

**Háskóli Íslands**  
**Hugvísindasvið**  
**Viking and Medieval Norse Studies**

**Dark Letters, Illuminated:**  
*Establishing a Catalogue and Initiatory Analysis for the  
Icelandic Post-Medieval Cryptographic Corpus*

Ritgerð til MA-prófs í Viking and Medieval Norse Studies

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## ABSTRACT

Seeking to shed light on the cryptographic tradition within Icelandic history, this thesis is centered around three goals. The first is to establish the presence of alternative alphabets (*villuletur*), henceforth referred to as ciphers, in Icelandic history from the period of the so-called Viking Age to the 20th century. The emphasis for this being on what can be known regarding the social perceptions of such scripts, as well as the general trends and changes in their usage as well as the general connection and shared history with runes. The second, and largest aim of this thesis is to create and subsequently present the first ever catalogue of formal, organized cipher entries found among what had been defined as the Icelandic Post-Medieval Cryptographic Corpus. Finally, from this catalogue an analysis is performed emphasizing the names and titles applied to the ciphers, with further examination regarding the visual characteristics of the scripts and their degree of overlap and relative variation. This thesis ultimately argues that through cautious analysis of the naming conventions found within the corpus, namely that of 'rúnir' and 'letur', clues to the origins and influencers of the cryptographic tradition in Iceland can be revealed.

Keywords : 17th Century, 18th Century, 19th Century, 20th Century, Alphabets, Ceremonial Magic, Cryptography, Early Modern Scandinavia, Grimoires, Icelandic Sagas, Letter Codes, Letters, Magic, Manuscripts, Material Philology, Runes, Scandinavian History.

## ÁGRIP

Í ritgerðinni er leitast við að varpa ljósi á sögu leynileturs á Íslandi og hverfist hún um þrjá þætti. Í fyrsta lagi er sýnt fram á að villuletur (e. *ciphers*) var tíðkað allt frá víkingaöld og fram á þá tuttugustu, og áhersla lögð á að hvað hægt sé að vita með vissu um viðhorf fólks til slíkra leturgerða, um notkun þeirra og þróun hennar sem og tengingu við rúnir og sögu þeirra. Í öðru lagi – og það er meginmarkmið ritgerðarinnar – er hér tekin saman og birt fyrsta skráin yfir formleg villuletur sem finna má í því sem höfundur skilgreinir sem heildarsafn íslensks villuleturs frá síðari öldum (The Icelandic Post-Medieval Cryptographic Corpus). Í þriðja lagi eru greind þau nöfn sem villuletrinu í skránni eru gefin og rannsakað hvernig þau tengjast útlitseinkennum letursins og að hve miklu leyti verður þar vart við tilbrigði og blendinga. Í ritgerðinni er því að lokum haldið fram að með því að greina nafngiftir leturgerðanna, þ.e.a.s. notkun orðanna ‘rúnir’ og ‘letur’, sé hægt skýra uppruna og leiða í ljós áhrifaþætti leynileturshefðar á Íslandi.

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## 1. INTRODUCTION

*Skalat maðr rúnar rísta,  
nema ráða vel kunni.  
Þat verður mörgum manni,  
es of myrkvan staf villisk.<sup>1</sup>*

-Egils saga, 72

*No man should carve runes  
unless he understands them well.  
Many men go astray  
around those dark letters.<sup>2</sup>*

When Icelandic hero, Egill Skallagrímsson delivers the above poem in chapter 72 of the classic *Egils saga*, he does so with a clear reference to often nefarious magic associated with the historical, alphabetical script of the various peoples in Northern Europe known as runes. Yet what this segment in particular reveals to the reader is that even in Egil's time, the hidden power and knowledge of letters appears to be well known. That is to say, runes as an alphabet held within them two purposes— one that was mundane and for daily use, and then something more secretive. We use letters every day without questioning them. Comprised of a basic series of lines and shapes, letters represent specific sounds which, ultimately allow us to write in a language that others can understand. A letter itself, is something defined as, “A symbol usually written or printed representing a speech sound and constituting a unit of an alphabet.”<sup>3</sup> Beyond this, an alphabet is simply a collection of letters.

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<sup>1</sup> *Egils saga Skalla-Grímssonar*. Hið íslenska fornritafélag, 2014.

<sup>2</sup> Translation is my own.

For Iceland, there have been two key alphabets used throughout the island's history: The current script as you read it here, known as the Latin alphabet and as is shared in varying degrees by most of the Western world, and then that of Egil's beloved runes. However, as numerous records are now known to show, this count is not entirely correct. Rather, a glance into the manuscripts produced in Iceland over the course of the Post-Medieval and Early Modern era shows that hundreds of unique alphabets have gone unnoticed by modern scholarship —letters and codes which can often show little resemblance to either aforementioned writing system. It is therefore the hope of this thesis, to shed light on state of these alternative alphabets, otherwise known as ciphers (*villuletur*), among the Icelandic corpus.

As there has been no significant study done with regard to Iceland's cryptographic tradition, the purpose here is to take the initiatory step towards understanding the state of the practice, and how the cipher scripts with their deep-rooted connection to secrecy, were perceived during their time. The original focus of this thesis was centered on the origins of the cryptographic tradition on the island, and the extent with which the alternative alphabets, and their apparent usage could be reasonably connected to the historical runic alphabet or if there existed evidence that the tradition was imported. However, as the relevant data set quickly grew to include numerous manuscripts spanning approximately five hundred years, it became clear that in order for such a study to be conducted, a detailed catalogue of cipher entries found within the Icelandic material record must first be generated.

Therefore, the primary intent of this present thesis is to provide an initial analysis of the Icelandic cryptographic tradition as found in the material record, concerning itself with manuscripts dating from the 15th to the 20th century in which some, but not all, suggest a correlation between the use of alternative alphabets (ciphers) and the historical usage of runes. It ultimately seeks to debate the extent with

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3 "Letter." Merriam-Webster.com. Accessed August 12, 2017.

which the cryptographic tradition stems from the runes of the so-called Viking Age, or a newer, traceable tradition.

Furthermore, as the Post-Medieval material record clearly states, these ciphers were referred to with varying degrees of terminology including predominantly the two categories of runes (*rúnir*) and letters (*letur*). Thus far, no analysis has been conducted attempting to understand whether these names were freely given or if they instead are suggestive of an unexplored social understanding of a difference in cipher scripts, beyond a simple matter of grammar. If for example, all ciphers given the runic attribute were physically similar to, or representative of, the classical Scandinavian runic system, this would suggest a visual basis of classification. However if ciphers more visually similar to Hebrew or Greek were given the category of ‘*rúnir*’ this then becomes problematic, thereby raising the question as to what the designation could it instead suggest.

The argument of this thesis is centered upon the exploration of a delineation based on two potential options. 1) ciphers whose naming attributes are related to a single source material that circulated in Iceland, influencing the tradition as it developed, or 2) ciphers whose naming attributes were suggestive of something else, such as whether their origins stem from Iceland ‘*rúnir*’, versus ciphers imported from abroad ‘*letur*’. The study therefore relies on a quantitative, visual analysis of the Icelandic Cryptographic Corpus, as well as a minor study in nomenclature. In short, I aim to argue that the origins and influencers of the cryptographic tradition in Post-Medieval Iceland can be discovered through an analysis of the naming conventions found in the cipher entries within the material record.

The need for the present study is paramount, as with such an extensive record in existence, little to no research has been conducted up to this point. The topic of ciphers and alternative alphabets within Iceland is one which touches numerous academic disciplines including but not limited to Icelandic culture, Icelandic history, Icelandic literature, the Sagas, linguistics, runes, and of course, manuscripts and material history. Previous studies regarding ciphers in association with magic and grimoire tradition in Norway and Sweden have been conducted by Ane Ohrvik, which has helped to reveal new understandings of Scandinavian textual history and cross-cultural exchange of magic and written tradition, and though useful such work remains disconnected from

the Icelandic tradition itself.<sup>4</sup> Within Iceland, the study of these ciphers has been likewise limited to their association with magic and their inclusion in magic books, or ‘galdrabækur. The primary example comes from Magnús Rafnsson, where in his work *Tvær galdraskræður*, he deciphered the encoded script of the Icelandic grimoire, Lbs 764 8vo.<sup>5</sup> However, aside from these limited cases, there has been no significant study or effort placed into recognizing the tradition as a whole, in particular beyond the realm of magic.

Furthermore, and as previously discussed, the cipher tradition as a system of letters connected to secrecy is a tradition with great overlap with runes. Nevertheless, while there has been no shortage of runological studies in the past few years, the field itself is more focused on early development and linguistics regarding the script, and is therefore lacking in regards to the later tradition. In the specific case of Iceland, Þórgunnur Snædal has examined the runes in relation to gender as well as their general presence, however again this work, though useful is concerned primarily with the past and runic artifacts.<sup>6</sup> However, Tarrin Wills has recently been at the forefront of research into the

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4Ane Ohrvik, "Conceptualizing knowledge in early modern Norway: a study of paratexts in Norwegian Black Books." PhD diss., Faculty of Humanities, University of Oslo (2012). Ane Ohrvik, "... For All Honest Christian and Science-Loving Readers." *ARV36* (1987): 7.

5 Magnús Rafnsson. *Tvær galdraskræður: Lbs 2413 8vo : Leyniletursskræðan Lbs 764 8vo = Two icelandic books of magic*. (Hólmavík: Strandagaldur, 2008).

6 Þórgunnur Snædal. "Rúnaristur á Íslandi". *Árbók hins íslenska fornleifafélags 2000-2001* (2003)

social perceptions of runes and their usage beyond the Viking Age and into the Early Modern era, of which this thesis owes a considerable degree of gratitude toward.<sup>7</sup> It is my hope that through this creation of this inaugural catalogue and subsequent analysis, that the door may be opened for future study to be done, and progress to be made in our understanding of this unique part of Iceland's history and the realm of Scandinavian cryptography.

## 2. DEFINING CIPHERS

So, what is a cipher really, and is it more than just a basic code? According to Simon Singh, a 'code' is a method of cryptography where the encryption is on the basis of word substitution, whereas a 'cipher' is on the basis of letters.<sup>8</sup> For a broader perspective, he breaks down the world of secret writing into two branches:

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7 Tarrin Wills. "The thirteenth-century runic revival in Denmark and Iceland." *NOWELE. North-Western European Language Evolution* 69, no. 2 (2016): 114-129. Tarrin Wills. "The "Third Grammatical Treatise" and Ole Worm's "Literatura Runica"', *Scandinavian Studies* 76, no. 4 (2004): 439-458.

8

Simon Singh. *The code book: the science of secrecy from ancient Egypt to quantum cryptography*. (Bridgewater, NJ: Distributed by Paw Prints / Baker & Taylor, 2009).

steganography, and cryptography. The first of which means to conceal messages within a text, or through the way of writing the text (similar to the aforementioned 'code'), whereas the second, cryptography, has come to mean an encryption on a letter basis. Though they are regarded as different, cryptography has come to encompass both as the larger, umbrella term. Cryptography and the use of letter encryption has a vast and varied history, with roots that are as extensive as the cultures and societies that used them. However steganography, holds its origins or at the very least, its popularization, with Johannes Trithemius' work, published posthumously in 1606. In his three volume text *Steganographia*, Trithemius writes about magic at face value, but on a hidden level explains the process and value of encoded text. For Trithemius, the art of encryption was the "...secular consequent of the ability of a soul specially empowered by God to reach, by magical means, from earth to Heaven".<sup>9</sup> As oddly religious as it may seem, this intersection in the role of ciphers and the divine is important to keep in mind, for his impact on authors such as Heinrich Cornelius Agrippa and Francis Barrett came into play later, as these figures are largely responsible for the rise in cipher usage among magic practitioners during the Early Modern era. But beyond this, Trithemius' work reveals what is at the core of understanding both ciphers and their potential brethren, runes; which is that secret alphabets are dualistic in their nature.

On one hand their intended value is the same as any other alphabet, mundane and practical. On the other, ciphers as they were, held a second meaning to them rooted in secrecy, and in some cases the condition of being a cipher could provide a magical or religious functioning power to letters. It is this esoteric aspect which lends itself to the magical association that so often comes with ciphers throughout history prior to Trithemius, and what is mirrored with Egil and his runes. It therefore begs the question as to whether runes can, or even should be considered ciphers themselves.

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Noel L Brann, "Trithemius, Johannes", in *Dictionary of Gnosis & Western Esotericism*, ed. Wouter J. Hanegraff (Leiden and Boston: Brill, 2006): 1135-1139.

### 3. DEFINING RUNES

There is admittedly much to discuss about runes, and a field of dedicated scholars have continued their exploration of the topic for hundreds of years. However, as there is a considerably great deal of information regarding the script, I aim to limit the discussion to only that which is relevant to the current study. As for its origins, Henrik Williams, in his article 'Reasons for Runes', discusses the potential sources for the runic alphabet, and admits that comparatively speaking the runic alphabet is a new one. A large part of the struggles associated with runic studies in particular is that the script is not associated with a culture known for its prolific literary achievements.<sup>10</sup> Iceland may have sagas, but the physical recording of the tales began centuries after the adoption of the Latin alphabet, despite earlier claims.

#### Historical Perceptions of Runes

From what is known about the usage of runes during the Viking Age, the fuþark system was utilized as an alphabet across Scandinavia as well as into Europe and consisted of two stages. The Elder Fuþark, or the original, was active until approximately the 8th century and consisted of 24 characters before transitioning into the shorter, Younger Fuþark of eighteen.<sup>11</sup> As the oldest alphabet for the system, the

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10

Henrik Williams, ed. "9. Reasons for Runes." *The first writing: Script invention as history and process*, (Houston, Cambridge University Press, 2004): 262-76.

11

Williams, 'Reason for Runes', 271.

Elder Fuþark can almost be viewed as the origin of the secretive nature of runes that carried over into later centuries. Evidence suggests that the fuþark experienced a shift following the Migration Period in the north, during which the usage of runes slipped into vulgarity. Prior to this shift, which is echoed by the reduction in characters that became the Younger Fuþark, the Elder Fuþark was a system that only the elite had access to. In short, runes appear to have been associated with the wealthy and those in power, as well as serve a secretive or more arcane purpose.<sup>12</sup>

The meaning of this is not to be missed, as it aligns with the imagery of the Norse God, Óðinn, the patron figure historically for kings as well as magic (*galdr*). In the ‘Rúnatala-páttur’ from *Hávamál*, which accounts for the origin of the runes, Óðinn is said to have drawn the runes up after sacrificing himself for the knowledge.<sup>13</sup> Furthermore, upon learning them, the story does not emphasize the rune’s value as letters from an alphabetic standpoint as one might expect, but rather it highlights instead that Óðinn has learned them primarily from the perspective of their magical worth. The 18 runic charms listed by Óðinn however, reflect the number of the Younger Fuþark, not the 24 runes of the Elder. This is likely because *Hávamál* as a poem was not constructed in the presently known iteration until the 13th century, well after the transition took

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12

Williams, ‘Reason for Runes’, 268.

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Bórður Ingi Guðjónsson, ed. *Íslensk Fornrit: Eddukvæði I Goðakvæði*. (Reykjavík: Hið Íslenska Fornritafélag, 1957): 250-251.

place.<sup>14</sup> From this count alone, *Hávamál*, though useful, is a source which should be taken with a healthy degree of skepticism.

I am not here to argue whether the limitation placed on the runes in their earlier stages is a result of this belief or not, but rather I hope to specify what this implies. Which is that the runes as an alphabet during the Pre-Medieval period in Scandinavia, were more likely than not viewed as having a deeply religious connotation, and were viewed as possessing a meaning inseparable from power and magic practice, though our understanding of this can only be known from sources created after the fact.

As I am inclined to believe, the dual nature of runes as is seen in the later Icelandic sagas is a reflection of this idea. If we are to consider that from the standpoint of social memory, the runes were known to have been inaccessible to most, then it would explain the later perception of them as both a writing system and as a magic system. The belief in the magic system, came first, before the common people gained usage of them, thus rendering the new alphabet more mundane while still possessing the social and cultural memory of them being something more secretive i.e. powerful.

In his study on books of secret in the medieval period, William Eamon argues that there are two spheres of secrecy related to writing and knowledge.<sup>15</sup> The first, is what can be regarded as ‘social secrecy’, which relies on the suppression of information

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John McKinnell, "The Making of *Hávamál*." *Viking and Medieval Scandinavia* (2007): 75-115.

15

William Eamon. *Science and the secrets of nature: Books of secrets in medieval and early modern culture*.(Princeton University Press, 1996): 11.

so as to safeguard the content against outsiders, or those without the shared social and cultural background knowledge to know how to handle the information correctly. In other words, to avoid what Eamon calls ‘corruption’ on the basis of ignorance. This is the very reason behind ciphers usage even today, and their usage in the political courts and secret societies of the past. In the case of runes, this implication of corruption is something which we see quite clearly in the saga literature, namely Egil’s saga, and the segment referenced at the start of this thesis.

In chapter 72, Egil states an understanding of runes having a power linked to them, which provoke danger when used or written without the proper social background or education, to understand them. In many ways this echoes the ideas of Eamon, as well as esotericism and the traditions which developed concerning magical practice at the edge of the Renaissance and into the Early Modern era.

### Icelandic Sagas as Sources

Like with the story of Egil, the Icelandic sagas provide decent source material for understanding the way in which runes might have been viewed by the peoples living in Iceland around the year 1000 A.D. But as it stands, no existing saga record from Iceland is contemporary from the time of its own story. At best, the runic matters within the texts can be read in two ways. First, what can they tell us about perceptions of runes from the time the manuscript was made, and additionally what can they tell us about how that society perceived the use of runes in the past. Naturally, one can compare the records to understand a relative degree of continuity, but the fact remains that we cannot justify an application of runic magic written in the 15th century, to how runes might have actually been used in the 11th. Not only is this irresponsible, but in doing so we blind ourselves to the value of the 15th century record itself. For example, if there is a dramatic rise in copied manuscripts of *Vatnsdæla saga*, and *Eyrbyggja Saga*, during the 17th century, from scribes in the regions where witch accusations were made, is this to be taken merely as a coincidence? If they are gathered together and bound in accompaniment of other sagas known to be connected with magic like Egils or Grettis, or perhaps even bound with Marian prayers, surely this tells us something about the mindset of the Icelanders on their farm at this time. Could it go so far as to suggest a renewed curiosity in historical instances from Icelandic culture of magic usage? I

believe this is not a stretch, and it is with this approach that the saga record can be further examined to understand trends in Icelandic society.

Some sagas and Icelandic texts which contain runes go back to the 13th century. The oldest text, Prose Edda being that attributed to Snorri Sturluson. However though the Prose Edda contains works such as the previously mentioned *Hávamál* it is suggested that the poems are older. Still, as far as written sources go, this is likely the best one can hope for. Further sagas which reveal how runes were considered historically include the Bishop Sagas such as that of Ingimundr prestr Þorgeirsson in *Guðmundar saga biskups*, which cites the use of runes on wax tablets.<sup>16</sup> However, this attribution should be considered cautiously as it is believed a fabrication, and was likewise written well after the fact. Beyond this, we see runes referred to in the context of riddles, again with a theme of secrecy or trickery, in *Bosa Saga ok Herrauds*.<sup>17</sup> Likewise, from a magical perspective runes are referenced widely in the sagas, including *Egils saga*<sup>18</sup>, *Grettis saga*, and *Völsunga saga*, though in varying degrees.

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16

Joanna A. Skórzewska, *Constructing a cult: the life and veneration of Guðmundr Arason (1161-1237) in the Icelandic written sources*. (Leiden: Brill, 2011): 75. Jan Ragnar Hagland, "Ingimundr prestr Þorgeirsson and icelandic Runic literacy in the Twelfth Century." *Alvíssmál* 6 (1996):101

17

, Claiborne W. Thompson, "The Runes in "Bósa saga ok Herrauds"." *Scandinavian Studies* 50, no. 1 (1978): 50-56.

18

For key mentions of runes see Egils Saga Ch. 46, Ch. 57, and Ch.72. Elliott, Ralph Warren Victor. *Runes: an introduction*. (Manchester University Press,

For further examination of this concept and the use of runes among the sagas, as well as the overlap with material evidence and concern regarding their usage, I recommend the study conducted by Mindy MacLeod and Bernard Mees.<sup>19</sup> Ultimately, as far as the reliability of the sagas to aid in our understanding of runes, both attest to the use of runes among the sagas as ‘literary crutches rather than historically reliable expressions’.<sup>20</sup> Therefore suggesting that the use of runes and their magical attributes, should be considered a literary motif, rather than a historical document. At best what the sagas can reveal is what people wanted to believe was the historical usage of the runic script at the time they were written, which ranges from the 13th to the 15th or even 16th century.

What can be said about the sagas however, is that those which referenced runes, and in particular those which likewise referenced magic, maintained a strong degree of popularity well into the present day, and that itself reveals a great deal about what ideas surrounding the runic script circulated throughout Icelandic society over time. But the question still at hand is precisely that —how runes were viewed by society— and though

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1959).p. 29.

