

2.1

The Voynich Plants and their Names *Folio 1r-19v*

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THE VOYNICH PLANTS AND THEIR NAMES

Introduction

The aim of this study is to use the decoding explained in *The Voynich Cipher* to locate the plant names in the botanical section of the manuscript. The plant names are used to identify the herbs illustrated. It is a test of the cipher because it is possible to check the interpretations of the words against the illustrations. If the names lead to plants that match the illustrations, there may be something to the theory proposed. This is the very start to disclose some of the content of the Voynich manuscript.

The method

I used the deciphered alphabet of paired letters to read the entire text in each botanical folio when searching for the plant names. For an introduction to the deciphered alphabet see page 6 or the former paper: *The Voynich cipher*. Words that were found likely to be plant names were compared to the names that Tony Hunt has registered in *Plant names of Medieval England* (TH) and to names and words found in the online dictionary *Middle English Compendium* (MEC). When a Voynich name corresponded to a Medieval English plant name, the next step was to check if it led to a species that matched the herb illustrated. The similarities between the named species and the illustrated herb were checked. Convincing matches needed to show similarities in features of the flower, leaves, stalks and root. These parts of the plants needed to show similarities in colors, shapes and placements of the flowers

and leaves, whether the stalk is branched or not, whether the root is fibrous, bulbous or a tap root, and whether there are several or a single stalk growing from the root. The illustrations are compared to botanical illustrations found in the online <http://plantillustrations.org> and photos from <https://commons.wikimedia.org>

Middle English as a reference

I found the words in the manuscript to be related to Middle English. This does not necessarily mean that the language of the Voynich manuscript is Middle English. But Middle English is a helpful reference. For example is vervain called *fléwort* in Middle English, and in the Voynich manuscript we find a herb that can be Vervain in folio 11r that is called *flé* (fle). In folio 18r there is a blue ray flower called *sdraurde* ((sd)raurde). It can be read *streurde* and is not far from *starwort*, a registered Medieval English name for the blue ray flower *Aster Amellus* (TH).

For 99 of the 129 plants there are at least one closely related registered Medieval English plant name. Of these 99 herbs, 44 have at least two names related to Medieval English plant names. Some of the Voynich herbs are not registered by any of the two sources I have used. These have been possible to identify by comparing the names with Middle English words.

Possibilities to double and triple check

It is remarkable that all the paragraphs in the botanical section starts with a plant name. In addition, there are names in the head-lines (underlines) and other places in the text. Fortunately, this means that there is not only one name found for each herb, there are two and usually more synonym names leading to the same species, species that match the illustration. It is possible to double and triple check the interpretations of the plant names and the identification of the herbs.

The synonym plant names

In folio 14r there are for example three plant names $\tau\sigma\phi\sigma\gamma$, $\Sigma\sigma\tau\gamma$ and $\phi\tau\sigma\delta\alpha\omega\omega$. $\tau\sigma\phi\sigma\gamma$ (lolo3), can be read *lapach* and is related to *lapacia*. It is a registered vernacular Medieval English name for sorrel (TH). This fits with the second plant name $\Sigma\sigma\tau\gamma$ (*soRe*). $\Sigma\sigma\tau\gamma$ can be read *sor-wre* (*sour wort*) and be associated with *wode-soure*, which is another registered name for sorrel (TH). The third Voynich name in folio 14r, $\phi\tau\sigma\delta\alpha\omega\omega$, is not related to any registered names. But, $\phi\tau\sigma\delta\alpha\omega\omega$ (blodawn), can be read *blodevn*. It is close to Middle English *blod-vein*, meaning *blood vein*. In Modern English there is a sorrel called *bloody dock* or *red-veined dock*.

Family names

It is also interesting that the same words appear in the names of herbs of the same genus. For example, were different species belonging to the family Apiaceae and Ranunculaceae called *ache* in Medieval England (TH/MEC). In the Voynich manuscript there are six of these herbs. They are called $\sigma\phi\gamma$ (*oke*), $\sigma\phi$ (*ok*) and $\sigma\phi\gamma$ (*eke*).

In addition, they have their own specific species name (folio 5v, 14v, 18v, 27v, 65r, f 96r).

Another interesting name appears in the six folios with herbs belonging to the carrot family. They are called $\phi\alpha\gamma$ (*kar*) or $\phi\sigma\gamma$ (*kor*), (folio 4v, 31v, 33v, 39v, 43r, 96r). $\phi\alpha\gamma$ (*kar*) and $\phi\sigma\gamma$ (*kor*) may be related to the prefix that we find in several modern names for herbs in the Carrot family like carrot, chervil, caraway and coriander. In the cases of the herbs called *oke/eke* and *kar/kor* it is interesting that we can tie six herbs from the same family together by a common name. The family name and the species names confirm each other. Not only for one herb at the time but for up to six herbs. These and other herbs that share names are listed in the paper *Voynich Plants with Similar Names*.

Habitats, visual characteristics, and medicinal uses

Before Carl von Linné it was usual to give long descriptions to help the identification of the plants. The many synonym names in the Voynich manuscript may have the same purpose. In the herb's various names it is found words for habitats, visual characters, use, disease or associations to familiar species. For example, is $\phi\tau\sigma$ (*flo*) a part of the names for thyme (f20r), mallow/hollyhock (f49v) and costmary (f93r). The three herbs have in common that they were used to treat menstruation and blood circulation. Another example is different lavenders in f40r) and f48v and common fleabane in f95r. In their names the word *ster* is found. *Stér* is a Middle English verb that means *to burn incense*. It is known that both of these herbs have been used as incense.

SUMMARY

There are 129 herbs illustrated in the Voynich manuscript. Of these do 99 have at least one name that relates to a vernacular name registered in *Plant Names of Medieval England*, by Tony Hunt (TH). Of these 99 do 44 have two or more names related to a registered name. 13 of the herbs have no related registered name, but their species are registered. 15 of the herbs are identified by a name but are not registered. 2 are not identified.

A short summary of the names:

- 6 herbs identified to belong to the Apium plants, called 𐌰𐌶𐌵/𐌰𐌶𐌵 (oke/eke), registered *ache* (TH).
- 6 herbs identified to belong to the carrot family, called 𐌰𐌺𐌹/𐌰𐌺𐌹 (kor/kar).
- 11 herbs called 𐌰𐌺𐌹 (ode), registered *wode* (TH).
- 10 herbs with a bell-shaped flower called 𐌰𐌺𐌹/𐌰𐌺𐌹 (bl/(bl)).
- 8 herbs that are called *glod*, 3 registered *gold* (TH).
- 6 herbs called 𐌰𐌺𐌹 (bed)/ 𐌰𐌺𐌹 (bde), *bed/bedde* means *garden plot*, and registered as Archaeophytes or grown in gardens in Great Britain.
- 4 herbs called 𐌰𐌺𐌹 ((sd)r)/ 𐌰𐌺𐌹 ((sd)ar). *Ster* means *star* or *to burn incense*: 1 registered with the name *star* (TH), 3 known to have been used as incense.
- 3 herbs called 𐌰𐌺𐌹 ((fl)e), *flé* means *flea*, registered *fle(t)*, *fle(a)* and *flea* (TH).
- 3 herbs called 𐌰𐌺𐌹 (lo3) / 𐌰𐌺𐌹 (lo3e). Interpreted *long(e)*,

meaning *lung*, registered *lung*.

To see the full categorization of the herbs by names see the study ***Voynich Plants with Similar Names***.
All the registrations refer to *Plant Names of Medieval England*, by Tony Hunt. Abbreviated (TH).

THE DECIPHERED ALPHABET

A repetition of the deciphered alphabet. The pairs are marked in yellow. The full explanation is found in *The Voynich cipher*.

Single letters

Cipher	o	þ	ð	α ḡ	þ	4	ʒ	c	þ	æ	cc ɔ	æ ɔ	2	þ	ʌ	ʌ
Trasliteration	o	b	d	a e	f	g	3	i	k	l	m n	R r	s	t	u	w
Multiple values	o/w/ a/u	b/p	d/th	e e/ei	f/v	g	gh/g/h/3/ch	i/j/y	k/c/q/g	l	m/n/(kn) m/n (ng)	r/wr r	s/sh/c/z	t	u	w/v

Combination letters

Cipher	*	α ḡ	æ	æ	æ	æ
Trasliteration	(rd)	(sd)	(bl)	(fl)	(tl)	(kl)
Multiple values	r+d / r+th / r+t	s+d / s+t	p+l/b+l	f+l	t+l	k+l








The paired letters

<i>r</i>	=	æ (beginning)	+	ɔ (middle + end)
<i>m/n</i>	=	cc (beginning + middle)	+	ɔ (end)
<i>e</i>	=	α (beginning + middle)	+	ḡ (end)
<i>sd/st</i>	=	α (beginning + middle)	+	ḡ (end)
<i>rd/rth/rt</i>	=	* (beginning + middle)	+	ḡ (end) * ḡ without a tail downward

In addition, there are letters that appear as pairs due to phonetical reasons.

<i>g</i>	=	4 (beginning, only before <i>o</i>)	+	ʒ (middle + end) ** or þ in front of <i>l</i> .
<i>u, w/v</i>	=	ʌ, ʌ (between α/o and ɔ/ɔ)	+	o (elsewhere)

A repetition of some rules:

- There are no double consonants or double vowels.
- Each paragraph starts with a plant name. The letters starting the paragraphs are the tall letters , , , or . These are most often function words, even if there is no space between them and the plant name. Sometimes they are part of the plant name.
- Letter combinations like *nd*, *mb*, *ng* and *kn* are simplified to  (m/n) or  (m/n). *Ng* is also simplified to  (z/g).
- *W* is omitted in front of *r*
- *H* is omitted at beginning of words
- The shortest vowels, especially *e* and *i* are often omitted. This happens for example in front of what “ought to be” double consonants.

THE PLANT NAMES

The Voynich plant names are written in the margins in the following pages. The names are numbered both in the margin and in the Voynich folio so that it is possible to find them in the Voynich text. Under is an example from f18r. The text in the margin can be explained as follows.

Cipher	𐝢𐝰𐝱𐝲	A chosen letter representing the cipher. Must be kept separate from interpretation.
Transliteration:	(st)reurde	
Interpretation	stereurthe	The multiple values of the deciphered letters are used to interpret the word
<i>Middle Enlgish</i>	<i>sterre-wurd</i>	<i>Associated registered names or translations by Tony Hunt or the Middle English Compendium.</i>
Translation	star wort	

TH: *starwort* =
Aster amellus
MEC: *Sterre* =
star

Under the translation are notes on related names and words registered in *Plant names of Medieval England* by Tony Hunt or the online *Middle English Compendium*: <https://quod.lib.umich.edu/m/middle-english-dictionary/dictionary>. Abbreviations are used to specify the source used. See the overview of abbreviations on the next page

NOTE

The transliteration is simply Latin letters chosen to represent the cipher. Keep the transliteration separate from the interpretation. The transliteration does not say how to read the words. I choose to keep it so that it will be possible to discuss the names without using the cipher font.

ABBREVIATIONS

TH: *Plant Names of Medieval England* by Tony Hunt, D.S. Brewer, Cambridge 1989.

MEC: *The Middle English Dictionary at the Middle English Compendium:*
<https://quod.lib.umich.edu/m/middle-english-dictionary/dictionary>

D: *De Materia Medica, Dioscorides*. Tess Anne Osbaldeston, 2000, IBIDIS PRESS cc.
<http://www.cancerlynx.com/dioscorides.html>. Dioscorides is chosen as it is known that *Materia Medica* was widely read in Europe for more than 1500 years, after its creation 50-70 CE.

P: *Plants for a future*: <https://pfaf.org/user/Default.aspx>

FM: *Medicinal Plants in Folk Tradition. An ethnobotany of Britain & Ireland*. David E. Allan & Gabrielle Hatfield. Timber Press 2004.

