hunting grounds and fishing localities.

Quarry workshops

The majority of the shelters in the study were used as workshops. An example of a quarry workshop is found close to the quernstone quarries at Rønset in Hyllestad. The archaeological deposits consisted of quernstone production waste, layers of charcoal, and some slag from forging. The site was used for resharpening of iron tools and small-scale production of quernstones.

Smithies

Other shelters were first of all smithies. The majority are in close vicinity of medieval farms, and they may have been used by the farmers themselves or by itinerant smiths. The archaeological data consists of charcoal, slag, and iron artefacts such as hooks, hammers and horseshoes. The presence of bronze/copper indicates that the smiths worked with different metals. Pottery, baking stones and faunal material show that the smiths also prepared and consumed food in the rockshelters.



Fragments of a stoneware beaker (Raeren ware) and soapstone spindle whorls from the 'shelter-shieling' Storsetehelleren.
Photo: Svein Skare, UMiB

The social standing of the shelter-users

According to written records, some rural smiths had a rather high status. The artefacts found in many of the rockshelters also show that their occupants surrounded themselves with material culture comparable to that of the contemporary urban milieus. They had clear insight into trends and styles among ordinary people and had access to objects that were traded at central markets such as Bergen. This makes it highly unlikely that the shelter-users belonged to society's lowest social classes.



The distribution of medieval rockshelters in Western Norway

REFERENCES

Bergsvik, K.A. and Hansen, G. (2015). Medieval rockshelters in western Norway. Activities, functions, and social identities. In Baug, I., Larsen, J. and Mygland, S.S. Nordic Middle Ages – Artefacts, Landscapes and Society. Essays in Honour of Ingvild Øye on her 70th birthday. UBAS 8.p. 49-76.

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http://norark.no/utmarka
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EXPLORING
THE MIDDLE AGES

Runic Writing in Medieval Bergen

Runic inscriptions from Bryggen in Bergen tell a tale of various individuals and their use of writing in medieval times.

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ABSTRACT

The runic material from Bryggen (over 650 finds) is an important source of medieval urban literacy. The corpus is more diverse than often perceived – especially when taking into account both the texts and the artefacts. Even in short inscriptions that merely contain a person's name, the overall features may display different motivation and ways of using writing. In this ongoing study, the Bryggen inscriptions are systematically explored. The main purpose is to gain a detailed understanding of the individual products of writing as well as the general tradition of runic writing in medieval Bergen.



Fig. 2. B 392, wooden handle (side B): **sihurþr** (*Sigurðr*) **ko^þ(i)-**

Overview

Bryggen inscriptions are mostly dated to 1150-1350. The majority are on wood, but other materials occur as well. Over 60% contain texts or lexically meaningful units in Old Norse or Church Latin, including personal or divine names. The runic alphabet fuþork (or parts of it) is used alone or combined with other elements, such as names. More than one-third of the corpus contains single runes or runic sequences that appear random and lexically meaningless.

Writing runes

Only some twenty inscriptions explicitly mention the use of runes or the activity of writing or reading. One wrote runes to communicate, not to emphasize the act per se. The material shows how different individuals attempted to learn to write and used runic writing for various purposes.

Personal names

One's name is among the first words that a person would learn to read and write. More than 230 inscriptions contain personal names. Single names and short statements are frequent, but longer texts and lists of names also occur. In a number of illegible inscriptions certain units can be identified, which may also be attempts at carving names.

The most frequent personal names include: *Sigurðr, Gunnarr, Ólafr, Árni, Eiríkr, Jón*. They are often carved in varied graphematic and visual forms. This is done through the use of different rune types, bind-runes, dotted runes, single vs. double consonants, different vocals, etc. The name *Sigurðr*, for example, appears as **sigurþr, sikurþr, sikkurþr, sihurþr, sihurþær, siuhorþr, sih^urþr** (**^** marks bind-runes). Such variation may reflect individual analysis and writing practices.

Texts and contexts

A big proportion of the material containing personal names can be characterized as name tags and ownership markers, but additional functions are present. Various items express practical, religious, symbolic, and decorative functions. The script and the visual and material features of the objects complement each other (cf. Figures 1, 2 and 3).

Concluding discussion

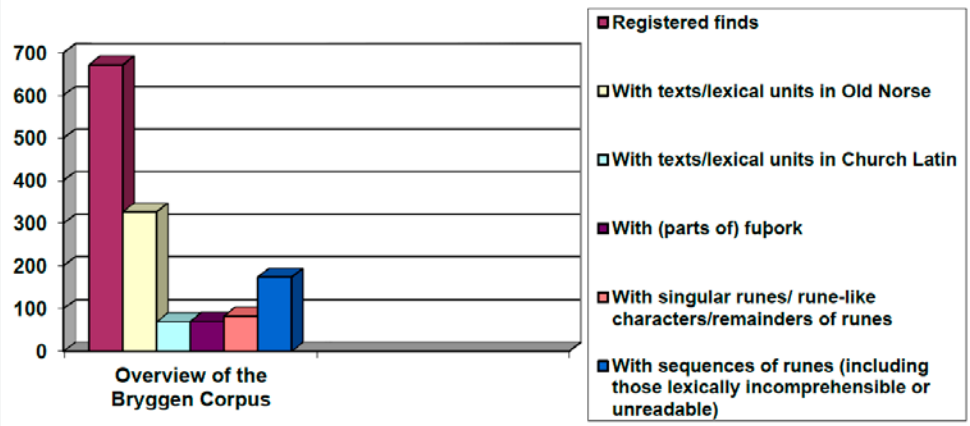
Bryggen inscriptions offer varied insight into the practice of writing in medieval Bergen. The corpus can be divided into principal types, but attention should be paid to the study of individual inscriptions. The interplay between texts and objects, and the manner in which runes are organized on particular items is significant even in the case of seemingly illegible inscriptions. Each runic item can be claimed to display unique features and hence cast light upon the uses and users of runic writing in Bergen.



Fig. 1. N 288, gaming piece of whale bone (back side): **uikigr-** (*Víkingr*)



Fig. 3. B 343 (end of a stick, shaped as a head), one of its sides carries the name *Þóri*(?) "To Thorir"



REFERENCES
N + number = inscriptions in *Norges Innskrifter med de yngre Runer (NIyR)*.

B + number = Bryggen inscriptions not yet published, but preliminarily registered at the Runic Archive, University of Oslo.

All photos by the author.

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EXPLORING
THE MIDDLE AGES

Science in Medieval Fiction

This project investigates the incorporation of factual writing in the Old Icelandic romances (14th – 16th century) and explores the relationship between science and literature in the late Middle Ages.

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Queste del Saint Graal, Bibliothèque nationale de France, Français 343, fol. 27v

ABSTRACT

My PhD project examines the extensive reception of scientific literature in the medieval romance genre of Iceland, the indigenous *riddarasögur.*

My goal is to research why so many of these romances included writing on scientific topics in their narratives and what this intertwining of factual and fictional literature meant for their audience.

Medieval romance

The late 12th century saw the rise of this popular literary genre in which the narrative mode of fictionality first blossomed in the Middle Ages.

They soon spread throughout Europe and were transmitted into Scandinavia by vernacular translations of romances in the 13th century, mainly from France and England.

The translations sparked the creation of new and original romances on Iceland. These indigenous stories offered an artistic outlet free from the constraints of the traditional saga genres.



Rochester Bestiary, The British Library, Royal MS 12 F XIII, f. 5v

"The books show […] that you must travel through a land where nothing lives except lions.

They fear nothing except the crowing of a rooster."

Konráðs saga keisarasonar

Medieval science

The study of nature was considered an important part of understanding God's creation, ensuring science a place as one of the leading intellectual disciplines of the Middle Ages.

Both specific treatises covering individual topics, such as bestiaries or lapidaries and the imposing and wide-ranging encyclopaedias by authors like Isidore of Seville or Vincent of Beauvais were popular throughout the Middle Ages.

While Latin was the dominating language of science during this period, the trend to translate or author treatises in the vernacular coincided with the rise of romance literature.

"This maiden was called Philotemia, she had learned all seven *artes liberales* so well that no one was her equal.

She had also learned divination and rune signs […], the movements of the celestial bodies and astronomy as well as the powers and nature of all herbs, stones, trees, bushes and wells in the world."

Dínus saga dramblåta

Methods

This project understands the reception of scientific literature in the Old Icelandic romances as an intertextual phenomenon.

The analytical tools accessible through the literary theory of intertextuality allow for a detailed examination of the interaction between the different texts on one side and between text and audience on the other side.

The study focuses on three scientific topics and their implementation into the Old Icelandic *riddarasögur*: zoology, mineralogy and astronomy.

Science and Literature in the Middle Ages – preliminary findings

The Old Icelandic *riddarasögur* seemed to have served as a platform for the dissemination and discussion of scientific knowledge.

Their fictionality offered a forum for speculating about science and the practical, political or social consequences its application could cause.

The opportunity to narratively act out thought experiments within the framework of the romances provided a new angle from which to regard scientific knowledge.



Alexander encounters the monstrous *Blemmyae*.

Roman d'Alexandre, The British Library, Royal MS 15 E VI, 21v

REFERENCES

Dínus saga dramblåta. Ed. Jónas Kristjánsson, Reykjavík 1960, p. 12.

Konráðs saga keisarasonar. Ed. by Otto J. Zitzelsberger. New York 1987, p. 157.

ACKNOWLEDGEMENTS

This PhD project is carried out with the support of the Research Group for Medieval Philology, LLE, and the cooperation between the University of Bergen and the University of California, Berkeley.
The project will be completed by the end of 2017.

EXPLORING
THE MIDDLE AGES

Ships and Sailing in the Old Norse Texts

The Old Norse texts are amazingly underexploited as a source for knowledge about ships and sailing in the Middle Ages – the standard work on the topic is over a century old. I have studied some of this material and seek funding to continue research.

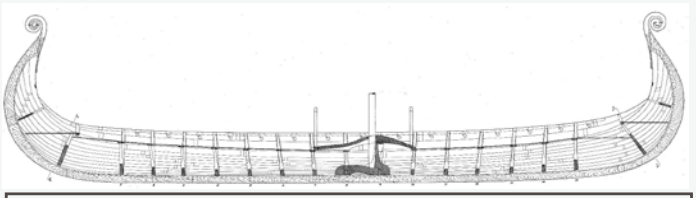
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ABSTRACT

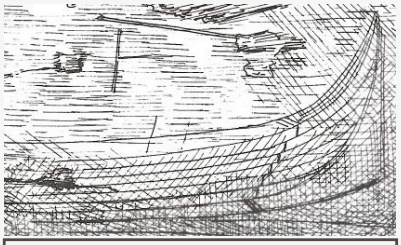
In spite of the great public interest in maritime aspects of Viking and Medieval Scandinavia, we do not possess a proper knowledge of these topics. The archaeological record can only give us a skeleton, but neither the terminology nor the culture surrounding the material remains. The gaps can be filled by Old Norse texts, but they are highly understudied with regard to maritime aspects – and when they have been used, their information has mostly been linked to Viking Age ships, although it reflects primarily High Medieval technology. At the same time, we know only little about High Medieval ships and ship technology, because the archaeological record from that period is fragmentary. As an Old Norse scholar and sailor of Viking ship replicas and vernacular vessels, I am seeking funding for text-based research into these questions. This poster presents some of my results so far.

The early Viking ship types

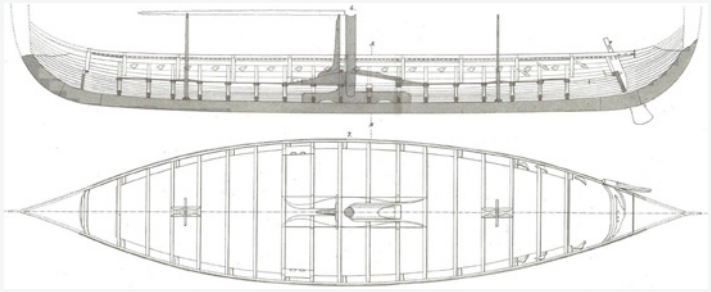
In Heide 2014, I have attempted to sift out from Old Norse written sources the early Viking Age terms for ship types – *knǫrr*, *beit*, *skeið*, *kjóll*, *askr* and *elliði* – and link them to actual ships and ship depictions from that period:



Probable representative of the first phase of the ship type *knǫrr*: The Oseberg ship, 820 AD. The term probably means: 'a ship with a backwards-curved stem'.