19

Mindy MacLeod and Bernard Mees. *Runic amulets and magic objects*. (Boydell Press, 2006).

20

MacLeod & Mees, ‘Runic Amulets’, 236.

it may seem like a simple question it is one that can only be answered by; it depends. If we choose to disregard the saga literature, what is left are works published prior to or during our period of examination, of which are admittedly minimal, and rooted in language.

### Non-Literary Evidence

The first, and arguably the most vital sources left to aid our understanding are the texts known as Grammatical Treatises. Due to the shift in usage of runes to the Latin alphabet of the present day, this resulted in a shift in society's understanding of the letters, making a demand of sorts for the documents examined here. The First Grammatical Treatise (FGT), and similarly, The Third Grammatical Treatise (TGT) are works which served in their time to establish an understanding of the Old Icelandic language, including grammar, standardization of spelling, and commentary on runes. Originating in the 12th century (approx. 1125-1175), the work known as *The First Grammatical Treatise (Fyrsta málfræðiritgerðin)* has been previously covered by scholars such as Hreinn Benediktsson.<sup>21</sup> Noted for its impact in our understanding of the development of the Icelandic language, as well as its value concerning comparative linguistics due to its age, the FGT is the earliest source available to understand how Icelanders might have viewed the new Latin letters, including the names they applied to alphabets and scripts as a whole. Einar Haugen presupposes that the author, known as the First Grammarian, was the son of the first generation to attempt the switch from runes to the Latin alphabet.<sup>22</sup> Whether or not this is true, the FGT remains a valuable

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21

Hreinn Benediktsson (ed.). *The First Grammatical Treatise. Introduction, text, notes, translation, vocabulary, facsimiles* (Reykjavík: University of Iceland, 1972)

22

Einar Ingvald Haugen, ed. *First grammatical treatise: the earliest Germanic*

resource, written by someone with great concern for phonology and a passion for language.

In the FGT, the individual letters are referred to predominantly through use of the term ‘stafir’. Terms such as ‘látínustafir’ and ‘ráddarstafir’ denote both the Latin alphabet, and vowels respectively, while consonants are referred to as ‘samhljóðendr’. Runes, by name, are but mentioned in detail once in the text which states “*Rúnar* heita geltir, en *rúnar* málstafir.”<sup>23</sup> Consequently this is the only time in which ‘mál-’ is used as a prefix in association with a letter form within the FGT. All other uses of the term suggest the standard association with ‘speech’ or grammar. Furthermore, association with runes is the only time in which the term ‘málstafir’ is used. However this is the limit of the FGT, as though it helps to reveal the manner in which the Latin alphabet came to be viewed in Iceland, it makes little reference to runes — likely due to its status as a newly outdated script.

Nevertheless, a second and more fruitful source remains in the *Third Grammatical Treatise*. Much work has already been done on the relationship between the TGT and the 17th century perceptions on runes by Tarrin Wills, namely those surrounding its impact on the publications of Danish Antiquarian Ole Worm.<sup>24</sup> The TGT

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*phonology: an edition, translation [from the Old Norse] and commentary*. (Longman Publishing Group, 1972): 4-64.

23

, Benediktsson, “The First Grammatical Treatise”, 18.

24

Wills, "Third Grammatical Treatise", 439-458.

is a text of considerably greater length than the FGT, and the first section of the work, known as *Málfræðinnar grundvöllr* is comprised of two smaller sections regarding runes. Although its impact over time is clear, it is unknown the extent with which the TGT was circulated around Iceland itself, nor how widely its views were shared by the general populace. But what can be known, are the views of its scribe, Óláfr Þórðarson.

The content of the TGT treats runes with the same enthusiasm as the anonymous author of the FGT regarded the Latin alphabet.<sup>25</sup> However the TGT refers to characters almost exclusively as ‘stafir’, with minor variation including ‘latínustafróf’ for Latin, ‘norænustafróf’ for runes.<sup>26</sup> There is no use of the term ‘letur’ within the TGT, nor any notable recognition of alternative names to refer to written characters beyond ‘stafir’. The greatest contribution of the TGT comes from its use as source material for later works around the 17th century.

### The Post-Medieval Sources

The Icelandic scholar Arngrímur Jónsson (1568-1648) was a highly influential man, responsible for works such as *Brevis commentarius de Islandia* (1593) and

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25

Finnur Jónsson, "Óláfr Þórðarson: Málhljóða-og málskrúðsrit: Grammatisk-retorisk afhandling." *Det kgl. Danske Videnskabernes Selskab. Historisk-filologiske Meddelelser* 13 2 (1927).

26

Finnur, ‘ Málhljóða’, 26-27.

*Crymogæa* (1609).<sup>27</sup> What *Crymogæa* detailed in its impressive three volumes, was a commentary on the Icelandic language, essentially defining it as a unique language separate from Danish or Norwegian.<sup>28</sup> At a time of growing tensions between Iceland and their Danish rulers, *Crymogæa* inspired a form of grassroots nationalism among the Icelandic people, at least those who were wealthy enough and educated enough to read it. Though the work was written in Latin, it remained focused on aspects of Icelandic literary and linguistic culture, which did not hesitate to include the runic script. Specifically Arngrímur cites runes as a connection for Iceland and the Icelandic language to that of the Goths.<sup>29</sup> Stating that they are proof of an old and unchanged tongue, Arngrímur referenced runes directly on multiple occasions. However, the value

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Peter Springborg, "Antiqvæ historiae lepores--om renæssancen i den islandske håndskriftproduktion i 1600-tallet", *Gardar: Årsbok för Samfundet Sverige-Island i Lund-Malmö*, 8 (1977): 53-89.

28

Gísli Pálsson, *The textual life of savants: Ethnography, Iceland, and the linguistic turn*. Vol. 18. (Psychology Press, 1995):127.

29

Gottskálf Jensson, "The Latin of the North. Arngrímur Jónsson's *Crymogæa* (1609) and the discovery of Icelandic as a classical Language." *Renæssansforum* 5 (2008):1-28.

of these mentions to the present study of terminology is limited because of *Crymogæa*'s use of Latin and not Icelandic. Still, the author uses the term 'letur' to refer to runes continuously, making no distinction between them as a script and that of the imported Latin letters from a terminological perspective.<sup>30</sup>

As a text, *Crymogæa* held an exceptional degree of influence. It spread knowledge of Iceland and Icelandic history to a wider, European audience, and attracted the attention of antiquarian scholars for centuries later. Therefore, although the text is not written in Icelandic, it can suggest two things. The first, is its value as a record of the Latin terms used to refer to runic script in the 17th century. The second, is as the first notable use of a term cognate with 'letur' in reference to runes within Iceland. Furthermore, the TGT was a text which contributed highly to Arngrímur's work, and connects the traditions nicely. In some ways, the TGT continued to be a connecting thread however, as it was precisely the TGT in the manuscript now known as *Codex Wormianus*, which was used, and later given to Danish scholar Ole Worm.<sup>31</sup>

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“De lingua Islandorum res ipsa loquitur esse Norvegicam; veterem in-quam illam et genuinam, ex veteri Gothica, qua integrà soli nunc utuntur Islandi; eamque propterea Islandicam nuncupamus. ... Et literasquidem ea lingua duplices habuisse videtur: veteres scilicet et novas. Novæ sunt, quibus hodiè vulgo utimur, toti ferè Europæ nobiscum communes. Quæ quando primum in usu esse cæperint, non satis constat. Certe adhuc Cippi veteribus literis inscripti apud nostrates aliquot visuntur, quas literas etiam plurimi adhuc norunt leguntque etscribunt. Contineturque iisdem hæc ipsa lingua vernacula, nihil immutata.” Arngrímur Jónsson, (1950-52):: 25.

31

Ole Worm, and Jakob Benediktsson (ed.). *Ole Worm's Correspondence with Icelanders*. Bibliotheca Arnamagnæana, Vol. 7. (Copenhagen: E. Munksgaard, 1948).

As Tarrin Wills notes, the era in which academic jack-of-all-trades, Ole Worm published his work, [*Runer*] seu, *Danica Literatura Antiquissima* (1636) was a time rife with curiosity for all things ancient. In ‘The" Third Grammatical Treatise" and Ole Worm's" *Literatura Runica*’, Wills cites Ole Worm’s *Literatura Runica* as the likely originator for what became the widespread belief that runes were used for the recording of Icelandic literature.<sup>32</sup> This Early Modern mindset, which ultimately came to define runological studies for the next four centuries, served both a social, cultural, and political purpose. However, the work itself offers more than just its notable influence. As the first key text published on runes (aside from Johannes Bureus work in Sweden), *Literatura Runica* came to define runes and their history, and how they were viewed. Though the work itself is not without significant error, it nonetheless reveals insight into the origin of key perceptions on runes and runic variations during the time.

To cite Worm’s own writing, on page 97-8 of *Literatura Runica*, he writes in runic script, “i norrænu stafrofi eru [f]im hliodstafir...” translating it then into Latin as “In Norvegico alphabeto...quinque sunt vocale...”.<sup>33</sup> This shows an understanding on his part in the 17th century that the Old Icelandic ‘stafróf’ is equal to the Latin ‘alphabet’. However, Worm’s text here is a direct copy from the aforementioned TGT edition he held in his possession, on unending loan from Arngrímur Jónsson. What *Literatura Runica* ultimately did, was introduce the ideas of the TGT to a more receptive, curious, and widespread 17th century audience. Yet it does not end there, as Worm wrote

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32

Wills, “The Third Grammatical Treatise”, 439.

33

Wills, “Ole Worm and the TGT”, 442.

extensively on not only runes as a writing system from antiquity, but likewise presented tables and copies of alternative runic script through use of the generic term ‘Runica’, and subsequent more specific sub-titles. It was these tables, which were copied *en masse* for centuries later, as can be seen in Fig. 2.

Fig. 1

RUNICA. 49

Jaco. Hepburni.

Hauk.	Bonzv. Vulca.	Lind.	Alogr.	Vlgr.	Lazil.	Gotto	Gotic.	Scyth	Mall	No m.
A	λ	λ	λ	λ	λ	λ	λ	λ	λ	λ
B	B	B	B	B	B	B	B	B	B	B
C	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
D	þ	þ	þ	þ	þ	þ	þ	þ	þ	þ
E	+	+	+	+	+	+	+	+	+	+
F	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ
G	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ
H	x	x	x	x	x	x	x	x	x	x
I	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
K	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ
L	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
M	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
N	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
O	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
P	B	B	B	B	B	B	B	B	B	B
Q	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
R	R	R	R	R	R	R	R	R	R	R
S	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
T	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
V	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
X	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
Y	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
Z	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı
X	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı

& &c eu ei oi æ z

Runic Table from Ole Worm's *Literatura Runica*, page 49 [Archive.org]

Fig. 2



Copy of table in Lbs 3402 8vo, 117r

Worm's approach to runes was one of strict academics, inspired by his role as a professor at the University of Copenhagen and scholar in ancient languages. This structured approach and constant insistence on attempting to use runes as an alphabet with translations throughout the work, served to not only prove to his audience that runes were a capable and realistic alphabet, but additionally how to use them as an

alternative one. This idea was only rivalled by Johannes Bureus in Sweden, with his publication *Runa ABC* (1611).<sup>34</sup>

Additionally, though they at first glance might seem an unlikely source, the letters written by Worm during the course of his runic research can also be of considerable value in understanding Icelandic perceptions on runes and alternative alphabets. Edited by Jakob Benediktsson in 1948, the 214 letters transcribed in their original Latin come from Worm's correspondence with numerous Icelanders including Arngrímur Jónsson, Brynjólfur Sveinsson, Gísli Oddsson and Jón Arason. What is discussed in the letters varies from politics, plagues, and events around both Denmark and Iceland, but they likewise contain Worm's pleas for information on all things runic and to do with writing.

As Worm was concerned first and foremost with runes from their linguistic value, he found a friend and mentor in Arngrímur primarily, going so far as to state in a letter to Jón Arason in 1650 that his interest in the subject felt lost after Arngrímur's death.<sup>35</sup> Over the years, he discussed terms applied to runes in Iceland on numerous occasions such as 'Klapp-rúnir', 'Maal-rúnir' and 'Dum-rúnir'.<sup>36</sup> What the letters ultimately reveal

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Lars Magnar Enoksen, *Runor : historia, tydning, tolkning*. Historiska Media, (Falun,1998)

35

Benediktsson. "Ole Worm Correspondence", 190.

36

Terms are translated from the original Latin which state: "Runae dividi posse videntur

is Worm's growing recognition in Iceland, as well as his determination in gathering whatever he could that was related to runes. Further terms discussed among the letters include 'Ramm-rúnir', surrounding which there was a great confusion and curiosity on his part.

From a social standpoint, the letters confirm for us as modern scholars that a rich academic climate surrounded the topic of runes during the early to mid-17th century, with an emphasis on their linguistic features, though with a secondary curiosity on their historically imagined roles and what could be found regarding runic artifacts. Yet alongside this, the letters also show an association of runes with magic. In a letter to Worm, Bishop Gísli Oddsson expresses a superstitious opinion of runes, though nevertheless stating that he was "...much more skeptical than his contemporaries." regarding magic.<sup>37</sup> In his response Worm specified that he did not want anything to do with magic and runes, but was strictly curious about their alphabetical value. This statement is one replicated throughout the letter collection, and suggests that for the general Icelandic population runes held a supernatural quality. Unfortunately, the letters make no reference to a term for cipher scripts beyond the aforementioned terms which used 'rúnir'. Though it is possible that they were intended to refer to this, it would require considerable more investigation.

Beyond the letters, the next greatest resource comes a century later, from an Icelandic living in Copenhagen, Jón Ólafsson. His work, *Runologia* (1732) is the first occasion in a text we can physically see cipher scripts of a non-runic shape, having the term 'rúnir' applied to them. Perhaps more importantly it is the first in which we see the term 'letur' in scriptas et non scriptas: qvas Klapp-Runas vocitant. Runae scriptae aut sunt Maal-Runae aut Dum-Runae." Benediktsson, "Ole Worm Correspondence", p 19.

37

Benediktsson," Ole Worm's Correspondence", 436.

used in an Icelandic context to refer to a cipher script with, ‘Runa letur’ as well as “‘Íra-letur. Stafkarla letur. Pera letur. Punckta letur oc d-letur.”<sup>38</sup> Prior to this no source could be found which made mention of such scripts, either by name or visual representation. Though this could be due to a potential loss of relevant manuscripts from the disastrous Copenhagen Fire of 1728.

It is possible that Jón, who worked as an assistant to the famed Árni Magnússon, made *Runologia* as a record of his knowledge regarding cipher runes, in the aftermath of the fire. This theory is primarily in debt to the claim that Jón was responsible for writing down Heiðarvíga from memory after which the vellum manuscript and his initial copy were both lost in the fire.<sup>39</sup> Still, overlap indeed occurs between his text and the cipher scripts, or runes, found on the Marian prayer leaf; though the sources for all his cipher scripts in *Runologia* cannot be known. What is nevertheless useful to the present study, is that it is within this work where it can be confirmed that non-runic scripts have the term ‘rúnir’ applied to them, as well as the introduction of the use of the term ‘letur’ with regard to cipher scripts. What could then be theorized, is that should much of the record be found to mirror the content of *Runologia*, in either name or visual characteristic, it would suggest *Runologia* as the likely source material for establishment of the Post-Medieval Cryptographic tradition in Iceland.

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AM 413 fol. “Runologia”. See also Leoníd L. Korablev, “Rúnologíja” Jóúna Oúlafsona íz Gjúnna-víka : Íslandskíje traktaty XVII veka” (Mosow, Veligor, 2005).

39

Armann Jakobsson, and Sverrir Jakobsson, eds. *The Routledge Research Companion to the Medieval Icelandic Sagas*. (Taylor & Francis, 2017).

In summary, Tarrin Wills suggests that ultimately the 17th century interest in runes were divided into two schools. The majority of the early interest in the runic sections of *Hávamál* and *Sigrifusmál* were limited to the sections pertaining to the magical, or mythological uses of runes—a sentiment that seems to have been shared by Icelanders. Yet the other school was interested in runes from a more linguistic standpoint, like Ole Worm. However even this school of thought had its curious moments, going so far as to believe that runes were connected not only to the Viking past, but could potentially be traced back to the original language and letters of the Biblical Adam. Nevertheless I believe it is the Early Modern era which begins the conflation of runes and alternative alphabets, through this belief regarding runic history and the place of runes in the academic study of language.

The point I therefore wish to argue is that whether or not runes were always viewed as a cryptographic script we cannot know. Runes, it would seem were viewed as an alphabet with potential magical value or in considerable association with magic from the time of the sagas, which gives them characteristics akin to that of cipher. Then, runes later fell away in use in favor of the Latin alphabet, becoming both an archaic writing system as well as one further linked to secrecy. Though in the medieval period we likewise see runes being used in association with the church and in sagas, suggesting their usage was not entirely lost, by the time of the record in focus here in this thesis the runes had developed not only variation in form but greater cryptographic context (i.e. the cipher runes found on the Marian prayer leaflet). Furthermore, as the Early Modern era approaches the magical association of runes cannot be denied, as it is reported by multiple Icelandic sources at the start of the 17th century in the course of Ole Worm's correspondence.

From here, it becomes clear that although figures like Ole Worm, Johannes Bureus and Arngrímur Jónsson argued a stricter understanding of runes as a genuine alphabet, the script nonetheless becomes one of cryptographic meaning and became associated with the potentially imported, or visually non-runic cipher scripts. However with regard to their terms, it was not until the 17th century that the record begins to suggest an association for runes with the term 'letur', as it only occurs following the Latin text of *Crymogæa*. Following this, multiple terms begin to appear that show not only varying ways of referring to the traditional fupark script, but imply an

understanding of different forms of runes that could resemble ciphers. Then, with *Runologia*'s introduction in the 18th century of not only 'cipher runes' to the general public, but likewise the application of the term 'letur', the question that then arises from this is just how clear the delineation was between these aforementioned cipher scripts and that of runes, among the Icelandic Cryptographic Corpus.

#### **4.0 CATALOGUE OF THE ICELANDIC CRYPTOGRAPHIC CORPUS**

The following analysis is divided in three brief, but thorough aspects of the investigation into the Icelandic Cryptographic Corpus and subsequent analysis. First, I aim to explain the process of creating the catalogue of formal, cipher entries found within the aforementioned corpus, and the reasoning behind the decisions made. The contents of the Corpus itself are then defined in brief detail, and various visual characteristics and trends found within the record are explored. Last, an analysis is performed on the same Cryptographic Corpus, however focusing on the naming conventions used, with a subsequent statistical breakdown of their occurrence rate and pre-existing categorization, primarily centering on that of the 'rúnir' versus 'letur' designation. Further information regarding the potential connection between the Icelandic magic tradition and that of the cryptographic tradition is then provided as a method of understanding questions regarding both the origins and perceptions of the ciphers within Iceland during the Post-Medieval era.

##### Defining the Examined Material

According to Handrit.is, the primary online database of manuscripts operated in conjunction with the National Library of Iceland (*Landsbókasafns Íslands*) and the Árni Magnússon Institutes in both Iceland and Denmark (*Arnarnagnæanske Samling*), there are 43 manuscripts among the record which the search term 'letter codes' (*villuletur*) has

been assigned.<sup>4041</sup> Additionally, Handrit.is lists 108 manuscripts which contain, or concern themselves with ‘runes’ (*rúnir*).<sup>42</sup> Furthermore, the database lists 32 manuscripts relating to magic (*galdra*).<sup>43</sup> Of these, only a few are what, for the present study, relate to what has been deemed the Icelandic Cryptographic Corpus.

This must be clarified because the analysis below is centered upon the naming attributes of the cipher entries, and not the mere presence of, nor instance of, a cipher

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“Search: Villuletur” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/is/manuscript/list/keyword/vil>

41

Count is accurate as of August 25th, 2017. Full list of manuscripts found on Handrit.is at this time are given in the Appendix A.

42

Full List of manuscripts found on Handrit.is at this time are given in appendix A.2.

43

“Search: Galdra” Handrit.is, accessed August 25,2017,  
<https://handrit.is/is/manuscript/list/keyword/gald>

being used within a document.<sup>44</sup> Therefore if a manuscript did not include an organized entry and present a cipher script on some level resembling an alphabetical order, it was not counted among the catalogue. Alongside this, some manuscripts not assigned the tag, 'letter code' but rather 'magic books' (*galdrabók*), were upon examination found to contain cipher entries of the aforementioned sort, and have therefore been included in the study. Handrit.is lists 14 manuscripts of this kind. In a similar vein, all available manuscripts tagged as containing 'runes' were also examined for their relevancy. A mild degree of overlapping tags within the system narrowed the list down further, as did general accessibility. In total, 142 manuscripts were possible for inclusion in the study, and briefly examined to some degree.<sup>45</sup> The list was then subsequently narrowed down to 60 manuscripts due to further relevance, which came to define the finalized size of the Corpus for this study. The resulting catalogue of organized, cryptographic entries found among the record, lists 36 of these. Furthermore, due to the nature and limited time of the study, eight manuscripts of those listed and deemed relevant, regrettably remained inaccessible, and thus could not be included in full detail in the present

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Minor exceptions were made when context demanded. For more information please see section 4.3.