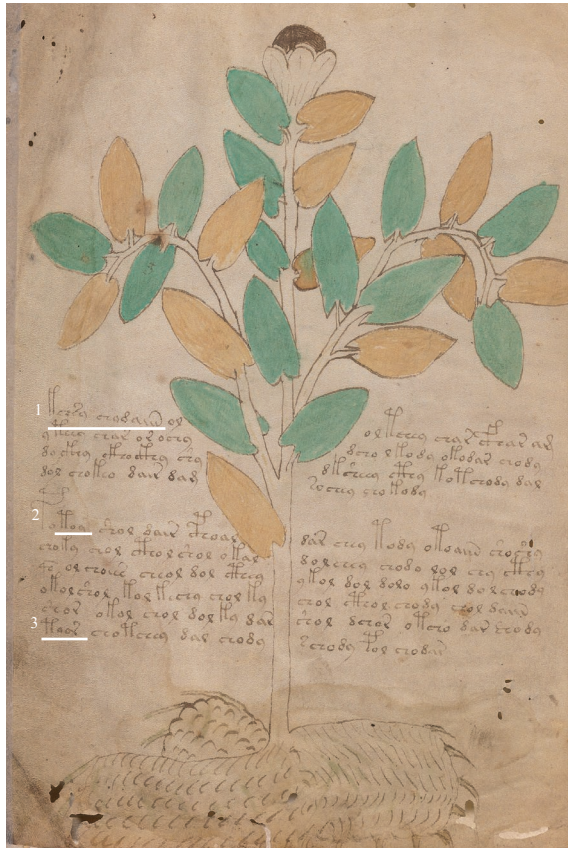
1 tlse lodawn
 lse lodawn
lse lodewm
 lèse lode-wem
 lesser "lode"
 harm/blemish

MEC: *Lèse* =
 lesser
 TH/MEC: *lode-*
 wort =
Ranunculus
aquaticus/aris.

2 coe
 koe
coe
 có
 craw

TH: *water crow-*
foot = *Ranunculus*
flammula and
aquaticus
 MEC: *Có* =
 jackdaw, a bird
 closely related to
 craw.

3 c6-wr
 koor
c6-wr
 có wort
 craw wort



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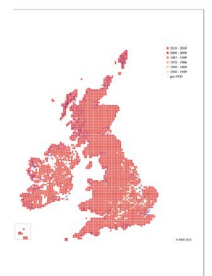


Ranunculus flammula. Oeder, G.C., *Flora Danica* (1761-1861)



Ranunculus flammula. By Krzysztof Golik - Own work, CC BY-SA 4.0

The text in this folio starts with tlse lodawn (*tlse lodewm*). With a very few exceptions all the paragraphs in the Voynich manuscript start with one of the tall letters tl , le , lf and fl . These starting letters are function words. tl seems to be used with the meaning *this* or *the*. The first words *tlse lodewm* I believe can be read *te lese lode-wem*. The first part of the name, *lese*, may mean *lesser* (MEC). The beginning of the second part of the name *lode*, is found in *lodewort*, a registered used for *Ranunculus aquatilis* and *aris* (TH/MEC). Those herbs do not match the illustration. There is another *Ranunculus* that fits the illustrated herb and it matches the second name in this folio *coe*. *Co* means *jackdaw*, a bird closely related to *craw* (MEC). *Craw* is found in the registered name *water crowfoot*. It was used for **lesser spearwort, *Ranunculus flammula***. The branched stalk, the flower shape and the root with one stalk rising from it match lesser spearwort. The leaves in the illustration are spear shaped, while in reality they are more lanceolate. That they are both sessile and attached to leaf stalks matches well. The last part of *lodewm* is *wm*. *Wm*, or *wn* is found in the names of numerous other herbs in the manuscript. In this case I believe it is related to the word *wem* meaning *blemish* or *harm* (MEC). The *Ranunculuses* are strongly rubefacient and can cause severe blisters. It is interesting that there is another *Ranunculus* in the manuscript also called *lode-wem*, *Ranunculus asiaticus* on f5v. I do question the similarity of the root in this foil, and the flower should have been colored yellow.



Marshy ground such as peat bogs, wet shallow ditches and the margins of ponds, lakes and rivers. Neutral to acid substrates.

1 *ḡḡḡḡḡḡ*
tedaune
tei-deun-e
tei-don-é
rope "don" water

MEC: *Tei* = rope

TH: *don-nettyl*
= *Eupatorium*
Cannabinum

Modern English:
water-hemp =
Eupatorium Can-
nabintum

2 *ḡḡḡḡḡḡ*
eko au3l
eiko-euhl
heich-euel
high/holy hook

TH: *holyyhook*
= *Eupatorium*
Cannabintum

MEC: *Euel*
(early SWM) =
hook
heich- = high,
holy, divine



F2r. Beinecke Rare Book and Manuscript Library, Yale University.



Eupatorium Cannabinum. Billeder af Nordens flora, Carl Axel Magnus Lindman (1917). And The flower of Holy rope, Mary Evans (1915).

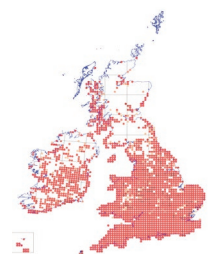


Eupatorium Cannabinum. Alex Lomas, CC BY 2.0. Picture is cropped.

There are at least two different names found in this text, **tei-deun** and **eiko euhl**. They both relate to names registered for **holy rope, Eupatorium Cannabinum** (TH). **Tei-deun** is found as word number one in each paragraph. This is the only place in the manuscript where the same name is used as a starter in each paragraph. Other places different but synonym names are starting the paragraphs. The first part, **tei**, means **rope** (MEC). Rope is found both in the medieval and modern name **holy rope** (TH). The last part, **deun**, is close to **don** in **don-netyll**, another registered name for holy rope (TH). Throughout the manuscript is *h* omitted at the beginning of words. Adding a starting *h* to the second Voynich name **eiko euhl**, it can be associated to **heich euel**, meaning **high/holy hook**. This means that **eiko euhl** can be translated to **holy hook** (MEC). It is almost similar to **hollyhock**, a third name registered for holy rope (TH). A coarse fiber can be obtained from the stems of holy rope. The root in the illustration looks like a hook used for rope making. The illustration matches holy rope well. it has fluffy pale flower heads, the bracts have green and red leaves. The red and green stalk is branched and leaves are hemp-like.

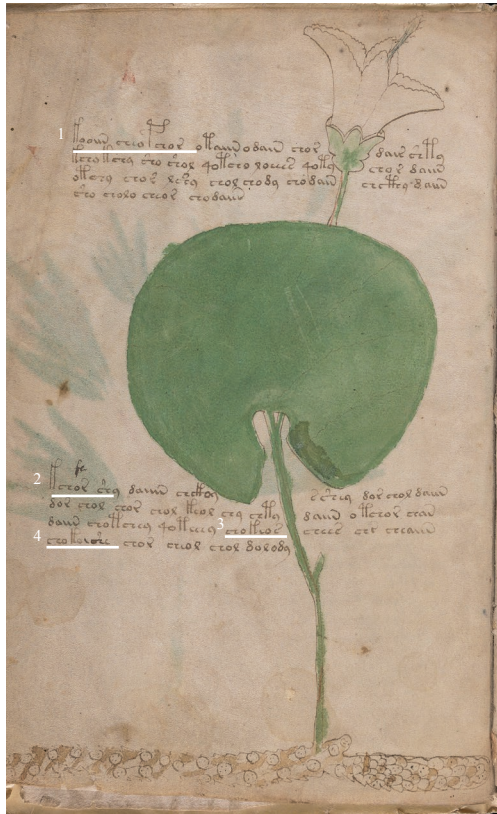


Root = Hook for rope making



Base-enriched soils, damp or wet habitats, lakes, rivers, fen-meadows, marshes, wet woodland, mires and wet heath; also flushed areas on sea-cliffs and in dune-slacks

- 1 ouwn lioblwr
ouwn lioblwr
hóuven laie-bel-wr
floating lake bell
wort
- 2 lor re
lor Re
lwr re
láver wre
medicinal wash-
wort
- MEC: Láver =
a kind of water
plant
MEC: lawr =
medicinal wash.
Note: In latin *lótus*
means washed
- 3 lotios
lotios
lotus
lotus
- 4 lotou-ri
lotou-ri
lotus-?rie
lotus ?stream



F2v. Beinecke Rare Book and Manuscript Library, Yale University.



Nymphaea alba. Botanical Magazine 33: 1359, John Sims, (1811).

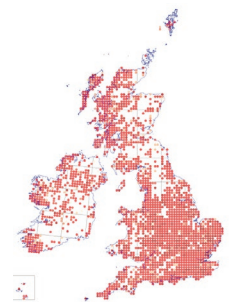


Photo source: Nymphaea alba. Hedwig Storch - Own work, CC BY-SA 3.0v



Nymphaea alba root. By Ветер - Власне зображення, CC BY-SA 3.0

The first word in paragraph one is **ouwn lioblwr**. It is close to **hóven laie-bel-wr**, meaning **floating lake bell wort** (MEC). This is not a registered name, but it makes sense. The other names of this herb is not registered either, but they are interesting. The illustration is agreed to be a **water lily, Nymphaea alba**. This is despite the flower has been added a style like those of a real lily. The root and the leaf are characteristic. Combining these with a large white flower, there is little doubt. Two places in this folio there are words sounding like the word **lotus**. **Lotus** is not attested used in English in the sense of white lotus before 1580s. Before this, the word lotus was used for various other plants. It is interesting that in Latin **lótus** means **washed** or **bathed**. It fits with the first word in the second paragraph, **lwr**, which is close to **lawr** meaning **medicinal wash** (MEC). **Lwr** is most likely the plant name because it is the first word in the paragraph and because the next word is **re**. **Re** is frequently used in the plant names, and I believe it is related to **wre**, an error for **wort** (MEC). My interpretation of **lwr re** is that it can be associated with **lawr wre**, meaning **medicinal wash wort** (MEC). It can be used to make a douche to treat vaginal soreness or discharges (P). A decoction of the water lily root takes away proreasis (D), to staunch bleeding and “draw” boils (FM). The leaves can be used for a corn cure (FM).



Ponds and lakes

- 1 Ḳṛṛṛṛṛṛ
 kRios
k-rios
 kei-róus/ros
 fern "the red
 haired one"

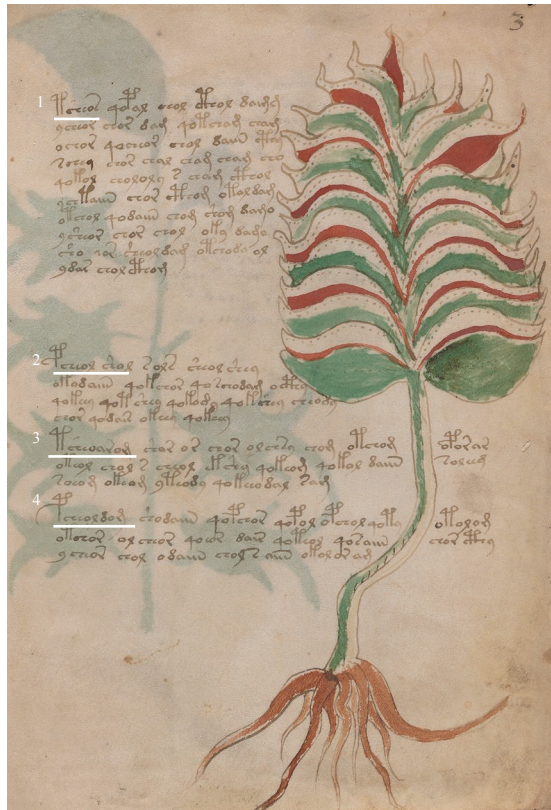
MEC: *Wóde-kei* =
 Polypodium
 vulgare

- 2 ṛṛṛṛṛṛ
 lioz Ro3
lioch rogh
 leache rogh/rif
 medicine shaggy/
 reddish

- 3 Ḳṛṛṛṛṛṛṛṛṛ
 kRioaro(rd)
k rioerort
 ?kei riord-er-hert
 ?"kei" red hair
 "hert"

TH: *Her-
 testonge* =
 Asplenium
 scolopendrium,
 ?Asplenium
 ceterach =

- 4 ṛṛṛṛṛṛṛṛṛ
 liozdo(rd)
liochthort
 leach-thort
 medicine-throat



F3r. Beinecke Rare Book and Manuscript Library, Yale University.