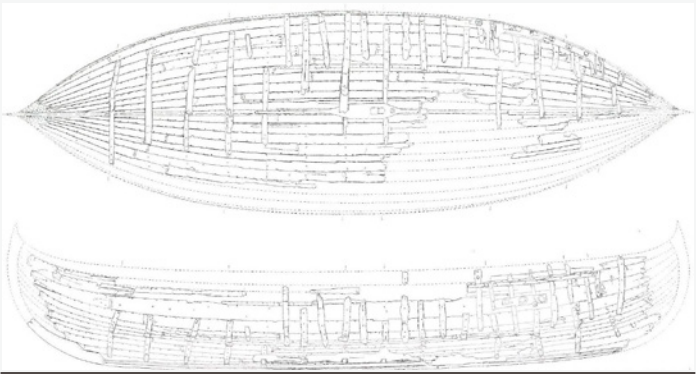


Probable representative of the ship type *beit*: woodcarving on a board from the Oseberg find, early 9th century. The term seems to refer to the keel extensions used in the earliest period of sailing.



Probable representative of the ship type *kjóll*: The Gokstad ship, c. 890 AD. The term seems to refer to a comparatively large cargo capacity, prior to specialised cargo ships.

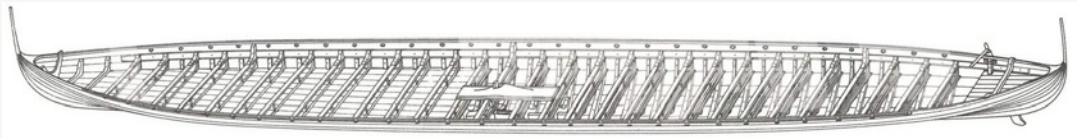
These results contradict previous presentations of the topic because hitherto not enough attention has been paid to source problems: the High Medieval authors mostly describe the High Medieval ships they knew, even when describing events centuries earlier. Thus, Óláfr Tryggvason's *Long Serpent* is described as a 13th century floating castle, not the 'serpent type' known from finds from c. 1000 AD.
A full review of the Old Norse texts for data on maritime aspects will bring an abundance of information about ship types, technical solutions, technical developments, trade, etc. So far, only a small part of the textual information has been used and only a fraction of it has been interpreted in light of the present archaeological and ethnographic knowledge.



Probable representative of the second phase of the ship type *knǫrr*: Skuldelev 1, c. 1030 AD. From this time onwards, a *knǫrr* was and ocean-going cargo ship.



Seal of Bergen, c. 1300. From this period we have no well preserved finds of large cargo ships or war ships, but its ships are well reflected in Old Norse texts.



Probable *skeið*: Hedeby 1, late 10th century. The term may reflect a comparison to a *skeið*, 'weaving beater', because this ship type was long and narrow. Óláfr Tryggvason's 'The Long serpent' was probably of this type.

REFERENCES

Heide, Eldar, 2014: "The early Viking ship types". *Sjøfartshistorisk årbok 2013. 81-153.*

ACKNOWLEDGEMENTS

Images from Crumlin-Pedersen 1997: *Viking-Age ships and shipbuilding in Hedeby/Haithabu, Schleswig* and 2002: *The Skuldelev ships I*;
Nicolaysen 1882: *Langskibet fra Gokstad ved Sandefjord,* and
Christensen et al. 1992: *Osebergdronningens grav.*

EXPLORING
THE MIDDLE AGES

Sigurðr in the Medieval North

Sigurðr the Dragon-Slayer was a preeminent hero of the Medieval North and remembered in both narrative and art.

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Sigurðr stabs the dragon Fáfnir on the Ramsund carving. Here the dragon is also the band containing the runic inscription (11th century, Sweden).

ABSTRACT

Sigurðr is the supreme hero of the Völsung legend. He is widely represented in the art and narrative of medieval Europe.

Dragon-Slayer, King, Husband and Hero, the multifaceted character of Sigurðr forms the core of my project to develop a comprehensive analysis of his legend, its cultural context and how it developed over time.

The earliest depictions of Sigurðr are found on rune and image stones, mainly from Sweden. From the 12th and 13th centuries, Sigurðr decorates the portals of four Norwegian stave churches (Hylestad, Vegusdal, Lardal, and Mael), as well as appearing in a number of written texts.

Sigurðr roasts the heart of the dragon Fáfnir on the Hylestad stave church, from the late 12th to early 13th century (Norway).

The Aim

The aim of the project is to investigate the impulses behind and the structure and development of the legend surrounding the hero Sigurðr Fáfnisbani in the medieval North.

Sources

Both literary and artistic sources depict Sigurðr. From literature, sagas (such as *Völsunga saga*), eddic poems from Iceland, the *Nibelungenlied* from Germany, and the Scandinavian and Faroese ballads present various versions of the legend.

Sigurðr is found depicted pictorially on material from the British Isles, Germany and Scandinavia.



Sigurðr on Norwegian Stave Churches

Sigurðr decorates the portals of four Norwegian stave churches (Hylestad, Vegusdal, Lardal, and Mael). He is a figure in which the legendary and supernatural blur: although he is ostensibly human, he has many supernatural attributes and encounters (such as that with the dragon).

The Function of Sigurðr

Jesse Byock (1990) argues that the function of Sigurd on the stave church doors is a protective one. He replaces the Danish and German preference for the archangel Michael (also a dragon slayer and a figure of protection).

Did they believe in Sigurðr?

While the archangel Michael is biblical, and thus a legitimate object of belief for medieval churchgoers, this is less immediately obvious where it concerns Sigurðr. We can ask:

•How was Sigurðr conceptualised and understood in medieval Norway, particularly with regards to his physicality? We are presented with actual pictures of him on the portals. What did he look like?

•Did he indeed play a protective role and how might those who viewed the pictures of Sigurðr have expected to 'experience' him?

If the people who were behind the pictures of Sigurðr on stave churchs truly expected Sigurðr to protect them, they must have believed in him and his ability to continue to be active on the supernatural plane after his death, at least to some extent.

Comparative Analysis

The Sigurðr legend existed in several variations, some more developed than others. These, usually written sources, can be used to establish key scenes.

Key scenes can be used to identify Völsung scenes on artistic material, many of which are disputed.

One contribution the project will make is a catalogue and assessment of all material that has been posited as showing Sigurðr.

Sigurðr kills Reginn on the Hylestad stave church, from the late 12th to early 13th century (Norway).



REFERENCES

Jesse Byock. 1990. "Sigurðr Fáfnisbani: An Eddic Hero Carved on Norwegian Stave Churches." *Poetry in the Scandinavian Middle Ages. The Seventh International Saga Conference*. Ed. Theresa Pàroli. Spoleto: Centro Italiano di Studi Sull'Alto Medioevo. Pp. 619-628.

PICTURE CREDITS

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Hylestad, Sigurðr killing Reginn: By Jeblad (Own work) [CC BY-SA 3.0 (http://creativecommons.org/licenses/by-sa/3.0)], via Wikimedia Commons

EXPLORING
THE MIDDLE AGES

Stone for Bread and Church

A unique quarry landscape in Hordaland is telling the story of large scale production of bakestones and other stones. Archaeology and geology in tandem provide the answers.

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Underground quarry in Ølve displaying the typical circular quarry marks after extraction of bakestones. (Photo: Atle Ove Martinussen)

ABSTRACT

Throughout the Middle Ages, bakestones conducted an important part of the Norwegian households. The major production center for bakestones is located in the Ølve-Hatlestrand area, Kvinnherad municipality, Hordaland.

The study is based on an archaeological and geological investigation of quarries and products. Different aspects, such as extent, age and product types, as well as distribution and trade of different products have been looked into. Questions related to ownership of quarries and organisation of production and distribution are also addressed.

C14-datings from the spoil heaps date the production to c. 11th to 17th centuries. The quarried rock is a schist of a unique composition that allows repeated heating without fracturing – excellent for bakestones. Extensive quarrying of other products has also been documented, including building stones to the medieval Onarheim church.

Quarries and products

71 quarries have been identified in the Ølve-Hatlestrand area, and extraction was carried out in both surface and underground quarries. The quarried rock is a talc-containing greenschist, a schist of rare occurence in Norway.

Archaeological surveys, quarry marks as well as written sources testify to a wider range of products than bakestones, including tiles for roofing, slabs for drying grain, stone crosses and building stones.



Bakestone fragment found at Bryggen in Bergen (BRM0/50119). Bakestones are flat stones, often circular or oval in shape, approx. 25-50 cm in diameter and normally c. 1 cm thick. They were used for baking bread or heating other food stuffs over the hearth. (Photo: Marcin Gladki © Museumssenteret i Hordaland)

Distribution of bakestones

The bakestones were distributed all over Norway. Outside of Norway, they are mainly to be found within the North Atlantic region, whereas they in Sweden and Denmark are only found in small amounts.

The medieval Onarheim Church

A schist of similar composition as the schist quarried in Ølve/Hatlestrand appears as remnant building stones from Onarheim church in Tysnes, Hordaland, erected in the 12th century.

Isotopic analyses

A comparison of isotopic analyses of schist from the quarries and building stones from Onarheim church confirms that stones used in the church are supplied from the quarries in Ølve/Hatlestrand.

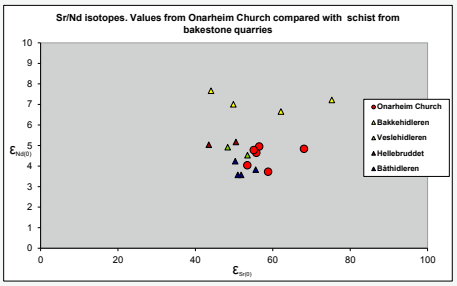


Diagram showing Strontium (Sr) and Neodymium (Nd) isotopic values of greenschist from Onarheim Church and samples from four bakestone quarries. The values of the Onarheim stones cluster close to three of the quarries. The location of Båthidleren (at the farm Netteland) as the only quarry located by the sea makes this quarry the best candidate for supplies to Onarheim.



Underground quarry wall displays the extraction of rectangular slabs, possibly for building stones. The photo illustrates the importance of extraction marks as crucial to recognise the different products delivered from the quarry. (Photo: Atle Ove Martinussen)

Who owned the quarries?

All farms within the quarry landscape belonged to different estates, and ecclesiastical institutions, such as Halsnøy monastery, owned the quarries. The work in the quarry was most likely carried out by tenants living at the farms, and the quarried stones may then have been elements in the land rent. Trade with bakestones was mainly organised over Bergen, where they were traded further on. Building stones were, on the other hand, probably commissioned products.

