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## There Is No Grail Code on the Kensington Rune Stone

By Richard Nielsen Revision 1, August 31, 2010

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#### 1. Introduction

On the Coast to Coast Radio program on August 9, 2009 Scott Wolter posted four photographs supporting his contention that there remains evidence for a code spelling Gral (grail) on the Kensington Rune Stone (KRS). This information is repeated in Wolter (2009a: 62-70) in his book titled *The Hooked X.* The observation that there might be such a Grail Code on the KRS was first discussed in Nielsen/Wolter (2006: xv). Since this book was published the two authors have gone their separate ways on matters concerning the KRS. Meanwhile Nielsen developed 3-D imaging capability on the KRS runes to overcome the staining problem

on the KRS caused by silicon rubber material applied in the spring of 2003. This staining has been reported by Weiblen (2008). This 3-D imaging, which is very detailed, shows that the grail code is not unique. These purported GRAL dots are ambiguous since there are also dots at the end of most chisel strokes on these KRS runes. Photographs from 1899 by John Steward (Blegen 1968: 44-46) also prove this point.

## 2. The Evidence for Runic Templates

In May 2008 Prof. of Scandinavian Languages Henrik Williams of Uppsala University, Sweden, and the author visited the Swedish Historical Museum Storeroom in Stockholm to observe Hemse G57 from Gotland. We were surprised to find that the inscription exhibited punches at the ends of the chisel lines. This medieval template confirmed what we had seen on photographs of the KRS.



Fig. 1: Hemse G57 from Gotland at the Swedish Historical Museum Storeroom in Stockholm.



Fig. 2: Prof. of Scandinavian Languages and Runology Henrik Williams of Uppsala University, Sweden noting the template dots in Hemse G57 in May 2008.

## 3. Three D Imaging of the KRS

The recording of white light 3-D images took place at the Runestone Museum in Alexandria, Minnesota on October 18, 2009, as seen in Fig. 3. The runic transliteration and Old Swedish translation on the KRS inscription is shown in Appendix A.

A prime advantage of 3-D imaging is that the captured surface can be seen from both the back as in Figure 4 as well as the face. 3-D imaging shows only the surface and the color shown is arbitrary. Figure 5-(a and b) are the same image, but Figure 5-(b) is color coded with graduations of depth as shown in the depth key in Fig. 5-(a1) below.



Fig. 3: Photo of Bill Mongon, President of Accurex, recording the white light images on the KRS face inscription at the Runestone Museum in Alexandria, Minnesota on October 18, 2009.



Fig. 4: 3D Imaging of the first word, *göter* (Götalanders) on the Kensington Rune Stone.

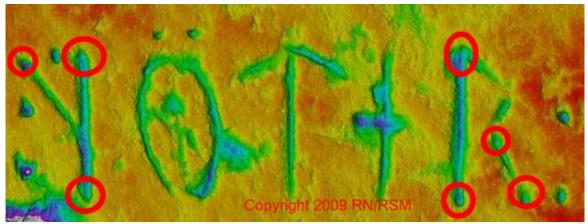
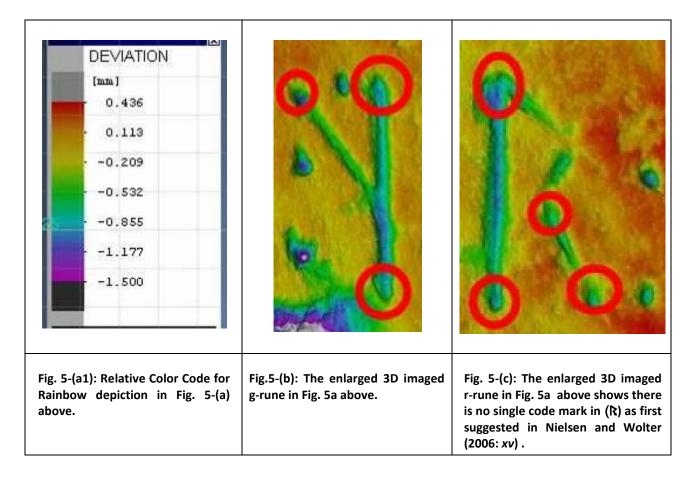


Fig. 5-(a): Enhansed 3D Imaging of the first word, *göter* (Götalanders). Depth is shown from dark red (shallow) to deep (white) as seen in Fig. 5-(b).