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Not all manuscripts could be examined visually due to inability to access the scanned pages. However each inclusion on Handrit.is was examined for content and potential relevance. There were 23 instances within the manuscripts tagged a 'letter code' that also contained the tag for 'runes', and similarly there was one manuscript tagged as 'letter codes' but listed as a 'galdrabók'. (Lbs 4858 8vo )

analysis, though they are included in the full corpus listing of 60. I have listed all manuscripts of which this pertains to in the appendix, alongside all manuscripts which were examined in their entirety.

### Organization of the Entries

The organization of the books themselves, as found within the corpus, shows signs of a gradual perhaps even social recognition of a cryptographic tradition. Though in some cases it is clear that the cipher entries were recorded directly from the other textual witnesses— something especially true for the texts which originate in the late-19th or early-20th century— this is not representative of them all. Rather, some entry layouts reveal an acknowledgement on part of the scribes or compilers, with regard to the visual characteristics or types. One example of this can be found in Lbs 4858 8vo, where on 57r, there is a notable grouping of Stave based cipher scripts. Additional groupings, which appear as clusters in a manuscript can likewise rely on names. Analysis of the corpus showed that it was not uncommon to find among the manuscripts a page which listed all known variations by the scribe of the so-called ‘Klapprúnir’ cipher, or the ‘Haugbúa’ cipher. These entries might include a number alongside the name, such as ‘Klapprúnir 1’ or ‘Klapprúnir II’. As a note, in the catalogue of the Icelandic Cryptographic Corpus I have noted the variants when listed in a table format or on the page, but not provided a further numeral, with the addition of a number in parenthesis, like ‘Klapprúnir (1)’. However, if in the manuscript the number was provided as an aspect of the cipher’s given name by the scribe, then it has been recorded as such and unbound like stated previously.

What I have been able to gather from the corpus is that with later texts such as Lbs 3902 4to (1934), and Lbs 2334 8vo (1894), the books themselves were constructed with a conscious intent of collection and record keeping. The manuscripts which the entries were copied from are listed, and the entries are numbered and organized in a manner which suggests a cataloguing effort not unlike the present one. As this information is not of particular focus in the analysis but remains incorporated in the catalogue, it felt necessary to make note of this.

### Analytical Framework

All of the manuscripts examined relate to Iceland or Icelanders and were constructed between the years 1490 and 1950 and could be found on Handrit.is. As already stated, my aim was to take record of the content pertaining to ciphers and alternative letter systems in use within Iceland on multiple levels of examination, including quantitative presence of individual cipher entries, relevant manuscripts and recurrence rates; linguistic qualities, social perceptions, magical and non-magical implications, and potential, traceable origins. Each level of examination was conducted with the intent of shedding light on the state of the cryptographic practice as it existed in Iceland during the Early Modern period, so as to understand the extent with which the scripts can be connected to a previous, runic tradition or an imported one which developed later.

Due to the time and limitations of this thesis, and for reasons previously stated, the present analysis is not as comprehensive as would be preferred. The cipher corpus is an extensive one, with a great deal of opportunity for further comparative study, in particular with regards to the ciphers themselves and their frequency rate. In total, approximately 1,639 cipher entries were recorded and examined from 36 manuscripts and are given in the finalized catalogue of formal cipher entries at the end of this thesis.

During the course of the analysis record was taken of 1) the manuscript's shelfmark, 2) the page, and 3) the name of each cipher when listed in an entry. An entry was defined as any statement of a cipher, visually distinct from others around it, which included part of, or an entire alphabet alongside the cipher script for the purpose of transliteration. In most instances, entries which followed this pattern included a name, or a number, to denote the cipher. It was these names, or lack of names, which were formed the major focus of the present analysis.

Further descriptors were also recorded, such as visual characteristics and the period of time in which the cipher was compiled. These two aspects were recorded for the purpose of understanding any potential correlation between the visual characteristics of a cipher, and its designation as 'rúnir' or 'letur' or another title. Time was recorded to aid in understanding the potential transmission history as well as to understand a possible time of origin, and to better be able to place the ciphers within a historical and social context.

Over the course of the project I conducted four case studies with regards to overlap and cipher replication among the record. The ciphers chosen were done so due

to factors such as occurrence rate, name standardization, relation to known, published title of potential influence, and distinct visual cues. Further comparisons not deemed official case studies but relevant to the analysis were undertaken as necessary, predominantly for ciphers which could provide the most succinct evidence of non-indigenous cipher transmission from the Continent. This has included material like the Maal-rúnir (often copied as Málrúnir) set as published by Ole Worm in *Literatura Runica* <sup>46</sup> and the Celestial Alphabet from Agrippa's *De Occulta Philosophia libri III* <sup>47</sup> but likewise from the 1801 publication of Francis Barrett's *The Magus*.<sup>48</sup>

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Ole Worm, *Runer : seu Danica Literatura antiquissima, etc. (Epicedium Regneri Lodbr.-Redemptio capitis Eigilli Scallagrimi filii. Icel. & Lat.-Scaldri Danorum, etc. Lat.) Editio secunda auctior, etc. L.P.*( Hafniæ: Melch. Martzan, 1651). [Archive.org]

47

Heinrich Cornelius Agrippa von Nettesheim,. *Three books of occult philosophy or magic*. Edited by Willis Whitehead. (Chicago: Hahn & Whitehead, 1898). [Archive.org]

48

Francis Barrett. *The Magus, or, Celestial intelligencer : being a complete system of occult philosophy : in three books containing the antient and modern practice of the cabalistic art, natural and celestial magic, &c. ... exhibiting the sciences of natural magic; alchymy, or hermetic philosophy also the nature, creation, and fall of man ... ; To which is added Biographia antiqua, or the lives of the most eminent philosophers, magi, &c. : the whole illustrated with a great variety of curious engravings, magical and cabalistical figures, &c.*(London: Lackington, Allen and Co., 1801).[Archive.org]

### Regarding Authentic Alphabets

Over the course of the study, great consideration was placed on whether to include foreign alphabet entries among the cipher count. Due to the fact that the alphabets are genuine, or believed to have been genuine during their time, this would make them decidedly not cryptographic in nature. However, as the letter book tradition developed in Iceland, and throughout the creation of the present catalogue, it became clear that one could not confidently disregard potential cryptographic connotations for the foreign scripts. This logic works both ways. On the one hand there is the notable academic reasoning behind the recording of alternative alphabets such as Hebrew or Greek. With knowledge of the scholarly traditions of the era, there was arguably nothing wrong, or out of the ordinary for scripts such as them to be recorded in one's personal books. Nevertheless, the cryptographic alphabets, which hold no clear connection to a tradition one might have learned in school, are undeniably treated in the same manner as the 'genuine' ones. That is to say, the overlap of the two traditions found within the Icelandic record shows that in the eyes of the scribes which were compiling the books, the cryptographic ciphers were no different than Greek, and the use of Greek letters was no different than the use of a newly invented cipher. In a similar vein, the books which contain both forms of entries were found to overwhelmingly consist of entries of the cryptographic kind above all else. The inclusion of Greek, Hebrew, or Arabic for example, was found in the middle of obvious cipher entries, unremovable from the context. This can be seen in JS 377 8vo on 57r, where Greek, 'Griska Letur' is found following a series of shift ciphers, or in AM 247 8vo on 20v, where Greek and Hebrew entries are located between numerous runic ciphers and in a further cryptographic context.

Furthermore, as the goal of this initial study was to discern the potential value of a 'rúnir' versus 'letur' designation, the names of entries were of vital importance. Due to the fact that the foreign alphabets were likewise recorded with a title, they could not be ignored when taking record. The aforementioned reference to Greek as 'Griska Letur' was by no means standard amidst the texts, and variation could range from 'Griskt rúnir' to 'Alphabetum Griskum', sometimes even within the same text.<sup>49</sup> AM

247 8vo itself has two variants, and the recording of foreign alphabets within the manuscript utilizes both Latin names such as ‘alphabetum’ in the case of Greek, Hebrew, Arabic, and even ‘Indium’ (Indian) and ‘Aegiptarum’ (Egyptian) in addition to ‘letur’. Yet, it does not end there, as the standard Greek alphabet was referred to as both ‘rúnir’ and ‘letur’, ‘alphabetum’ and ‘stafróf’ throughout the corpus.

The degree with which Icelanders referred to foreign alphabets in such variation is therefore applicable to the present study because of its ability to shed further light on the Icelandic perceptions and treatment of cryptographic materials during the Post-Medieval period, and likewise to understand the degree the scripts were viewed as true alphabets intended for use, or even the extent foreign alphabets were perceived as serving cryptographic potential.

Furthermore, though the topic is deserving of more substantial examination, the application of a foreign title to a script, such as ‘Hebrae’, did not necessarily mean the script was genuine Hebrew. Though some entries were found to be true and accurate renditions of foreign alphabets, others were found to be questionable copies, or downright newly created alphabets of which the scribe had applied to them a cultural association. For these reasons, the entries recorded in the Icelandic Cryptographic Corpus include all organized entries which depict an alphabet, regardless of whether the initial title, or visual characteristic suggested it to be non-cryptographic in nature.

### Cipher Presence and Summary of the Corpus

To begin the study, the state of the corpus itself must first be defined. Within the record alone there are hundreds of unique cipher scripts, each which hold within them their own tales about their origin, usage, and intent worthy of exploration. The term unique script, in this context, refers to a cipher script which either by name, or visual characteristic is distinct from others in the record. Due to time, the study did not catalogue each cipher in full visual detail, and compare it across the board. Such an

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The names as listed here are given in the exact manner found in the manuscripts so as to best note variation.

examination would have required considerably more time, though it is my belief that such a study would be wise to conduct in the future. That being said, some record exists in later letter books, such as those from the 19th and 20th century, which compiled ciphers and their variations. Though these books were likewise included in the present analysis, if the number of entries within them is any suggestion as to the maximum unique cipher occurrence rates within the Icelandic Cryptographic Corpus, it would put the total somewhere between 230 and 270.<sup>50</sup>

### Summary of Manuscripts in the Corpus

As previously stated, initial investigation showed a possible manuscript corpus of 142, ranging from the earliest leaflet from the late 15th century to the latest replicated materials in the first half of the twentieth century. The subsequent 60 manuscripts included in the study, and final 36 which contained material included in the catalogue, shall henceforth be explained in mild detail so as to better understand the materials as well as the codicological context with which the cipher entries were found in.

The first part of the corpus begins in the 15th century and goes to the 17th century. Included in this timeframe are two manuscripts: AM 687d 4to (1490-1510) and AM 54 8vo (1575).

AM 687 d 4to is a Marian prayer leaflet, composed in Iceland and consisting of a single, sheet of folded vellum.<sup>51</sup> It was received by Árni Magnússon from Guðrún

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This estimate is based upon the data present in ÍB 383 4to, Lbs 2334 4to, and Lbs 4858 8vo.

51

“AM 687 d 4to” Handrit.is, accessed August 25, 2017, <https://handrit.is/en/manuscript/view/is/AM04-0687d>

Ögmundsdóttir i Flatey in 1701 and is listed under the full title of ‘Maríubænir, rúnir, villuletsstafróf og særingarþulur’.<sup>52</sup> The card included in the binding listed the contents initially as ‘Galdrastafir’, though no genuine magical intention is known currently. The leaflet contains multiple cipher scripts, ranging from a runic to Latin script based shifts, and others. It likewise contains the earliest known Icelandic account of rune poems. Beyond this, the cipher scripts which are located at the bottom of 1v and top of 2r, are of immense value to the study as an example of early variance, and usage of alternative letter codes. As it stands, AM 687 d 8vo is the earliest known usage of cipher scripts in Iceland.

Meanwhile, AM 54 8vo, is a legal text which contains ‘rúnastafróf’, on 1r, alongside ‘lækningarit’, or medical writings.<sup>53</sup> Further works bound in the manuscript include various Lagaformálar and Jónsbók. It is a substantial manuscript, consisting of 23 vellum leaves, and was received by Árni Magnússon from Halldór Bjarnason in Litla-Breiðavík during the early 1700’s.

The second portion of the corpus spans the 17th century, and officially enters into the Early Modern era. Eight manuscripts were found to be relevant to this time frame: AM

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1701 is the date listed on the Handrit.is page, however 1704 is the date stated by Svanhildur Óskarsdóttir in her article "Flateyjarbaekur" *Handritasýrpa*. (Stofnun Árna Magnússonar á Íslandi, 2013) p.76

53

“AM 54 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/AM08-0054>

727 II 4to (1644), AM 697 4to (1655), AM 698 4to (1655), JS 43 4to (1660), Lbs 143 8vo (1670), AM 148 8vo (1676), AM 749 4to (1680), JS 614 4to (1665-1774) and AM 166a 8vo (1664-1699).

Dedicated to Brynjólfur Sveinsson, AM 727 II 4to is listed as ‘Tíðforðríf’ and includes material on the natural sciences such as mineralogy, but also folklore, and religious information alongside the inclusion of runes, or letter codes on 21v.<sup>54</sup> The main focus of the manuscript appears to be annals. It consists of 22 paper leaves in five quires and is said to have been written in the hand of [Jóns Guðmundsson](#) the Learned, though as Handrit.is notes in the entry, Stefán Karlsson believed this not to be the case.

AM 697 4to, and AM 698 4to are both categorized as ‘galdrabók’, or magical texts, and do not state the inclusion of a letter code or runes according to Handrit.is, however they await further examination once they become accessible. For this reason they are included in the corpus but not the catalogue. AM 697 4to consists of 41 paper leaves, and AM 698 4to of 58. Both manuscripts were received by Árni Magnússon together from Þormóður Torfason (1636-1719) in 1712.<sup>55</sup> Additionally, the author is given as Sigurður Torfason, and the works are dedicated to Bishop Brynjólfur Sveinsson. Though they are included among the corpus, their data is not among that of the final analysis.

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“AM 727 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/AM04-0727-II>

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“AM 697 4to”, Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/AM04-0697>

JS 43 4to, listed with the title of ‘Ævisögur’, is a manuscript of histories, sagas, and related narratives, and includes an organized presentation of runes on 193r.<sup>56</sup> Consisting of 202 paper leaves, it was owned by Arnfríður Þorláksdóttir (1755-1822) at Hreggstaðir, Barðaströnd.

Lbs 143 8vo, is predominantly a magic text, and is categorized as such with the given title ‘Galdrakver’.<sup>57</sup> However it includes a named, cipher-like entry on 10r, though this is the single instance of a cipher within the manuscript. The manuscript was composed in Iceland and contains 31 vellum leaves bound in five quires. An entry on 2r in the hand of Páll Pálsson *stúdent* (1806-1877) states the content as Forneskjufræði, or Antiquities, and the manuscript as belonging to ‘H. B. Finnssonar’, or Bishop Hannes Finnsson (1739-1796).

AM 148 8vo is a manuscript listed as ‘Kvæðabók úr Vigur’ and is of considerable variety, including content by Jón Arason, and a text on runes which seem to be copied from Ole Worm’s ‘*Runer seu Danica*’ on 76r to 82r. The manuscript contains 344 leaves and 12 additional inserts that Handrit.is states as being original to the text.<sup>58</sup> There are twelve hands listed, of which Hannes Gunnlaugsson of

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“JS 43 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/JS04-0043>

57

“Lbs 143 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs08-0143>

58

Reykjarfjörðuri, Magnús Jónsson of Vigur, Tómas Þórðarson of Snæfjöll, Þórður Jónsson and Jón Jónsson of Holt are identified. Árni Magnússon likely received the book from Páll Jónsson Vidalín (1667-1727), who in turn had received it from Magnús Jónsson (1637-1702). Though the text contains no identifiable cipher entries, it has been included in the study for its relation to runes.

AM 749 4to is listed as ‘Edduefni’ and contains primarily Norse mythology, poetry, and rhetoric, with a segment on ‘Málrúnir’ and ‘þrideilur’ on 25v.<sup>59</sup> It consists of 31 paper leaves bound into seven quires. Árni Magnússon received the manuscript from Þormóður Torfason after his death around 1720. The sections on runes follow immediately after Snorra Edda.

AM 166 a 8vo is a manuscript listed as ‘Hraundals-Edda’, containing sagas of the Icelanders, poems, Norse mythology, and a segment on ‘Málrúnir’ and ‘kenningar’ on 104r to 105v.<sup>60</sup> However, this segment is not included in the analysis as it does not list the runes themselves and therefore is only included from a narrative perspective as a

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“AM 148 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/AM08-0148>

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“AM 749 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/AM04-0749>

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“AM 166a 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/AM08-0166a>

witness to runes during the time period. The manuscript contains 110 paper leaves bound into 16 quires. [Árni Magnússon](#) received the work from Jón Hákonarson (1658-1748) of Vatnshorn in 1702.

Last, JS 614 4to is listed as ‘Samtíningur’ and contains 168 paper leaves.<sup>61</sup> The fifth part of the manuscript is the section which contains ‘letter codes’ alongside information on wildlife. The section was translated by Einar Ólafsson (1647-1721) and is 11 leaves. The manuscript as a whole was received from Jón Árnason’s collection.

The third portion of the corpus spans the 18th century, beginning with manuscripts dated approximately between 1700 and 1800, with some variance in range extending into the 19th century. This portion includes 20 manuscripts in total : Lbs 4858 8vo (1700’s), Lbs 908 8vo (1700’s), GKS 744 fol. (1732), JS 392 8vo (1747-1752), ÍB 661 8vo (1750), Lbs 636 4to Lbs 764 8vo (1780), ÍB 165 8vo (1780), Lbs 2306 8vo (1780), Lbs 385 8vo (1781), ÍB 90 4to (1788), Lbs 631 4to (1750-1849), JS 378 8vo (1750-1850), Lbs 4689 8vo (1750-1850), AM 247 8vo (1790-1810), ÍB 271 4to (1790-1812), JS 545 4to (1700-1879), ÍB 35 8vo (1700-1899), ÍBR 64 8vo (1700-1899). Lbs 2580 8vo (1700-1899).

Lbs 4858 8vo is an extensive record of cryptographic material, beginning with its copy of Trithemius’ ‘*Steganographia*’.<sup>62</sup> According to Handrit.is, the work has been

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“JS 614 5to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/JS04-0614>

62

“Lbs 4858 8vo ” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs08-4858>

listed as ‘Galdrabók’, and contains, to some small degree material relating to magic practice.<sup>63</sup> However the vast majority of the text serves as a catalogue of cipher scripts, and contains hundreds of cipher entries throughout. It is comprised of 146 paper leaves and unbound. The manuscript was not a part of a historic collection and was given to the present collection in 2014 by Guðrún Benediktsdóttir Líndal from Grundarás.

Lbs 908 8vo is listed with the general title of ‘Samtíningur’ and contains 33 paper leaves. The contents of the manuscript vary widely from hymns to beer poems and cryptographic materials in Part 4 beginning on 26r. Its provenance is not given in detail.<sup>64</sup>

GKS 744 fol. is a paper manuscript of the work, *Runologia* by Jón Ólafsson, a text which explores not only runes, but ‘cipher runes’ in particular, such as the ones found on the Rök Runestone. Due to its relevance, and value as a primary document, as well as its origin in Iceland, it has been included in this study. No further information regarding its provenance is given.

JS 392 8vo is listed with the title of ‘Samtíningur’, and contains a great deal of information regarding astrology, healing, and folk customs on 233 leaves.<sup>65</sup> It lists that

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“Lbs 908 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs08-0908>

64

“GKS 744 fol. ” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/GKS02-0744>

65

letter codes can be found on 221r, though this is not an organized entry. For this reason the manuscript is included in the larger corpus due to relevance but is not incorporated into the catalogue of entries. The scribe is given as Þorkell Jónsson and the manuscript was a part of Jón Árnason's collection. It joined the collection of the National Library in 1879.

ÍB 661 8vo is listed as 'Speculum Salomonis', or the Mirror of Solomon, and connects to a part of the ceremonial magic tradition of the time. In its third section, the work includes a section on runes, however access could not be gained and therefore its data has not been included in the final analysis. Still, the paper manuscript is relevant to the presence of cryptographic material in Iceland and is therefore included in the overall corpus. It was received from Gestur Pálsson (1852-1891).

Lbs 636 4to is listed as 'Völuspá' and is a paper manuscript consisting of 216 leaves.<sup>66</sup> It contains numerous eddic poems and sections on runes beginning on 56v as well on 191v. The bulk of the work was written by Snorri Björnsson (1710-1803) and passed through numerous hands. Further details regarding its provenance are not given.

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"ÍB 668 8vo" Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/IB08-0668>

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"Lbs 636 4to" Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs04-636>

Lbs 764 8vo is another magic text, given the title of ‘Galdrakver’.<sup>67</sup> It should be noted that this text is included in the corpus, but not in the quantitative cipher study as it is an outlier and contains no unique, organized cipher entries. Still, the manuscript is the only Icelandic example of a cipher script being used to compose the majority of a magical text. Though this tradition is common among Norwegian magic books for example, Lbs 764 8vo is somewhat of an anomaly. It is comprised of 15 paper leaves and was written by a single, unknown hand. Provenance is unknown aside from a man named Þorláki V. Reykdal in 1903.