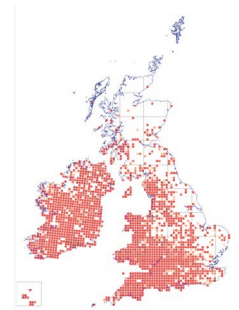


Asplenium ceterach. Zorn, J., Oskamp, D.L., Afbeeldingen der
 artseny-gewassen (1796-1800)



Asplenium ceterach. By Bernd Haynold - Self-photographed, CC BY-SA 3.0

The first name in this folio is **k-rios**. The first part of it matches **kei**, as in **wóde-ke(i)** used for the fern Common polypody (MEC). Common polypody is matching illustration. What is not correct is the root. Common polypody has a rhizome root. The artists of the Voynich manuscript are specific about the root. The root in this illustration is not a rhizome. I still believe it is a fern that is depicted. Because, all the three ferns in the manuscript are called **kei**, respectively **kei-reos** (f3r), **kei-lie** (f25v) and **kei-rauen** (f28v). In addition, the second part of the name **k-rios**, **rios** can be related to **róus**, meaning **red haired** (MEC). **K-rios** can then be interpreted **fern red haired**. I found a fern that looks like common polypody that has red hairs, **rusty back**, **Asplenium ceterach**. Rusty back has a root like the one in the illustration. The shape of the leaf matches well too. And, it's back is red haired, which can explain the red color in the drawing. Rusty back has more rounded leaves than the illustrated herb. The leaves in the illustration may be depicted as if they are twisted. The last name can be interpreted **liochthort**. It may be related to **leach-thort**, meaning **medicine throat** or **throat medicine** (MEC). Rusty back has been used to treat bronchial complaints (P).



Calcicole fern. Craggs and cliffs of basic rocks, especially limestone, and also on limestone pavements and mortared walls

- 1 oawn *klwr*
oawn (bl) or
oewn blwr
Heuven bel-wr
coifed bell wort

MEC: *Houve*
(late) heuve =
headdress, esp a
close-fitting cap
or coif

- 2 *klwr o klert*
klor o kla(rd)
klwr o klert
kil-wr(?) of
Celer(a)t(a)
kill wort(?) of
“celerata”

TH: *Celerata*
= ?*Aconitum*
Anglicum
MEC: *Kil* = kill



F3v. Beinecke Rare Book and Manuscript Library, Yale University.

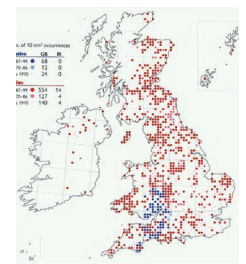


Aconitum napellus. E. Fortescue Brickdale Plate 10 of Beautiful flowers and how to grow them Edinburgh, T.C. & E.C. Jack, Ltd., (1922), and Gourdon, J., Naudin, P., Nouvelle iconographie fourragère, Atlas (1865-1871)



Aconitum napellus. Bernd Haynold - Own work, CC BY-SA 2.5

There are two names found for this plant, *oewn belwr*, *klwr o klert*. I believe *oewn blwr* is related to *houven bel-wr*, meaning *coifed bell wort* (MEC). This reminded me of the modern name **monkshood**, *Aconitum Napellus*. Monkshood has deep purple hooded bell flowers. Its leaves matches the illustration well, and it has a a tap root giving rise to one unbranched stalk. The flowers are many, but as other raceme herbs in the manuscript, this seems to be simplified. The first words in the second paragraph leads to monkshood as well. *Klwr oklert* can be interpreted *kil-wr of keleret*. *Keleret* can be related to *Celerata*, a registered name for monkshood (TH). *Kil-wr* may mean *kill-wort*, as the herb is deadly poisonous. Native to UK is only *Aconitum Napellus* subsp *napellus*. It is probably a very local plant of SW England and South Wales, but the species has long been grown in gardens.



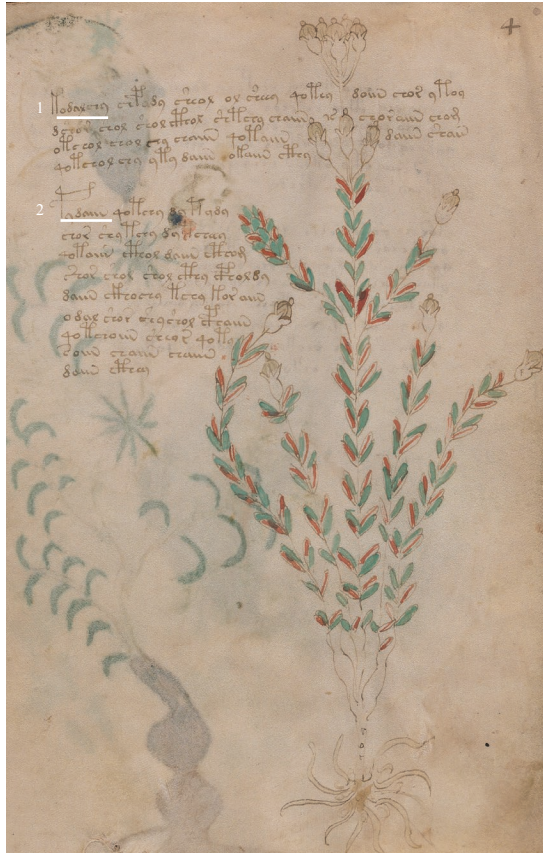
Subsp. *napellus* in blue. Calcareous to slightly acidic soil along stream banks, often in shade, in damp, open woodland and sometimes in damp meadows.

1 oðazceþ
odaþle
wdeþle
wode-yele
woad yellow

TH: wode/
wolde =
Reseda
luteola

2 þḡðand
bedawn
bedewn
bed-heuen
garden plot
dye/color

MEC: heuen,
(early) hiwæn
= to color



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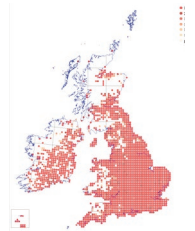


Reseda luteola. Smith, J.E., English botany, or coloured figures of British plants, ed. 3 [B] [J.E. Sowerby et al] (1863-1899)



Reseda luteola. By Stefan.Iefnaer - Own work, CC BY-SA 3.0

The first name of this herb is **wdeþle**. I believe that **wde** relates to **wóde**, **woade** or **wade**, names used for **dyer's weed**, **Reseda luteola** (TH/MEC). **Woad** means **dye** or **dyestuff**. The rest of the name **þle**, may be related to **yele**, meaning **yellow** (MEC). **Woade-yele** would mean **dyestuff yellow**. Dyer's weed produces a bright yellow dye of good quality. Most of the dye is found in the seed (P). The illustration matches dyer's weed well. It has small yellow knop flowers and lanceolate leaves. the root is small, light colored and fibrous root. It gives rise to a single branched stem. I believe the name in the second paragraph is **eide-ewn**, related to **eide-heuen**, meaning **help dye**. Or, maybe the **w** is omitted at the beginning of the word as an error or as a dialect, making it related to **weid**. The name will then be **weid-heuen**, meaning **weed color** or **color weed** (MEC). It fits better with the modern name **dyer's weed**.



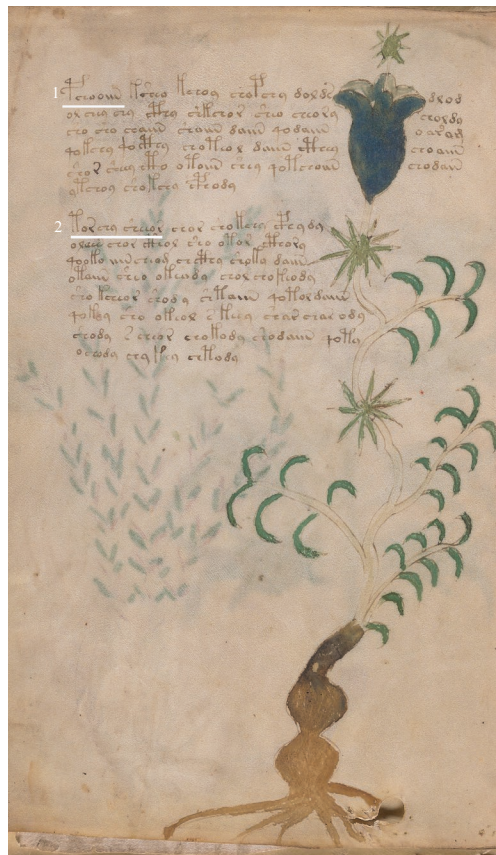
Archaeophyte: Neutral or base-rich soils. Roadsides, waste ground and marginal land, in brick yards, gravel-pits and urban demolition sites.

1 𐌿𐌵𐌴𐌹𐌺𐌴
bloown
bloown
bel-o-win
bell of wind

Wind flower:
Modern English
name for
Pulsatilla
vulgaris

2 𐌿𐌵𐌴𐌹𐌺𐌴 𐌹𐌵𐌴𐌹𐌺𐌴
korle Rmor
korle rnwr
“kar”-lef run-wr
Carrot leaf run
wort

𐌿𐌵𐌴𐌹𐌺𐌴 and 𐌿𐌵𐌴𐌹𐌺𐌴 is
used for plants in
the carrot family,
f31v, f33v, f39v,
f43r and f96r.



f4v. Beinecke Rare Book and Manuscript Library, Yale University.

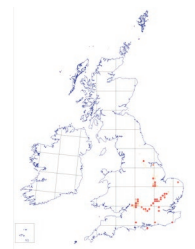


Pulsatilla Vulgaris. Billeder af nordens flora; Carl Axel Lindmann, (1917).



Pulsatilla vulgaris, Marco Schmidt - Own work, CC BY-SA 3.0

This herb is named **bloown**. The word can be divided to **bl-o-own**. It is close to **bel-o-win**, meaning **bell of wind** (MEC). This is not a registered name. It was one of the first names I identified by name. I associated it with the modern vernacular plant name **windflower**, ***Pulsatilla vulgaris***. Amazed by the similarity I realized that the herbs illustrated were not at all fantasies. The windflower has a blue bell flower, two different kinds of leaves. The little tip in the middle of the flower is drawn like a star, and the herb has a tap root with runners. Runners are rhizomes that grow underground and puts out lateral shoots and adventitious roots at intervals. The second Voynich name for this plant is **karle rnwr**. I read it as **kar-lef run-wr**, meaning **carrot leaf runner wort** (MEC). I choose to translate **kar** to **carrot** here. Because, **ker** and **kor** is in the Voynich manuscript used for plants in the carrot family in f31v, f33v, f39v and f96r. A similar prefix is found in modern names, like chervil, coriander, carrot and caraway. *Pulsatilla* is not in the carrot family. It is a *Ranunculus*, but its lower leaves are feathery in the same way as those of the carrot plants. It is interesting that Dioscorides describes windflower in a related way. He wrote that “*The leaves are similar to coriander*”.



Wooded pine forests or meadows, often on a sunny sloping side with calcium-rich soil

1 ၵဝ်း, ၵိၵဝ်း, ၵိၵဝ်း
Rode floe ltoe
rode floe ltoe
róde folioe lit-toe
Christ's Cross
leaves light-toe

2 ກຣ໌ ຣ໌ ຣ໌ ຣ໌
kRe Rode
k-re rode
K-wre ródē
K-wort
Christ's Cross

Vitus Auslasser =
(c. 1450—c.1510)
gives the plant the
Middle English
name *Krux Xpi*
(Cross of Chris-
tians)



F5r. Beinecke Rare Book and Manuscript Library, Yale University.