## 4. The First Photograph of the KRS.

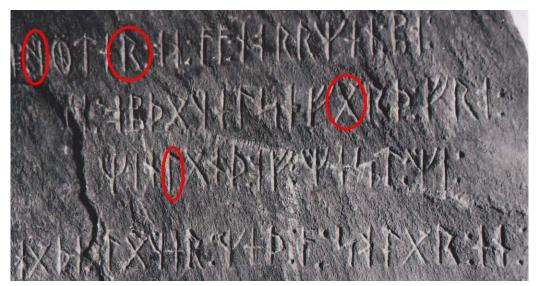


Fig. 6: The Upper half of the Steward Photograph of 1899 (Blegen 1968: 44-46). The Grail Code is marked with Red Ovals.

John Steward's foresight in making a photograph of the KRS in 1899 has proven to have provided a very useful tool to see evidence of damage to the KRS since its discovery. The photograph can be found in Blegen (1968: 44-46) and the original in the Royal Library in Copenhagen.

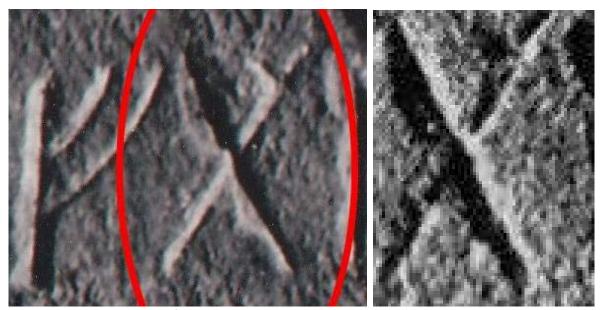


Fig. 7: The Steward photo of 1899 shows that the lower mark on the leg is a natural crack extension.



Fig. 8: The Steward photo of 1899 shows no mark on the l-rune (l). It is evidence of later damage.

Between the spring of 1899 and the time Ohman acquired the stone in 1907 the stone resided in an open feed shed. Mud is presently observed in certain chisel groves of the KRS that are open in the Steward photograph. This would indicate that the stone was stored

face down in the dirt floor at least part of the time. Comparing the photograph from 1899 to that of 1910 it can be seen that damage to certain runes has occurred. The stone needs a careful analysis of all photographs to record this type of damage.

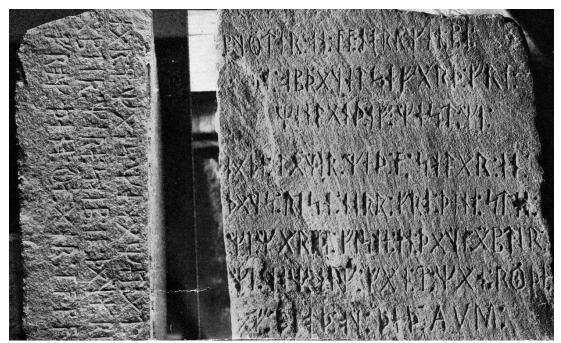


Fig 9: Adolph Donaldson Photograph of the KRS (upper half), Minnesota Historical Society (1915).

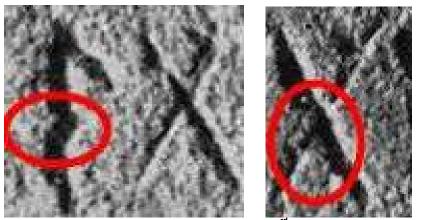


Fig. 10: Damage in the l-rune of "Vinland" by 1910 in 3<sup>rd</sup> row and damage to the arune in "fard" in the 2<sup>nd</sup> row, both runes shown in Fig. 9.

# 5. The Purported Gral (Grail) Code

		<b>-</b>
R	X	f
Fig. 8-(b): This photo shows no unique dot depicting a code. See Nielsen/Wolter (2006: 52)	Fig. 8-(c): This photo by Wolter (2002) of the a-rune shows just an original crack on the bottom left leg.	Fig. 8-(d): This photograph of the I-rune shows recent damage). See Nielsen/ Wolter (2006: 66).
Wolter (2009a: 62) Nielsen/Wolter (2006:52)	Wolter (2009a: 62) Nielsen/Wolter (2006)	Wolter (2009a: 62) Nielsen/Wolter (2006:66)
R	X	1
		Fig. 9- (d): The Steward
		photograph of 1899 shows no tick mark.
-		SHOWS HO LICK HIGH.
	Fig. 8-(b): This photo shows no unique dot depicting a code. See Nielsen/Wolter (2006: 52)  Wolter (2009a: 62) Nielsen/Wolter (2006:52)  R  Fig. 9- (b): All angles have been pre-punched as shown here by 3D imaging.	Fig. 8-(b): This photo shows no unique dot depicting a code. See Nielsen/Wolter (2006: 52)  Wolter (2009a: 62) Nielsen/Wolter (2006:52)  Wolter (2009a: 62) Nielsen/Wolter (2006:52)  Wolter (2009a: 62) Nielsen/Wolter (2006:52)  R  Fig. 9- (b): All angles have been pre-punched as shown here by 3D  Fig. 9- (c): This photo by Wolter (2002) of the a-rune shows just an original crack on the bottom left leg.  Wolter (2009a: 62) Nielsen/Wolter (2009a: 62) Nielsen/Wolter (2006)