ÍB 165 8vo, listed as ‘Samtíningur’ is a paper manuscript of 139 leaves and contains one entry on runes on 52r and 52v, which lists approximately ten, or eleven variant sets of runes within the table.<sup>68</sup> The work is otherwise concerned with folkloristics, ethnography and poetry. Details on its provenance is not given.

Lbs 2306 8vo is the first known instance within the record of a consciously composed letter book, and has been dubbed ‘Letrakver’ according to Handrit.is. The sole purpose of the manuscript appears to be the collection of cipher scripts and runic alphabets; though it also contains hymns. It is comprised of 29 paper leaves and two

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“Lbs 764 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs08-0764>

68

“ÍB 165 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/IB08-0165>

hands; one unknown, and one much later from Andrés Hákonarson (1817-1897). It was registered into the present collection in 2011, and no prior provenance is known.<sup>69</sup>

Lbs 385 8vo is listed as ‘Tíundar-reikningur’ and is a manuscript which contains, among numerous almanac entries, cipher entries between 11v and 29v. It is comprised of 35 paper leaves, written by two hands of which one is known, Reverend Stefán Högnason (1724-1801). The manuscript was in his possession prior to that of Stefán Pálsson.<sup>70</sup>

ÍB 90 4to is a book of astronomy, natural sciences and theology, but contains entries on runes and letter codes in its fourth section, under the title of ‘Plánetubók’.<sup>71</sup> The manuscript itself is given the title ‘Ritgerðir’ and consists of 174 paper leaves, written possibly in the hand of Jón Þórðarson (1749-1834). However the manuscript

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69

“Lbs 2306 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs08-2306>

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“Lbs 385 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs08-0385>

71

“ÍB 90 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/IB04-0090>

was inaccessible at the time of this study and therefore its contents are not included in the catalogue, though it remains a part of the corpus.

Lbs 631 4to is listed as ‘Samtíningur’ and primarily contains eddas, sagas, and annals, though its contents are admittedly vast. The manuscript consists of 98 paper leaves and potentially two unknown hands. The name given in the manuscript is that of Brandur Þórðarson, though no further information is known. The letter codes are located between sections on healing.<sup>72</sup>

JS 378 8vo is a manuscript which contains works on astronomy, linguistics and the natural sciences, as well as having two sections on both standard alphabets, ciphers and runes.<sup>73</sup> The title is given as ‘Miscellanea II’ and consists of 119 paper leaves. The manuscript was once a part of Jón Árnason’s collection. It was incorporated into the current collection in 1879.

Lbs 4689 8vo is listed as ‘Galdrakver’ and consists of 25 paper pages and one unknown hand. It does not contain ciphers, though portions of the manuscript resemble

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“Lbs 631 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs04-0631>

73

“JS 378 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/JS08-0378>

cipher scripts.<sup>74</sup> It is included in the corpus, though not the entry catalogue, due to its relevance and aid in understanding the history of cipher scripts and magic in Iceland.

AM 247 8vo is listed under the full title of ‘Galdur og forneskja, þulur, rúnir, villuletur, galdrastafir, um merkidaga og lækningar’ and is a primary example of the intersection of cipher collection and magic within Iceland in the late 18th-century.<sup>75</sup> The manuscript contains numerous entries on cipher scripts as well as runes, alongside magical staves known as ‘galdrastafir’, and other charms. It is comprised of 73 paper leaves.

ÍB 271 4to is listed under the given title of ‘Sögubók’ and does not contain an organized letter code entry, however it is listed as such.<sup>76</sup> It consist of 124 paper leaves written by two hands. It was kept by Þorsteinn Þorsteinsson (1825-1912) and given in 1871.

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74

“Lbs 4689 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs08-4689>

75

“AM 247 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/AM08-0247>

76

“ÍB 271 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/IB04-0271>

JS 545 4to is listed as ‘Samtíningur’ and consists of 255 paper leaves.<sup>77</sup> Included in the manuscript are numerous topics such as books on ethics, fairy tales, law, and letter codes. The letter codes follow a section on Christian devotion and thought. Though five scribes are listed for the manuscript, the individual responsible for the section on letter codes is unknown.

ÍB 35 8vo is a manuscript given the full title of ‘Samtíningur um grös, lækningar, steina, rím, villuletur, rúnar’ and contains an assortment of information relating to healing and the natural sciences such as botany, as well as entries on ciphers and runes. It consists of 16 paper leaves with an unknown number of hands.<sup>78</sup>

ÍBR 64 8vo is listed as ‘Samtíningur’ and primarily contains astrological works, chronologies, and religious material like the Bible, as well as household tasks like weaving.<sup>79</sup> The cipher material can be located between 58r to 73v. It consists of 116

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77

“JS 545 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/JS04-0545>

78

“IB 35 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/IB08-0035>

79

“IBR 64 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/IBR08-0064>

paper leaves, written in an unknown number of hands. It has notes from the students of Páll Pálsson *student*.

Lbs 2580 8vo has the given name of ‘Ættartala’ and is concerned first and foremost with genealogical material as well as astrology and palm reading.<sup>80</sup> The section on letter codes and runes follows the palm reading section and is followed by one on fishing. It consists of 175 paper leaves, and includes the hands of Torfi Sveinsson, Gísli Ásmundsson, Ólafur Eyjólfsson.

The fourth portion of the corpus spans the 19th century, not including those whose dates overlapped from the 18th-century and were given in the prior section. In total, it has 20 relevant manuscripts : Lbs 1349 4to (1800), Lbs 2413 8vo (1800s), JS 375 8vo (1800-20), Lbs 377 8vo (1813), Lbs 977 4to, (1818-1820), ÍB 164 8vo (1818-20), Lbs 590 4to (1840-1860), ÍB 383 4to (1860), Lbs 531 4to (1850-65), Lbs 532 4to (1850-6185), The Jónas Jónasson collection ( Lbs 5472 I-VII 4to) (1856-1918), Lbs 4627 8vo (1800s/1865), JS 149 fol. (1830-70), Lbs 2917 a 4to (1868-69), Lbs 2917 b 4to (1868-69), Lbs 2917 c 4to (1868-69), Lbs 2285 4to (1892-1895), and Lbs 2334 4to (1894).

To begin, Lbs 1349 4to is a manuscript consisting of 20 paper leaves, whose sole focus is the collection of cipher scripts under the title of ‘Rúnir’.<sup>81</sup> It includes dozens of

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“Lbs 2580 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs08-2580>

81

“Lbs 1349 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs04-1349>

cipher scripts by named entry, and was written in one hand of unknown origin. Its provenance is not known.<sup>82</sup>

The manuscript Lbs 2413 8vo, is also a work which also appears to suggest a conscious collection of ciphers, though with a greater emphasis on, and inclusion of, magical staves and general magic practice. It consist of 76 paper leaves, written in one hand.

JS 375 8vo is another text deemed as a ‘galdrabók’ by Handrit.is, and though it contains a significant amount of magic, there are named cipher entries scattered throughout the text.<sup>83</sup> It consists of 61 paper leaves and was written in an unknown number of hands.

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82

“Lbs 2413 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs08-2413>

83

“JS 375 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/JS08-0375>

In a similar vein, Lbs 977 4to is not tagged as containing letter codes nor runes, yet includes organized entries for them on multiple occasions within the text.<sup>84</sup> The rest of the manuscript contains entries on magic, the natural sciences, botany and palmistry.

ÍB 164 8vo is titled ‘Plánetubók’ and, like the previous manuscript which included the name, contains information on the natural sciences, superstition, palmistry and multiple cipher entries on 142 paper leaves.<sup>85</sup> It was written in one hand; that of Loftur Sigurðsson (1784-1824) and joined the current collection in 2011. Prior provenance is not known.

Lbs 590 4to is listed under the name ‘Samtíningur’ and is comprised of 173 paper leaves. It contains many hands, of which one belonging to Ólafur Sigurðsson Sívertsen (1790-1860) is known. The cipher entries as well as foreign alphabets are included at the beginning of the manuscript. Further materials include school work, weaving, and epistles.<sup>86</sup>

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“Lbs 977 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs04-0977>

85

“ÍB 164 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/IB08-0164>

86

“Lbs 590 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs04-0590>

ÍB 383 4to is the ‘Huld’ manuscript, which has already received much study in regards to its magical content. However, the work also includes numerous entries on ciphers and runes throughout the text, presented in the same organized format as is found in letter books. It consists of 29 paper leaves, and one hand; that of Geir Vigfússon (1813-1880). It was sent by Geir in 1874 to the collection.<sup>87</sup>

Lbs 531 4to was given the full name of ‘Íslenskar þjóðsögur og ævintýr’ and contains a considerable amount of material but none of it an organized cryptographic entry.<sup>88</sup> However it was listed as such and was therefore included in the study. The manuscript was written by Jón Árnason, whose collection has been referred to previously. It consists of 341 paper leaves, and the hands of numerous people.<sup>89</sup>

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87

“IB 383 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/IB04-0383>

88

“Lbs 531 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs04-0531>

89

Jón Árnason, Magnús Grímsson, Jón Þorleifsson, Jakob Björnsson, Magnús Jónsson, Þórarinn Jónsson, Páll Jónsson, Guðmundur Einarsson, Páll Pálsson, Sveinn Níelsson, Runólfur Guðmundsson, Gísli Konráðsson, Jón Norðmann, Skúli Gíslason, Ólafur (cont.)Sveinsson, Þorvarður Ólafsson, Jón Kristjánsson, Jón Þórðarson, Brandþrúður Benónýsdóttir, Runólfur Jónsson, Jón Sigurðsson, Ingunn Ólsen.

Lbs 532 4to is likewise by Jón Árnason, and given the title ‘Íslenskar þjóðsögur og ævintýri’.<sup>90</sup> It is paper, and in his hand. No further information is listed. The manuscript was together with the aforementioned one, and examined for organized cipher entries though none could be found.

The group of manuscripts attributed to Jónas Jónasson, includes seven manuscripts total with the shelfmarks Lbs 5472 I-VII 4to. Each of the seven works catalogue both magic and runes in varying degrees, with a conscious effort on Jónas’ part to include a table of contents in the final, 7th book. Ciphers and letter codes are only found in the fourth (IV) and seventh book (VII), though as the manuscripts are single group, each were examined and each considered relevant to the corpus. Each are given the title of ‘Galdrastafir’ and are of varying page length, but written on paper. They were given to the collection in 2007 from the previous owner, Ögmundur Helgason (1944-2006).

Lbs 4627 8vo is listed as ‘Galdrakver’, and is a magic book which utilizes runes in its entries to encipher key words, as well as includes entries on cipher scripts, though it appears that the main purpose of the text is the magical content. It consists of 32 paper

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90

“Lbs 532 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs04-0532>

leaves, written in three unknown hands.<sup>91</sup> The manuscript was donated to the collection in 1993 by Bára Halldórsdóttir.

JS 149 fol., given the name ‘Samtíningur um rúnir úr fótum Jóns Sigurðssonar’ is a lengthy compilation of materials composed at the end of the 19th-century. Listed as Danish in origin, it serves as a sort of runic research scrapbook, and contains copied material, book clippings, and sketches from the 17th-century on. The primary focus of the text is runes and rune stones throughout Scandinavia, however there are numerous, relevant entries on cipher scripts. Though Danish, those who contributed to the work were Icelandic, and therefore the text is a valuable example of shared information regarding cryptographic material between the two countries. It consists of 314 paper leaves with 21 hands.

Lbs 2917 a 4to is listed as ‘Galdrakver’, and is a manuscript containing palmistry, charms and similar materials. Its entries, like that of Lbs 4627 8vo, include the usage of runes to encode key words within the magical portions of the book. The book does however include cipher entries from 40v to 43r. Consisting of 58 paper leaves it was written in the hand of Olgeir Geirsson (1842-1880). Lbs 2917 b holds 46 paper leaves, and Lbs 2917 c 35 leaves. Lbs 2917 c 4to, follows the same format, however with multiple ciphers referenced within the context of other entries. The manuscripts are not listed as containing letter codes or runes according to Handrit.is.<sup>92</sup>

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91

“JS 149 fol” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/JS02-149>

92

“Lbs 2917a 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs04-2917a>“Lbs 2917b 4to” Handrit.is,  
accessed August 25, 2017, <https://handrit.is/en/manuscript/view/is/Lbs04-2917b>  
“Lbs 2917c 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs04-2917c>

Lbs 2285 4to is listed with the name ‘Efnisyfirlit’, and consists of 293 paper leaves of various content.<sup>93</sup> The sections on letter codes and runes are flanked by alphabets, grammar and sentence studies. It contains one hand, that of Sighvatur Grímsson (1840-1930).

Last for this portion, is Lbs 2334 4to, listed as ‘Lækningarit’, is a manuscript whose initiatory focus is on healing and medicine, but shifts into one of the largest collections of runes and cipher scripts within the Icelandic Corpus.<sup>94</sup> Presented in multiple chunks and between other materials, the cipher sections can be found between 198r to 284r. It consists of 294 paper leaves and was written with the same hand as the previous manuscript, that of Sighvatur Grímsson.

The fifth and final portion of the corpus for this analysis covers the manuscripts whose origin has been dated to between 1900 and 1950, of which there are only four: Lbs 4375 8vo (1900-1949), Einkaeign 1 (1928), and Einkaeign 2 (1928), and Lbs 3902 4to (1934).

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93

“Lbs 2285 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs04-2285>

94

“Lbs 2334 4to” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs04-2334>

To begin, Lbs 4375 8vo is a manuscript listed as a ‘Galdrastafir’ on Handrit.is, and its magical content far outweighs that of the ciphers, nevertheless between 27r and 34r, organized entries on ciphers can be found. It further lists that its contents were copied from a manuscript from 1676.<sup>95</sup> It consists of 71 paper leaves and was written in the single hand of Finnbogi Bernóðusson (1892-1980).

The largest, and most relevant manuscript of this portion of the corpus is that of Einkaeign 1. Deemed ‘Stafabók’, its only content is that of cryptographic material, and the organized entry of cipher scripts. The manuscript consists of 52 paper leaves and was written for Magnús Steingrímsson in 1928, though no specific scribe name is given.<sup>96</sup> Its companion, listed as ‘Samtíningur’, Einkaeign 2 includes only a few cipher entries, but predominantly serves as a table of contents and reference and consists of 170 paper leaves.<sup>97</sup>

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95

“Lbs 4375 8vo” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Lbs08-4375>

96

“Einkaeign 1” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Einkaeign-0001>

97

“Einkarign 2” Handrit.is, accessed August 25, 2017,  
<https://handrit.is/en/manuscript/view/is/Einkaeign-0002>

Last, Lbs 3902 4to is given the name ‘Leifar fornra þjóðlegra fræða íslenskra’, and consists of an overwhelming 500 paper leaves.<sup>98</sup> The work was written in one hand, that of Þorsteinn Konráðsson (1873-1959). Its content includes charms, healing, and letter codes, and shows a dedicated collective effort on part of the scribe.

In total, though 142 manuscripts held the potential for inclusion in the present study, the corpus was narrowed down to the 60 manuscripts mentioned above. The manuscripts thus chosen for this study were shown to contain varying degrees of ciphers and runes. Some manuscripts, which were predominantly magical in their focus and intention, included cipher scripts of non-runic origin, whereas other manuscripts which included ciphers, likewise included the traditional runes of the Elder and Younger fupark. The corpus therefore represents the varied state of alternative alphabets present in Iceland between the Post-Medieval period and the current day, and their place in the eyes of the people. Manuscripts found to contain ciphers or runes also varied in regards to their overall content. Though not examined in great depth, and primarily provided for context here, the content of relevant manuscripts could vary from sagas, poems, rhetoric and history, to healing charms, religion, and outright magic. Likewise, the two centuries found to be richest in cryptographic material were the 18th and 19th centuries, which together represent almost 2/3 of the entire corpus. Furthermore, the bulk of the cipher material, both in regards to number of entries as well as number of relevant manuscripts, drastically increased from the second half of the 18th-century onward; a fact which coincides with the apparent establishment of a tradition in ‘letter books’ or ‘letrakver’.

However, the question must be raised as whether there exists a reason that the record might appear as it does, and with its current numbers. Even aside from the stated limitations of the study, the corpus is not without concerns, as the historical time frame of the works’ construction coincides with not only political strife, but avid witch hunts

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98

“Lbs 3902 4to” Handrit.is, accessed August 25, 2017, <https://handrit.is/en/manuscript/view/is/Lbs04-3902>

within Iceland and Scandinavia, as well as growing religious tensions, and the later, 18th century fire at the University of Copenhagen which resulted in a dramatic loss of materials.<sup>99</sup> Due to their time, each event could have not only had an impact on the reception of relevant cipher materials to the present, but likewise played a role in the open creation of the materials in the first place— as with the case of the witch hunts and growing Lutheran investment in the eradication of witchcraft from 1618 and up to the 1655 Kirkjuból Trials. Therefore it is imperative to keep in mind when reading the following analysis, that the 16th, 17th, and 18th century manuscript count should in no way be interpreted as conclusive, nor a full representation of the state of the practice at the time. Instead, the value in the aforementioned materials is for what they can reveal to us now, and what their numbers, missing or otherwise, might reveal about the social perceptions of the time— a detail which will be explored later.

## 5. VISUAL CHARACTERISTICS & VARIATION

Unlike in a standard paleographical analysis, the script of ciphers cannot be examined by features such as variation found in specific letter forms. Nor can similarities in the encoded script be used to discern with any degree of confidence the same hand. However what can be noted, are variations among ciphers which have been attributed the same name, and this is the focus of the present visual analysis. Considering the 1,639 individually identified cipher entries within the examined corpus, as well as the numerous duplication in names, the same approach was taken as one might use in noting script type and variation in paleography.

Though the central focus of this study is on the naming attributes of the individual ciphers, the potential for the existence of a correlation between the visual

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99

Kåre Luring, *Byen brænder - den store brand i København 1728*. (Copenhagen: Gyldendal, 2003).

characteristics and general shape of a cipher, and the name attributed to them, make the inclusion of a visual analysis necessary. Visually speaking, the varying cipher scripts can be divided into categories based on key aspects of their composition and letter shape. Though previous categories like these exist for ciphers, for the purpose of this investigation I have elected to denote my own categories as they pertain to the Icelandic record.<sup>100</sup> In doing so, it allows for a more precise analysis which emphasizes the opportunity for the clarification of indigenous and non-indigenous Icelandic cipher scripts, as well as how the visual characteristics might connect back to the names. Over the course of the study eight cipher categories have been noted.

### Runic

The first category is what, for the purpose of this analysis shall be referred to as Runic. Runic ciphers are letters whose shape and general characteristic shows a familiarity with the historical rune systems of the Elder and Younger fupark, or their Germanic or Anglo-Saxon counterparts. The cipher scripts which are henceforth referred as Runic include a straight lines with no curved component to the letter's shape [𐌿 𐌺 𐌻 𐌽 𐌾 𐌿]. Typical for this style would be a shape that could be carved easily, or is boxy (though not to be confused with a true Box script). When recorded in the manuscripts, the runic ciphers can be listed vertically, as presented in Worm's *Literatura*, in three lines as according to the standard aetts, or horizontally in the same manner the Latin alphabet may be presented. The subcategory of what are known from *Runologia* as 'cipher runes' are included in this class, due to their historical link to runes.<sup>101</sup> Below are four examples of a Runic script as found within the Icelandic

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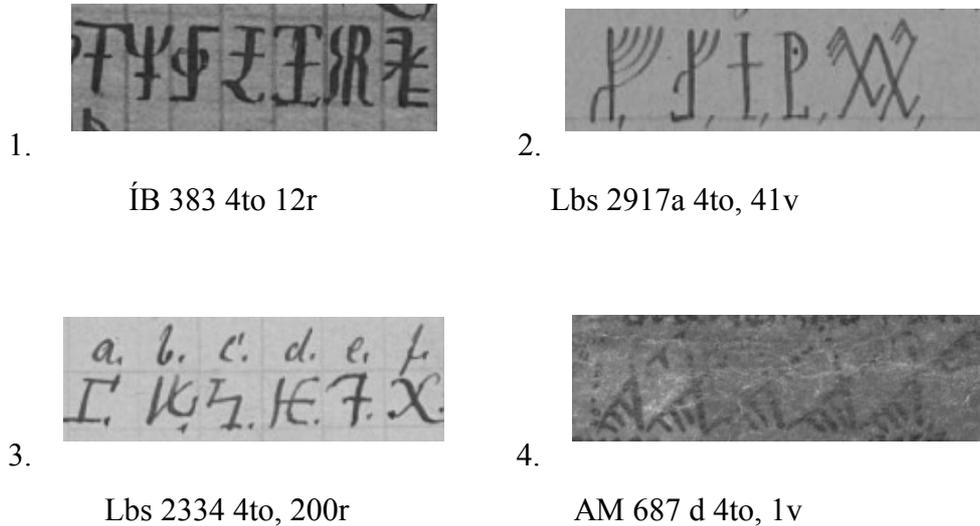
100

The categories referred to here can be found on Jón Ólafssons *Runologia*, in which he divided what he deemed to be 'cipher runes' into categories such as 'tent', 'branch', 'tree', or 'hook'.