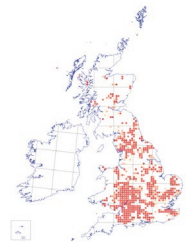


Paris quadrifolia, Esser, P.H.H., Giftpflanzen Deutschlands (1910)



Paris quadrifolia, George Chernilevsky - Own work, Public Domain.

The first name in this folio is **rode**. With the herb's large leaves placed high up on a single straight stalk, and its one blue berry, it is agreed to be **herb paris**, **Paris quadrifolia**. Rode is not a registered name for herb Paris, but rode has several meanings in Middle English. One of them is **the cross of Christ**. There are references to herb Paris being called the cross of Christ. Gerard Cheshire has published a study of medieval names for Paris quadrifolia in *Plant Series, No. 8. Manuscript MS408. Paris quadrifolia**. He states that Vitus Auslasser (c. 1450—c. 1510) gives this plant the Middle English name **Krux Xpi**, meaning **Cross of Christians**. There is also a second name in this folio, **ltoe**. It can be divided into **lit-toe** and translated to **light toe** (MEC). Dioscorides describes the root as a “root similar to the tail of a scorpion, glittering like alabaster.



* <https://www.researchgate.net/publication/340771401> Plant Series No 8 Manuscript MS408 Paris quadrifolia

Young and broad-leaved forests, coppices,
forest margins, fens and stream-side swamps,
stream valleys, stream banks, springs

1 *lior*
lior
liwr
?li-wr/liver/liar
?flame-wort/liar

2 *eklie*
eklie
eklie
âche-lief
Apium-leaf

MEC: âche =
Any of a group of
celery-like plants
(Apium)

TH: *ache* =
apium = Horse
parsley, wild
celery (smallage),
sanicle, wild
chervil, Lovage,
var. Buttercup
or Crowfoot,
Alexanders,
Celeryleaved
crowfoot, lesser
spearwort.

3 *lodewn*
lodawn
lodewn
lode-wem
lesser "lode"
harm/blemish

TH/MEC: *lode-*
wort =
Ranunculus
aquatilis/acris.

4 *ek o uwn*
ek o uwn
eik o uwn
âche of wind
Apium of wind



F5v. Beinecke Rare Book and Manuscript Library, Yale University.



Ranunculus asiaticus. Sibthorp, J., Smith, J.E., *Flora Graeca* (drawings) (1845-1847)



Ranunculus Asiaticus, Hanay - Own work, CC BY-SA 3.

The word that first appeared to me as a plant name in this text was *lodewn*, as *lodewn* was also used in f1v for *Ranunculus flammula*. The herb in this page is probably also a *Ranunculus* or a similar plant. It is either the **Persian buttercup**, *Ranunculus asiaticus* or the **windflower**, *Anemone coronaria*. They are often confused. The illustration matches *Ranunculus asiaticus* best. It has a branched stem, and one to several flowers on each of the branches. *Anemone coronaria* is born singly on a tall unbranched stem. Three names are identified for this herb, *eik-lie*, *lodewn* and *eik o uwn*. I believe *eik-lie* is related to *ache-lief*. *Ache* is registered used for various kinds of *Ranunculuses* and *Apiums* (TH). The leaves of *Ranunculus asiaticus* look like those of some *Apium* plants like celery. *Ok* and *eik* are also used for the other *Apium*-herbs in the manuscript, see f14v, f18v, f27v, f65r and f96r. *Eik o uwn* may be related to *âche of win*, meaning *Apium/Ranunculus of wind* (MEC). It is also related to the modern English name *windflower*. It is interesting to see that not only *lodewn* is matching a former Voynich name (f1v). The word *uwn* in this folio is a variation of *own* in f4v, both used in the meaning of *wind*. Part of the text in line one says: *eklie b rod loh s lodewn ék o uwn* / *ache-lief be rod lô* is *lode-wem ache of wind* / *Apium-leaf is red yet is "lodewem" Apium/Ranunculus of wind*.

Garden plant.

Ranunculus asiaticus is native to Eastern Mediterranean region in southwestern Asia and southeastern Europe (Crete, Karpathos and Rhodes) and northeastern Africa.

1 fəar

foar

fwer/foer

Fev-wr/Fuerse

Vica faba wort

TH: Feve = Vica
fabaMEC: Fuerse-
beans = wild
beans (1425).

2 ɾoɣ ɾoɣoɾ

Rog loɣor

rogh loghwr

rogh long-wr

hairy long wort

Vica sativa is a
hairy climbing
plant with stalks
up to to meter
long.Se ɾoɣ used for
lóng, meaning
lung, in f22r, f25r
and f35r.

F6r. Beinecke Rare Book and Manuscript Library, Yale University.

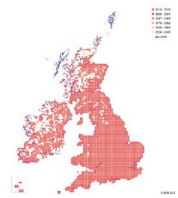


Vicia sativa, Gourdon, J., Naudin, P., Nouvelle iconographie fourragère, Atlas (1865-1871)



Vicia sativa. By Stefan.lefnaer - Own work, CC BY-SA 4.0

The first word in this text is *foer*. One solution is to relate it to the registered name *fuerse-benes* associated with wild beans, Fabaceae (MEC). Another solution is to relate *fwer* to *few-wert*. *Few* can be associated with *feve*, registered for the bean plant *Vicia faba* (TH). Either way it leads to the family Fabaceae. The illustration looks most like the Fabaceae **common vetch**, **Vicia sativa**. What matches common vetch is the stipulate alternate leaves. In addition it has a single stalk rising from the thin branched root. The color of the flowers is right too. It lacks tendrils. A description following its name is *rogh logwr*. I interpret it as *rogh lõng-wr*, meaning **hairy long wort**. It is a good description of *Vicia sativa*, because it is a hairy climbing plant with a stalk up to two meters long. That ɾoɣ (*log*) is interpreted as *lõng*, meaning **long**, may seem farfetched. But, it fits with other folios. In f22r, f25r and f35r we also find ɾoɣ in the plant names. In this page ɾoɣ in this page is interpreted to mean **long**. The same word, ɾoɣ, is in the abovementioned folios interpreted as *lõng*, in the sense of **lung**.

Grassy and lowland
areas, waste spaces and
roadsides

1 oarḡ 2ar rccḡar
oare sar lmtar
were-ser-lnt-er
were-she-lent-ère
dread sharp
lentil fruit cluster

2 doḡdoḡ
doḡdo(rd)
dagdwrt
dagged-wort
dagged-wort

3 ḡḡoḡḡ
klode
klothe
clythe

TH: *Clythe* =
Ricinus communis



F6v. Beinecke Rare Book and Manuscript Library, Yale University.



Ricinus communis. Anonymous, *Plantarum Malabaricum icones* (1694-1710), vol. 2.



Ricinus communis. By H. Zell - Own work, CC BY-SA 3.0

This herb was identified as the **castor bean**, ***Ricinus communis***. It was done by searching for plants with spiky fruits or seed pods, and palmate lobed leaves. The first words, ***were-ser-lnt-er***, is close to ***were-she-lent-ère***. It means ***dread sharp lentil fruit cluster*** (MEC). The last word in the first paragraph may highlight some of the same characteristic. There it is called ***dagd-wrt***. ***Dagge*** means ***dagger*** (MEC). My interpretation is therefor ***dagged wort***. Other candidates are thorn apple, *Datura stramonium* and horse chestnut, *Aesculus hippocastanum*. But I keep castor bean because there is another name pointing in that direction. The first word in the second paragraph, ***klothe***, is close to ***clythe***. It is a registered name associated with castor bean (TH).

Garden plant
Castor bean can grow well outdoors in cooler climates, at least in southern England.

- 1 **f7r**
flodawn
flodewn
 ?flé-tóng
 fla-tongue
 flode-?wan
 flow lusterless

TH: *Lombys-tonge* = *Plantago lanceolata*

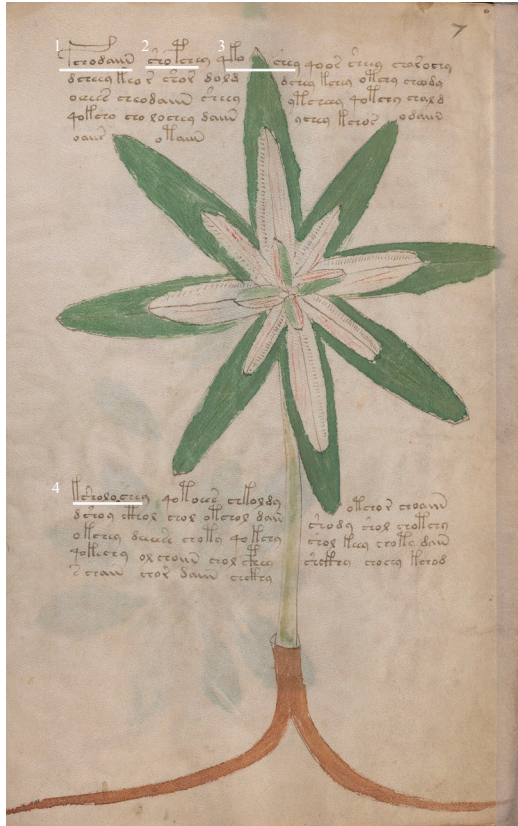
MEC: *Flod*
 = flow of the blood

Plantago lanceolata was used to treat haemorrhage.

See f20r and f93r.

- 2 **Roblie**
roblic
rob-lief

MEC/TH:
Ribwort =
Plantago lanceolata, also
rob-



F7r. Beinecke Rare Book and Manuscript Library, Yale University.



Clark, G.H., Fletcher, J., Farm weeds of Canada Farm Weeds Canada



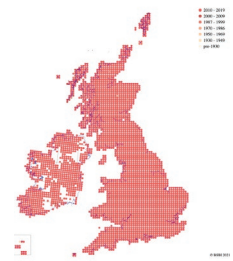
Plantago lanceolata. Forest & Kim Starr, CC BY 3.0

- 3 **gtoRie**
gta-rie
 gata-writhe
 path-wreath

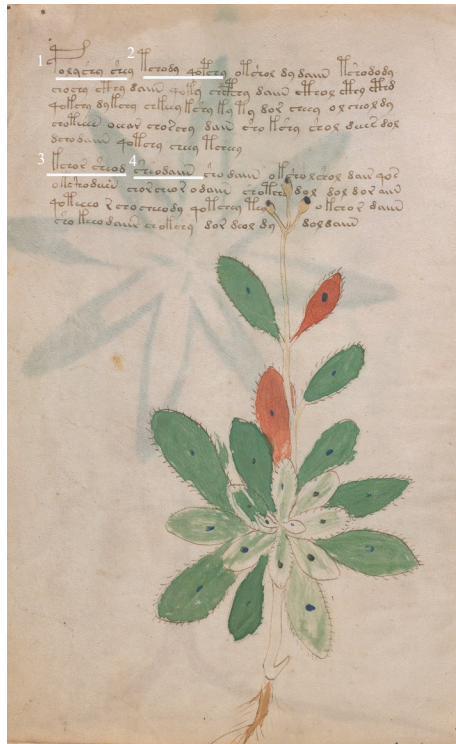
- 4 **Rugge**
Rugge
rugge-writhe
 Rib wreath

Rugge
 (chiefly WM
 & SW) = the
 mid rib of a
 leaf

There are four names identified in this text, **flodewn**, **roblic**, **gtarie** and **rugorie**. The second name is the name that first led to an identification of this herb. **Roblic** is close to **rib-leaf**. **Rib** (also **rob-**) is found in **ribwort**. It is a registered name for **ribwort**, **Plantago lanceolata** (TH/MEC). **Gta-rie** can be related to **gata-writhe**, meaning **road-wreath** (MEC). Ribwort is common in disturbed areas, like paths and roadsides and it has a circular growth. The third name **rugge-rie** I believe is related to **rugge-writhe**. **Rugge** is a word for the **mid rib of a leaf** (MEC), as in ribwort. For the first name I have two alternatives. **Flodewn** may be related to **flé-tóng**, meaning **flea-tongue** (MEC). The flower has flea seeds and **tongue** is found in one of ribwort's registered names, **lombystonge** (TH). Another reading of **flodewn** is that the first part is related to **flod** or **flo**, in the sense of a **flow of blood** (MEC). **Flo** is an interesting word found in the Voynich names of Thymus (f20r) and Costmary (f93r). Ribwort is said to be used to treat haemorrhage (P). Thymus treats the menstrual flow and clots of blood (D). Costmary was in the Middle Ages used to treat menstruation problems (Wikipedia).