Table 1: Photographs and 3D Imaging Showing No Unique Codes on These Runes Depicting GRAL.

Wolter (2009a: 62) states the following; "The first four characters that were singled out with either a punch mark or a short stroke by the carver (red) are "g," "r," "a," and "l. In medieval Old Swedish these characters spell "Grail". (Wolter 2002)."

Wolter (2009a: 62) has incorrectly placed his photographic reference at the end of this photo caption. No purported code was reported in 2002 by Wolter. It is *Graal* that spells "Grail" in medieval French (Nielsen and Wolter 2006: 540), but it is not known in Old Swedish. This first report of a purported grail code on the KRS occurred in Nielsen and Wolter (2006: xv). In 2008 Nielsen instituted a 3D imaging study with the Runestone Museum of Alexandria, Minnesota to study the punches on the KRS. It was already recognized then that the grail code did not exist on the KRS. This fact has been known to the Kensington Runestone Museum and Darwin Ohman, Grandson of the finder Olof Ohman, since July 2008. This was one reason the 3D Imaging was undertaken as I explained to the Minnesota Geological Survey in St. Paul, Minnesota on March 25, 2009.

#### 6. Conclusions

The evidence on the KRS shows that punches were used on then endings of runes to guide the chisel placements

The evidence presented above shows there is no case for a Gral code. The "GR" letters in **GRAL** (grail) have no unique code and the "AL" letters in **GRAL** (grail) have only tick marks caused by other means, one from an initial crack and the other from later damage.

# 7. Acknowledgements

The Kensington Runestone Museum in Alexandria is my partner it developing the 3-D imaging of the KRS. We hold joint copyright on all images produced by the 3D data base. Figures 4, 5-(a-c), 9-(a-b), A1, A4-a and A4-c contain these 3D images. The wisdom shown by the Museum Board in authorizing this project is much appreciated. The Data Base of the 3D imaging is owned jointly by Loraine Jensen and me. She deserves all the credit for getting this 3D imaging project funded.

The help and encouragement I received from Professor of Scandinavian Languages Henrik Williams of Uppsala University on the occasion of my visit to Uppsala in May 2008 and his subsequent academic support on this project has been the key to the developments shown here and the work currently underway. I also wish to thank Celeste Beam, of Echo Pres of Alexandria, MN for the use of Fig. 3.

#### 8. References

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- Nielsen, Richard (2008) "Proposal for a Laser Imaging Study of the Kensington Rune Stone," Report to the Runestone Museum, June 2008. See Appendix B.
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- Wolter, Scott F. (2002) "Photo-Library of the Kensington Rune Stone Inscription," CD for Rune Stone Museum: Alexandria, Minnesota.
- ----- (2009) Four photographs for GRAL placed on the Coast to Coast Radio site, August 9, 2009.
- ----- (2009a) The Hooked X -- Key to the Secret History of North America. North Star Press of St. Cloud, Inc: St. Cloud, MN.

## 9. Appendices

## **Appendix A: There Are No Palatal Dotted Rs on the KRS**

The fact that GRAL is not denoted on the KRS can come as no surprise. It has been known since Nielsen (2008), a document attached here as Appendix 2. It was also reported to Darwin Ohman, Jim Adam, Prof. Paul Weiblen, and Loraine Jensen in July 2008 at the Minnesota Geological Survey in St. Paul, Minnesota. This was explained again at a presentation at my Minnesota Geological Survey, St. Paul, on March 25, 2009.