See: Lars Magnar Enoksen, *Runor: historia, tydning, tolkning*, (Falun: Historiska Media. 1998). p. 85

corpus, the last which is an example of the ‘cipher rune’ script found in the Marian prayer leaflet referenced earlier and as copied in *Runologia*.

Fig. 3



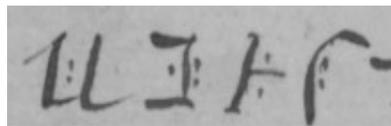
### Hebraic

The second cipher category based solely on appearance and structure are the Hebraic ciphers. This category is further divided into a subcategory based upon the characteristics found in, and promoted by Ceremonial magic texts like that of Heinrich Cornelius Agrippa. The reasoning for this, is that the texts such as those, actively created their ciphers based on the Hebrew alphabet. An example of this would be the Enochian Alphabet, or the Celestial Alphabet. However, as not all Hebraic ciphers are connected to the Ceremonial traditions, those with clear connections have been relegated to their own subcategory.

For more information see the Swedish Rök Runestone and AM 687 d 4to.

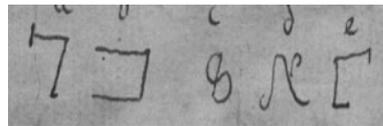
The typical structure of a Hebraic cipher is that it will appear to follow the Hebrew script, sometime but not always with the inclusion of letter names such as Aleph, Beth or Tau. Furthermore the characters follow simple, straight lines, with the key difference between the two categories being the presence of rounded terminals. These terminals, which are not found on standard Hebrew script, are additions associated with the writings of ceremonial magic during the period. Below are six examples of Hebraic scripts, two standard, and two of which belong to the second category of Ceremonial. The last two, listed as 7a and 7b, are meant to show a comparison of a well-known Ceremonial script among the Icelandic record, to that which was printed in the 1801 text, *The Magus*.

Fig. 4



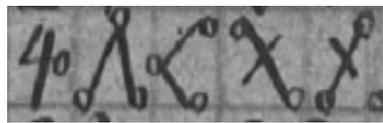
1.

ÍBR 64, 62r



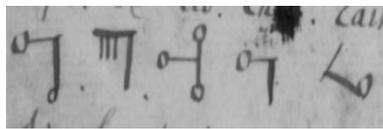
2.

Lbs 1349, 3v



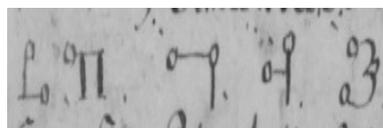
3.

ÍB 383, 11r



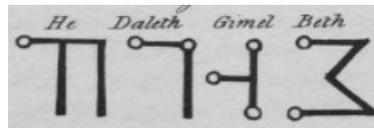
4.

ÍB 64 8vo, 70v



7.

Celestial Alphabet, ÍB 64 8vo, 70r



7b.

Celestial Alphabet from *The Magus*<sup>102</sup>

## Alchemical

The third visual category of ciphers is that of the Alchemical cipher, or a letter code which utilizes alchemical symbols and has assigned to them a separate meaning. Cipher codes such as these were commonly used among secret societies on the Continent during the Early Modern era, such as the now famous ‘Ocular Cipher’ or ‘Coppiale Cipher’.<sup>103</sup> Their appearance includes symbols such as the one for mercury (



), sulfur (



), gold (



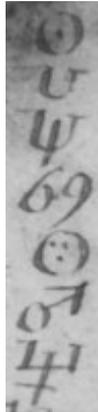
), and others. Cipher codes which include alchemical symbols might not include all symbols, nor might all letters within the code be alchemical in origin. Oftentimes the symbol will be mixed alongside a second, shifted, Latin letter. The benefit to Alchemical ciphers is two-fold. On the one hand they require a background in alchemical knowledge or education, therein providing for us as modern analysts, an insight into the sort of individuals to whom these manuscripts belonged. The second benefit is their visual cues are quite distinct, making comparisons a simpler task than most. Below are four examples of Alchemical ciphers found within the Icelandic manuscript corpus.

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103

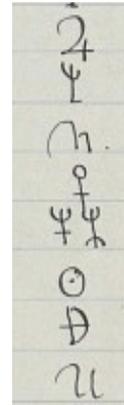
Kevin Knight, Beáta Megyesi, and Christiane Schaefer. "The Coppiale Cipher." In *Proceedings of the 4th Workshop on Building and Using Comparable Corpora: Comparable Corpora and the Web*, (Association for Computational Linguistics, 2011).p. 2-9.

Fig. 5



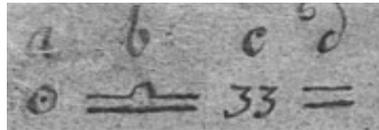
1.

ÍB 64, 73-v



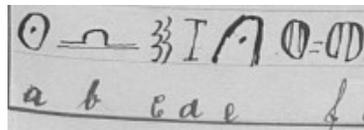
2.

Lbs 3902 4to, 319r



3.

4.



Lbs 4858 8vo, 12v

Lbs 3902 4to, 57r

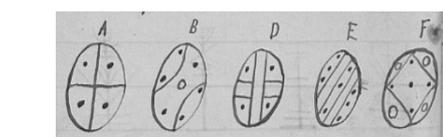
### Shape

The fourth cipher category is that of Shape ciphers. Alphabets based upon this class of cipher include characters which do not resemble a standard alphabet in anyway, and instead are visually rooted in the replication of shapes. This can range from standard geometric shapes, to more detailed shapes including that of animals, or even ships. This category has two primary sub-categories, that of the Circle ciphers, and that of the Box ciphers.

The Circle cipher often have each letter being portrayed by a circle, with the cipher variation depending on dots, or lines within the circle, such as those depicted in

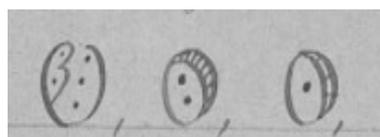
items 2-4 listed below. Circle ciphers are distinct from the rounded terminals of the Hebraic ciphers because this category is not defined by the addition of circles, but by the circle being the predominant shape and base structure of the letter itself. The second subcategory, Box ciphers, are much like Circle ciphers in that the box is what determines the letter's shape. These ciphers however are unique in that they include what is known as the Pig-Pen cipher of the Freemasons, and were some of the most widely used not only in Europe, but in North America as well.<sup>104</sup> The Box ciphers, like the Circle ciphers, have each letter being denoted by the inclusion of number of lines or circles within the shape, however unlike the Circle ciphers, the Box cipher may also have one or two of its foundation lines missing.

Fig. 6



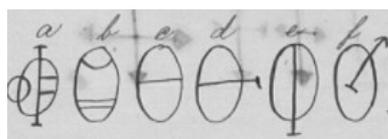
1.

Lbs 4375 8vo, 27v



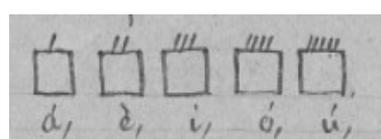
2.

Lbs 2917a 4to, 43r



3.

Einkæign 1, 45r



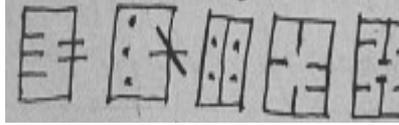
4.

Lbs 2917 a 4to, 40v

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104

David E. Newton "Freemason's Cipher." *Encyclopedia of Cryptology* (1998).



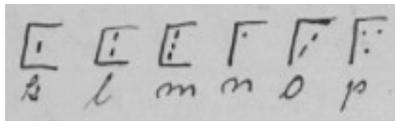
5.

Lbs 2334 4to 201v



6.

Lbs 977, 69r



7.

Einkæign 1, 5r



8.

Fig-Pen Cipher, JS 149 fol., 34r

### Shift

The fifth cipher category is the classic, letter-shift cipher as promoted by *Steganographia* by Johannes Trithemius, here simplified to Shift cipher.<sup>105</sup> In these ciphers, Latin characters are used, however the letters will not equate their standard meaning; ‘A’ might equal ‘B’, and ‘B’ might equal ‘C’, and so on, with the potential for more advanced ciphers to have ‘A’ equal to ‘X’, and ‘B’ equal to ‘T’. Due to their lack of a distinct appearance, these ciphers create a challenge as far as understanding the extent of their variance as a whole. Nevertheless, they are easy to spot among the record

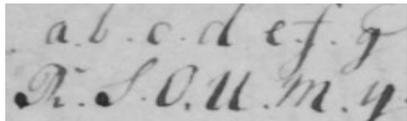
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105

Johannes Trithemius,. *Clavis Steganographiae Ioannis Trithemii abbatis Spanheimensis ad serenissimum principem Dn. Philippum Comitem Palatinum Rheni ducem bauariae imperij electorem*. Francofurtensem: Apud Iohannem Bernerum, 1608. [Archive.org]

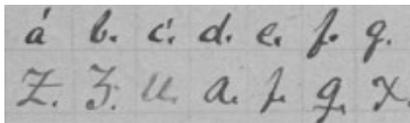
specifically as a result of their usage of Latin letters, which stands in contrast to the complex visual characteristics of the other cipher scripts. Furthermore, this form of a cipher was one of the most popular beyond Iceland, and was utilized and promoted by individuals such as Francis Bacon.<sup>106</sup> Below are four examples of a Shift cipher.

Fig. 7



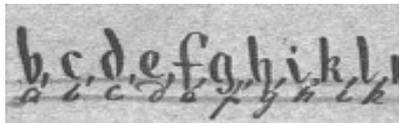
1.

2.



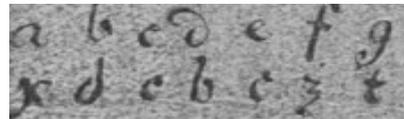
ÍBR 64 8vo, 61r

Lbs 2334 4to, 198v



3.

ÍB 383 4to, 4r



4.

Lbs 4858 8vo, 15v

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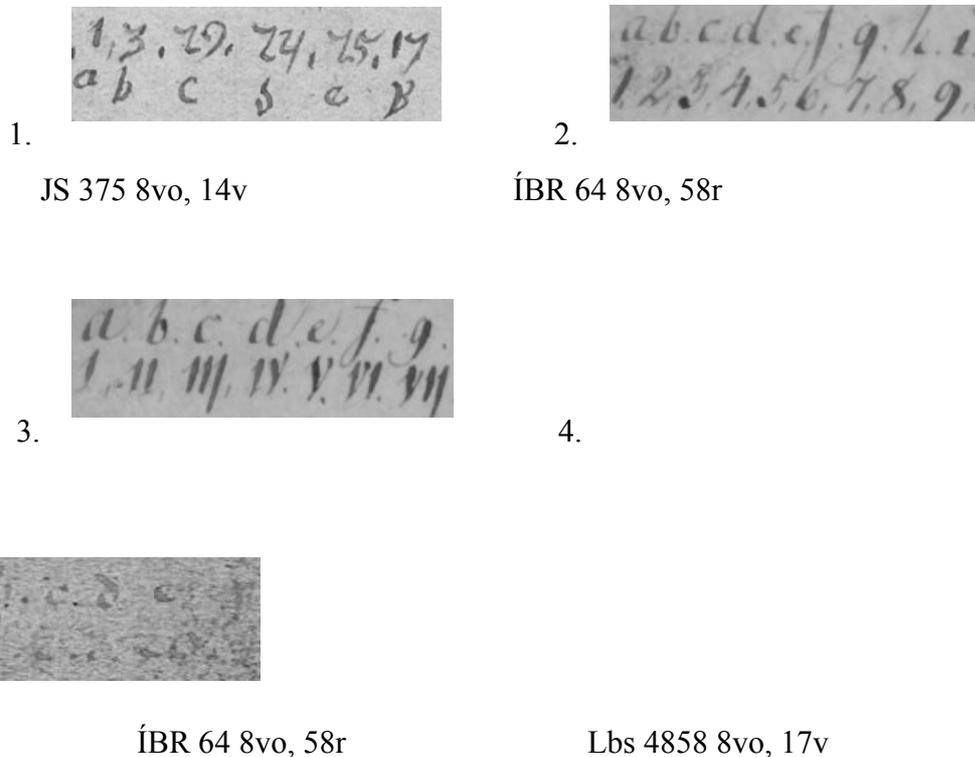
106

Francis Bacon, *Of the Advancement and Proficiency of Learning*. Translated by Wats, Gilbert. Oxford University (1640): 257–271.

## Number

The sixth cipher category is a Number cipher, where a number has a second alphabetic quality. In this system of ciphers, the physical attributes are only those which can also be assigned to a numerical system, such as ‘1’ is equal to ‘A’, ‘2’ equal to ‘B’, and ‘3’ to ‘C’. However like the previous ciphers with connections to *Steganographia*, the numerical cipher can be two fold, wherein ‘1’ is ‘4’, ‘2’ is ‘8’, ‘3’ is ‘10’. Though heavily connected the previous cipher category, the numerical ciphers are to be considered distinct nonetheless for the purpose of this analysis. Below are four examples from the Icelandic corpus.

Fig.8

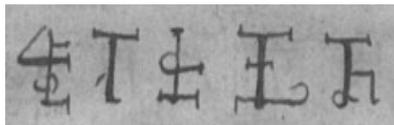


## Stave

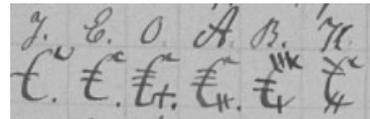
The seventh cipher category is a Stave based cipher. Aside from those which have clear connections to the Ceremonial practice, these ciphers have the clearest visual connection to magic, and in the case of Iceland many mimic the qualities found in the ‘draumstafir’ and hold a trend of visual distinction, that implies a uniquely Icelandic

origin. Though there is considerable overlap with the runic ciphers, the Stave ciphers remain distinct due to their complexities and exaggerated forms which hold no fuþark equivalent. The category can be divided into the simple Stave ciphers, such as items 1 and 2, and the complex Stave ciphers of 3 and 4, provided below.

Fig. 9



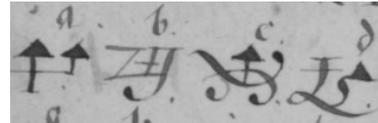
1.  
Lbs 1349 4to, 8r



2.  
Lbs 2334 4to, 200v



3.  
Einkæign 1, 45r

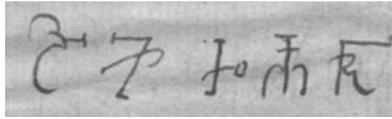


4.  
ÍBR 64 8vo, 63-v

### Blended

The eighth cipher category found in Iceland is what perhaps may be the largest category of them all, the Blended cipher. In this category, there is a visual connection between runes and Hebrew, or Greek lettering to such an extent that they appear to be conscious blends of the two. This is separate from the previous, ‘Ceremonial’ scripts, which were created variants of Hebrew, and are separate from Runic ciphers due to their unique, though remarkably varied shapes. Many ciphers within the record which were given religious names, such as those from the Bible, fall into this category.

Fig. 10



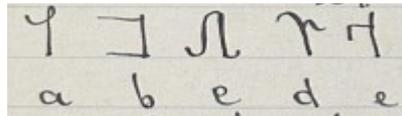
1.

Lbs 1349 4to, 6v



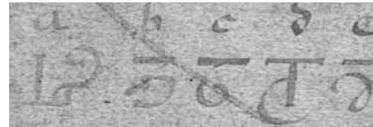
2.

Lbs 977 4to, 69v



3.

Lbs 3902 4to, 316v



4.

Lbs 4858 8vo, 63r

The categorization of Icelandic ciphers from a strictly visual perspective is not useful, nor responsible however if not continued on through a linguistic analysis. Many of the aforementioned ciphers are presented in ways which show that though they may be Hebraic, were for example recorded and structured according to the Runic Ætts. To ignore this distinction is to ignore the idea that a Hebraic cipher was invented from a person consciously basing it off of Norse runes. Furthermore, by focusing solely on the physical characteristics, a major aspect of the cipher systems is still neglected, which is their name attributes, and the primary focus of this thesis. For this, a linguistic analysis was conducted so as to delve deeper into understanding how the varying ciphers were perceived in Iceland throughout their apparent period of use.

## 6. ANALYSIS OF CIPHER NAMING ATTRIBUTES

The catalogue of the Icelandic Cryptographic Corpus, containing entries at a count of 1,639, is too great to outright list here. However, though each cipher and its

occurrence has been included in the appendix at the back of this thesis, the intention of this segment is to summarize the data as it pertains to the individual names, and their prevalence rates.

### The 'Rúnir' / 'Letur' Division

Following the tally's completion it became apparent that the 'rúnir' designation far outweighs the final count of 'letur', though numerous entries within the record were either not assigned names, or contained names beyond these two. Altogether, the categories of 'rúnir' and 'letur' represented approximately 2/3 of the entire Icelandic cryptographic corpus. With this in mind, the task was undertaken to see if there was evidence of a conscious, linguistic division with regards to varying characteristics of the ciphers. The data was thus analyzed in regards to type, time, characteristics and repetition.

### Type

After examining the corpus, the final count of the occurrences of the term 'rúnir' or its variants, appears as the primary component of a cipher title approximately 784 times. This number varies in some degree however, as some portions of this count were ciphers listed in tables, and not assigned names individually. Often times these tables included a count of 9-12 separate cipher alphabets; as a result, the total number of cipher scripts assumed by the author to hold the title of 'rúnir' could be much higher than what is represented in the finalized data.<sup>107</sup> As stated previously, the contents of these tables were listed to the best of my ability in the catalogue, under the name or title given at the top of the table and with subsequent numbering in parenthesis.

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In this case, tables were primarily assigned the name 'málrúnir' though many can be founded as 'unnamed' in the catalogue as well.  
See ÍB 383 4to, 6r for an example.

In contrast, the term ‘letur’ appeared 404 times within the record. Of this count, those with a ‘letur’ designation were found to contain an additional name in all but one occasion, which the entry simply listed ‘letur’. In this instance, those with the term ‘villuletur’ or other name components were still regarded as possessing a ‘letur’ title. In short, ‘letur’ was generally not perceived as an independent category, but rather represented an aspect of a title. This is in mild contrast to how we see ‘rúnir’ being used, where though it too is seldom seen alone, the term ‘málrúnir’ appears in a remarkable quantity, suggesting that it served the purpose of a category designation.

During the analysis it was discovered that there were instances of overlap between the two categories, i.e. ‘rúnaletur’. On this occasion, the determining factor of the name, is what was used for categorization purposes. In total, the overlap occurred in ten manuscripts, on 16 occasions, of which 15 were ultimately resigned to the ‘letur’ category in this study.<sup>108</sup> Lbs 2334 4to contained the greatest number of overlap, using the term ‘rúnaletur’ five times. Einkaeign 1 was the only manuscript which contained an entry categorized as ‘rúnir’, though the entry lists ‘rúnir’ as an alternative title, therefore it is hesitantly added. For those ciphers which did possess both aspects, there did not seem to be a correlation between the titles, nor the visual characteristics of the cipher scripts aside from generally resembling runes, or falling under the aforementioned Blended category of cipher.

As ‘rúnir’ and ‘letur’ only represent 2/3 of the examined corpus, this leaves many other titles used among the record unexamined. The main alternative titles were those which included ‘staf’ in the name, or were given the name ‘þrídeilur’(or ‘deilur’), ‘alphabet’, or ‘villingar’. Overall, the component ‘vill’ occurred 87 times in the record, divided between terms like ‘villu letur’ and ‘villingur’. Worth noting is that though the term ‘villu letur’ is the modern Icelandic term used for letter codes, and the term used

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Manuscripts include Einkaeign 1 47r and 48r, Lbs 4858 8vo 57v, Lbs 1349 4to 4r, Lbs 2306 8vo 8r, ÍB 165 8vo 52r, Lbs 2334 4to 278v, 279r (x3), 280v, ÍB 383 4to 3v, Lbs 4858 8vo 63r (x2), JS 149 fol. 123r.

on Handrit.is to denote manuscripts which contain cryptographic material, the ‘villingar’ distinction with regards to ciphers among the corpus, was overwhelmingly connected to the Shift cipher category, and more often than not was associated with a cipher consisting of Latin based letters. Seldom was ‘vill-’ applied to a genuine, alternative letter form or script. This therefore suggests that though in modern Icelandic ‘villu letur’ is equal to ciphers, historically speaking there is reason to suggest a social understanding that a cipher which used the term ‘vill-’ was a cipher, but not all ciphers would have been defined as ‘villu letur’. The name component ‘ram[m]’ appears 24 times within the record, and in each case but one, is followed by some variant of ‘vill’, such as ‘villu’ or ‘villingar’. However, like ‘málrúnir’ the ‘ram[m]’ distinction was also utilized in tables and not only independent entries, therefore as the initial tally only included individual titles as they are listed, it is possible that the number is much greater.<sup>109</sup>

Entries attributed with the title ‘alphabet’ were also included in this study and are represented in the total cipher count due to the variance found in the scripts. Ciphers which referred to a country or group of people with a Latin grammatical ending or term, such as ‘Hebræ’ or ‘Indium’ were often listed as ‘alphabets’, though the scripts were not necessarily found to be authentic. Furthermore, cipher scripts found in Ceremonial magic texts often are recorded with the title of ‘alphabet’, though they are otherwise categorized as ciphers in the record.<sup>110</sup> For this reason, any entry that resembled an

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For an example of this kind of table, please see Lbs 977 4to 76v. In this instance, the table shows nine ciphers attributed to the ‘Ramm villa’ title, but was recorded in the catalogue as a single entry for the time being and will be updated shortly.