REFERENCES

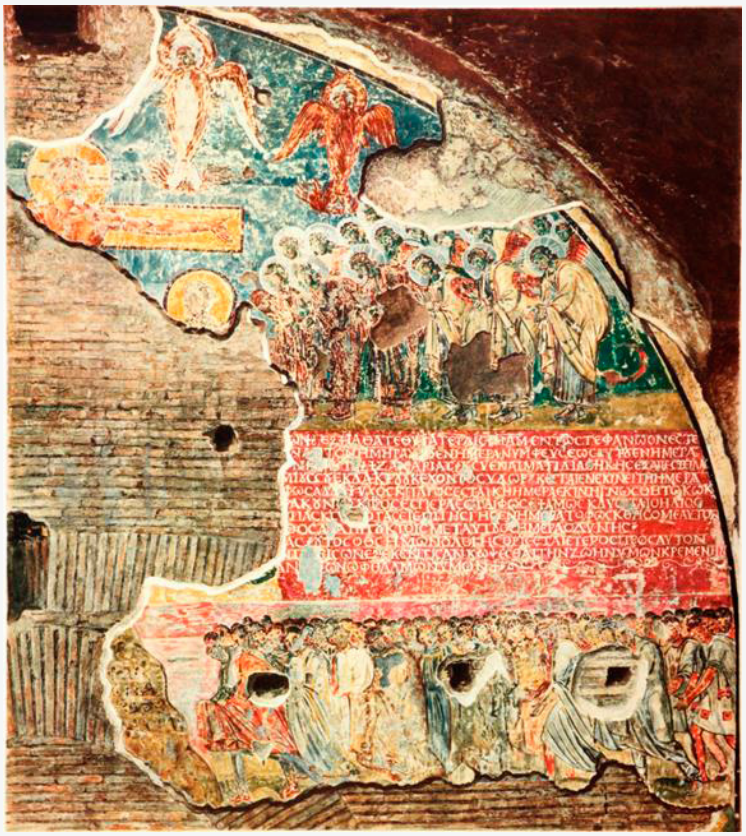
Baug, Irene 2015: *Quarrying in Western Norway. An archaeological study of production and distribution in the Viking period and Middle Ages.* Archaeopress Archaeology, Oxford.

EXPLORING
THE MIDDLE AGES

Text as Symbol? The Greek Text-*catena* on the Triumphal Arch of S. Maria Antiqua, Rome, 705-707 A. D.

What happens if the white letters on reddish ground are seen as a replica *in major* of the purple manuscripts with silver letters on parchment? Here I read the text through the symbolism of ´silver` on parchment.

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ABSTRACT

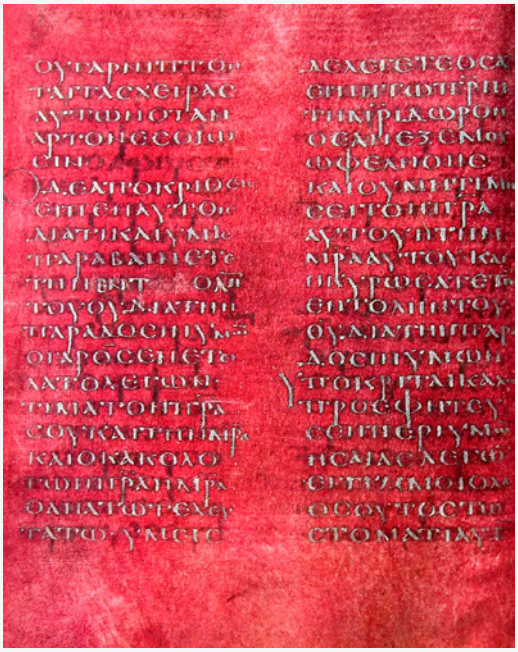
Located within Pope John VII's frescoes in S. Maria Antiqua (705-707 A.D.), the Greek text-*catena* on the preserved r. side of the triumphal arch consists of Old Testament verses, typologically connected to Christ's Passion. The l. side of the *catena* has preserved only a small fragment of *intonaco* with letters; it's content is wholly lost. The letters are written in white on reddish background. I ask whether this beautiful text, recalling the purple manuscripts written with silver on parchment, may be symbol-laden. I conclude that it may be a subtle expression of Λογος σαρξ (John 1, 14).

The upper zone has an ´Adoration of the Crucified scene`, displayed in two separate registers: Angels, Seraphim, Cherubim surrounding the Crucified in the upper register, and Men in the lower (for a detailed description of the fresco, with photographs and tracings, see Nordhagen, 1968; illustration above from Wilpert, 1916).

The Greek *catena*, is inserted between the two registers. Its chaining of Old Testament verses derives from the Palestinian Good Friday rite (Tronzo, 1985), also found in the 13th catechesis of Cyril of Jerusalem for the Good Friday (Kartsonis, 1994).

What was the intention behind the S. Maria Antiqua *catena*? The typological meaning of the Old Testament verses, and the meaning in the way they are being linked, underline that the message concealed has to do with the Passion of Christ.

But is this the hole story?



The white letters on red ground seem to emulate such luxury manuscripts as the Rossano Gospels (6th c. A.D.; cf. illustration above), where silver letters are written on purple-stained parchment (Cavallo 1988).

J. M. Burnam (1911) lists sources concerning the meaning of gold and silver letters, and concludes that ´silver uniformly means speech, the ability to give expression to the words of the Supreme Being … if silver is God's word, [it makes sense that] the canonical texts as being God's word should be reproduced in silver letters.`

Moreover, it has been suggested (Thunø, 2011) that the golden dedicatory inscriptions in mosaic in the lower zone of Medieval apses in Rome will signify Λογος σαρξ: The Word made Flesh.

Interestingly, scholars studying a poem in the Godescalc Evangelar (Herbert L. Kessler *inter al.*), find that purple symbolise, ´the celestial realm through the red-coloured blood of God […]. Hence, purple stands for Christ's suffering, *His Blood*.

Located within the monumental scene, our Crucifixion-*catena* appear symbol-laden to a degree far above the dedicatory inscriptions in the Roman churches.

I find good reasons to suggest that this is a very subtle way to illustrate the Λογος σαρξ, making sense within a fresco programme which, in its totality, is anti-*Monothelitic*, i.e. stressing the importance of the human nature of Christ in salvation.

REFERENCES

Burnam, J. M., ´The Early Gold and Silver Manuscripts`, *Classical Philology*, 6, (1911), 144-55.
Cavallo, L., ´Le tipologie della cultura nel riflesso delle testimonianze scritte`, in *Bisanzio, Roma e l'Italia nell'alto Medioevo*. Settimane di studio del centro italiano di studi sull'alto medioevo XXXIV 3-9 aprile 1986, (Spoleto 1988), 486-87.
Kartsonis, A. D., ´The Emancipation of the Crucifixion`, in *Byzance et les images* (*Paris*: La Documentation française, *1994*), 151-87.
Kessler, H. L.,´The Eloquence of Silver: More on the Allegorization of Matter`, in *L'allégorie dans l'art du Moyen Age. Formes et fonctions. Héritages, creations, mutations*, ed. by Christian Heck (Turnhout: Brepols Publishers, 2011), 49-64.
Nordhagen, P. J., *The Frescoes of John VII (A.D. 705-707) in S. Maria Antiqua in Rome*, in *Acta ad Archaeologiam et Artium Historiam.*
Thunø, E., ´Inscription and Divine Presence: Golden Letters in the Early Medieval Apse Mosaic`, *Word and Image*, 27/3 (2011), 279-91
Wilpert, J., *Die römischen Mosaiken und Malereien der kirchlichen Bauten vom IV. bis XIII. Jahrhundert*, 4 vols. (Freiburg in Breisgau: Herder, 1916).

EXPLORING
THE MIDDLE AGES

Textual Variation in the *Code of the Norwegian Realm* of 1274

Working towards a new critical edition with a complete *apparatus* based on the collation of 42 manuscripts and 49 fragments.

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The project *Textual variation in the* Code of the Norwegian Realm *of 1274* is a subproject within cross-disciplinary *Landslovsprosjektet 2014-2024*, which seeks to stimulate and coordinate research on king Magnus VI Lawmender's code in connection with the 750 years jubilee in 2024.

The *Code* was one of the very few national law books produced in Europe in the High Middle Ages, and marked the start of a law-making tradition that extends to modern times and the development of the Norwegian State in 1814. However, priority has not been given to thorough research on the implications and consequences of this until now.

To be able to conduct cross-disciplinary research on the *Code* of 1247, the Old Norse text must first of all be made available also for scholars of disciplines other than medieval philology.

Thus, the aim of this subproject is to examine and record all the relevant textual variation across the numerous medieval *text witnesses* (manuscript copies) containing the *Code*, which will result in a new critical edition.

The new critical edition, which is to be due on 2017/12/31, will be used to attempt to establish a version of the text of the *Code* as close to King Magnus' original *text-work* as possible. A translation into both Norwegian and English will be based upon the latter *eclectic edition* in order to increase the accessibility of the text for scholars of disciplines such as History and Legal History, among others.

Why is a new edition needed?

The previous edition by R. Keyser and P.A. Munch of 1848 (NgL) is insufficient in some respects. Many variant readings are omitted, and the references in the critical *apparatus* are often imprecise.

A *stemma* (graphical representation of the relationships among manuscripts) is also missing from their work.

Choosing a source text

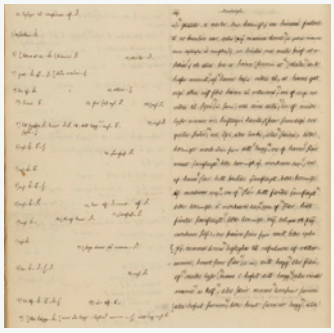
Variant readings from the 42 medieval manuscripts and 49 fragments chosen for the new edition must be compared to one existing *text-witness*, which is called the *source text*.

Our choice is the version of the *Code* on **Holm. Perg. 34 4º**, a manuscript dated ca. 1275-1300. This manuscript is the oldest available and contains the *Frostating*-redaction of the *Code*, which is believed to be closer to the original work of 1274.

The suitability of **Holm. Perg. 34 4º** as a source text was already claimed by Storm (Storm 1879, 16-17) after his thorough survey of the available manuscripts. **AM 60 4º** was used in NgL by Keyser and Munch, but their criteria were rather aesthetical: good and consistent orthography, a low number of scribal errors. These criteria are however not prerequisites for high text-critical value.

How we record variants

Even though Keyser and Munch did not include all the variant readings in their edition of 1848, they did record nearly all while collating the medieval manuscripts. Their hand-written work is found at the Norwegian National Library (**NB Ms. 4º 684 to 688,** see image of 687 below), and is crucial to our own.



It is a great advantage for us to have access to this more comprehensive preliminary work by Keyser and Munch, since the original medieval manuscripts are spread across several archival institutions in the Nordic Countries.

The 49 medieval manuscript fragments will be collated manually at a later stage.

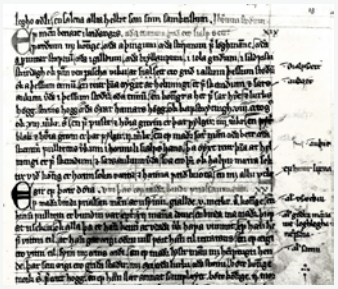
Which variants do we record?

Only variants that can potentially change the meaning of the law text are recorded. This means we register the following types of variation:

- Morphological
- Lexical
- Syntactical
- Structural (changes in the order of chapters and longer passages of text)

Previously unrecorded variation

A good example of variant readings that were not registered in NgL comes from the manuscript called **AM 309 fol.** In this manuscript, the medieval scribe records variant readings from other exemplars as *marginalia*, as can be seen in the illustration below.



It has been pointed out by Rindal that some of these variants might come from lost manuscripts (Rindal 1997, 26), which makes it even more important to include them in the coming edition.

What can variation tell us at this point?

Textual variation in itself is valuable data to learn which parts of the law were most controversial in the legal culture of the period. Such questions are of great interest to legal historians.

REFERENCES

Storm, Gustav (1879): *Om haandskrifter og Oversættelser af Magnus Lagabøters Love.* Christiania: Jacob Dybwad
Keyser, R. and Munch, P.A. (1848): *Norges Gamle Love indtil 1387* (NgL), vol. II. Christiania : Chr. Gröndahl.
Rindal, Magnus (1997): *Ny utgåve av dei norske lovene frå mellomalderen?* in Dybdahl, Audun & Jørn Sandnes (red.): *Nordiske middelalderlover - tekst og kontekst. Rapport fra seminar ved Senter for middelalderstudier, 29.-30. nov. 1996.* Trondheim: Tapir.

ACKNOWLEDGEMENTS

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Images:
GKS 1154 2º (*Codex Hardenbergianus*)
NB Ms. 4º 687
Facsimile of AM 309 fol., courtesy of ILN, University of Oslo.