It can be shown that the purported dotted R ( $\mathbb{R}$ ) in wa $\mathbb{R}$  (were) is a result of atool mark. The same is true for nor $\mathbb{R}$ men (Northmen). Figs. 12, 13 and 14 show that the purported Rs in nor $\mathbb{R}$ men (northmen) and nor $\mathbb{R}$  (north) and va $\mathbb{R}$  (were) cannot be considered to be dotted Rs ( $\mathbb{R}$ ,  $\mathbb{R}$ ). As a result there are no palatal dotted Rs in the KRS normen (northmen), nor $\mathbb{R}$  (north), and va $\mathbb{R}$  (were). The 3D imaging was used to

check the entire candidate palatal Rs on the KRS and none were confirmed.



Fig. A1-(a): war (were) on the KRS in the Steward photograph of 1899 has two marks in the loop. Fig A1-(b) is the reverse 3D image exhibiting depth and two marks.



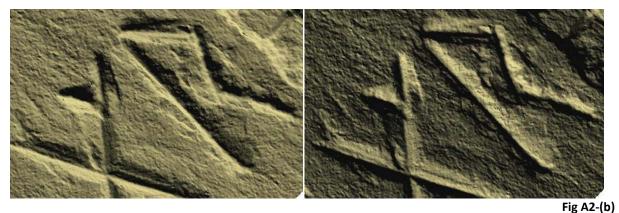


Fig. A2-(a) is the 3D image showing that the two marks appear to be tool marks and not punch marks. Fig. A1-(b) is the reverse 3D image that shows both marks are shallow and not punch marks.

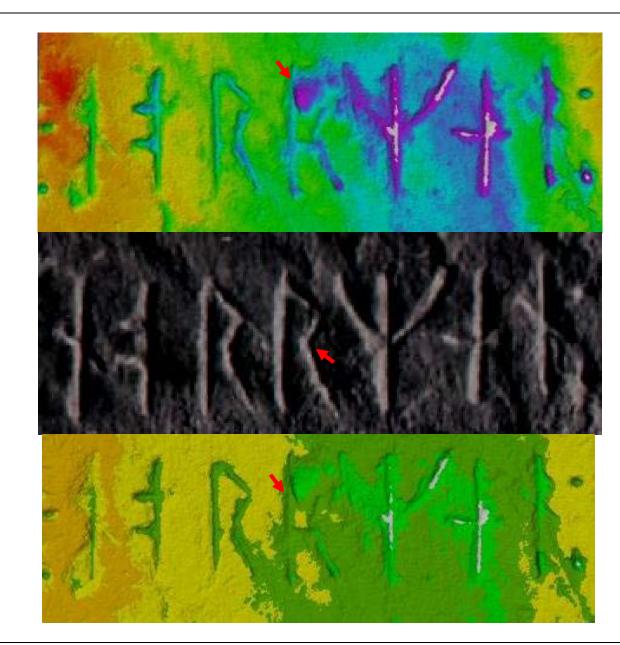


Fig. A4 (a-c). The second "r" in norrmen (northmen) denoted by the red arrow does not have a punch in the black and white Steward photograph of 1899 and consequently is not a dotted R. These two colored 3D images show the subsequent damage. There is no evidence for a punch mark in the 3D imaging of this rune.



Fig. A4: The purported dotted R in norR (north) could be a bottom word divider punch before the carver decided to add the second R. This punch was first noted by Wahlgren (1958: Inside cover). This makes this evidence ambiguous.

**Dotted Rs in Gotland:** An inspection in Gotland, Sweden of the purported dotted Rs ( $\mathbb{R}$ ) in Othem church (G282) and in Vestergarns Church (G192) shown in Nielsen/Wolter (2006: 57) was made by me in May 2008. This inspection showed that these Rs ( $\mathbb{R}$ ) to not have intended punch marks. Their marks do not have near the same character of the adjacent punch marks. They were simply chance marks and this confirms the previous work of the original Swedish runologists who inspected these inscriptions.





Fig. A5: Othem G282, and Fig. A6: Västergarn G192, show chance marks and not deliberate punches in the Rrunes. Neither inscription can be considered to have a dotted R rune (R).

Wolter (2009: 33, 61) now claims that the Gotlandic inscriptions, Urguda G70 from 1514 and Lye Church G 100 from 1449, have dotted Rs. This is in direct oposition to the conclusion in Nielsen and Wolter (2006: 55-6). The latest palatal R (A) in Gotland is recorded in c. 1400, as per Snædal (2002).