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See Celestial Alphabet, Barrett, “The Magus: Book II”, 64.

alternative alphabet was recorded in the catalogue. A comparative study was not done on all instances in which ‘alphabet’ occurred to determine a rate of authenticity versus true cipher classification. Therefore it is possible that a small portion of the 22 entries in the catalogue listed as ‘alphabet’, are not true ciphers. Nevertheless, initial examination would put the estimate of this at less than five.

Other type categories included in the study but not listed separately, were those which fell under the ‘ætt’ designation, such as ‘Fés Ætt’, ‘Hagalls Ætt’ and Týrs Ætt’, as well as ‘vocalis’. Though both of the categories serve a non-cipher purpose—in particular the ‘ætt’ referring to a basic system of understanding the fupark in a similar manner as the ‘þrideilur’ designation, the usage of these terms is distinct in the record, where each ‘ætt’ listing can be complete ciphers in and of themselves. In some instances the ciphers are divided, such as the division between the ‘Férs Æett’ and ‘Haggalls Æett’ on 47r of Lbs 2917a 4to, where the first is the standard alphabet and the second are numbers, but this does not appear to be true across the board. Meanwhile, ‘vocalis’, which is simply Latin for ‘vocal’, is shared with the Icelandic ‘mál’, however the term appears to predominantly be used for cipher scripts that only include vowels.<sup>111</sup> The term ‘vocalis’ occurs 23 times within the record, with six entries falling under the ‘rúnir’ designation.

In general, the cryptographic record as it was examined contained a fair degree of variability. Though only ‘rúnir’ and ‘letur’ were examined in great detail over the course of this study, the remaining cipher categories as they were named never exceeded a count of 50 per attribute. Overlap was generally found to be rare, and when occurred, was overwhelmingly designated as ‘letur’. Therefore, though the corpus was large, and there remains issues surrounding the total count of cipher occurrences due to the

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111

For example, see ‘Puncta letur vocalis’, Lb 2306 8vo, 10v.

frequency of tables, the names as they were recorded on individual instances suggest a preference among the Icelandic record for the 'rúnir' designation above anything else.

## Time

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Though the manuscript record was previously broken down from a chronological standpoint with regards to the manuscript witnesses themselves, the intent of this section is to explore notable shifts in terminology within the record. In short, the purpose of this portion of the analysis is to build off the previous count, by seeking to determine whether one century was more likely to refer to a cipher as 'rúnir' or 'letur'. This is valuable for three reasons. 1) The data could suggest a general shift in the Icelandic language, where one category was more favored than the other, or one term overtook the other in usage. 2) The data could correlate to key publications and thereby represent the influence of a relevant text. 3) It could reveal that time held no influence at all.

To begin, the 17th century records, when they include a named entry, use 'rúnir' on a 5 to 1 basis to 'letur', however in most cases, cipher scripts during this time are not provided a title. Records from the 18th century are split with regards to favoring one term over another. The manuscript Lbs 4858 8vo, included 57 entries with 'rúnir' but in contrast, only 19 with 'letur', however the majority of the entries within this text were either unnamed, or assigned a different name altogether., meaning that almost 3/4 of the entries from this period did not fall under 'rúnir' or 'letur'. What this therefore suggests is that either the scribe themselves was unaware of names to assign to the cipher scripts, or it raises the possibility that the tradition was not yet established.

On the other hand, Lbs 2306 8vo from 1780, had 37 of its 58 total entries labelled as either 'rúnir' or 'letur', and is almost equal in its inclusion of both, with a small preference for the 'letur' designation with a count of 22 to 15. What therefore appears to be represented is a growing practice in Iceland during the 18th century for not only assigning cipher scripts a name, but simultaneously standardizing the practice, albeit slowly. Furthermore, were the dating of the manuscripts able to be further narrowed down to the second half of the century, this would correlate to a period in time where the treatise, *Runologia* was beginning to circulate.

As the record extends into the 19th century, the two terms remain somewhat in balance, with only a slight preference for one term or another being found in most cases, and an average difference of +/- 2. Worth noting however, is that manuscripts during this time that contained magical content as well as ciphers, were more likely to include the term 'rúnir' over 'letur' by a substantial margin. Additionally, it is during the 19th century where the record begins to show the strongest correlation between magical content and ciphers. Where in previous centuries the two traditions remained minimally overlapped, nearly all manuscripts from the 19th century portion of the corpus contain magic in conjunction with the cipher scripts.<sup>112</sup> Furthermore, two notable trends exist in the record, with a large increase in ciphers being recorded between the 1780's and the 1820's, and then another jump following the 1860's.

To summarize, the cipher record expands drastically for Iceland as time continued, with the average total cipher count within any text to range from 2 to 60, where the great majority of earlier manuscripts contained less than 10. Aside from the AM 687 d 4to, which contained 16 cipher scripts, the average cipher count for the 16th and 17th centuries per manuscript is 2. It is not until 1780 where the average begins to increase to 60. From there, the next largest jump occurs in 1790 with AM 247 8vo, extending to 134, and following this jump, manuscripts which contained cipher entries in the 19th century averaged 60 as well, though with some exceptions extending beyond 200.<sup>113</sup> Additionally, the 'rúnir' designation remained the most common, only being

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Of the 31 manuscripts from this period, 25 contained reference to magic, or content which at the time of their composition would have been regarded as such i.e astrology or palm reading. These have been designated in the Appendix.

113

ÍB 383 4to and Lbs 2334 4to

exceeded by ‘letur’ in 7 of the 60 manuscripts between the late 18th, to mid-19th century.<sup>114</sup> The earlier manuscripts in the corpus showed less evidence for a practice designating a name for the ciphers, whereas the later tradition saw a drastic increase in the practice that hints at a standardization.

### Characteristics

With the previous visual analysis in mind, the purpose of this section is to highlight whether a correlation exists between the shape of a cipher and the name attributed to it. Through conducting such a study, it could reveal whether or not the Icelandic use of the term ‘rúnir’ or ‘letur’ was connected to the shape of the cipher script itself. For example, whether all scripts which resemble the classic shape of the fuþark contain the title ‘rúnir’, and if so, what of the more complex shapes? Further value in comparing characteristics lies in being able to trace potential strains of cipher variation, and therefore better understand transmission history of cryptographic material in Iceland as well as potential origins.

The initial survey of the corpus suggested that a correlation did in fact exist between those ciphers of Runic shape being assigned the title of ‘rúnir’, though not all which fell into this designation resembled runes. Ciphers with a box shape, as is most often found with ‘klapp-rúnir’, were consistently applied the ‘rúnir’ category, likely a result of being one of the earlier scripts to be designated a title.<sup>115</sup> Furthermore, Shape

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114

Lbs 2306 8vo, JS 378 8vo, ÍBR 64 8vo, and Einkaeign 1.

115

See the aforementioned *Literatura Runica*, and *Runologia*.

ciphers, were more likely to be found under the ‘rúnir’ designation, particularly those with the title of ‘sól’ or ‘kistu’.

As for the ‘letur’ category, it was considerably the most varied with regards to visual characteristics, and held the highest rate of both Stave based ciphers, and Shift ciphers among the two. Hebraic ciphers in contrast, were found to be relatively balanced between the two categories, with no discernable, visual reason for being attributed to one category or another. However, those with biblical attributes to their names, such as ‘Samaritan’ or ‘Ismael’ were more likely to be regarded as ‘letur’. Additionally, those with dots, or with magical appearances such as rounded terminals, also had a higher prevalence of being deemed ‘letur’. Finally, Numerical ciphers, or ciphers which used numbers in place of traditional letters, were recorded primarily under the name ‘tölu letur’ and therefore also fell under this distinction, regardless of not being traditional letters. This category was also remarkably standardized among the record, and suggests that the title of ‘tölu letur’ was a common, or widespread Icelandic term for Numerical ciphers.

Beyond these two categories, ciphers which were shift-based, and relied on the Latin alphabet were more likely to receive the term ‘villu’ in their name, and not be regarded as either ‘rúnir’ or ‘letur’, but as ‘villingar’ or ‘rammvillingar’, though some overlap did occur. Finally, many of the ciphers which were not included in the ‘rúnir’ tally, due to their designation as ‘þrúðilur’ or ‘ætt’, were nonetheless Runic, and likewise would have been understood as runes, regardless of the details of their title. However, for the purpose of this study, the sorting and the comparisons conducted were done so under the provided names only.

### Case Studies in Variation

For this portion of the analysis, four duplicate cipher names were compared across their occurrences to understand 1) to what extent they were directly copied 2) if the names varied, and 3) if the ciphers themselves varied regardless of sharing a name. The four ciphers chosen for this were ‘Adams letur’, ‘Haugbúa letur’, ‘Grænland letur’, and ‘Puncta letur’. The aforementioned ciphers were chosen for their repeat occurrence

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‘Klapp rúnir’ is also found with many variants, not always in a Box shape, though they still receive the ‘rúnir’ designation.

(each occurring over five times within the corpus) and their varying levels of consistency in naming. Furthermore, 'Adams' was selected for its historical value, as a possible connection the Antiquarian concept of an original Adamic script from the Garden of Eden.<sup>116</sup> This theory, as a part of the time, would have been one Worm and his audience were exposed to.<sup>117</sup> 'Haugbúa' was selected due to its presence in the earliest record as well as being reintroduced in *Runologia*. 'Grænland' was chosen for its place between being an authentic alphabet, and an invented one, likewise presented in *Runologia*. Last, 'Puncta' was selected for its unique visual characteristics. However as you will see, though two of the four case studies were included in a significant text, this does not necessarily suggest a clean transmission nor direct line of influence. As a final note, 'Málrúnir', though another notable set of runes, could not be included in this comparative study for the reason that its variation is too great.

### Adams

The first case study, 'Adams', revealed that the cipher's name occurs on 11 occasions within the record. It is a predominantly Hebraic cipher, though with features that could be considered 'Blended', such as the presence of the Algiz rune shape (Ÿ). Some examples of the cipher, could be classified as Stave based. The nine manuscripts

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116

Thomas Willard, "Rosicrucian Sign Lore and the Origin of Language." *Theorien vom Ursprung der Sprache* 1 (1989):134.

117

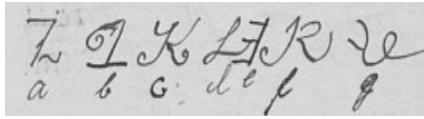
Tarrin Wills, "The reception of myths concerning literacy and poetry." In *International Saga Conference, Sydney 3 June 2000*. (University of Sydney. 2000): 576

which contain ‘Adams’ ciphers are ÍBR 64 8vo, Lbs 3402 8vo, Lbs 1349 4to, Lbs 977 4to, ÍB 383 4to, Lbs 2917 a 4to, Lbs 2334 4to, Lbs 3902 4to, and Einkaeign 1. Of these, only the Lbs 2334 4to was found to have applied the term ‘rúnir’ to the script, though it included an entry under the ‘Adam’ name, utilizing ‘letur’ as well.

Of the 11 occurrences, the same script only appears twice, in Lbs 1349 4to and Lbs 977 4to. A secondary strain might be seen with ÍBR 64 8vo and Lbs 2334 4to (‘letur’ designation). However, the ‘Adams letur’ present in Einkaeign 1, ÍB 383 4to, and Lbs 2917a 4to are both distinct from the other scripts in regards to style and complexity, and the ‘Adam rúnir’ found in Lbs 2334 4to is similarly distinct, though not any more notably runic in appearance.

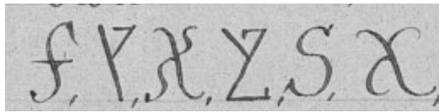
From a visual standpoint, the script found in ÍB 383 4to is the most distinct, possessing rounded terminals, complex shapes and unique structures, though it still contains some level of Hebraic influence, if not convoluted. The second most distinct variant of the ‘Adams’ ciphers is that of Lbs 2334 4to (‘rúnir’ designation). The main similarity this cipher, as with the rest given this name, is central staff that each letter uses.

Fig. 11



A.

B.



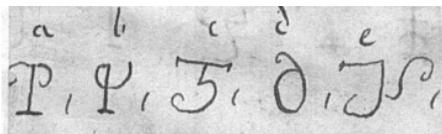
Einkaeign 1, 4r

Lbs 2917a 4to, 42r



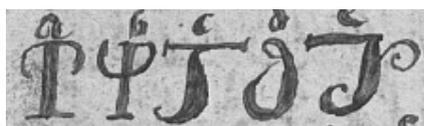
C.

D.



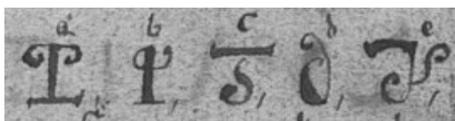
ÍB 383 4to, 10v

Lbs 1349 4to, 2r



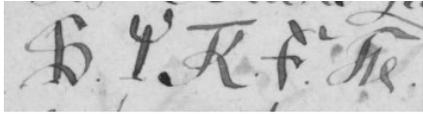
E.

F.



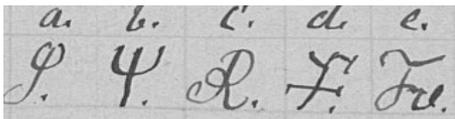
Lbs 977 4to, 67v

Lbs 3402 8vo, 107r



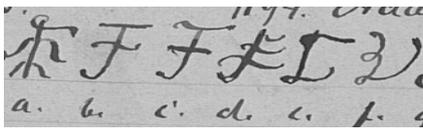
F.

G.



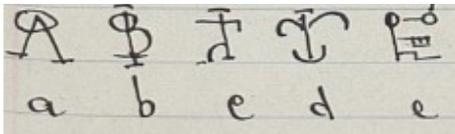
ÍBR 64 8vo, 63r

Lbs 2334 4to, 199r



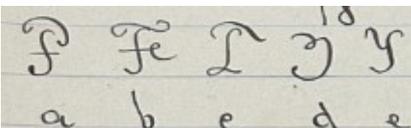
H.

F.



Lbs 2334 4to, 238r

Lbs 3902 4to, 314r



J.

Lbs 3902 4to, 316r

## Haugbúa

The second case study is much larger, focusing on the so-called ‘Haugbúa letur’, which occurs in the record on 30 occasions. This title covers two main cipher types, the Shift cipher, and the Runic cipher. In total, the the ‘Haugbúa letur’ is found in 14 manuscripts: AM 687 d 4to, Lbs 4858 8vo, Lb 2306 8vo, Lbs 385 8vo, AM 247 8vo, ÍBR 64 8vo, Lbs 3402 8vo, JS 377 8vo, Lbs 977 4to, JS 149 fol., Lbs 2334 4to, Einkaeign 1, and Lbs 3902 4to. Each occurrence of the cipher has been provided at the end of this section in Fig. 12 and Fig 13.

The Shift cipher classification, occurs nine times, with only one duplication—that of the strain found on Lbs 2334 231v, and JS 149 fol 221v. The remaining seven Shift ciphers given the ‘Haugbúa letur’, are distinct and carry no notable overlap in characteristics aside from their Latin lettering. However, the entry in Lbs 2306 8vo, 9v, while discernable as a Shift cipher, could not be analyzed further due to extensive deterioration and fading.

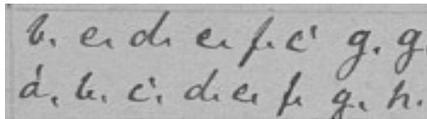
The second category, that of the Runic ciphers, covers the ciphers that remain under the ‘Haugbúa’ title. Of these there are two identifiable cipher strains present. The first is found in five manuscripts; Lbs 2334 4to, Lbs 385 8vo, IB 383 4to, ÍBR 64 8vo, and JS 149 fol. With a total of eight occurrences, the strain is notable, however within these eight occurrences the primary variation is found with the cipher character assigned to the traditional letter ‘A’. In this, the character can vary from a backwards, barred ‘P’, to a runic ‘ᚱ’ to an ‘h’, with the ‘h’ being the dominant sub-strain, occurring six times. The two additional variants, which are found in Lbs 2334 4to, and ÍBR 64 8vo are included among the overall strain due to the remaining, overlapping characters.

A second Runic strain is found five times, in ÍBR 64 8vo 59v, JS 377 8vo 56r, Einkaeign 1 8r, and ÍB 383 4to 14r twice. This strain is characterized by its ‘H’ shaped ‘A’, and ‘5’ shaped ‘B’. Within it, are two sub variants only found in ÍB 383 4to and characterized by the shift from an ‘L’ shape, to a ‘C’ in place of the traditional ‘E’ letter.

A third variant strain among the ‘Haugbúa’ group is found twice, and characterized by its ‘X’-shaped initial ‘a’, occurring once in AM 247 8vo, and again in Lbs 977 72r. A fourth variant is found in ÍB 383 4to, listed three times. The remaining Runic variants of the ‘Haugbua’ cipher contain no visual similarities with the others and

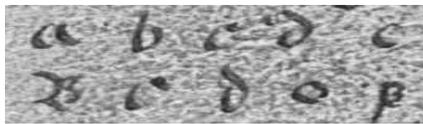
can be found in Lbs 3902 4to on 315r and 57r. As it happens, these last two are the only entries listed as ‘Haugbua rúnir’ since the oldest record in AM 687 d 4to.

Fig. 12



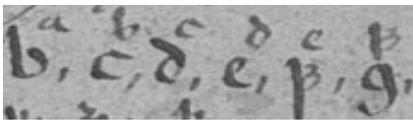
A.

B.



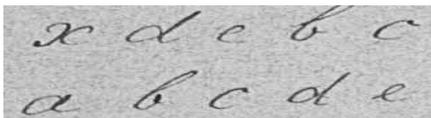
Lbs 2334 4to, 230v

Lbs 4858 4to, 16r



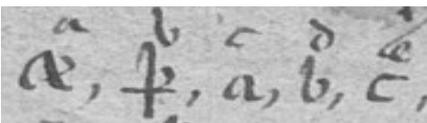
C.

D.



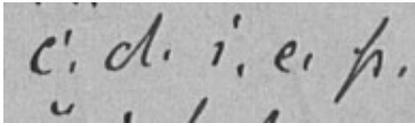
JS 149 fol. 221r

JS 149 fol. 121r



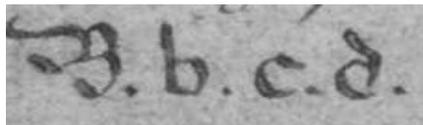
E.

F.



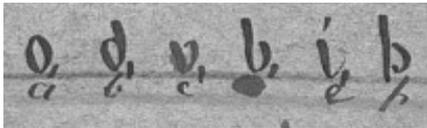
JS 149 fol. 221r

Lbs 2334 4to, 283r



G.

H.



JS 377 8vo, 56v

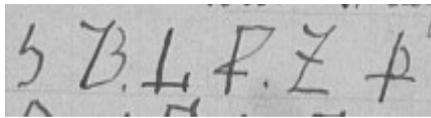
ÍB 383 4to, 4r



I.

Lbs 2306 8vo, 9v

Fig. 13



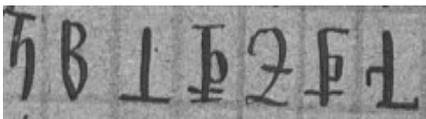
A.

B.



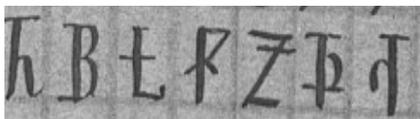
Lbs 2334, 205r

Lbs 385 8vo, 11v



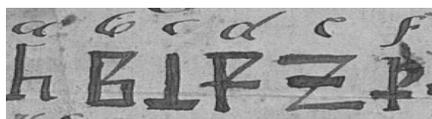
C.

D.



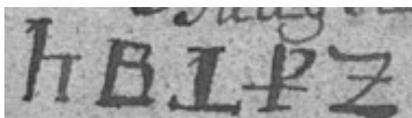
ÍB 383 4to, 14r

ÍB 383 4to, 14r



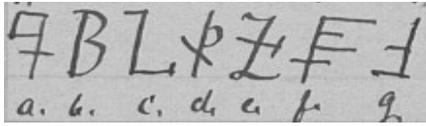
E.

F.