- 1 03eRe Rie
weie-re rie
wey-hore-writhe
- TH: weihore,
daysehie =
Hieracium
pilosella
MEC: writhe =
wreath
- 2 klode go ble
glode go ble
glode go blé
gold go bluish gray
- 3 lor Riöd
lwr riöd
láver read
medicinal wash
red
- 4 Riödawn
riödawn
reade-wen
red-lusterless/
grayish



F7v. Beinecke Rare Book and Manuscript Library, Yale University.



Adam Lonicer's Krauterbuch (1577), blue mous-ear, the common harewort.

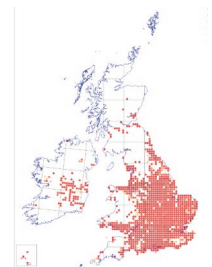


Erigeron acris. Masclef, A., Atlas des plantes de France (1890-1893)



Erigeron acris. Sofia Bryntse - Own work, CC BY-SA 4.0

The first name in this folio is **hei-re**. It can be read **hei-wre** or **hei-hre**, and be related to **weyhore** and **heriwurt**. The two names are registered for mous-ear hawkweed, *Pilosella hieracum* (TH). In the same way as **2e** may be a variation of **wre** (wort), I believe it may be a variation of **hre** (hare). The second name also points in the same direction. The last part of **l-plie** may be related to **peluet**, another registered name for mous-ear hawkweed (TH). I first thought the drawing had an error as mouse-ear hawkweed has a yellow ray flower. The other features matched very well. But, in Adam Lonicer's *Krauterbuch* (1577) I found a herb that was similarly illustrated to the one in this page. It has a name that matches too. The herb in Adam Lonicer's *Krauterbuch* is called "**blaw meusohr, and mous-eare, the common harewort in English**". It means that the plant was called **mousohr** like the modern name of *Pilosella hieracum*. It is noted in the *Krauterbuch* that in English it was called **common harewort**. **Hare** in **harewort**, is probably a variation of **hore** and **heri**. The herbs in Adam Lonicer's *Krauterbuch* may be a herb that was formerly associated with *Pilosella*. Later it may have been placed in another plant genus or family. I find the hairy **blue fleabane**, **Erigeron acer** to be a good candidate. It is hairy. It has a rosette of leaves in addition to leaves along the stalk. The little root gives rise to a single stalk with several small blue flowers. It is interesting that there is another fleabane in the manuscript, in f95r2 t. It is drawn without petals too.



Open, well-drained, skeletal neutral or calcareous soils, often on warm, S-facing slopes

1 𐌺𐌹𐌸𐌹𐌸
bRo3
p-rogh
pé-?ruff/rove

TH: *Pé de poleyn, pee de chivale, clotis-pé* = *Tussilago farfara*
TH: *Wode-ruff/rove* = *Chrysanthemum balsamita*. See f93r.

2 𐌺𐌹𐌸𐌹𐌸
lobe
labbe
labbe/lobe
colt's foot?!lobe

TH: *labbe* = *Tussilago farfara*

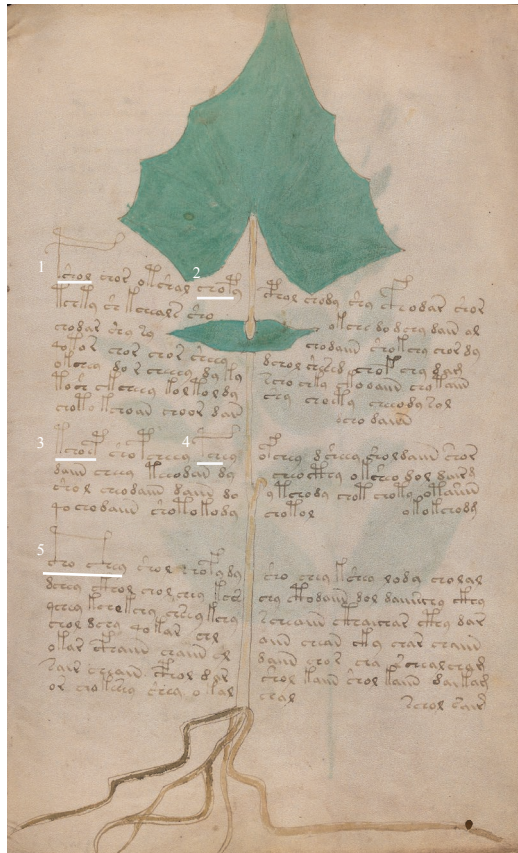
Lobe as in lobed leaves? Late Middle English: via late Latin from Greek lobos 'lobe, pod'. Early 16th century.

3 𐌺𐌹𐌸𐌹𐌸
kloip
clai-pé
clay- "pé"

Tussilago farfara prefers clay soil.

4 𐌺𐌹𐌸𐌹𐌸
blie
plie
pé-lief
"pé"-leaf

5 𐌺𐌹𐌸𐌹𐌸
Ro Rie
ro-rie
? "ro" writhe
? "ro" wreath



f8r. Beinecke Rare Book and Manuscript Library, Yale University.



Lactuca muralis



Photo source: *Lactuca muralis*. Anneli Salo - Self-photographed, CC BY-SA 3.0

I first thought this was coltsfoot. The word **lobe** is found as word number four. Coltsfoot was called **labbe** (TH). The leaf in the illustration matches the leaf of coltsfoot. But, there are some details that do not match. The herb has not one singular triangular leaf like lobe. It also has a leaf lower down on the stalk. This leaf seems to be drawn in perspective, horizontally. The root is also a bit different from coltsfoot's. Coltsfoot's root is a runner. There is another herb that has a similar triangular end lobe. It is **wall lettuce, *Lactuca muralis***. Seen in real life, the lower lobes of wall lettuce has a different angle than the large triangular end. They grow in a rosette and on the branched flower stalk. Another detail in the illustration is the little stalk that is cut off underneath the lower leaf. This is also a thing one does not find on coltsfoot. The etymology of **lobe** says: from Middle French, lobe, in early 16th century, from New Latin lobus ("a lobe"), from Ancient Greek λοβός (lobós, "the lobe of the ear or of the liver, the pod of a leguminous plant"). Wall lettuce is not registered. My knowledge of plants comes short here. There may be others with a large triangular lobe. But, I do believe that we have to look for another plant than coltsfoot.

Walls, waste ground, dry rocky places.

1 klod sookl
(kl)od soo(kl)
klod sookl
glod-sókl

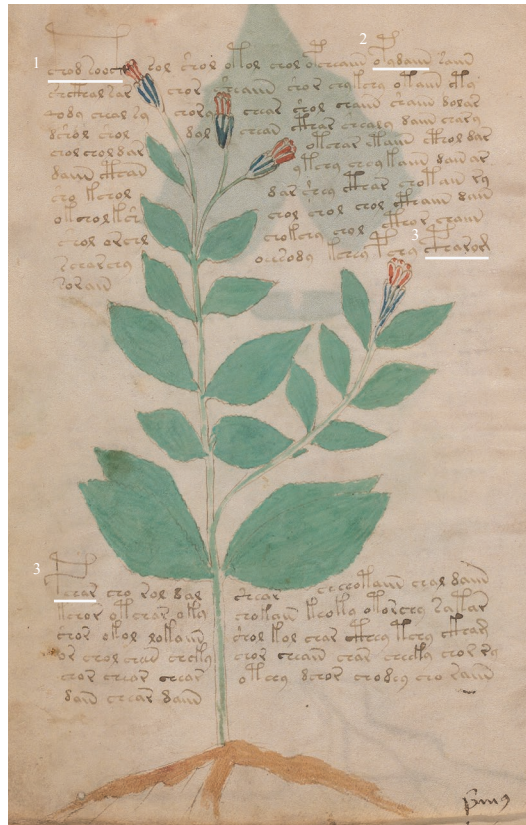
TH: *Gold* =
Calendula officinalis
MEC: *Sókl* =
cowslip, clover,
?water dock,
honeysuckle.
See f18r, sea
aster = *soklwn*

2 bedawn
bedawn
bed-hewen
garden plot
Calendula

TH: *Hewen*,
houen = *Calendula officinalis*

3 plerwrt + pler
(bl)aro(rd) + blar
plerwrt + pler
?pel-ére-worth +
pel-ére

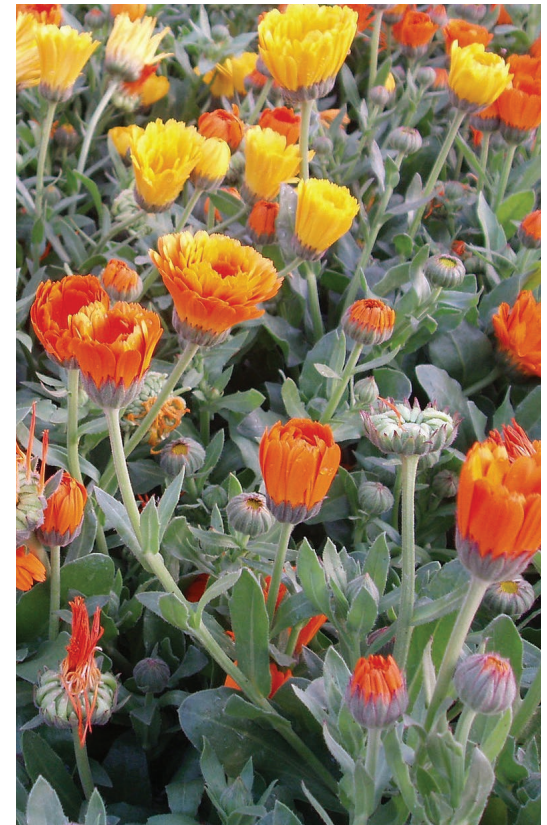
TH: *Peluet*, *moussere* = *Pilosella hieracum*



F8v. Beinecke Rare Book and Manuscript Library, Yale University.

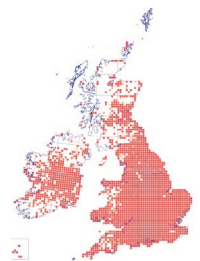


Calendula officinalis. Köhler, F.E., Köhler's Medizinal Pflanzen (1883-1914)



Calendula officinalis. Fanghong - Self-photographed, CC BY-SA 3.0

The first word in the folio is **klod-sokl**. The first part, **klod**, may be read **glod**, as *g* is one of the values of kl when it is not in front of *o*. **Glod** is a variation of **gold** (MEC). **Gold** is found in many of the registered names for **common marigold**, ***Calendula officinalis***. It is called **marigolde**, **holy gold**, **gold-kers**, **goldflour**, **goldwort** and simply **gold** (TH). The last part of the Voynich name, **sookl**, is almost the same as **sókl**. **Sókl** used for different kinds of herbs, but not registered for marigold (MEC). I still believe the herb on this page is a common marigold. The illustration matches it very well. The shape and the color of the flowers are small but correct. It has bracts, a branched stalk, ovate leaves and a branched tap root giving rise to a single stalk. The next name, **bedawn** is close to **bodewen**. It is a registered name for corn marigold (TH), a plant with quite similar appearance. The last part of **bedawn**, **ewn**, may be interpreted **hewen**, like the registered name of common marigold, **hewen** (TH).



Neophyte: Grown in British gardens by 995. Sunny locations in most kinds of soils



F9r. Beinecke Rare Book and Manuscript Library, Yale University.