The runic inscription shown in Figure A7, contrary to Wolter (2009: 61), does not have a dotted R ( $\mathbb{R}$ ) and this is confirmed by Nielsen and Wolter (2006: 55). The purported dotted R rune ( $\mathbb{R}$ ) is a dotted thorn rune ( $\mathbb{R}$ ) and it suits the obvious translation of **guz byr** guz byr to "God's birth".

The end rune is a dotted thorn (\$\psi\$), as per Snædal (2002). It is shown as byr\$p\$ (birth) in Nielsen and Wolter

Fig. A7: Lye Church G 100 does not have the dotted R (\$\mathbb{R}\$) indentified by the arrow.

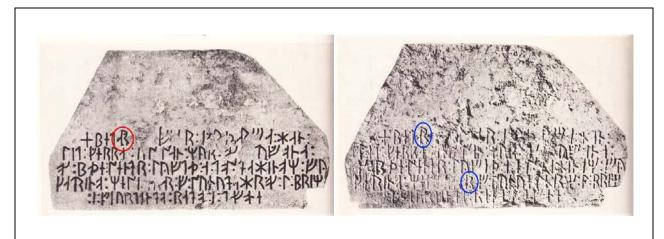


Fig. A8: Urgude G 70. The left photograph shows what are apparent dotted Rs, as circled in blue The right photograph shows a single interpreted dotted R in the name petar (Peter). In 1524 this is undoubtedly only a decoration

The runic inscription Urgude G 70 shown in Figure A8, contrary to Wolter (2009: 33), does not have the two dotted R ( $\mathbb{R}$ ,  $\mathbb{R}$ ) marked in blue. The single dotted R ( $\mathbb{R}$ ) is marked in red and this is rejected as a palatal R ( $\mathbb{R}$ ) due to its late date of 1514 in Nielsen and Wolter (2006: 56). Wolter (2009) makes dozens of departures from Nielsen and Wolter (2006) and always without reference or explanation. Figures A7 and A8 certainly illustrate that Wolter (2009) lacks proper referencing. Unfortunately it takes a lot of work to correct these myriad of errors and misrepresentations.

## **Appendix B: The Runic Lines of the KRS**

© January 2010 by Dr. Richard Nielsen and Prof. Henrik Williams,

- : Ba : 4+Yaak4 : 77 : kk : a+1@" : 4
- 8 : göter : ok : 22 : norrmen : po :
- Åtta göter och tjugotvå norrmän på
- Eight Götalanders and 22 Northmen on
- …4: 4BÞXY+FY+FXRÞ: FR4:
- ...o: opþagelsefärd: fro:
- (denna?) förvärvsresa från
- (this?) acquisition journey from
- ΨΙ۹ΓΧ۹Ρ : 4" : ΨΗΑΤ : ΨΙ :
- vinland : of : vest : vi :
- Vinland (i?) väst. Vi
- far west from Vinland

- hade : läger : ved : 2 : skLär : en :
- hade läger vid två ...??? en
- had a camp by two (shelters?) one
- ÞXŸԿ: RIԿ+: ¼₹RR: ¼₹4: ¼₹4: ¼₹4:
- dags : rise : norr : fro : theno : sten :
- dagsresa norrut från denna sten.
- day's journey north from this stone.
- vi : var : ok : fiske : en : dagh : äptir :
- Vi var och (= för att) fiska en dag. Efter (att)
- We were fishing one day. After
- I + 400 A : 1XY : P : 1XY : Y + x : Y + x : IY
- vi : kom : hem : fan : (10) : män : röde :
- vi kom hem fann vi tio man röda
- we came home we found 10 men red
- XY: BT4b: 4Y: b+b: XYY:
- af : blod : og : ded : AVM :
- av blod och död. Ave Maria
- from blood and death. Ave Maria
- PRX+r4+: XP: Irr4:
- fräelse : äf : illü :
- må frälsa från ondo.
- Save from evil.

- här: (10): mäns: ve: havet: at: se:
- (Det) är tio man vid havet för att se
- There are 10 men by the inland sea to look
- YBTIR: \(\Psi \) \(\Psi
- äptir : vore : skip : 14 : dagh : rise :
- efter våra skepp fjor ton dag(ars) resa
- after our ships fourteen days journey
- PR4Y: Þ+\4: \(\bar{\Omega}\)\*: X\*R: \(\bar{\PF}\)F
- from: theno: öh: ahr: 1362:
- från denna ö. År 1362.
- from this peninsula (or island). Year 1362.