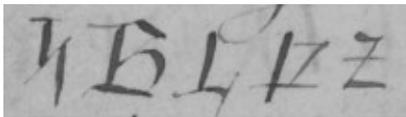
JS 149 fol. 229v

Lbs 3402 8vo, 112r



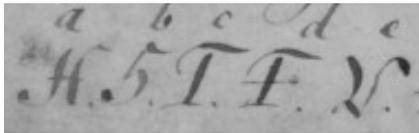
G.

H.



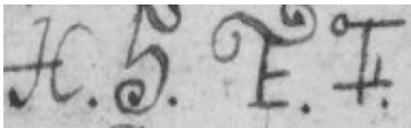
Lbs 2334 4to, 240r

ÍBR 64 8vo, 66r



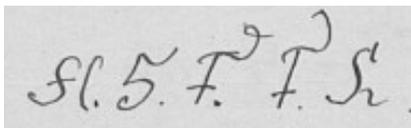
I.

J.



ÍBR 64 8vo, 59v

JS 377 8vo, 56r

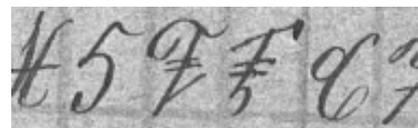


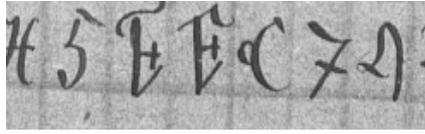
K.

L.

Einkaeign 1, 8r

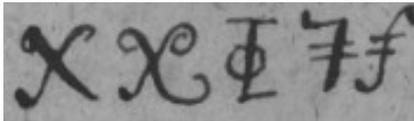
ÍB 383 4to, 14r





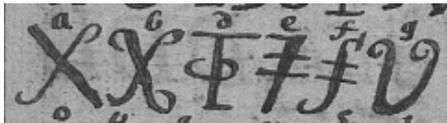
M.

N.



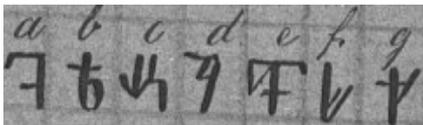
ÍB 383 4to, 14r

AM 247 8vo, 21v



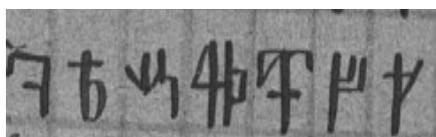
O.

P.



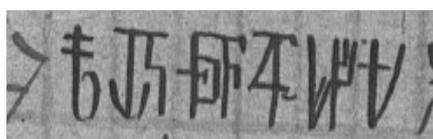
Lbs 977, 72r

ÍB 383 4to, 14r



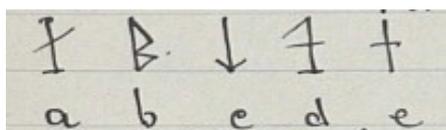
Q.

R.



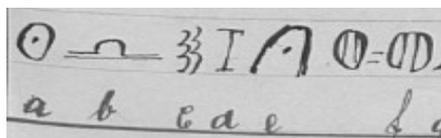
ÍB 383 4to, 14r

ÍB 383 4to, 14r



S.

T.



Lbs 3902 4to, 315r

Lbs 3902 4to, 57r

## Grænland

The third case study centers on the ‘Grænland’ group of ciphers. This group is unique for its even division between ‘rúnir’ and ‘letur’. Out of nine total occurrences in the record, the ‘Grænland’ cipher is found with the title of ‘rúnir’ on four occasions. Within these four, the title for the cipher is ‘Grænlandsku/skar’, with two of each respective variant. In contrast, the ‘letur’ designation is also found on four occasions, and is referred to with two variations, as ‘Grænlands’ or ‘Grænlendinga’, and two cipher mentions each. The only remaining variant title is the questionable ‘Grændisk stafir’ found on Lbs 4858 8vo 20v, which is in a considerable state of deterioration.

The ‘Grænland’ cipher is found in Jón Ólafssons, *Runologia* (Fig.14), with three variants, of which one from the table present in the text is also replicated in Lbs 4858 8vo 57v (Fig.15). The same cipher script, notable for its limit of only three characters that can be found in the aforementioned table is also found on Lbs 42334 4to, 278r . In total, the ciphers assigned the ‘Grænland’ title in some variation, have four strains. The remaining three are divided by a Circle cipher distinction, and a Stave based one. The Stave based strain occurs only in Lbs 2917 a 4to, and AM 247 8vo. The remaining two strains, are Circle-based and appear similar on first glance. It is possible that they are actually the same strain, which later split, however this would require further study. The main point of distinction between these two, can be seen in the ‘A’, ‘B’ and ‘E’ letter place.

Fig. 14

Mis minni. Þess þessa þrútan og Óskilningur þess er,  
 er and þan af þess deilum, þess þessum þess rya at þess  
 lagadar, rya ad þess þess mynd, þess þess mynd þess þess  
 and, þess þess þess þess þess, þess þess þess þess þess  
 þess þess þess þess þess: þess þess þess þess  
 þess þess þess þess þess -

Hjalm-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Spæld-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Ein-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Röf-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Vang-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Rnapp-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Þals-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Þalg-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Sool-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Sool-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Ein-hvefvingar.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Ein-hvefvingar vinstre.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Ad-hvefvingar.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Strongu-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Þemlur.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Mid-Þemlur.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Þenzhu-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Þenzhu-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿
Þenzhu-Runnir.	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿	⦿ ⦿ ⦿

Runologia Table, with 'Graenlendsku Runir' listed at the bottom<sup>118</sup>

118

Unknown,[Runologia, p.163] Wikipedia, Public Domain. Accessed August 26, 2017.

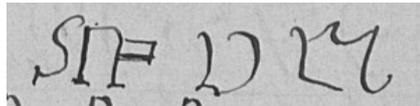


Fig. 15



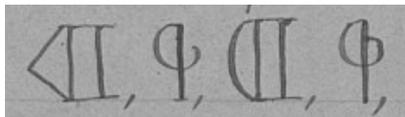
A.

B.

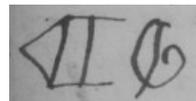


Lbs 4858 8vo, 57v

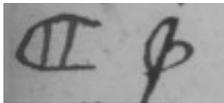
Lbs 2334 4to, 278r



C.

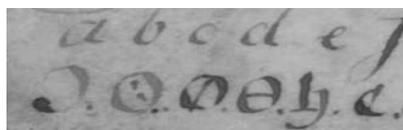


D.



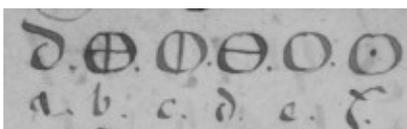
Lbs 2917 a 4to, 42v

AM 247 8vo, 38r



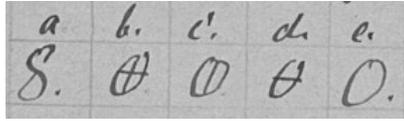
E.

F.



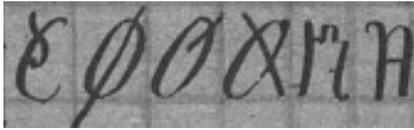
ÍB 64 8vo 58v

ÍB 64 8vo, 64r



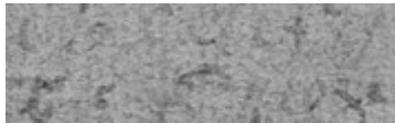
G.

H.



Lbs 2334 4to, 203v

ÍB 383 4to, 13v



I.

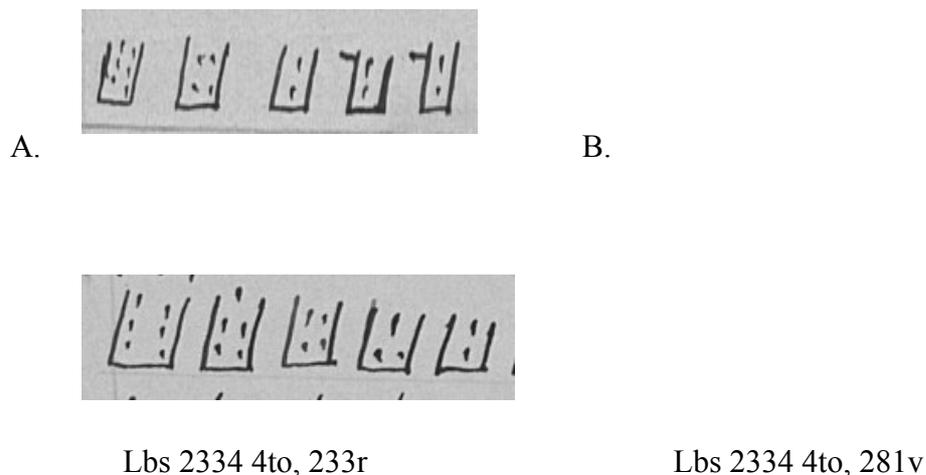
Lbs 4858 8vo, 20v

## Puncta

The fourth and final case study covers the ‘Puncta’ title, which occurs in some degree of variance 14 times in the record. Of those, it consistently received the ‘letur’ designation on each occasion except for a final entry in Lbs 3902 4to on 314r which cites ‘Punktarúnir’. The spelling of this cipher title varied between ‘Puncta’ and ‘Punkta’, with rare secondary name elements such as ‘vocalis’, ‘depla’ or ‘rúnir’. The cipher occurred in eight manuscripts total, with four entries in Lbs 2334 4to alone.

Overall, ciphers with the ‘Puncta’ title held a remarkable degree of visual variance, however seven of the entries feature a heavy usage of dots to denote the individual characters. Still, the general shape of the cipher was found to range from a Box cipher shape, to Circle, to the dots alone. The single repeat occurrence of a strain is found in one manuscript, Lbs 2334 4to, on 233r and 281v. Therefore the only example within the record of an identifiable strain is found in Lbs 2334 4to 204r, and IBR 64 8vo, 64v.

Fig. 16





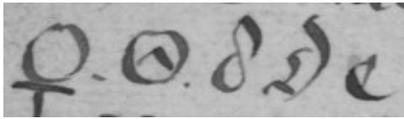
C.

D.



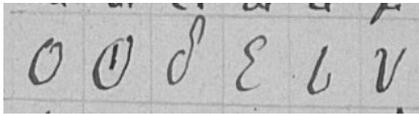
ÍB 383 4to, 17v

ÍB 383 4to, 17v



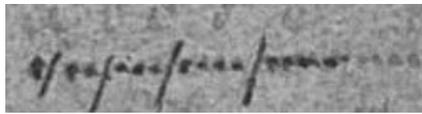
E.

F.



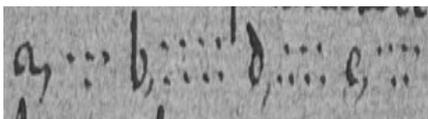
ÍBR 64 8vo, 64v

Lbs 2334 4to, 204r



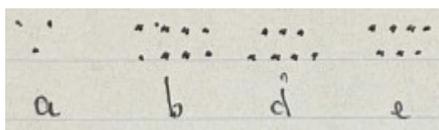
G.

H.



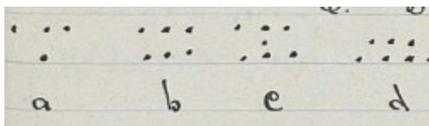
Lbs 4858 4to, 17v

JS 149 fol., 210v



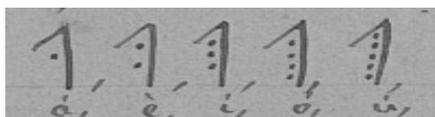
I.

J.



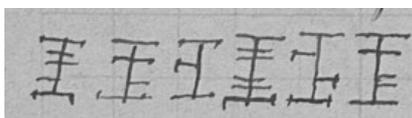
Lbs 3902 4to 323r

Lbs 3902 4to, 214r



K.

L.

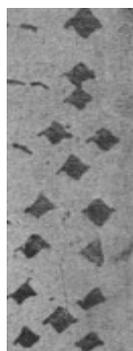


Lbs 2917a 4to 43v

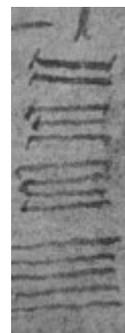
Lbs 2334 4to, 198v

M.

N.



Lbs 2306 8vo, 10v



Lbs 2306 8vo, 10v



### Case Study Conclusions

What this portion of the study has revealed is that though there are multiple instances of the same cipher name, genuine cipher strains were not common in the record, and when they occurred it seldom extended beyond two occurrences. When repeat ciphers were located, it suggested that one text was copied from the other, often at a much later date, and not that there was a confirmable tradition or widespread understanding or use of the cipher in association with that name. Transmission generally began in the 18th century, and books such as Lbs 4858 8vo, or Lbs 2334 4to, served as compilations from multiple texts. In short, when duplicated scripts occurred, the record suggested that it was because of conscious collective efforts on part the scribes.

As for variation among the names themselves and their categorical designation, the case of the ‘Adams’ cipher, the data revealed there to be only one confirmable strain, though the group as a whole maintained a relative degree of shared visual characteristics, with a potential for second strain. The earliest mention of the cipher places it in the 19th century, and it held a limited presence among the corpus, being found only in nine manuscripts. Though there was a level of variation and limited identifiable strains, the 11 occurrence of the ‘Adams’ are too similar, and exist within too close of a time range to suggest they were not in some manner connected.

The ‘Haugbúa’ title, which occurred 30 times, revealed the greatest degree of variation among those studies and was also the oldest. The title appeared to be applied to two separate, visual categories of cipher; the Shift cipher, or Latin-letter based, and the other predominantly Blended, though with notable Runic influences. The separate cipher types could be found in the same manuscript, under the same title, and when the ‘Haugbúa’ ciphers were presented in a table, such as the one found on ÍB 383 4to, 14r, both variant types could be found. That being said, the Shift ciphers referred to as ‘Haugbúa’ occur primarily in two manuscripts; JS 149 fol. and Lbs 2334 8vo. However, the fact that the Shift ciphers occur in Lbs 4858 8vo and Lbs 2306 8vo, places them in the earlier portion of the cryptographic record, and the absence of the Runic or Blending ciphers in these earlier works, suggests that the term originally referred to a Shift cipher, and was an understood category.

The case study of the ‘Grænland’ ciphers revealed that those with ‘-skar’ or ‘-sku’ at the end, were assigned ‘rúnir’, whereas those with the suffix ‘-inga-’ or ‘-s’ were

‘letur’, therefore it would appear that there is some linguistic aspect to their designation. Regarding the potential for a chronological reasoning behind the different designations, again, the data is split. All mentions of the ‘Grænland’ cipher occur following the publication of *Runologia* in 1732, therefore suggesting it to be the origin of the term, though the specific cipher presented within the text is only found replicated in two manuscripts with a dating limited to the 18th century. From a visual standpoint, it cannot be presumed that the ‘Grænland’ cipher presented in *Runologia* held any degree of influence in the later strains, and with regards to any authenticity as a genuine Greenlandic alphabet, there is none. All occurrences with the name ‘Grænland’ in the Icelandic cipher record hold no similarities to a genuine, non-cryptographic alphabet.

Last, the ‘Puncta’ cipher held a visual component that likely influenced the popularity of the name - dots. Those assigned the ‘Puncta’ title among the Icelandic record were found to typically possess dots as a defining feature in the script. When dots were not used, it was lines, such as the case in Lbs 2306 8vo, 10v or the isolated Staff based occurrence on Lbs 2334 8vo, 198v. What the ‘Puncta’ title nevertheless reveals for the present analysis is that though a specific cipher variant might not be copied, to suggest direct transmission, the visual characteristics of the cipher script could contribute to the title they are given.

The limitations of this study are of course that it does not lend itself to understanding the reverse, which are instances of ciphers that share the same visual characteristics but are referred to by a different name. Due to the time constraints of this thesis, such an analysis was unable to be performed, as it would require a much more extensive examination of the record.

#### Categorical Overlap and Further Variance

The reasoning for overlapping categories between ciphers of the same base title (i.e. ‘Puncta’) cannot yet be known, however it seems within the realm of possibility that the scribe was familiar with the cipher already when copying it, and simply knew it by another name. If this were to be the case, it would show that the designation of ‘rúnir’ or ‘letur’ was by no means standardized. Though the data seems to support this from a visual basis alone, further study would be needed to come to a more solid conclusion.

However, an overlap that occurred beyond the two main categories, and with a great degree of prevalence was the ‘Rammvill-’ ciphers. These ciphers ranged in spelling from ‘Ramvilluletur’ (ÍBR 64 8vo, 61r) to ‘Ramvilater’ (Lbs 2306 8vo, 9v), ‘Ram villinga letur’ (AM 247 8vo, 17v), to ‘Rammvilla’ and ‘Rammvillingar’, with the later two being what seemed to be the common spelling.<sup>119</sup> What is especially curious about this cipher title, is that it is found in the 17th century, among the correspondences and writings of Ole Worm and Arngrímur Jónsson— under the title of ‘ramm-rúnir’. The only occasion among the examined corpus which includes both ‘ramm’ and ‘rúnir’ occurs in Lbs 2334 4to, 239v with the name ‘rammvillar rúnir’. The one characteristic found to connect the ciphers is their Shift cipher categorization, which was found in all entries.

Ciphers attributed to a group of people, with the ending -skar (Finnskar, Graelendskar, Hebreskar, Skotskar, etc) were designated as ‘rúnir’ in all accounts, with the exception of a second designation of ‘Halfdeilur’. Though some variation did exist among the occurrences, such as ‘run’, ‘runer’, and ‘rúnir’, or ‘halfdeilur’ and ‘half deilur’, they appear to be consistent. By far, the script which utilized the ‘halfdeilur’ designation the most was the ‘Haleyskar Halfdeilur’, occasionally spelled ‘Haliskar’.

However, not all ciphers attributed to a country, or people, were listed with the ‘-skar’ ending. A somewhat common cipher, the ‘Lapp Finna’ cipher, occurs 12 times within the record, and is designated as ‘letur’ each time, except for in JS 377 8vo on 55v where it is listed as ‘Lappfinna runir’.<sup>120</sup> The aforementioned ‘Graenland’ cipher occurs

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Please see appendix list for more information on occurrence.

120

One instance on AM 247 31v, spelled ‘letri’.  
Additional, but unrelated ciphers are called ‘Finnskar rúnir’ but were not among this

with considerable spelling variation, and ranges from ‘Graelendinga’, ‘Groenlandinga’, ‘Grenlands’, ‘Graenlands’ and ‘Graenlendskar’, with an equal split between ‘rúnir’ and ‘letur’, with no apparent preference.

Some scribes appear to have been more inclined to assign ‘staf’ to a cipher than others. Of all manuscripts examined during the course of this analysis, AM 247 8vo contained the bulk of staf\* designated ciphers with a count of four. Second were the manuscripts Lbs 1349 4to, and ÍBR 64 8vo with two. Worth noting is that both AM 247 8vo and ÍBR 64 refer to a cipher script as ‘Hebreskt Stafrof’.<sup>121</sup> However, comparison shows no similarities between the two scripts, as AM 247 8vo’s entry refers to the names of the Hebrew characters (Aleph, Beth, etc.) whereas the entry in ÍBR 64 does not, and instead ascribes each character a Latin equivalent in standard alphabetical (A,B,C) order. Furthermore there is no visual overlap between the scripts, aside from bearing a mild Hebraic visual characteristic, of which AM 247 8vo is closest to the genuine Hebrew. The largest surprise during the course of the analysis was the inclusion of ‘vocalis’ in the cipher titles. In total it occurred 16 times within the record, and appeared to be evenly split between ‘rúnir’ and ‘letur’ classifications. Some manuscripts such as Lbs 2306 8vo were far more likely to include the term, with 6 of the 16 total occurrences in the single, aforementioned text alone.

From what the preliminary analysis shows, cipher scripts in the Post-Medieval period were just as likely to be referred to as ‘rúnir’, than as ‘letur’, regardless of their general appearance. However, the classification of ‘rúnir’ far outweighs that of ‘letur’ by a considerable margin within the record, revealing that from an Icelandic perspective, the term was the most favoured; even when the cipher script contained no runic visual characteristics whatsoever. This number is possibly inflated by the apparent usage of the term ‘málrúnir’ in the late 18th and 19th century, as a catch-all term for

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count.

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ÍBR 64 8vo, 60r, AM 247 8vo, 26r

alternative alphabets. From a quantitative standpoint, it seems likely that though Icelanders understood there to be multiple ways of referring to letters and scripts—ciphers, as an encoded system, were understood as being closer to that of runes from a socio-cultural perspective.

## 7. CONNECTIONS AND CONCLUSIONS

The basic intention for this thesis was to improve our understanding of not only the state of the cryptographic record within Iceland during the Post-Medieval period through the creation of a catalogue from the Icelandic Cryptographic Corpus, but to use the information gathered in hopes of discerning some sort of origin for the tradition as it developed at the time. For if an analysis of the naming attributes, or comparison of visual characteristics could reveal strains of transmission, it could assist in the identification of a key text— which it did.