Crambe maritima. Gourdon, J., Naudin, P., Nouvelle iconographie fourragère, Atlas (1865-1871)



Crambe maritima. Charlesdrakew - Own work, Public Domain

The first name of this herb is 9890. I read it *é-dcho* or *ai-dcho*. I believe it is related to the word *Chou*, a vernacular name registered for Brassica (TH). The name *ro eun kle ewn*, also points in the same direction. It may be related to *rod vene kéle wan*, meaning *red vein kale grayish* (MEC). The herb in this folio is also called *é/ei-kler* in the headline under the text. *E* in its names *é-chou* and *é-kler* can either be related to *é*, meaning *water* (MEC). it would then refer to sea kale. Another interpretation is to relate *e* to *ai/ei*, meaning *ever/eternal* (MEC). The name is then referring to the ability kale has to grow even in winter. *Kle* and *kl-wr*, I believe is related to *kéle* and *kél-wort* meaning *kale* and *kale-wort* (MEC). The large tuberous root has numerous red stalks growing from it. This matches sea kale, *Crambe maritima* and some *subspecies of Brassica oleracea*. The wavy leaves could be a way to express curls.



Crambe maritima: Vegetated shingle beaches. Boulder beaches, very occasionally found on dunes (but only where these overlay shingle) and on cliffs.

1 **ꞑꞑꞑꞑꞑ**
folor
folwr
viol-wr
Viola wort

TH: *Viola* =
Wild Pansy

2 **ꞑꞑꞑꞑꞑꞑ**
oborode
oparwde
hóp-hart-
wode

TH: *Hertwode*
= *Viola*

3 **ꞑꞑꞑꞑꞑ**
blor
plwr
blu-wr
Blue wort



F9v. Beinecke Rare Book and Manuscript Library, Yale University.

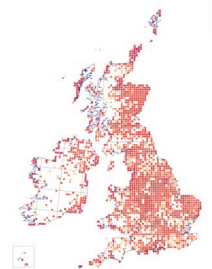


Viola tricolor. Billeder af nordens flora; Carl Axel Lindmann (1917).



Viola tricolor. Jörg Hempel, CC BY-SA 2.0

This herb is agreed by most to be a **wild pansy, *Viola tricolor***. The flower is drawn upside down. Otherwise the illustration matches. The herb has two different kinds of leaves and a small fiber root. It has a particolored flower with five petals, including one with a heart shape. The two Voynich names are starting paragraph one and two. **Folwr** can be interpreted as **fiol-wrplor**. It can be translated to **viola wort**. **Blwr** can be read **blo-wr** and be translated to **blue-wort** (MEC). I also believe that word number two in paragraph one, **opowrde**, is a name. **Oporwde** can be related to **hóper-wode**, meaning **hoper “wode”**, or **hóp-hart-wode**, meaning and **hope heart wode** (MEC). **Her(t)wode** is a registered name for *Viola* (TH). **Hert**, also written **hart**, means **heart** (MEC). The lower petal of a wild pansy flower is shaped like a heart.



Dunes and other sandy areas, on acidic grassland on heaths and hills, and in cultivated ground, gardens and waste places.

1 **blo(kl)ei**
bloclai
 blu-cleif
 blue-cliff

TH: *bló-wort*,
bloflour, *blowed*,
blowode =
Centaurea
cyanus

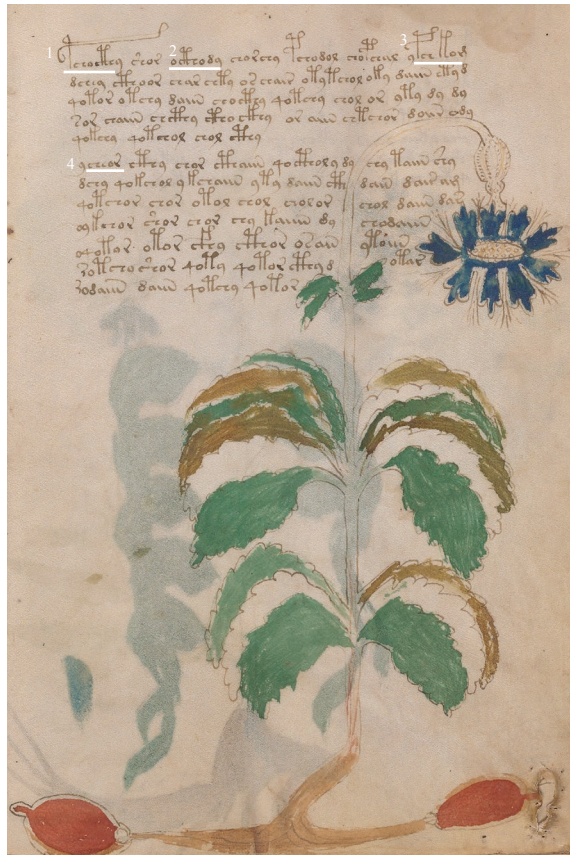
2 **oklode**
 o(kl)ode
oklode
 a glode
 a gold

TH: *golde* =
Calendula
officinalis

3 **eipltwrt**
 eblto(rt)
eipltwrt
 ei-pleit-wrt
 eye-cure-wort

TH: *blede both-*
el, *blede-wort*
 = *Centaurea*
cyanus
 MEC:
plight/plet=
 trouble, health,
 bliss, cure

4 **eliwr**
 elior
eliwr
 h)aili-wr//ei-
 lawr
 holy-wort//eye-
 wash



F10r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

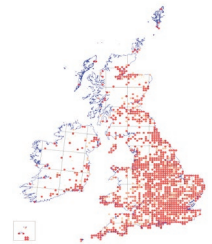


Photo source: *Centaurea cyanus*. Kops, J., *Flora Batava* (1800-1934)



Photo source: *Centaurea cyanus*. Stefan.lefnaer - Own work, CC BY-SA 4.0

The first name in this folio is **bloclai**. I believe the first part, **blo**, can be associated with **blo** in **bló-wort**, **bloflour**, **blowed** and **blowode**. Those are registered for **cornflower**, **Centaurea cyanus** (TH). The last part of the name, **clei**, may be related to **cleif**, meaning **cliff** (MEC). If so, the ending **f** is omitted as it also seems to be in **lie**, a word I believe is related to **lief**, meaning **leaf**. It is interesting that the Swedish name for cornflower is **blåklint**, where **klint** is a variation of **cliff**. The illustration has striking similarities to the cornflower. The only thing not matching is the red tubers at the end of the root. Cornflower was used to treat red eyes, it may be a symbol for that. Another name is **eipltwrt**. I believe it can be read **ei-pleit-wrt**, meaning **eye cure wort**. The first word in paragraph two, **eliwr**, may name the same properties. If interpreted as **ei-lawr**, it means **eye-wash**. There are other ways to interpret it. This name can be **ei-li-wr**, meaning eye fire (?inflammation) wort. It can also be interpreted **haili-wr**, meaning **holy wort**.



Grain fields, rye fields, fallow land, roadsides, wasteland.
 Chalky, clay, loamy, sandy. Coastal cliffs. Roadsides and
 in hedgerows

- 1 fawd sawd
bawn dawn
bewn dewn
?bóuen dóun
bow down
?bón thoung

MEC:
Bon-wort = ?
Symphytum
officinale

TH: *Bonwort*,
bothon =
Symphytum
officinale

- 2 40llezaffor
goklekor
gokleikwr
gog-leich-
wr
God/swamp
medicin
wort



F10v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

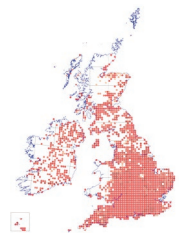


Photo source: *Symphytum officinale*. Bonelli, G., *Hortus Romanus juxta Systema Tournefortianum* (1772-1793)



Photo source: *Symphytum officinale*. H. Zell - Own work, CC BY-SA 3.0

The first name in this folio is **bewn dewn** or **bewn thewng**. I believe it is related to either **bóuen dóun**, meaning **bowing down** (MEC), as the flowers are bended downwards. Or, it may be related to the registered names **bonwort** and **bothon**. They are used for **comfrey**, **Sympythum officinale** (TH). Comfrey matches the illustration very well. It has deep puple hanging bell flowers, large tongue shaped leaves, and a divided tap root. The name starting the second paragraph is **gokleikwr**. It may be related to **Gog-leich-wr**. **Gog-leich-wr** means either **God medicin wort**, or **swamp medicin wort**. **Gog** is a word used for both **God** and **swamp**. Comfrey grows in swamps and marshes.



Banks of streams and rivers, in ditches, fens and marshes, and on damp road verges

1 $\text{fl} \text{ro} \text{g}$
kRo3
k-rag
k-rage
?K-’rage’

TH: *Culerage* =
Vervain

2 $\text{sl} \text{wag} \text{fl} \text{é}$
sloaz (fl)e
slwag flé
salvage flé(gh)
wild Vervain

MEC: *salvage* =
wild
TH: *fle(t)wort*,
Flegh-wort =
Verbena officinalis

3 $\text{ble} \text{rie}$
(bl)e rie
ble rie
ble writhe/wride
grayish blue
wreath/clump

Vervain grows on
costal cliffs

4 $\text{cl} \text{ofh} \text{r} \text{wr}$
klo3 Ror
kloh rwr
clough ?ráver
cliff ?rover

Vervain grows on
costal cliffs



F11r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

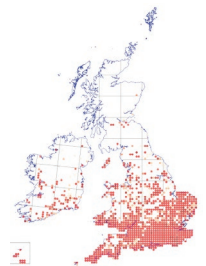


Photo source: *Verbena officinalis* Fuchs, L., New Kreüterbuch (1543)
New Kreüterbuch (Fuchs)



Photo source: *Verbena officinalis*. vl, Konrad Lackerbeck, CC BY-SA 2.5

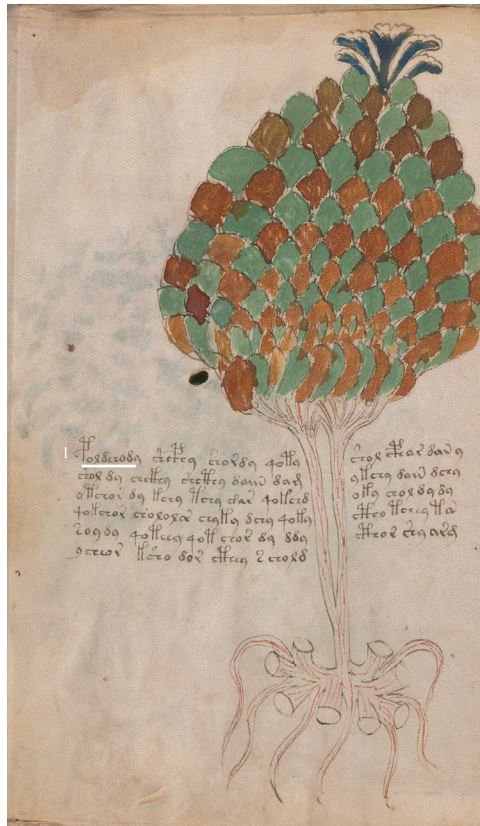
This illustration shows three intertwined herbs of the same kind. I believe it is possible to identify which herb it is through the third word in the first paragraph, *fle*. *Fle(t)* and *flegh* are registered name for **vervain**, *Verbena officinalis* (TH). Vervain has many light violet flowers and the root is tuberous and quite long. The three first words in paragraph one is *k-rag slwegh flé*. I read these words as related to *k-rag salvage flé*, meaning *k* “*rag*” wild “*fle*”. *Rag* is found in one of the other registered names for Vervain, *culerag* (TH), and *sleigh* means *wild* (MEC). Another word in this text that is likely to be a name is the first word in paragraph two is *klo3 rwr*. *Klo3* may be related to *clough*, that means *cliff*. Vervain grows on sheltered coastal cliffs, and rock outcrops. *Rwr* may be related to the verb *ráven*, meaning *to rove*, or it may be *rye-wr*, menaing *coast-wort*. At the moment, my interpretation of these two words *cliff rover*, or *cliff coast wort*.