Nasjonalbiblioteket
National Library of Norway

UNIVERSITY OF BERGEN
Faculty of Law

EXPLORING
THE MIDDLE AGES

The Bjørkum Combs; Actors, Production and Networks during the Viking Age

New information about comb production, crafts specialisation and the integration of rural western Norway into the wide-ranging communication and trading networks of the Viking world.

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Aerial view of Bjørkum and its wider landscape setting.

Antler combs are frequently found in Norwegian Viking Age graves. However, unlike contemporary sites in Northern Europe there is little information about local manufacturing traditions as no workshops have been encountered to date.

During excavations at the Late Iron Age site Bjørkum, a small number of complete and fragmented combs were found. Alongside fragments of cut reindeer antler and antler debris, this testifies to on-site small scale craft production. The Bjørkum site provides new insights into the social and economic aspects of rural Late Iron Age Norway as well as the networks that were at play in wider areas of northern Europe.



Composition and construction of single composite comb from the site based on x-ray and documentation.

Viking Age Combs

Scandinavian Viking Age combs are composite single-sided antler combs where the different parts are riveted together. The combs display a high degree of craftsmanship. Apart from their functional use, combs were important objects displaying the owner's social status and role, but may also have been ritual objects or used as gift items. Ornamentation, either in the form of lines, ring-and-dot motif or interlaced ornament, supports a more symbolic reading. The standardized forms of the finished combs are taken as an indication of close and integrated social and economic networks operating over larger parts of Viking Age Northern Europe.

The Viking Age site Bjørkum

During the Viking Age, Bjørkum seems to have played a role beyond a mere farmstead. Based on a variety of data, a complex picture emerges of a site oriented towards seasonal gatherings with feasting, ritual activities as well as small-scale craft production and specialization.

Bjørkum is the first secure context in Norway with Viking Age comb production. The main goals of this research is a careful investigation into the antler material in order to identify the amount and scale of comb production at the site, to reveal information about their status as possible luxury or high status objects as well as addressing the level of itinerancy versus locally based craftsmanship.

Reindeer antler and production

A small amount of cut antler and antler debris was found at several different locations at the site. No particular workshop or activity areas for antler working were identified. Although in limited number, all stages of the manufacturing were found, from prefabricated blanks for tooth plates and connection plates, to smaller worked fragments. A total of three more or less complete combs were found. In addition, remains of another nine combs were encountered.



Antler, and different pre-fabs and waste materials related to comb-production at the site.

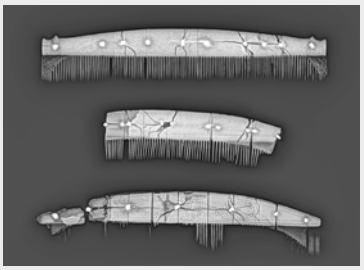
From the hunting grounds to the outside world

Like the rest of Norway, the mountains surrounding Bjørkum is literally dotted with constructions for mass trapping of reindeer. At the transition to the Viking Age the hunt intensifies and the antlers are increasingly removed from the kill and butchering sites. This can be related to a greater demand for antler as well as the development of new networks for exchange and consumption. However, until the discovery of Bjørkum, transitional sites for redistribution or acquiring these products were lacking.

Access to raw materials represents an important element in the organisation of craft production. Bjørkum offers a glimpse into the actors involved along the line from production to consumption. The preliminary results indicate that the Bjørkum combs were the products of specialists rather than local craftsmen. If the craftsmen were not hunters themselves, Bjørkum, surrounded by reindeer hunting grounds, was clearly a good place to obtain high-quality antler.



Reconstruction of the Bjørkum site 800 AD. Bjørkum is located about 130 masl, around 20 km from Lærdal, Western Norway.



X-ray of the more complete combs from the site, revealing riveting techniques and construction.

Seasonal production

The lack of any well-defined workshops or activity areas at Bjørkum may be explained by the seasonal character of the site. The situational visits of the comb makers implied that they conducted the work on different locations at the site, including subsequent re-visits.

The language of the comb maker

Even though the find assemblage is small, the combs themselves really stand out compared to other Viking Age workshops and other contexts with combs. The quality and overall aesthetics demonstrate that the Bjørkum combs are luxury or display combs produced at the highest level of craftsmanship.



Type A comb, in situ. A-combs have their origins and main production in Norway and parts of Sweden. However, these items had an extremely wide distribution from Starja Ladoga in Russia to Hedeby in Germany and Jarlshof in Shetland,

A connection point

Bjørkum represents a connection point between the trapping systems and hunters in the mountains and the distribution networks covering Northern Europe. While the manufacturing of combs was never of any great scale, the site can easily be envisaged as a place for re-distribution of high quality antlers from the mountain areas as well as small scale production of high quality combs. This provides new information on how the different levels of exchange were mediated, the scale of local production and how it was integrated into the distributional networks of other prestige items in the Viking World.

Further reading: http://www.antiquity.ac.uk/projgall/ramstad328/



Layout Ragnar L. Barsheim, UiB

EXPLORING
THE MIDDLE AGES

The Evolvement of Summer Farming

A high number of house remains in the mountain areas of Sogn og Fjordane, Western Norway, provides new insight into summer farming from the Early Iron Age to the Medieval Period

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The house remains appear in the landscape today as structures of rocks and turf covered in vegetation, and they can be difficult to spot. The number of house remains at each site varies from one to around 20. Occasionally charcoal pits are found nearby the sites.



House at Bjørndalen where only three wall structures are visible, a feature typical for the Viking Period.

ABSTRACT

Despite its importance in Norwegian agricultural economy, the summer farming system, *støling*, has been insufficiently examined in archaeological research. There is therefore little knowledge about when and why the summer farms were established and how they changed over time.

During the last 40 years a high number of house remains interpreted as summer farms have been discovered in the mountain areas of inner Sogn. These are dated from the Late Roman Period to the Medieval Period.

Analysis of such sites revealed tendencies of a shift from a decentralized farming structure in the Early Iron Age into a specialized summer farming system in the Late Iron Age and Medieval Period.



Quantitative analysis

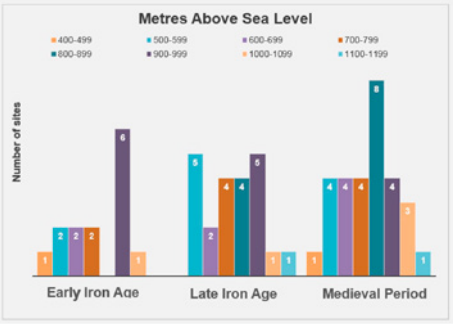
15 sites consisting of 62 houses and 38 charcoal pits have been dated in this study. Size, shape, composition and datings of these sites were compared to 32 other similar mountain sites in inner Sogn.

Findings

It appears that sites and houses dated to the Early Iron Age were generally greater in size, more solid in construction and established in areas that offer a broader resource base than sites from the Late Iron Age and the Medieval Period.

Pits from charcoal production are often found nearby the summer farms from the Iron Age, while in the Medieval Period these pits are more commonly located in separate areas.

In terms of positioning in relation to sea level, the sites from the later periods are placed at both higher and lower levels than the sites from the Early Iron Age.





Charcoal pits close to the house remains at Nystølen, Sogndal, dated to the Iron Age.

From versatile to specialized use

The findings could reflect a decentralized farming system in the Early Iron Age where the mountain farming economy was more similar to the economy of an annual farm as opposed to in later summer farming.

Furthermore they represent an evolvement towards a gradually specialized summer farming system in the Late Iron Age and the Medieval Period.

References

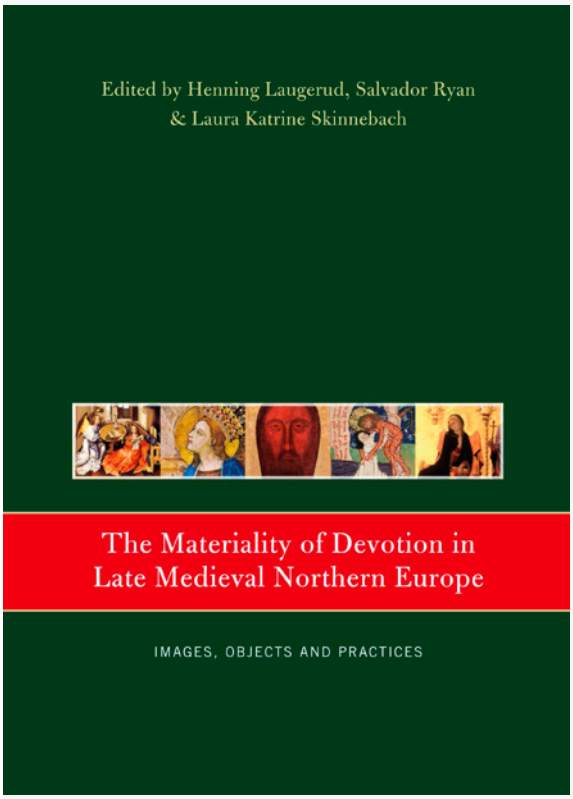
Hope, B. (2015). Stølsdrift i indre Sogn. Framvekst og utvikling frå eldre jarnalder til seinmellomalder. Master Thesis in Archaeology, University of Bergen, BORA.

EXPLORING
THE MIDDLE AGES

The Materiality of Devotions in Late Medieval Northern Europe. Images, Objects, Practices

The Devotional lives of Images, Texts, Artefacts and other *Instruments of Devotion* in Medieval Europe.

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This volume explores aspects of the devotional world of late medieval northern Europe, with a special emphasis on how people interacted with texts, images, artefacts and other instruments of piety at the level of the senses. It focuses on the materiality of medieval religion and the manner in which Christians were encouraged to engage their senses in their devotional practices: gazing, hearing, touching, tasting and committing to memory. In so doing, it brings together the ideals of medieval mystical writing and the increasingly tangible and material practice of piety, which would become characteristic of the period.

Four Courts Press. ISBN: 978-1-84682-503-3

With her sensitive fingers full of devotional instruments and media – a portable image of the Virgin and Child, a hand-size book, a string of prayer beads – St Hedwig of Silesia seems to owe her sanctity to this multisensory posture of piety. Miniature in the *Hedwig Codex*, Poland, 1353, *J. Paul Getty Museum*, Los Angeles, Ms. Ludwig XI 7, fol. 12v.



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A Dominican nun embraces the suffering Christ. Miniature on paper from a fifteenth century prayerbook. Strasbourg. *Bibliothèque du Grand Séminaire*, MS 755, fo. 1.

ENID

European Network on the Instruments of Devotion (ENID): www.enid.uib.no

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EXPLORING
THE MIDDLE AGES

The Medieval Cathedral of Sai, Sudan

On Sai Island in the Nile in northern Sudan are the ruined remains of a medieval cathedral. We are excavating the cathedral site and explore its wider cultural and religious contexts.

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INTRODUCTION

Sai is a large island on the Nile with a length of 12 kilometres. The island has a strategic position in Nubia – the land between Egypt and the Mediterranean world to the north and the African heartlands to the south.

Our investigations of the medieval period (*c.* 500-1500 CE) on Sai started in 2009 with an archaeological survey of the whole island, and we identified numerous medieval and later sites. We also made a catalogue of all the medieval objects already uncovered by the French Mission working on Sai Island since 1969. Our excavations of the cathedral site started in 2010, and this work is planned to continue in collaboration with several colleagues from 2016.

Our research on Sai is interesting because it throws light on the religious transitions from paganism to Christianity and then to Islam. We also explore the manifold influences on the religious practices as well as on the architecture of the cathedral and other buildings.

The cathedral of Sai

Medieval written sources mention a bishopric on Sai, and nine inscribed funerary epitaphs of bishops have so far been uncovered on the island. On this basis, the ruin called site 8-B-500 has been proposed as the medieval cathedral of Sai. The site is located 1250 metres northwest of the medieval fortress, and the identification is based on the existence of four granite columns and fragments of red bricks.



The earliest church

In the late 6th century CE in Nubia, several basilican churches were built of sandstone or red bricks. These five-aisle buildings were the earliest churches, and they were built on Egyptian models by church or civil authorities. In the fortress of Sai, we have identified numerous architectural spolia from a sandstone church of this type.