To begin, no visual basis for the delineation between the ‘rúnir’ and ‘letur’ designation could be found, nor was there reason to suggest that ‘letur’ was applied to cipher scripts deemed to be foreign by the Icelandic scribes, as many Hebraic ciphers were likewise assigned the term ‘rúnir’. Though the term ‘rúnir’ had a greater prevalence than ‘letur’ within the record, occurring at approximately 1.5x the rate, this is likely a result of the publications such as those by Ole Worm, and the previously established runological field as defined by Tarrin Wills; a fact which can be seen not only by the numerous instances of name overlap, such as ‘Klapp-rúnir’, and ‘Ramm-rúnir’, but also through the direct references made in the manuscripts themselves to Ole Worm and Johannes Bureus.<sup>122</sup> These references could be seen both through stated names, as well as the direct copying of the tables presented in each text. It is also these tables, which could include dozens of individual runic alphabets that were oftentimes

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See Lbs 4858 8vo, 143v for one such reference.

labelled only as ‘málrúnir’, and therefore this was the only term applied to them within the course of this study, and the only instance of record taken. Furthermore, many ciphers in the record that were without clearly designated names, were assigned the term ‘málrúnir’ by the scribe, giving the appearance that it served on some degree as a catch-all term. With this in mind, the total entry count for this term among the record came in to be approximately 192.

Second, the term ‘letur’ was found to be used more likely with 1) foreign alphabets and scripts associated with a separate nationality (enskar, skotskar, finnskar etc.) and 2) ciphers which were visually non-Runic. Though a non-Runic cipher was equally likely to be referred to as ‘rúnir’, a notably Runic cipher was not as likely to be deemed ‘letur’. In this way, the ‘letur’ category maintains some level of visual distinction from that of ‘rúnir’, and would benefit from a more detailed, comparative study in the future. Additionally, ciphers which held some connection to religion, such as a cipher with a Biblical name, also held a significantly greater chance of being regarded as ‘letur’. Likewise, ciphers with clear connections to the Ceremonial traditions were regarded as either ‘letur’ or ‘alphabet’ when they occurred in the record, thereby suggesting the possibility that the application of the term ‘letur’ could have arisen from the replication of such documents.

From a chronological standpoint, the cryptographic tradition began its largest development within Iceland in the late 18th-century. Prior to this date, there are only two examples of what could be regarded as a genuine cipher script, and not simply runes - that of the ciphers found in AM 687 d 4to, and the single entry in Lbs 143 8vo. All other instances of ciphers from this time which were recorded for this study, could likewise be considered basic entries on fupark runes. However, this is not to imply that a previous cipher tradition did not exist. The extensive gap in the record, combined with the runic classifications discussed in Ole Worm’s correspondences, as well as the research conducted by Jón Ólafsson for his own work, suggest that there was some material tradition in existence that has not been handed down to the present day. Likely, the political tensions and diligent gathering of books that contained runes or what appeared to be magical content during the 17th century, resulted in a loss of any earlier record. Similarly, what Jón deemed as ‘cipher runes’ on the Rök Runestone in Sweden,

show that there was some level of an authentic, historical cipher script in use within Scandinavia prior to the Early Modern era.

What history therefore suggests is that the cryptographic corpus as it exists for this study, and as it is known, is the intersection of two traditions which were interwoven in the Icelandic social consciousness at various points in the Post-Medieval era, to the extent they became one. The first tradition, is that of a historical cipher tradition as argued by Jón Ólafsson in *Runologia*, and his Antiquarian contemporaries. A system of runic script, native to Scandinavia or the Medieval North, and composed with the intention of encoding script for the purpose of secrecy. Though it could in no way be properly analyzed for this study, the existing materials imply that medieval Icelanders were aware of cipher runes and used them in some regard, at the very least in the late 15<sup>th</sup>-century. Sagas, such as that of *Guðmundar saga biskups* from the 13th and 14th centuries, refer to the usage of runes often as a secondary script in conjunction with the Latin alphabet, therefore being regarded as a usable, alternative script with the potential implication of secrecy. So for the question as to what extent runes were regarded as a cipher script in the eyes of Medieval Icelanders, we cannot know, but the overlap between how the two were used, and viewed, appears strong.

The second cryptographic tradition is perhaps the one most visible in the Post-Medieval record, which is the tradition influenced by the publications of *Literatura Runica* by Ole Worm and *Runologia* by Jón Ólafsson. The influence of these texts can be seen in the replication of the runic tables, as well as the naming attributes such as that of the examined ‘Grænland’ cipher. *Runologia* also appears to be the introduction of the application of the term ‘letur’ to cipher scripts, as no source was found prior in relation to runes or scripts.

Furthermore, the context of the 17th and 18th century was ideal for the transmission of cryptographic scripts, and therefore further potentially, influential sources must be acknowledged such as the works of individuals like Heinrich Cornelius Agrippa, John Dee, and Johannes Trithemius which are likewise seen in the Icelandic record. Last, as this tradition rose in popularity following Arngrímur Jónsson’s *Crymogæa*, the milieu of the North had become intrinsically connected to the study of antiquities and the connection of one’s culture and national identity to the past. As a result, countries like Sweden and Denmark were placing a large degree of effort into

researching runes, which lead to the works of Ole Worm and Johannes Bureus, as well as the theory that runes were the original script of the Vikings and an ancient alphabet used to record literature in the same as Greek or Latin. Furthermore, the degree with which ‘Blended ciphers’ are found within the corpus, containing characteristics of both Hebrew as well as traditional fuþark runes, suggests the potential for a further link between the ideas, and popularity of old scripts.

Still, the development of the cipher tradition in the 17th and 18th centuries onward, is a result of a perfect storm of influencing factors. Danish rule over Iceland, not only contributed to a Danish funding of Icelandic runic research, but on the negative end resulted in growing tensions over nationhood and cultural identity, which fueled Icelandic interest in their own runic past. Furthermore, the state of politics led to many Icelanders being sent to the University of Copenhagen to pursue higher learning whereas the letter record shows, flourished and remained the case for centuries. Not only is the academic link reflected in the correspondences between Ole Worm and individuals like Brynjólfur Sveinsson and Arngrímur Jónsson, but the cryptographic corpus was found to reflect this influence as well through works like JS 149 fol. which also show that the Danish influence in the cryptographic tradition in Iceland continued from the time of Ole Worm in the first half of the 17th century to the end of 19th century.

Additionally, the collection efforts of Árni Magnússon are also linked to the cryptographic tradition as both a contributing reason that the corpus is the size that it is, as well as for his influence on Jón Ólafsson. It was because of Árni that Jón had access to materials, and was able to produce *Runologia* in the first place. Therefore, if there is to be any location considered to be the source for the development of, or introduction of ciphers and alternative letter scripts to Iceland, it is without a doubt Copenhagen. Yet, if there is one traceable origin, or piece to be identified as the greatest influential source, it is *Runologia*.

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| 3.ÍB 90 4to    | 29.JS 307 8vo      |
| 4.ÍB 172 4to   | 30.JS 375 8vo      |
| 5.ÍB 271 4to   | 31.JS 377 8vo      |
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| 7.ÍB 383 4to   | 33.JS 545 4to      |
| 8.ÍB 25 8vo    | 34.JS 614 4to      |
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| 10.ÍB 101 8vo  | 36.JS 392 8vo      |
| 11.ÍB 164 8vo  | 37.KG 31 a II 1-35 |
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| 23.JS 149 fol. | 49.Lbs 632 4to     |
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| 25.JS 61 4to   | 51.Lbs 756 4to     |
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121.SÁM 119

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- 124.AM 575 b 4to
- 125.AM 687 d 4to
- 126.AM 697 4to
- 127.AM 698 4to
- 128.AM 723 a 4to
- 129.AM 727 II 4to
- 130.AM 738 4to
- 131.AM 749 4to
- 132.AM 54 8vo
- 133.AM 148 8vo
- 134.AM 157 8vo
- 135.AM 166 a 8vo
- 136.AM 247 8vo
- 137.AM 252 I-II 8vo
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**APPENDIX A –  
THE ICELANDIC CRYPTOGRAPHIC CORPUS**

**A.1 MANUSCRIPTS MARKED AS LETTER CODES ON HANDRIT.IS**

AM 687 d 4to		Maríubæinir, rúnir, villuletuksstafróf og ...
AM 727 II 4to		Tíðforðríf
AM 738 4to		Edda, Eddukvæði, ýmis önnur kvæði o.fl.;
AM 157 8vo		Annar partur Eddu, stafróf og skálda- og lög...
AM 247 8vo		Galdur og forneskja, þulur, rúnir, villuletur...
AM 252 I-II 8vo		Snorra Edda
Einkaeign 1		Stafabók
Einkaeign 2		Samtíningur
ÍB 45 fol.		Sögubók
ÍB 90 4to		Ritgerðir
ÍB 271 4to		Sögubók
ÍB 25 8vo		Hallmundarkviða
ÍB 35 8vo		Samtíningur um grös, lækningar, steina, rím...
ÍB 101 8vo		Samtíningur
ÍB 164 8vo		Plánetubók
ÍB 382 8vo		Samtíningur
ÍBR 64 8vo		Samtíningur
JS 61 4to		Rímnabók
JS 545 4to		Samtíningur
JS 614 4to		Samtíningur
JS 377 8vo		Miscellanea I
JS 392 8vo		Samtíningur
Lbs 590 4to		Samtíningur
Lbs 631 4to		Samtíningur
Lbs 636 4to		Völuspá
Lbs 1218 4to		Sögubók
Lbs 1226 4to		Samtíningur
Lbs 2121 4to		Sögubók

Lbs 2285 4to		Efnisyfirlit
Lbs 2334 4to		Lækningarit
Lbs 3902 4to		Leifar fornra þjóðlegra fræða íslenskra;
Lbs 4710 4to		Kormáks saga
Lbs 319 8vo		Rímna- og sögubók;
Lbs 908 8vo		Samtíningur
Lbs 946 8vo		Samtíningur
Lbs 1304 8vo		Sögu- og kvæðabók
Lbs 2306 8vo		Letrakver
Lbs 2580 8vo		Ættartala
Lbs 3402 8vo		Latínuglósur
Lbs 4783 8vo		Teikningar, rúnir og letur
Lbs 4858 8vo		Galdrabók
Lbs 5150 8vo		Plánetubók
SÁM 118		Handbók um ýmis efni

## A.2 MANUSCRIPTS MARKED AS CONTAINING RUNES ON HANDRIT.IS

AM 136 4to		Lögbók
AM 218 d 4to		Rúnastafróf
AM 575 b 4to		Drauma-Jóns saga
AM 687 d 4to		Mariúbæinir, rúnir, villuletuksstafróf og særingarþulur
AM 723 a 4to		Rúnaþulur og kvæði
AM 727 II 4to		Tíðfordríf; Íslandi
AM 749 4to		Edduefni; Skáldskaparmál, Háttatal og um rúnir
AM 54 8vo		Lög
AM 148 8vo		Kvæðabók úr Vigur
AM 166 a 8vo		Hraundals-Edda
AM 247 8vo		Galdur og forneskja, þulur, rúnir, villuletu, galdrastafir...
AM 252 I-II 8vo		Snorra Edda
GKS 744 fol.		Runologia
ÍB 68 4to		Samtíningur

ÍB 90 4to		Ritgerðir
ÍB 172 4to		Sögur og fleira
ÍB 299 4to		Eddukvæði
ÍB 383 4to		Huld; Iceland
ÍB 35 8vo		Samtíningur um grös, lækningar, steina, rím,...
ÍB 164 8vo		Plánetubók
ÍB 165 8vo		Samtíningur;
ÍB 200 8vo		Samtíningur
ÍB 236 8vo		Smákver
ÍB 291 8vo		Samtíningur
ÍB 321 8vo		Syrpa;
ÍB 643 8vo		Samtíningur
ÍB 656 8vo		Samtíningur
ÍB 661 8vo		Speculum Salamonis
ÍB 777 8vo		Samtíningur
ÍBR 64 8vo		Samtíningur
JS 149 fol.		Samtíningur um rúnir úr forum Jóns Sigurðssonar
JS 43 4to		Ævisögur
JS 91 4to		Skrif um forneskju og rúnalist
JS 248 4to		Fornaldarrúnir; Iceland
JS 449 4to		Um Stafsetningu
JS 307 8vo		Samtíningur
JS 377 8vo		Miscellanea I
JS 378 8vo		Miscellanea II
KG 31 a II 1-35		Kvæði og þýðingar Jónasar Hallgrímssonar
Lbs 179 fol.		Efnisyfirlit
Lbs 66 4to		Handritasafn
Lbs 486 4to		Fundarbók Kvöldfélagsins
Lbs 487 4to		Fundarbók Kvöldfélagsins
Lbs 488 4to		Fundarbók Kvöldfélagsins
Lbs 530 4to		Íslenskar þjóðsögur og ævintýri
Lbs 531 4to		Íslenskar þjóðsögur og ævintýri

Lbs 533 4to		Íslenskar þjóðsögur og ævintýri
Lbs 537 4to		Íslenskar þjóðsögur og ævintýri
Lbs 590 4to		Samtíningur; Iceland
Lbs 631 4to		Samtíningur
Lbs 632 4to		Steinafræði
Lbs 636 4to		Völuspá
Lbs 756 4to		Snorra Edda og Skálda
Lbs 939 4to		Samtíningur
Lbs 1116 4to		Snorra-Edda, kviður, málfræðiritgerðir og...
Lbs 1198 4to		Edda — Príamus kóngur — Málrúnir
Lbs 1199 I-IV 4to		Samtíningur
Lbs 1226 4to		Samtíningur
Lbs 1349 4to		Rúnir
Lbs 1414 4to		Edda og Eddukvæði
Lbs 1477 4to		Samtíningur
Lbs 1632 4to		Edda
Lbs 1765 4to		Samtíningur
Lbs 2285 4to		Efnisyfirlit
Lbs 2294 4to		Draumar;
Lbs 2334 4to		Lækningarit
Lbs 3902 4to		Leifar fornra þjóðlegra fræða íslenskra
Lbs 5467 4to		Samtíningur úr fórum Björns Halldórssonar
Lbs 5472 I 4to		Galdrastafir
Lbs 5472 II 4to		Galdrastafir
Lbs 5472 III 4to		Galdrastafir
Lbs 5472 IV 4to		Galdrastafir
Lbs 5472 V 4to		Galdrastafir
Lbs 5472 VI 4to		Galdrastafir
Lbs 5472 VII 4to		Galdrastafir
Lbs 385 8vo		Tíundar-reikningur
Lbs 908 8vo		Samtíningur
Lbs 946 8vo		Samtíningur; Iceland

Lbs 1063 8vo		Samtíningur;
Lbs 1341 8vo		Kvæðabók
Lbs 1674 8vo		Samtíningur
Lbs 2135 8vo		Rúnasafn
Lbs 2306 8vo		Letrakver
Lbs 2413 8vo		Rúna- og galdrakver
Lbs 2516 8vo		Samtíningur
Lbs 2527 8vo		Sögu- og rímnabók
Lbs 2565 8vo		Samtíningur
Lbs 2580 8vo		Ættartala
Lbs 2881 8vo		Kvæða- og lausavísnasafn
Lbs 2886 8vo		Samtíningur
Lbs 2933 8vo		Samtíningur
Lbs 3708 8vo		Samtíningur
Lbs 3761 8vo		Rúnakver
Lbs 3998 8vo		Samtíningur
Lbs 4101 8vo		Sögubók
Lbs 4662 8vo		Samtíningur
Lbs 4783 8vo		Teikningar, rúnir og letur
Lbs 4810 8vo		Samtíningur
Lbs 4858 8vo		Galdrabók
Lbs 4913 8vo		Veðurdagbók Einars Einarssonar
Lbs 4918 8vo		Kenningar Snorra Eddu
Lbs 4982 8vo		Plánetubók
Lbs 5150 8vo		Plánetubók
SÁM 66		Melsteðs-Edda
SÁM 72		Eddukvæði; Iceland
SÁM 117		Málrúnir; Iceland
SÁM 119		Edda
Steph 21		Tractatus um rúnir



### A.3 FINALIZED CORPUS OF MATERIALS INCLUDED IN THIS STUDY

	Shelfmark	Dating	Catalogue?	Contains Magic?	Rúnir Entries	Letur Entries	Total Entries
1	AM 687d 4to	1490-1510	Yes		14	0	16
2	AM 54 8vo*	1575			N/A	N/A	N/A
3	AM 727 II 4to	1644	Yes		2	0	2
4	AM 697 4to *	1655		X	N/A	N/A	N/A
5	AM 698 4to*	1655		X	N/A	N/A	N/A
6	JS 43 4to	1660	Yes		1	0	1
7	Lbs 143 8vo	1670	Yes	X	0	1	1
8	AM 148 8vo*	1676			N/A	N/A	N/A
9	AM 749 4to	1680	Yes		1	0	2
10	AM 166a 8vo	1664-1699			0	0	0
11	JS 614 4to	1665-1774			0	0	0
12	Lbs 4858 8vo	1700s	Yes	X	57	19	180
13	Lbs 908 8vo	1700s	Yes		4	4	14
14	GKS 744 fol.**	1732			N/A	N/A	N/A
15	JS 392 8vo	1747-1752		X	0	0	0
16	ÍB 661 8vo*	1750		X	N/A	N/A	N/A
17	Lbs 636 4to	1750-1760	Yes		8	0	8
18	Lbs 764 8vo	1780		X	0	0	0
19	ÍB 165 8vo	1780	Yes		0	1	1
20	Lbs 2306 8vo	1780	Yes		15	21	57
21	Lbs 385 8vo	1781	Yes		2	1	3
22	ÍB 90 4to*	1788			N/A	N/A	N/A
23	Lbs 631 4to	1750-1849	Yes		1	3	6
24	JS 378 8vo	1750-1850	Yes		9	7	17
25	Lbs 4689 8vo	1750-1850			0	0	0
26	AM 247 8vo	1790-1810	Yes	X	57	29	134
27	ÍB 271 4to	1790-1812			0	0	0
28	JS 545 4to	1700-1879	Yes		0	1	3
29	ÍB 35 8vo*	1700-1899		X	N/A	N/A	N/A
30	ÍBR 64 8vo	1700-1899	Yes		18	25	66
31	Lbs 2580 8vo	1700-1899	Yes	X	1	5	7
32	Lbs 3402 8vo	1700-1899	Yes		34	22	125
33	Lbs 1349 4to	1800	Yes		34	19	66

34	Lbs 2413 8vo	1800s		X	0	0	0
35	JS 375 8vo	1800-1820	Yes	X	3	3	10
36	JS 377 8vo	1813	Yes		13	10	24
37	Lbs 977 4to	1818-1820	Yes	X	50	34	99
38	ÍB 164 8vo	1818-1820	Yes	X	2	1	4
39	Lbs 590 4to	1840-1860	Yes		5	1	7
40	ÍB 383 4to	1860	Yes	X	181	58	261
41	Lbs 531 4to	1850-1865			0	0	0
42	Lbs 532 4to	1850-1865		X	0	0	0
43	Lbs 5472 I 4to	1856-1918		X	0	0	0
44	Lbs 5472 II 4to	1856-1918		X	0	0	0***
45	Lbs 5472 III 4to	1856-1918		X	0	0	0***
46	Lbs 5472 IV 4to	1856-1918	Yes	X	1	0	1
47	Lbs 5472 V 4to	1856-1918		X	0	0	0
48	Lbs 5472 VI 4to	1856-1918		X	0	0	0
49	Lbs 5472 VII 4to	1856-1918	Yes	X	0	0	1
50	Lbs 4627 8vo	1800-1865	Yes	X	2	0	4
51	JS 149 fol.	1830-1870	Yes	X	21	13	62
52	Lbs 2917 a 4to	1868-1869	Yes	X	43	10	61
53	Lbs 2917 b 4to	1868-1869		X	0	0	0***
54	Lbs 2917 c 4to	1868-1869		X	0	0	0***
55	Lbs 2285 4to	1892-1895	Yes		17	2	20
56	Lbs 2334 4to	1894	Yes	X	110	61	230
57	Lbs 4375 8vo	1900-1949	Yes	X	1	5	6
58	Einkaeign 1	1928	Yes	X	24	28	56
59	Einkaeign 2	1928	Yes		1	1	2
60	Lbs 3902 4to	1934	Yes	X	52	19	82
	Total	Count =	36	30	784	404	1,639

\* Manuscript contained relevant information but was inaccessible for study

\*\* Original could not be examined but secondary sources used and therefore included in study.

\*\*\* Contained no cipher entries for record but actively used ciphers within magical entries.

## **APPENDIX B – CATALOGUE OF CIPHER ENTRIES**

**Disclaimer:** The cipher names as listed in the corpus were recorded as they were written, to the best of my abilities. Expansions were done for known abbreviations, and letters, or name that were unreadable have been noted with a [?]. Special characters (á, æ, ð, é, í, ó, ö, þ, ú, and ý) have been noted when clear, or when applicable, however scribes were inconsistent. Though time was taken to be as accurate as possible with transcribing the names, the original entries should be consulted in the case of further research. Especially if grammar is to be the focus.