## **Appendix C: Proposal for a Laser Imaging Study of the KRS**

# Report to the Rune Stone Museum, Alexandria, Minnesota, June 2008.

By Richard Nielsen © Copyright 2008.

#### Introduction

On April 20, 2008 I commissioned Jeff Roste to photograph the runes of the KRS in order to record the damage caused by the deposit of mold material residue [Silicon Rubber] on the surface of the KRS at the time a mold was made of the KRS in early 2003. The first enlightening find was that the dot at the right foot of the r-rune in **Göter** (Götalanders) was detached from the leg. This had represented the R in the first four assumed special signs on the KRS that before would have spelled GRAL. Clearly the punch indicated that it was placed as a pattern marker and GRAL cannot now be suggested.



Fig. 1: The r-rune in Göter (Götalanders), the first word on the KRS.

# The So-Called Signs on the G and R Runes in Göter

The r-Rune: A closer look at the KRS photo study below shows that the right foot-punch was meant for a pattern mark. Many of the other pattern punch marks on the rune are also clearly visible.

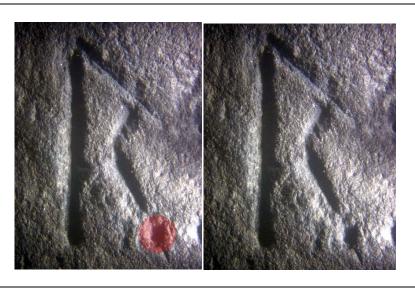


Fig. 2: r-rune in Göter (Götalanders) (Nielsen and Wolter 2006: book cover, 52)

The same situation applies to the left upper arm of the g-rune in Götalanders.

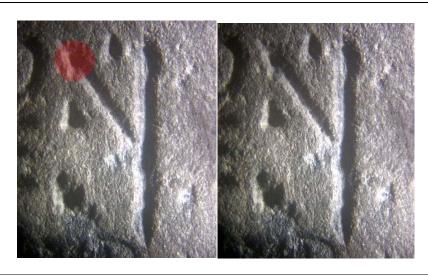


Fig. 3: G-rune in Göter (Götalanders) Nielsen and Wolter 2006: book-cover, 71).

These two runes, G and R, represent the general situation with all the runes on the KRS. On May 9, 2008, I went over my observation of these newly discovered dots and other observations on the KRS with Prof. Williams of Uppsala University and with the intention to propose a laser imaging study so as once and for all to identify the signs on the KRS.

## Investigation of Hemse G 57 in Stockholm

On May 19, 2008, I visited the Swedish National Museum storage facility located in Southwest Stockholm with Prof Henrik Williams to the purpose of examining Hemse 57 to determine if a reported spall mark could actually be meant for a dotted R. After determining there was no viable punch mark in the R-rune, Prof. Williams immediately noted pattern punch marks for the runes on Hemse 57 similar to those found on the KRS. Apparently this has been standard medieval practice, but it has not been reported before by anyone to the Professor's knowledge.

This feature speaks well for a medieval artifact rather than one carved in the 19<sup>th</sup> century, since this pattern requirement would not have been known in 1898 and would have to have been discovered independently.



Fig. 4: Prof. William's notebook notation of Hemse G 57, May 2008.



Fig. 5: Prof Henrik Williams at the National Museum Storage facility in Stockholm



Fig. 6: Hemse G 57 Runic Inscription from circa 1150 with some punch marks used as a pattern for the rune carver as indentified by the arrows. The carving yields the name Kairalf.

## A Proposed Laser Study

Prof. Paul Weiblen and I visited the Metropolitan Museum of Arts (Met) on the last day of March and the first day of April, 2008 in New York City. Our efforts to learn if the KRS could be cleansed of the damage from the molding process are reported separately to the RSM by Prof. Weiblen. The major benefit of the visit was to learn that the MET routinely scans objects in great detail to create a 3-D file that can be accessed by computer with the added ability to inject shadow from a light at an arbitrary azimuth and elevation.

Once the data has been collected, a 3-D carving of the KRS in any material and to any size is possible.

The advantages of this system are obvious. It is not costly. A full day is all that is required to capture the KRS in great detail with non intrusive

imaging equipment. The cost for this would be 3000 dollars plus travel and lodging and would be carried out by experts from the Met. The costs can be raised by outside subscription.

The imaging can then be accessed by a free down load reader program and this would enable for example Prof. Williams and me to collaborate on line and agree to what marks are actually on the KRS. The dots and marks on the KRS runes are each one important and at present photographs do not begin to cut the mustard.