The granite columns

The ruin of site 8-B-500 consists of monolithic granite columns. Such columns were used in the building of churches – mainly cathedrals – in a second phase of church-building in Nubia during the 8th century CE. This phase was the result of Nubian creativity and started with the building of a new cathedral at Old Dongola, the capital of the kingdom of Makuria, into which Sai had been incorporated since the 7th century CE.

The bases

Three column bases are located north of the columns of site 8-B-500. Our excavations around the bases proved that they were ex situ and not part of any building at their present location. A fourth base of similar granite and dimensions has been located ex situ inside the fortress of Sai. All four bases on Sai are characterised by a rectangular plinth with a conical carcase.



The shafts

None of the four granite shafts at site 8-B-500 reveal their total length, but all stand to a height of *c.* 2,5 metres above the surface. Based on parallels with other Nubian cathedrals, the total heights are probably between 3,4 and 4 metres. Below the top of the shafts is a moulding consisting of a simple band. It is uncertain whether the shafts on Sai are placed on bases or not. The existence of four ex situ bases, but no abandoned shafts or capitals, suggest that the church at site 8-B-500 was not the original location of the building of these granite columns. The fortress is a more likely setting for the 8th century cathedral of Sai.

The capitals

Site 8-B-500 is the only place in Nubia where the capitals are still found placed on top of the column shafts. All four capitals conform to a type found at similar cathedrals in Nubia. This type is characterized by an undecorated square abacus panel, flat volutes decorating the overhanging corners, while the central elements consist of various cross motifs.

Two of the capitals on Sai have an intriguing central element forming an equal-armed cross with a v-shaped indentation of the arms – also known as an eight-pointed star/rose. We are currently working on a paper about the origin and symbolism of this cross-form.



SUMMARY

We seem to identify at least three building phases for the most important church on Sai Island. First, an early cathedral with architectural elements in sandstone that probably was located in the fortress. Second, a Makuritan style cathedral with four to eight columns located either in the fortress or at site 8-B-500 and dating to the early 8th century CE. Third, a late cathedral at site 8-B-500, where four granite columns were reused in a church with a central cross-shaped plan covered by a central dome and barrel vaults over the crossing aisles. It is the ruin of the latter structure that is still visible today. Only further excavations will be able to prove this working hypothesis based on the examination of the granite columns on Sai..

REFERENCES

Hafsaas-Tsakos H. & A. Tsakos, 2009 First Glimpses into the Medieval Period on Sai Island, *Beiträge zur Sudanforschung* 10, 77-85.

Hafsaas-Tsakos H. & A. Tsakos, 2012 A Second Look into the Medieval Period on Sai Island, *Beiträge zur Sudanforschung* 11, 75-91.

Hafsaas-Tsakos H. & A. Tsakos, in press Nubian cathedrals with granite columns: A view from Sai Island.

ACKNOWLEDGEMENTS

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EXPLORING
THE MIDDLE AGES

The Medieval Country Church

Space, Art and Devotion in Rural Contexts – European Perspectives from Below

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CULTURAL UNITY

Like nowhere else, Europe's cultural history materializes inside Medieval churches. Before the Reformation, when all of Western Europe was still religiously unified, a tightly-woven network of church buildings was established, of which thousands remain standing until the present day.

In their interior settings, besides local characteristics, these medieval churches show remarkable similarities in terms of spatial distribution and imagery. A Portuguese traveller, on visiting a country church somewhere in Finland around the year 1500, would have had no difficulty whatsoever understanding the purpose of the different liturgical furnishings and vessels, and would have immediately recognized the meaning of the imagery on altars, fonts, walls and vaults.

In this sense, medieval church interiors remind us today of our common ground as Europeans.

Rural treasures

Since 1998 I have travelled throughout Western Europe studying hundreds of rural parish churches. It is in these often – but not always! – modest establishments especially that medieval furnishings have been preserved *in situ*. In spite of these unique characteristics, village churches have remained largely ignored by international scholarship in art history. Areas of special interest to me include the Netherlands, Spain, Germany and Scandinavia.


Ranworth, England

Functional approach

Moreover, as a trained theologian, I adopt a different approach in my analysis of church interiors in focusing on functional aspects. Rather than treating objects and images anachronistically as 'art', my primary interest is in their function in liturgy and as bearers of religious ideas. In this way, it is my conviction that a deeper understanding may be gained beyond the 'what ' into the 'why' of medieval objects.

Bergen Museum

On 1 January 2016 I will start working as Associate Professor of Cultural History at the Bergen Museum, specializing in the material culture of Christianity. The church art collection of this museum is of European significance since it includes many unparalleled medieval cult objects originating from Norwegian country churches. Helped by a relatively mild Lutheran Reformation in the sixteenth century and the preserving isolation of the region along the Norwegian west coast, this unique collection was started as early as 1825, prior to large-scale renewals in the 19th and 20th centuries.

European context

My future research is aimed at exploring the European context of the Bergen Museum collection by studying connections to churches and museums elsewhere – from Nordland to Sicily. Unexpected parallels may be found in Spanish Catalonia; together with Bergen, the museums at Barcelona and Vic possess the largest number of painted frontals and baldachins in Europe. Other points of comparison to other regions include the Reformation in its Lutheran, Anglican and Calvinist 'flavours' and the geographical location bordering the North Sea, which enables connections to be made to Britain, Germany, and my native Low Countries.


Treytorrens, Switzerland


Melrand, France

Today's Challenges

Large-scale secularization has made the future of much of Europe's religious heritage, including medieval churches and their furnishings, insecure. Dissemination of research beyond academic circles is of utmost importance for their preservation. In my Bergen position I will continue to be active in outreach and educational projects as well as in public debates about such topics. For a sample (in Dutch), see: www.ivcce.nl and www.protestantsecultuurschatten.nl


Barlingbo, Sweden


Krewerd, Netherlands

EXPLORING THE MIDDLE AGES

The Older Rune-Stones Reconsidered

Scandinavian rune-stones from the Migration and Merovingian Period were not just about magic and commemoration. Their purposes seem rather connected to order and power.

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ABSTRACT

Pre-Mediaeval Scandinavia, especially in pre-Viking Age times, is not that rich in written sources. Still, it has outstanding contemporary sources: runic inscriptions.

My MA-project builds upon recent discussions of orality & literacy, taking memory theories as a basis from which to shed new light on the material.

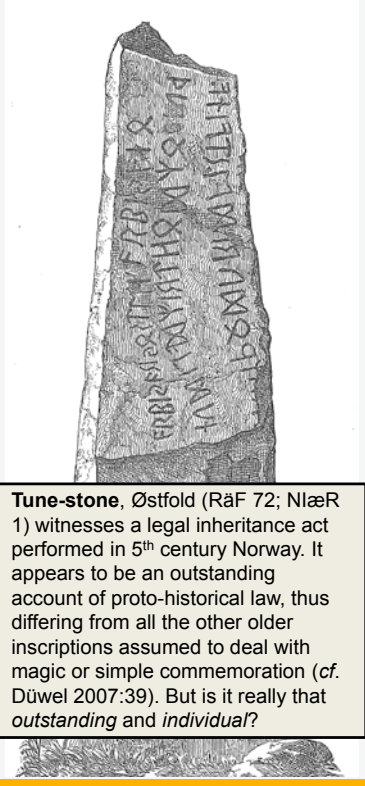
The project focusses on the *c.* 50 preserved Norwegian and Swedish rune-stones with inscriptions in the older fuþark. These sources in stone shall be re-located in their geographically and socially determined cultural contexts, as far as known, and by a comparison to other types of monumental stones.

Thus, the thesis aims to gain a holistic picture of the role and place of raised stones in Northern societies together with their function(ing) within the realms of belief, law and history.

The runic material

My MA-thesis deals with the Norwegian and Swedish rune-stones with inscriptions in the older fuþark. The primary corpus thus consist of *c.* 50 stones.

The focus is not a linguistic re-evaluation of the inscriptions, but historical contextualization focusing on their communicative purposes and functional matters. A comparative approach is therefore applied to the sources.



Tune-stone, Østfold (RäF 72; NIæR 1) witnesses a legal inheritance act performed in 5th century Norway. It appears to be an outstanding account of proto-historical law, thus differing from all the other older inscriptions assumed to deal with magic or simple commemoration (*cf.* Düwel 2007:39). But is it really that *outstanding* and *individual*?

Comparative analysis

In the first main part these stones will be compared to other (stone) monuments. How do they relate to each other?

Picture-stones

Picture-stones are mainly known from the Island of Gotland. Due to reasons of comparability and limitation, following criteria are applied: a) not fragmentary; b) not 'blind'; c) known context of the find, d) contemporaneous.

Bauta-stones

Similar criteria apply to so-called *bautasteinar*. Since the corpus is not fully published, their usability is limited to more or less random sampling.

Other types of monuments

Other monuments are referred to, where relevant. This primarily means mounds, stone-cists and different stone-settings.

Written sources

In the second main-part these different forms of monuments are analyzed according to their role (simple appearance, narrative function, discussion) in written sources. For this purpose a corpus of different texts is analyzed. Single episodes naming and/or describing such monuments are discussed. This part of my work aims on gaining a general impression of the role of monuments in written sources.

Legends & Lists

An overall focus will be on texts like *Íslendingasǫgur*, Eddic Poetry, *Fornaldasǫgur*, *Beowulf*, dealing with different types of past. What images of monuments are created here? In addition to that, *þulur* and other wisdom-poetry are of interest. What do these imply about strategies of legitimization and historization?

Law & Legacy

One of the older rune-stones refers clearly to its functional context, which is the regulation of inheritance (*cf.* the Tune-stone to the left). Therefore a special focus will lie on legal sources.

Here we find clear links to oral institutions of memory (*cf.* Brink 2014) and physical property-markers.



UUB MS *B 49 Hälsinge-Law.* This as other laws names special witnesses (here *minnunga mæn*) to know about ancient lineage, heritage and border-markers.

Runes? Rights? Religion?

As J. Assmann (1992) has put it, writing at an early stage deals with order and storing (memory), not necessarily by means of administration, but rather in terms of ontological and social order (law & religion).

This is why I assume that a less linguistic approach will bear fruitful results. Thus, I will combine philological methods with runological examinations and the study of archaeological data.

What do the sources of stone tell us? As far as my research to this point suggests, they support the hypothesis that it is not simply magic and/or commemoration they deal with. Rather, they are much closer connected to matters of power and possession.

REFERENCES

Norges Innskrifter med de ældre Runer, 4 vols., ed. by S. Bugge / M. Olsen, Christiania 1891-1924. *Runeninschriften im älteren Futhark*, ed. by W. Krause / H. Jankuhn, Göttingen 1966. Assmann, J.: *Das kulturelle Gedächtnis*, München 1992. Brink, S.: 'Minnunga mæn', in: S.J. Mitchell et al. (eds.): *Minnin and Munnin*, Turnhout 2014. Düwel, K.: *Runenkunde*, München 2007.

ACKNOWLEDGEMENTS

I want to thank my supervisors, Helen F. Leslie-Jacobson (UiB) and Kristel Zilmer (HiB) and all other commentators on earlier stages of my project. Special thanks goes to the University Museum in Bergen and James Knirk at the Runic Archive in Oslo for granting me access to their collections of rune-stones.

EXPLORING
THE MIDDLE AGES

The Polychromy of Longobard Stuccoes

A reconstruction of the lost colours of the female figures in the *Tempietto Longobardo* at Cividale del Friuli in NE-Italy, c. 750/70, in 2011 inscribed on UNESCO's world heritage list.

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ABSTRACT

The small 'Tempietto Longobardo' at Cividale is a palatine chapel, richly decorated by local and Byzantine artists with architectural sculpture, paintings, mosaics (lost) and stuccoes. The poster presents experimental reconstructions of the polychromy of the large-scale stucco figures.

Most antique and medieval sculpture was painted. The Tempietto stuccoes were both **polychrome** and **polymaterial**: ornamental bands still contain glass, and the female saints' ears are pierced for the insertion of earrings. Incised details on garments set off areas of different colour. Stucco is a lacklustre material that calls for painting or gilding. But only slight remains of red on eyes and lips, recorded by earlier scholars, can still be attested by autopsy (2010).