Rough grassland and scrub, on roadsides, sheltered coastal cliffs, rock outcrops; less often in quarries and gravel-pits, and on streamsides, wood-borders and walls

1 𐌱𐌹𐌸𐌳𐌹𐌳𐌺𐌰
boʒdlode
bugdlwde
bugdle-wode

TH: Bugle,
bugil, wode-
broune = *Ajuga*
reptans



F11v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

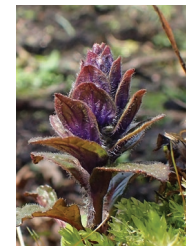


Photo source: *Ajuga reptans*, plate 16 in: *Flora Batava* vol. 1 (1800).

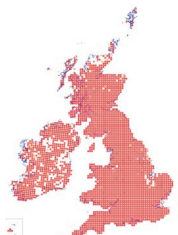


Photo source: *Ajuga reptans*. Ludwik Polak - <https://atlas.roslin.pl/plant/6254>, CC BY-SA 4.0

In this text there is only one paragraph and I have found only one name, **bugdlwde**. **Bugdlwde** can be divided to **bugdl-wde**, and associated with **bugle** and **wodebroune**. It is two registered names of **bugle**, *Ajuga reptans*. The **d** in **budgl** may be a dialectal feature. For example, in the Dorset dialect the liquid consonants /l/ and /r/ are treated differently. When 'r' and 'l' come together, a 'd' or 'e' sound is put between them, so curl and twirl can become curdl and twirdl. The illustration is quite good to be a bugle, especially the shape of a young shoot. The leaves are elliptical and their color varies from green to purple or brown. It has an inflorescent with whorls of striped white and blue flowers. The stalks are often red, and the root too. The root that is cut off, may illustrate that it is a runner. It is a useful ground-cover that spreads quickly by runners. I believe the first words say: 𐌱𐌹𐌸𐌳𐌹𐌳𐌺𐌰 𐌲𐌹𐌱𐌺𐌰 𐌲𐌹𐌱𐌺𐌰 / **bugdle-wde rplī rarthe** / **bugle-wode riplē rareth** / **bugle quickly spreads out**.



Ajuga reptans young shoot.
Krzysztof Ziarnik, Kenraiz
- CC BY-SA 4.0



Damp deciduous woods
and woodland rides, shaded
places and unimproved
grassland on neutral or
acidic soils.

F12r lacking

F12v lacking

1 𐌚𐌚𐌚𐌚𐌚

korRor

kor-ror/rwr*cure-?rewere**cure-?river*

MEC: ?Habitat:

Rewer = river?or: *Rar* =

light colored,

seldomly found,

spongy, small



F13r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

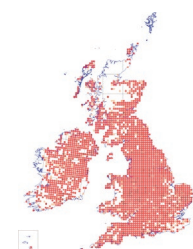
This herb was identified by illustration. When I searched for herbs with large orbicular leaves I found **butterbur**, *Petasites hybridus*. It has striking similarities with the illustration. The leaves match and its grayish flowers. It also has a characteristic large root that give rise to one flower stalk and many leaves. The name, *b-lei*, I interpret as related to *bur-leif*. *Bur* is not a registered name but it is found in the modern English vernacular name **butterbur**. The plant butterbur is not found registered (TH/MEC). Another Voynich name in this folio is *kor-rwr*. The first part, *kor*, is close to *cûre*, meaning *cure* (MEC) and may refer to its medicinal use. The second part of the name, *𐌚𐌚𐌚𐌚𐌚*, is found as part of the names in both paragraphs. It can be read *rwr*. This word is seen in the former folio too, interpreted as *rover*. *Rover* does not make sense here. It may be related to *rivér/rewere*, meaning *river* (MEC). Butterburs prefer moist habitats, often by rivers and streams. *𐌚𐌚𐌚𐌚𐌚* can also be read *rar*, meaning *seldomly found*, *airy* or *light colored*. In the British Isles are female plants rarely found outside central and northern England. The species may be naturalized as clonal populations outside this area.



Photo source: Petasites hybridus. Nees von Esenbeck, T.F.L., Wijhe (Weyhe), M.F., Plantae medicinales (1828-1833)



Photo source: Petasites hybridus. Stefan Iefnaer - Own work, CC BY-SA 4.0



Moist, fertile soils, often by rivers, streams and in wet meadows

1 𐌺𐌰𐌹𐌶𐌰 𐌸𐌺𐌰 𐌰 𐌰
toaur lk o wn
tweur lk o wn
?twe-aur/-ur
leik awn
?two-“aur”/
wort river awn

Norwegian name
Aurtveblad-
mose. Old
norse: *aur* =
bank with a mix
of (often brown)
sand, shingle
and stones.

2 𐌺𐌺𐌰𐌸𐌰𐌸
fogdawn
foghdewn
vuchte/fogh-twin
moist/particol-
ored-twin/two



F13v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Scapania undulata, upper right corner. Ernst Haeckel - *Kunstformen der Natur* (1904), plate 82: Hepaticae



Photo source: Brussels sproiut. Peretz Partensky from San Francisco, USA - Brussel Sprouts, CC BY 2.0

In this folio it is 𐌺𐌰𐌹𐌶𐌰 and 𐌺𐌺𐌰𐌸𐌰𐌸 start the two paragraphs. I cannot find any registered names related to them (TH). There is one herb that is an interesting. **River startip**, *Scapania undulata* matches the the illustration well. Its rounded leaves are green and brown. It is branched and has a star-like tip. The names starting the two paragraphs are **tweur** and **foghdewn**. In association to river startip, it is interesting to look at the Norwegian names of Scampana. We call it **tveblad**, meaning **double leaf**. Associated with this **tweur** can be read **twe-wr**. It means meaning **two/twin-wort**. This may be a farfetched interpretation. I should be taken as uncertain, but it is interesting that there are two herbs of the same kind in the illustration. The second name, **foghdewn**, can be related to **fagh-twein**, meaning **particolored twin**. There is another interpretation of **foghdewn**. It draws an association to the German word **vocht** meaning **moist**. River startip grows in hydric sites. **Foghdewn** will then be read **vocht-twein**, meaning **moist-twin**. River startip is one of six plants that hypothetically can be attributed to the Celtic (Welsh) botanical tradition. It is found in the manuscript Myddfai I.



Exists in moderate to extremely calcareous bogs. Hydric to nearly xeric sites; mostly associated with moving water and rocks

1 $\text{f}^{\text{c}}\text{c}^{\text{o}}\text{d}^{\text{a}}\text{w}$
blodawn
blodevn
blode-vein
blood vein

Modern English:
bloody dock,
red-veined dock
= *Rumex sanguineus*

2 $\text{c}^{\text{c}}\text{c}^{\text{o}}\text{p}$
loboz
lapach
Lapacia

MEC: *lapacia*
= any dock-like
plant

3 $\text{z}^{\text{o}}\text{c}^{\text{c}}\text{c}^{\text{o}}$
soRe
so-re
sour-wre
sour-wort

TH: *soudock*,
wode-soure =
Rumex acetosa



F14r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

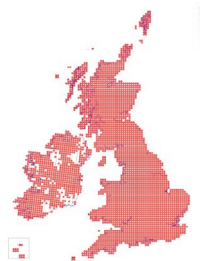


Photo source: *Rumex acetosa*. Blackwell, E., *curious botanica* (1737-1739)



Photo source: *Rumex acetosa*. Donald Hobern. CC BY 2.0
Close up by Stefan.lefnaer - Own work, CC BY-SA 4.0

This is the herb that first made me realize that there are several synonym names for the herbs in each text. Finding two or more names leading to the same species was amazing. It felt like a confirmation of my decoding and interpretations. The first name found in this folio was **lapach**. It is close to **Lapacia**, a registered name for any of the dock or dock-like plants (TH). The second name I found was **so-re**. I believe it can be read **sor-re**, and be related to **sour-wre**, meaning **sour-wort** (MEC). Registered names for **common sorrel**, *Rumex acetosa* are **wodesoure** and **sourdocke**. There are several matches between the illustration and common sorrel. The leaves are spear-shaped and pointing upwards. They are growing both directly from the root and are attached to the stalk. The tap root gives rise to numerous leaves but only one stalk with racemes. The stalk may have a red color. The flower is not matching. It has a blue bract shape under the red flower. I find more of these bract shapes in the Voynich illustrations. It is found on several herbs replacing their racemes. Common sorrel has a raceme of red flowers like the one topping the blue shape in the illustration. The third name I found, **blodawn**, reminds of **blode-vein**, meaning **blood-vein** (MEC). *Rumex sanguineus* is a sorrel called **bloody dock** or **red-veined dock** in modern English. Its leaves do not look like those of the illustration. It is not unlikely though, that common sorrel, with its red stalk, could have been called **blood-vein** too.



Neutral to slightly acidic soil in meadows, pastures, woodland rides and glades, mountain ledges and shingle beaches;

1 𐌺𐌹𐌳𐌺𐌹𐌶𐌹𐌸
bde|lovn
bde|lovn
bedde-lóven
garden plot-love

TH: *Loveache*
= *Levisticum*
officinale

2 𐌺𐌹𐌳𐌺𐌹𐌶𐌹𐌸
okRe
oke-re
áche-wre
Apium-wort

MEC: *Áche*:
Any of a group
of celery-like
plants
(*Apium*), as
smallage,
parsley, etc



F14v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

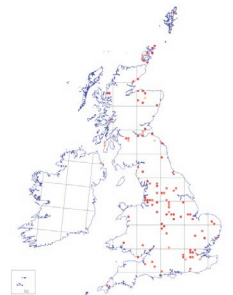


Photo source: *Levisticum officinale*. Blackwell, E., *curious botanical* (1737-1739)



Photo source: *Levisticum officinale*. Mikrolit'- Own work, FALv

Important for the identification of this herb is the last part of the first word, **bde|lovn**. I believe *lovn* is related to *lóven*, meaning *love* (MEC). There is an herb registered as *loveache*, it is **lovage**, ***Levisticum officinale*** (TH). Lovage matches the illustration well. It has a basal rosette of leaves. In the illustration the leaves seem simplified. It has umbellifers on a branched stalk and a tuberous root. Also here, as in f11v, the root is cut off in the illustration. I believe it shows that this is a rhizome that is sending roots and new shoots along its length. A second name identified, also stating that this can be lovage, is **ake-re**. It is close to *áche-wre* meaning *Apium wort*. *Áche* was used for any of a group of celery-like plants, including lovage (MEC).



Grown in gardens in Britain by 995. Rough ground and by walls and paths. Damp soils near streams.

1 𐌹𐌵𐌴𐌹𐌸 𐌸𐌴𐌹𐌸
kRor Rie
k-rwr/rar rie
K-rar writhe/wride
K light colored
wreath/clump

2 𐌹𐌵𐌴𐌹𐌸 𐌸𐌴𐌹𐌸
klaze Re
k-leche re
K-medicinal wre
K medicin wort

3 𐌹𐌵𐌴𐌹𐌸 𐌸𐌴𐌹𐌸
lkos Rie
lk-whs rie
leche-wows writhe
medicin-dart's
wreath

TH: wow-,
vowe-, fou-, fow-,
faw-,thou-,vou-,
sou-, souue-, thow-
thistle = *Carlina*
vulgaris, *Cnicus*
benedictus
MEC: faw = ?dart



F15r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

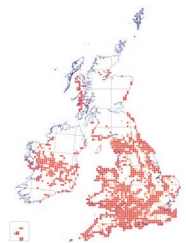


Photo source: *Carlina vulgaris*, plate 5 in: C.A.M Lindman: *Bilder ur Nordens Flora* first edition: (1901-1905) supp. edition (1917-1926).