Method

Since most traces of the original colour are lacking, reconstructions must take their point of departure in analogy. Suggested colours for garments and insignia are based on representations in mosaic and painting, incl. the Tempietto's Byzantine wall-paintings (yellow ochre, blue, green, purple, red), textile remains, literary descriptions and colour conventions.

Results

The background was most likely blue. It seems certain that deep purple and golden yellow were prominent, but precise colour combinations, hues and saturations are open to discussion. The hypothetical reconstructions aim to suggest various possibilities and to visualise how paint transforms and enriches the figures.

Reasons for colour

Colours draw attention to content. Without colour it is difficult from a distance to distinguish individual dress items (up to five layers), ornaments and insignia. Colour is required to show the splendour of the aristocratic attire. Most importantly, colour and possibly gilding stress the status of the cross- and crown-holding figures as saints.





REFERENCES

B. Kiilerich, Colour and Context: Reconstructing the Polychromy of the Female Saints in the Tempietto Longobardo at Cividale, *Arte medievale* n.s.VII, 2008:2 [2011], 9-24; B. Kiilerich, The Rhetoric of Materials in the Tempietto Longobardo, in *L'VIII secolo: un secolo inquieto*, V. Pace (ed.), 2010, 93-102; B. Kiilerich, The Polychrome Tradition and the lost Colours of the Cividale Stuccoes (forthcoming). Some of my drawings have appeared in: *Cividale del Friuli. Periodico di informazione dell'Amministrazione Comunale*, anno 7, n. 5/6, Dicembre 2009, 23; *Medioevo* n. 217, Febbraio 2015, 72.

ACKNOWLEDGEMENTS

Photos and colour reconstructions are by the author. © Bente Kiilerich.
Work in the Tempietto in cooperation with prof. emer. Hjalmar Torp, UiO.

EXPLORING
THE MIDDLE AGES

The Saturated Sensorium

Principles of Perception and Mediation in the Middle Ages.

Edited by: Hans Henrik Lohfert Jørgensen, Henning Laugerud & Laura Katrine Skinnebach

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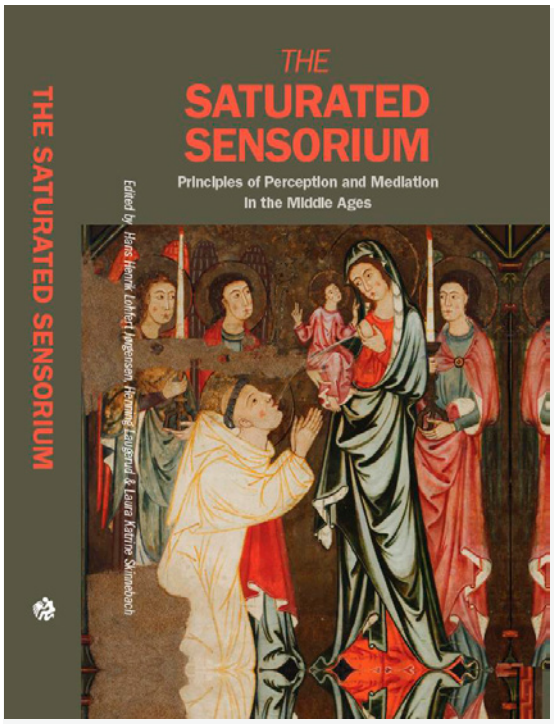


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Bidragsytere:
Hans Henrik Lohfert Jørgensen, Kristin Bliksrud Aavitsland, Brian Patrick McGuire, Jørgen Bruhn, Sigurd Kværndrup, Laura Katrine Skinnebach, Nils Holger Petersen, Madfs Dengsø Jessen, Tim Flohr Sørensen, Jette Linaa, and Henning Laugerud



Consuming a corpse, feeling a funeral, inhabiting a grave. Illuminations of the manuscript *La Estoire de Seint Aedward le Rei,* shows suppliants crawling into or lying inside the venerated tomb.
From *The Life of Saint Eward the Confessor.* Cambridge University Library, MS Ee.3.59.



A magnificent apparatus of display, itself magnifying the displayed exhibit into a holy reality. The upper chapel of Sainte-Chapelle, Île de Cité, Paris, c. 1250.

-This book addresses medieval modes of multi- and intermediality in material as well as immaterial culture and cultural history. It exemplifies the sensory and multisensory experiences sustained by medieval religion, art, archaeology, architecture, literature, liturgy, music, monasticism, miracles, cult, piety, love, eating, drinking, cognition, recollection, and burial. It ponders over perceptual practices performed as ritual, devotion, consumption (sacred or secular), memory, sanctity (in persons or percepts), church environment, sacramental imagery, romantic representation, and word-image-song-dance remediation.
-The Middle Ages integrated the human senses and unified their media into a culture of saturated sensation.
-The *saturated sensorium* nurtured principles of perception and mediation permeated with paradox, intersensorial entanglement, and multimodal interchange.
-The volume aims to saturate our sense of medieval mediation beyond established modern and classical categories of communication.



A multi-layered and inter-textual picturing of the multi-sensorial mediation of Grace – placed in the multi-sensorial environment of a dining hall.
The *Lignum Vitae*, The Tree of Life., framed by five other scenes. The rear wall fresco of the refectory in Santa Croce, Florence.

Painted by Taddeo Gaddi, c. 1350.

ACKNOWLEDGEMENTS:
The project and the volume; *The Saturated Sensorium*, was funded by: The Novo Nordisk Foundation, Aarhus University Research Foundation, Faculty of Arts and Humanities – Linnæus University and Department of Linguistic, Literary and Aesthetic Studies - University of Bergen.

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EXPLORING THE MIDDLE AGES

Tiber Traffic in Flux

The Changing Landscape of Rome's River Markets, 300-600 CE

The Tiber was essential in supporting the massive urban population of Rome. In this period, the supply system underwent radical change. Eventually, the city's rapid demographic decline led to the abandonment of most of the river infrastructure.

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A third-century tomb fresco from Ostia shows the river vessel Isis Giminiana being loaded with grain for the journey upriver to Rome. Source: Wikimedia Commons



The city walls and harbour districts of ancient Rome are superimposed on a satellite image of contemporary Rome. Source: NASA/ASTER

The Tiber was essential in supporting the population of Rome in 200 BCE to 500 CE. The strain of supplying up to a million inhabitants in a pre-industrial society necessitated harbour facilities of an unprecedented scale. The harbours transformed the banks of the Tiber not just into the largest port in the Mediterranean area, but also into the largest commercial and industrial zone of the ancient world.

The fourth century saw major changes in the range and distribution of products included in Rome's state-organised urban supply system (annona), which had major consequences for the harbours and river markets.

In the later fifth century Rome experienced a rapid demographic decline, which in turn led to the abandonment of most of the imperial river infrastructure.

A new system of urban supply

The distribution of grain and oil, previously concentrated at certain locations, spread out across the city in the fourth century. The pork dole was a novelty that became permanent at this time, necessitating yet another transportation, storage and distribution system in Rome. The same applied to wine, which also became heavily subsidized and distributed by the state.

A new urban market

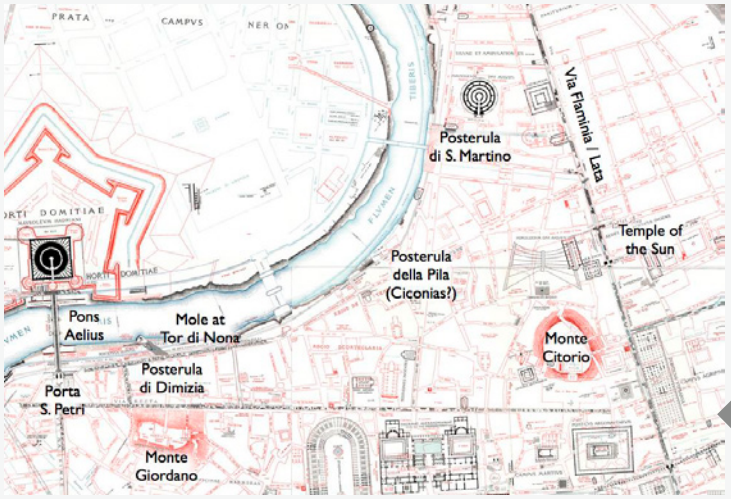
The new state responsibility for oil, pork and wine put increasing pressure on the authorities to obtain these products, which may have increased the economic scope for large-scale production of these provisions for the urban market. The Tiber Valley, upriver from Rome, was rapidly transform-ed in the fourth century from a majority of smallholdings to being dominated by large estates adapted to producing an increased agricultural surplus destined for Rome.

This might have been directly linked with reforms of the supply system and in turn increased the importance of Rome's inland harbours. This development may have been further reinforced in the fifth century, when major food producing areas such as Tunisia and Sicily were wrested from imperial control by the Vandals, making Rome more dependent on locally produced foodstuffs.

New distribution centres & refuse dumps

In view of the increased importance of produce from the Tiber Valley, and the more intensive use of the harbour facilities in the northern Campus Martius, it is not surprising to find mounds of discarded amphorae, dating to the fourth and fifth century, accumulating near two of these inland harbours. The mound of Monte Giordano is close to the excavated harbour at Tor di Nona. Monte Citorio (now the site of Italy's parliament) lies 250 m from the presumed harbour of Ciconias.

The new storage and distribution centres for the reformed annona can also be found close to the inland harbours in the northern Campus Martius. Wine was stored and distributed from the Temple of the Sun near Monte Citorio, with the Forum Vinarium probably nearby, while pork was also doled out in the vicinity, at the Forum Suarium.



New harbours, markets and refuse dumps marked out the northern Campus Martius as the commercial centre of late antique and early medieval Rome. Source: Lanciani, Forma Urbis Romae.

Decline of the Tiber Traffic

In the later fifth century Rome experienced a rapid demographic decline. This development was characterized by the abandonment of most of the imperial river infrastructure. Most of the southern harbours went out of use. The inland harbours were less affected, but probably also experienced much less traffic, as the ties between Rome and the Tiber Valley were weakened. Specialized river vessels for transport of bulk goods are also not attested after the first decades of the century. Without the resources of the Empire, the supply system seems to have more or less collapsed during the fifth century. When Procopius visited Rome in the 530s, some parts of the system were still kept up, but in much diminished form.

REFERENCES
F. De Caprariis (1999) I porti di Roma nel IV secolo. In The Transformations of UrbsRoma in Late Antiquity (JRA) pp. 216-234.
S. Keay (2012) The Port System of Imperial Rome. In Rome, Portus and the Mediterranean (BSR) pp. 33–67
S. Malmberg (2015) 'Ships Are Seen Gliding Swiftly along the Sacred Tiber', in The Moving City: Processions, Passages and Promenades in Ancient Rome (Bloomsbury), pp. 187-201.
E. Tengström (1974), Bread for the People. Studies of the Corn-Supply of Rome during the Late Empire (Åströms förlag).

EXPLORING
THE MIDDLE AGES

Trade and Food – Animals and Plants

Bones and plant remains from the city of Bergen document local and foreign food and commodities

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ABSTRACT

Bones and plant remains show a combination of local trade, trade within Norway, and trade with foreign countries.

The bone assemblages are dominated by domestic animals, but also hunted animals are present - reindeer, bear, whales and seals – are found. Together with birds and fishes from the region, this shows utilization of natural resources from the coast to the mountains of Western Norway. There are no clear indication of foreign import in the bone assemblages. An unwanted intrusion from continental Europe was, however, the black rat.

In contrast to the zoological data, finds of exotics; like figs, walnuts and grapes, and arable weeds not growing in Norway, all indicate contact with the European continent. The region and hinterland of Bergen was also exploited – berries, nutshells and bog myrtle are commonly found.

A large number of samples, available for research in the future, are found in the collections at the University Museum, UiB.

Meat and animal products

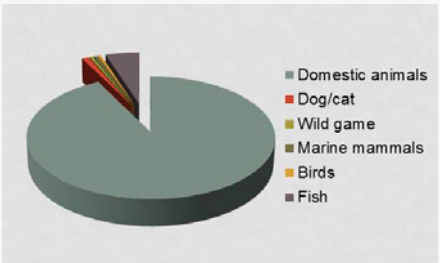
Domestic animals, probably from local farms, in particular cattle but also sheep and goat were the main source of meat in Medieval Bergen.



A few bones of whales and seals document that marine mammals were imported from the coast, possibly at some distance.

Hunted animals were also on the menu; bear, hare, red deer may have come from the near by region and reindeer from the high mountain area, possibly Hardangervidda. The animals were not only food; worked antlers of reindeer were probably for comb production and bones of large whales for other use.

Skinning marks show that the fur of the cats and most of the dogs in Bergen were utilized. The dogs were also cut up. It is not known, however, if people ate dog meat or if it was used for other purposes, i.e. for food to the trained birds of pray (falconry).



Surprinsingly, as Bergen was the "trade capital of stockf ish" relatively little fish was consumed. However stock fish was on the menu, imported from Northern Norway.

Cereals and plant products

such as fruits, berries and vegetables were commonly used.

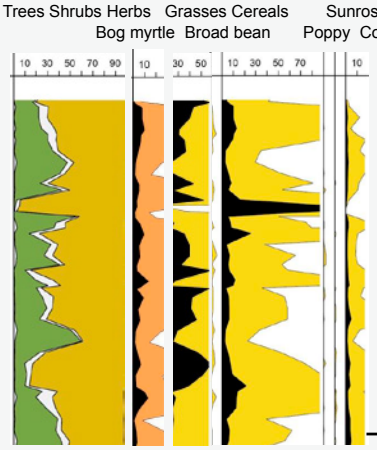
Porridge with figs, berries and honey?

A pot found in 16th century layers contained seeds of figs, cloudberry, strawberry and blueberry. Pollen was dominated by barley , outs and heather. This shows the combined use of imported exotics and locally collected goods, as well as trade within Norway.





Coring of sea bottom – an archive of organic refuse



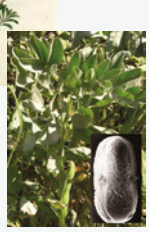
Historical sources document the importance of cereal import to Bergen in medieval time. Botanical sources document cereal import back to the 10th century by finds of poppy, sunrose and cornflower in the pollen record – species not natural in the Norwegian flora. Pollen of these have arrived with cereals to Bergen.


Poppy


Sunflower


Cornflower





Spices and vegetables

Bog myrtle is a local growing plant used as spice in beer, whereas broad bean has been imported to Bergen, but was probably also cultivated locally.

The black rat

The only "foreign" vertebrate species is the black rat; documented from the 13th C, the oldest documentation of the species in Norway.

REFERENCES

Hjelle KL 2001. Årbok for Bergen Museum 2000, UiB, 58–63
Hjelle KL 2007. Publications from the National Museum Studies in Archaeology & History 12, 161–179
Hjelle KL, Schjølberg E 1999. Arkeo, 47–51
Hufthammer AK 1987. Onsdagskveldene i Bryggens Museum-III, 59-71
Hufthammer AK, Walløe L 2013. J. Arch. Sci, 40, 1752–1759
Undheim P 1985. Hovedfagsoppgave, Zoologisk museum, UiB

EXPLORING
THE MIDDLE AGES

Two Farms as Social Arenas

Large grave mounds, rich burials and early churches are hallmarks of the Hove and Hopperstad farms in Vik, Sogn, symbolizing a thousand years of power and changing ideologies.

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Vik in Sogn
«*Sume bygder er so, at når ein står og ser ut over dei for å kjenna dei på pulsen, kan det leggja seg over landskapet ein eigen dåm eller farge som ein utan vidare kjenner på seg, som den fjorde dimensjon: tidi. Vik er ei slik bygd.*»
Eva & Per Fett: Det førhistoriske Vik. Bygdabok for Vik. 1951.



Vik and Sognefjorden. The farmstead and stave church at Hopperstad at the left. Hove lies just outside the photo to the right.

ABSTRACT

Vik in Sogn is extraordinarily rich in archaeological remains from the Iron Age and early Middle Ages (c. 200-1200 AD). Grave mounds, grave goods and churches on the two central farms Hove and Hopperstad are here discussed as symbols of power and ideologies linked to the farm as a social arena.

Early medieval farmsteads in the North were both work-places, homes and burial-places for the people who lived there.

A household on a large farm might therefore consist of people of varying social ranks and many different skills. During the 1000 years under study the composition of the households most probably became more international with increased contact with the outer world. An early indication of foreign impulses are warrior graves. Later there is ample documentation of trade with Christian lands, and finally, churches were raised on both farms.

Grave mounds

Huge grave mounds built from c. 350 to c. 550 AD are still sitting at the ridge of the topmost terrace in Vik, at the Hove farm. These monuments were built to impress. The building process, which would be very visible from the fjord and the rest of the settlement, must have been almost continuous during the c. 200 years.



Big monuments are universal symbols of power. In this case, the power seems to have been based on ownership of land and control over people.

Weapons are totally absent in the burials that these mounds were built for. But they do occur in later secondary graves, where they witness to influences from Germanic war-bands on the European continent.

Viking Age burials

The Hopperstad burials of the Viking Age were probably in most cases boat-graves, and not covered with mounds. But the grave-gifts were all the more luxurious. One of the many women buried here was buried with, among other things, a set of bronze and glass tableware – and a loom weight marked with a cross.



Farmers- warlords - priests

Over the centuries from mid-Roman till the Viking Age the ideology underpinning society changed from that of a land-holding elite to an ideology based on war and personal loyalties. A third influence now also became important, namely Christianity. The archaeological record shows that both farms had contacts in Ireland, which was in the Viking Age a Christian society. This contact was particularly strong at Hopperstad as demonstrated by the burial equipment shown above. The woman buried here might, in spite of her rich burial, have been a Christian.

Churches

The stave church at Hopperstad (cf. photo) and the stone church at Hove, are from the 1130ies and 1170ies respectively. The well-built church at Hove seems to be the first stone church in Sogn, and is as such exclusive even compared to the large stave church at Hopperstad.



Both farms probably had previous wooden churches from the 11th century. Our sources indicate that there might have been Christians on the farms before this official alliance between the new God and men was established. Would Christian slaves be allowed to tell about Christ? Would a Christian wife be able to build a chapel at the farm for private worship?

ACKNOWLEDGEMENTS

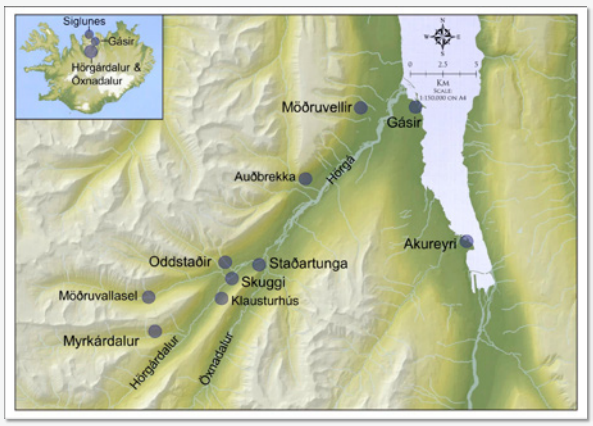
The text in this template is largely based upon the article "One thousand years of symbols, power and ideology on two West-Norwegian farms" (forthcoming).
- Image credit: S. Skare, the University Museum of Bergen (artefacts). Landscape and monuments: A.T. Hommedal.

EXPLORING
THE MIDDLE AGES

Uncovering Medieval Market Connections

Interdisciplinary Research on Regional and Trans-Atlantic Exchange in Iceland

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Eyjafjörður sites investigated (map credit: G. Pálsson, FSI).

Abstract: Archaeological excavations at the 14th Century trading site Gásir in NE Iceland's Eyjafjörður have resulted in a distinctive collection of artifacts and environmental remains. They have also developed into a regional research project. Gásir's integration into the local socio-political system and its connection to the international North Atlantic economic and political realm are major focus points of the Eyjafjörður Ecodynamics Project and the Siglunes Research Project. Site chronologies cover all of Icelandic settlement history. Earliest cultural deposits from Siglunes and Skuggi have calibrated C^{14} dates from the 9th/10th century AD.



Skuggi, V. A. folding scale, cu-alloy, 10th c. AD (photo: A. Kendall, CUNY).



Norwegian baking stone, Gásir (Gíslad. & Snæsd. in Roberts, 2010).



Emerging cod commodity production profile at multi-period Siglunes fishery site (photo: R. H).



Gásir, sulfur-rich pit feature (photo: W.P. A., U Stirling).

Research Questions:

- Status, wealth, and ethnicity of locals and foreigners.
- Nature of multi-scalar connections and exchange.
- Impact of international trade on rural Eyjafjörður.





Settlement sites: low status subsidiary farm at Skuggi (l.). High status chieftain farm with fishery site at Siglunes (r.) (photo: R. Harrison).

ACKNOWLEDGEMENTS: Research has been generously funded by the following US NSF OPP ASSP Grant Programs: IPY (0732327),CIE (1202692), DIG (0809033), by the Icelandic Heritage Fund (Fornminjasjóður), the American Scandinavian Foundation, and the Leifur Eiriksson Foundation. Thanks to Howell M. Roberts, Birna Lárusdóttir, Elin O. Hreiðarsdóttir, Aaron Kendall, Thomas H. McGovern, Andrew Dugmore, Orri Vésteinsson, Adolf Friðriksson, and the Institute of Archaeology, Iceland.



Siglunes, chess piece; fish bone, 13th c. AD (photo: H. M. Roberts).

Findings: Indications of change in regional agricultural system from Settlement time in 9th/10th c. to 15th c.; possibly due to international exchange via Gásir. Hinterlands seem to participate in wool surplus production, in cod fish export, and regional, high quality mutton and beef supply. Food ways and artifacts found at Gásir suggest cultural exchange.

A model of regional and international exchange emerges through ongoing and expanding research.

Methodology: Historical Ecology based on zooarchaeology; combined with material culture analysis, geoarchaeology, archaeobotany, archaeoentomology, biochemistry, historical economy, history, regional surveys, environment and landscape reconstructions, tephrochronology and soil micromorphology.



Gásir Gyrfalcons. http://www.birdfoto.fsnet.co.uk/gyrfalcon/gyrfight.jpg

REFERENCES: 1.Harrison, R. 2014. Connecting the land to the sea at Gásir: International Exchange and Long-term Eyjafjörður Ecodynamics in medieval Iceland. In Harrison, R. & Maher, R. (eds.). Human Ecodynamics in the North Atlantic: A Collaborative Model of Humans and Nature through Space and Time. Lexington Publishers, Lanham, Maryland, pp. 117-136. 2. Harrison, R. and H. M. Roberts. 2014. Investigations into the Gásir Hinterlands and Eyjafjörður Human Ecodynamics: Preliminary Field Report of the 2013 Skuggi and Staðartunga Excavations in Hörgárdalur, Eyjafjörður. Report: FS538-06384, FSÍ, Reykjavík and CUNY NORSEC, New York. 3. Lárusdóttir, B., H. M. Roberts, S. Þorgeirsdóttir, R. Harrison and M. Á. Sigurgeirsson. 2012. Siglunes: Archaeological investigations in 2011. Fornleifastofnun Íslands, FS480-11121, Reykjavík. 4. Roberts, H. M., ed. 2009. Gásir Post Excavation Reports – Volume 1. 2009, FS423-010712, Fornleifastofnun Íslands, Reykjavík. 5. Roberts, H. M., ed. 2010. *Gásir Post Excavation Reports - Volume 2*. 2010, FS450-010713, Fornleifastofnun Íslands, Reykjavík.

EXPLORING THE MIDDLE AGES

Where You From? Runic Name Tags

Trade-related name tags from Bryggen offer direct insight into Bergen's international and local trading relations. Archaeological remains and runic features locate the owner geographically.

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Inscription: **botlaifra** > *Botleif owns*
Origin of name: Gotland (Sweden)
"Geographic marker runes":
Rune 2 equals sound value /o/
Runes 4 and 9 equal sound value /a/
► runes used on Gotland
► Merchant from Gotland

Inscription: **þiþrik** > *Diedrich*
Origin of name: German
"Geographic linguistic markers":
Inscription is missing an **r** at the end of the name; usual form would be **þiþrikr**
► German merchant in Bergen?





Inscription: **þurhalara** > *Thorhall owns*
Origin of name: Iceland/Faroe Islands/Norway
"Geographic linguistic markers":
Rune 6 is a bind rune combining **a** and **r**
a is a svarabhakti vowel
Svarabhakti vowel **a** is common for Sweden and the East of Norway
► Where does Thorhall come from?

Information collected on individual objects is recorded in a database

INVENTORY NUMBER	NIYR	NAME	NORMALISED NAME	R_1	R_2	Æ FOR A	MISSING NOMINATIVE-R	SVARABHAKTI	LIND
BRM 17526	N 709	ifar	Ivarr	2					N, I
BRM 18628	N 750	þurhalar	Þorhallr	3a	3a			x	N, I, F
BRM 18710	N 724	samr	Samr	2					N, I, DK
BRM 19052	N 670	botlæifr	Botleifr	2		x			
BRM 19180	N 680	æirekr	Eirikr	4a	4a				AW
BRM 19517	N 673	þiþrik	Didrik	4a			x		A
BRM 19531	N 719	ormrik	Ormrik	2	2		x		

Runological and archaeological data are combined to find out more about trade: how, when, where did it take place?

INVENTORY NUMBER	NAME	OBJECT	SPECIFIC	UNIT	POS 1	STRUC 1	NO	POS 2	STRUC 2	POS 3	STRUC 3	POS 4	FIRE
BRM 17526	ifar	runepinne	name tag	L12	under	building	261	in	foundation	on same level as	floorboards	under	1248

ABSTRACT

As far as Botleif, Thorhall and Diedrich are concerned, there is little doubt that they were not local merchants. Linguistic and runic features of their name tags indicate that those three may have been tradesmen from abroad, coming to Bergen in order to conduct business.

For other name tags, though, evidence is not quite as clear. BRM 17526, once in possession of **ifar** (*Ivarr*), does not tell anything about its former owner. Here different types of evidence work together to create knowledge. *Ivarr* may not have had an outstanding name, but the archaeological data still tell us something about him: he was most probably a merchant (as evidenced by his name tag) who happened to be in Bergen some time before the city fire of 1248. His name tag was found in the foundation of a building situated close to the waterline which suggests that he may have had goods stored in said building. What they were, though, remains unknown. 30 years later Magnus Lagabøte issues a decree requiring all merchants to unload cargo and store it in houses before trading it, thus probably confirming an already existing practice *Ivarr*'s name tag can be seen as evidence of.

Abbreviations
NIyR = Norges Innskrifter med de yngre Runer, corpus edition of the Bryggen inscriptions
R_1/2 denotes the graph type of the *r*-runes used in the inscription
LIND = Erik Henrik Lind, *Norsk-isländska dopnamn och fingerade namn från medeltiden.* Uppsala 1921.
N = Norway; I = Iceland; F = Faroe Islands; DK = Denmark: AW = Old West Norse; A = Foreign

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EXPLORING
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Women, Gender and Material Culture in Medieval Bergen

Despite a strong male dominance, archaeological remains indicate the presence also of women at Bryggen in Bergen in the Middle Ages. Who were they and what did they do there?

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Solveig owns these threads… Was Solveig a business woman trading in textile production commodities, or were the threads for personal use? Undated label from Bryggen (BRM 0/30690) © Bergen City Museum

Abstract

The PhD-project *Gender and Material Culture. Women in Medieval Bergen* is one of few European in-depth archaeological studies whose main focus lies on women and gender in the Middle Ages.

The presence and role of women at Bryggen ('the wharf'), 1170–1476, are illuminated through gender-related archaeological artefacts. The complicated relationship between gender and material culture is also addressed.

A contextual analysis indicated that women were generally present throughout the investigation period, although to a continuously lesser degree. In particular, this trend sped up after the introduction of the German Hansa.

In all, the 'female' artefacts at Bryggen may increasingly be assigned women in the role of single servants and workers.

Bryggen – a male society?

Medieval Bergen was an administrative focus and international trading centre. It was dominated by single men, not least associated with the German Kontor at Bryggen from the 1360s, allegedly representing an exclusively male society.



Toy horse from Bryggen, 1248–1332 (BRM 83/4295).Toys bear witness to the presence also of children at Bryggen
© University Museum of Bergen

The archaeological record points to the presence also of women and children. High-standing business women and single female workers are known from written sources. But to what extent did women live at Bryggen, and did they come here as workers, or as wives and mothers?

Method

The archaeological data stem from the Bryggen excavations, 1955–1968. The spatial and temporal distribution of some 10,000 in situ artefacts related to women, men and children at six time horizons are discussed in light of their physical, historical and social context.

'Female' artefacts?

Gender, gender roles and gender systems may vary according to time, place and social strata. There is no inherent relationship between an archaeological artefact and its user. This complicates the interpretation of traditional gender-related artefacts.



A spindle whorl (BRM 1025) and a part of a baking slab (BRM 652) from Bergen. Both textile production and cooking were associated primarily with women in medieval Norway © University Museum of Bergen

In rural Norway, female activities were related to women's biological role and to the home. The medieval town may have represented a social arena where these roles could be challenged. In Bergen, an increasingly male dominance and a probable change of gender roles also challenge ideas of 'male' and 'female'.

This calls for a continuous evaluation of the artefacts in terms of gender. In the long run, though, it is argued in favour of durability and reproduction of the traditional gender system in this context.



The lady from Sandbrugaten, dated to the 13th or 14th century (BRM 3/497). Drawing: E. Hoff © University Museum of Bergen

Women at medieval Bryggen

The artefacts indicate that women were continuously present at Bryggen between 1170 and 1476, but to a lesser degree after c.1200.

The population was probably more of a local character in the early period, although it included people of different nationalities the whole time. This population may have included families with children.



Nuppenbecher shard from the wine cellar at Bryggen (BRM 76/26225). In the 15th century, 'female' artefacts were largely replaced by remains associated with a male drinking culture © University Museum of Bergen

After the establishment of the German Kontor, traces of women decrease dramatically. Indications of a high share of able-bodied boys add to the notion of an unusual demographic composition.

At the same time, foreign impulses come to characterize the material in earnest. This is increasingly dominated by ceramic remains related to a male drinking culture and higher social classes.

The women that are still visible in the archaeological sources now probably represent single servants, rather than wives and mothers – working for locals and not least for foreigners.

REFERENCES

Mygland, S. S. 2014. Gender and Material Culture. Women in Medieval Bergen. A contextual Analysis of Gender-Related Artefacts from Bryggen in Bergen, 1170–1476. Doctoral thesis in archaeology. University of Bergen

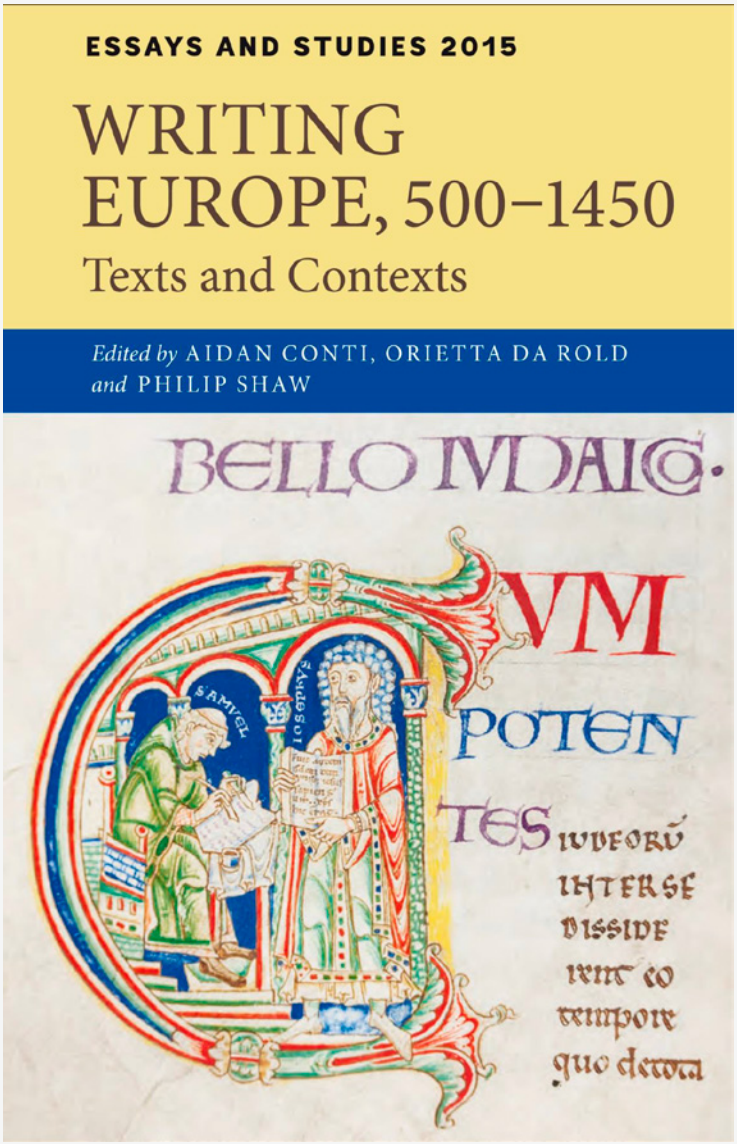
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EXPLORING
THE MIDDLE AGES

Writing Europe, 500-1450

How do social contexts for medieval writing transcend national borders and reflect local practices? From Spain to Scandinavia, Bulgaria to Britain, *Writing Europe* explores such questions.

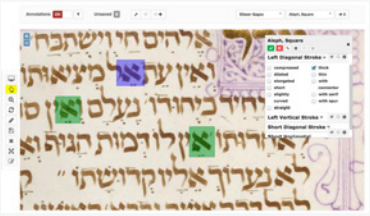
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A sophisticated market for the production and circulation of written texts characterized medieval Europe. Writers, readers and authorities reveal a concern for the establishment of local vernaculars as well as the elaboration of international forums for the exchange of religious, philosophical and literary ideas. Explorations of this textual culture fruitfully elucidate the prolonged and varied processes through which Europe and its constituent localities entered into modern reading, writing and communicative practices. This volume offers wide-ranging and specific case studies which explore how the textual cultures of medieval Europe developed and interacted with each other.

Manuscript Studies: A European Perspective

This book opens with a survey on the study of the manuscript book in Europe. Like many humanistic fields, the study of historical textual cultures has largely developed along national lines which has led to disparate approaches and focuses. This survey stresses the importance of common training programs and projects to strengthen cooperation amongst different traditions.



Sephardic script annotated in DigiPal

New Tools

DigiPal is a web-based framework for annotating digital images, interrogating the data and presenting results. In *Writing Europe,* project members show how the tool is used on databases of vernacular writing from England, Latin fragments from Scandinavia and Hebrew manuscripts from Spain.

Ways forward

As the study of the textual cultures of Europe becomes increasingly international, the comparative framework promises to expand globally. The East-West Technologies Project at Stanford University and its recent workshop in Beijing is one example of an emerging global perspective.

Contributing Studies

Individual studies in the volume examine the production of Giant Bibles in Italy to increase the visibility of the papacy in the 11th century; scribal notes in Frisian documents as evidence for European networks; the rise of anti-Jewish writing in England in the 12th century; the role of Latin composition in medieval Norway; literary translations as part of the prestige of writing in Welsh; the appearance of popular charms in Bulgarian prayer books; and how Roman letters were used to record English sounds.

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