Photo source: *Carlina vulgaris*. Philipp Weigell, CC BY 3.0

The name that leads to a herb that has most of the characteristics of this illustration is **lkwhs-rie**. I believe it can be related to **leche-wows-writhe**. There are two herbs registered with **wow** in their names. Both *Carlina vulgaris* and *Cnicus benedictus* was called **wowthistle**. Both match well with the illustration. The illustrated herb looks most like a **carline thistle**, ***Carlina vulgaris***. It has the right shape and color of the flower, right number of flowers, a similar toot, and sessile leaves. The blue bracts can be the bracts of *Carlina vulgaris*, though not very convincingly drawn. The yellow shapes at the end of the leaves may be symbolic. They look like some of the shapes at the upper right circle in the rosette map. **Leche-wows-wre** means **medicinal dart wort** (MEC). The two preceding names are **k-rar rie** and **k-lche re**. I believe they are related to **K-rar-writhe** maning **K lightcolored wreath**, and **K medicinal wort**.



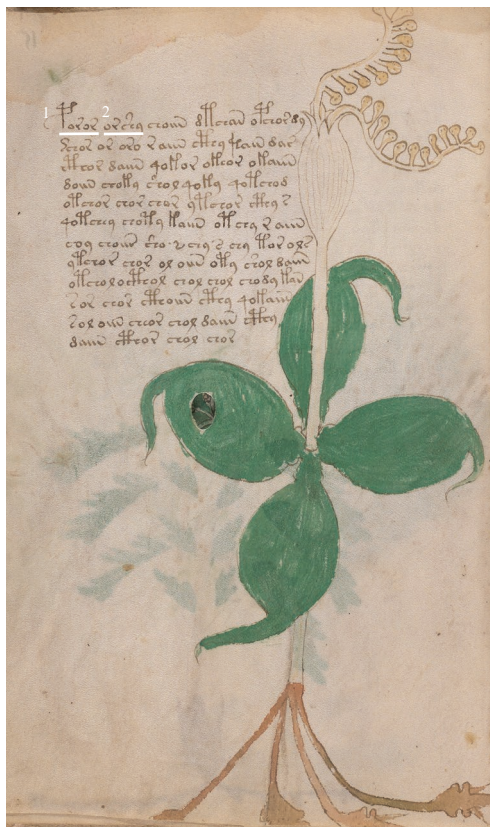
Carlina vulgaris: bank, limestone, chalky or other alkaline grasslands or dunes

1 𐌱𐌹𐌺𐌹𐌸
boror
barar/barwr
berdhare/berd-wr

TH: hareberd =
Verbascum
thapsus

2 𐌱𐌹𐌺𐌹𐌸
orRe
ar-re
hare-wre
hare wort

TH: Hare-bell
= Verbascum
thapsus



F15v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

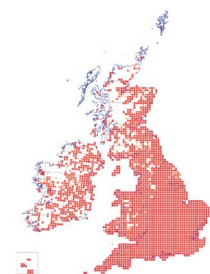


Photo source: Verbascum thapsus. Fuchs, L., New Kreütterbuch (1543)



Photo source: By AnRo0002, CC0

This herb was identified by the names **barwr** and **ar-re**. Associated with Middle English this is **berd-wr** and **hare-wre**. Both **berd** and **hare** are parts of the registered names, **hareberd** and **hare-bell**. They were used for **great mullein**, **Verbascum thapsus** (TH). The illustration matches partly. The shape of the large twisting leaves is the same. The color and shape of the flowers and how they are placed on long waving racemes are similar. The root is also the same kind. I would expect more leaves and the bract in the illustration is also strange for great mullein. I f14r a bract shape replaced a tedious raceme to draw. The bract shape in this picture may have the same function.



It grows best in dry, sandy, or gravelly soils, although it can grow in a variety of habitats, including banksides, meadows, roadsides, forest clearings, and pastures.

1 **oṛṛoḡ**
oliode
aliwde
āle-wode
ale wode

TH: *Wood-Bine*,
wode-whistil =
Artemisa vulgaris

2 **ḡḡḡḡḡ**
setawn
sētewn
sēte-wan
wholesome/tasty-
grayish

Artemisa vul-
garis = food and
drink flavorant

3 **ḡḡḡḡḡ**
daunod
deunwd
d'ome-wod
or
dón-wod

MEC: *dón* =
brownish gray,
grasgrown upland,
open country
TH: *paume dowe*
(= *d'ome?*) =
Artemisa ulgaris

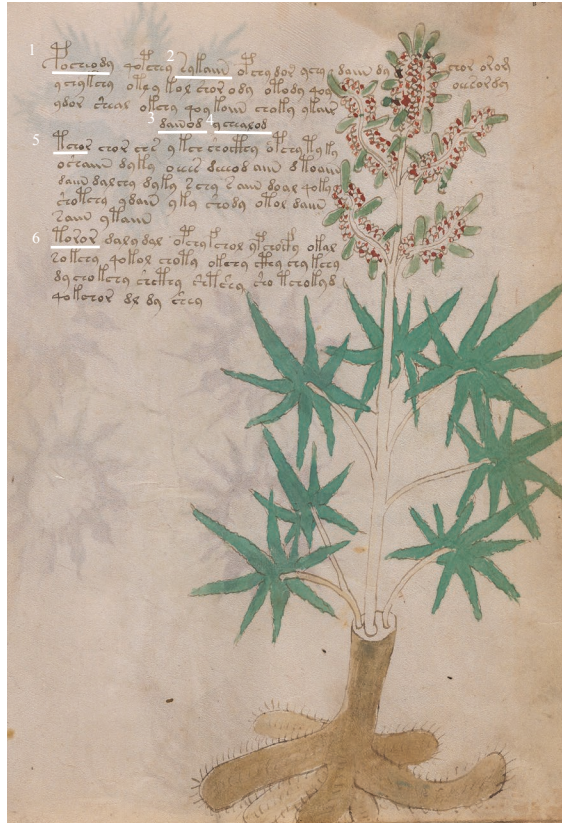
4 **ḡṛṛḡḡḡ**
eliazod
ailiechwd
ail-liache-wod
ale medicin
“wod”

5 **ḡṛṛṛ**
klor
klwr
?k-lawr/kel-wr
?k-wash/cool-
wort

6 **ḡṛṛṛ**
koror
korwr
cūre-wr
cure-wort

f16r *Some kind of Artemisia, ?vulgaris or maritima / ?riverside mugwort or sea wormwood*

Burot eller malurt



F16r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

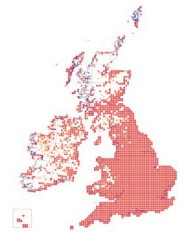


Photo source: Smith, J.E., English botany, or coloured figures of British plants, ed. 3 [B] [J.E. Sowerby et al] (1863-1899).
The root of *Artemisa maritima*.



Photo source: *Artemisa Vulgaris*. H. Zell - Own work, CC BY-SA 3.0

The first name in this folio is **aliwde**. *Wde* is a repeted part of the plant names, so **aliwde** can be divided into **ali-wde**. The word **wd** and **wde**, are consequently leading to plants registered with the name **wod(e)**. In this case **common mugwort**, *Artemisia vulgaris* (TH) is a matching herb. The large leaves are drawn more palmate than in reality. Otherwise it matches very well. It has numerous small red, brown or gray flowerbuds. In between are small leaves. It also has a large tap root with several stalks growing from it. **Ali** and **eil** is found in the names (1 and 4). It reminds of the English word **ale**. Common mugwort has been used as a flavoring in beer, mostly before hops took over (P). It can also be used as an external wash (P). The name **k-lwr** (5), interpreted as **k-lawr**, meaning **k medicinal wash**, may refer to that. There is an interesting sibling, *Artemisa maritima*, that grows in salt marshes. It has a more similar root to the Voynich illustration. the rest is not matching that well. It has more feathery leaves and yellow to brown florets.



Loamy or sandy soils in
forested areas, coastal
strands and along road-
sides, riversides.

1 **leire-wan**
lrawn
lrewn
leire-wan
clay/?sand//inter-
course lusterless

Can grow in
heavy claied
soils and sand.
Was thought
to be a strong
aphrodisiac.

2 **liblie**
liblie
liblie
lib-lief
?life/?love-leaf

?Of german *liebe*
= to love
Eryngium mari-
tima was thought
to be a strong
aphrodisiac.

3 **blaike**
bloike
blaike
blaike
pale

4 **blo-klei**
blo(kl)e
blo-klei
blu-cleiff/clai
blue-cliff/clay
(see f10r, f16v
and f20r)

5 **liflie**
li(f)lie
liflie
liflie
living/vigorous/
life-giving



F16v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

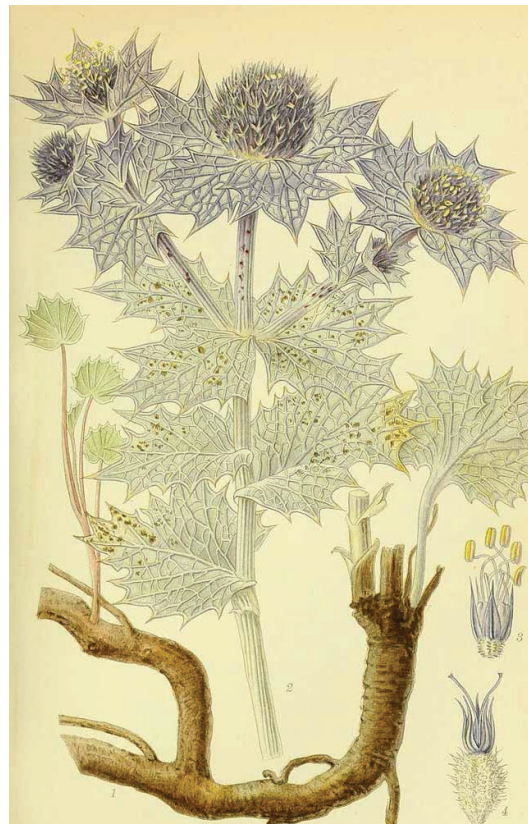
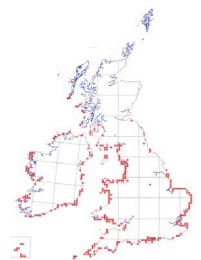


Photo source: *Eryngium maritimum*. Lindman, C.A.M., Bilder ur Nordens Flora



Photo source: *Eryngium maritimum*. Gzzz - Own work, CC BY-SA 3.0

This herb was identified by searching for **lib** (MEC), since the first name I found in this text was **liblie**. It can be associated with **lib** in **lib-corn**. **Lib-corn** means “the purgative seeds of any of various plants including the thistle *Carthamus tinctorius*” (MEC). The illustration has few similarities to *C. tinctorius*. There are other kinds of thistles, like **sea holly**, *Eryngium maritimum*. It matches the illustration much better. Sea holly does not have red leaves, they are pale green or blue, but the red may have been chosen to symbolize its use. In the Elizabethan times in England, sea holly was believed to be a strong aphrodisiac (Wikipedia). **Lb** in the names **lb-lie**, may be related to **liben**, meaning **to live** (MEC), or the German **liebe**, meaning **love**. The first word in the first paragraph, **lrawn**, is likely a name too. I believe it can be read **lere-wen**, and be related to **leir-wan**, meaning **sand-lusterless**. In addition, there are other interesting words connected to the names. **Blaike** means **pale** (MEC), and **bloklei** can mean **blue-cliff**, like in f10r (*Centaurea cyanus*). Another interpretation of **blokle** is **blue-clay**, naming a habitat of sea holly. A last name in this folio is **liflie**, that can mean **life-giving** (MEC).



Sea shores, salt marshes,
preferring sand and shingle
whilst avoiding acid soils.
Medium or heavy loamy
soils.

1 **f-rode**
fRode
fei-rode
vei/fei-rode
road/enchanted
rosy hue/redness

TH: rodewort =
Chicory Intibus
MEC: Rode =
associated with
chicory.

2 **klar/glwr rogh**
klar/Ro3
klar/glwr rogh
clare/galli-wr rogh
bright/ "galli"-wort
hairy

TH: *christa galli* =
= *Agrostemma*
githago

3 **gotaz**
gotaz
gotaz
got-?egh
God-eye

TH: *godes-eie*
= *Agrostemma*
githago

4 **riw gotle**
Rio gotle
riw gotle
rew got-lef
(luke)warm gut/
God leaf



F17r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

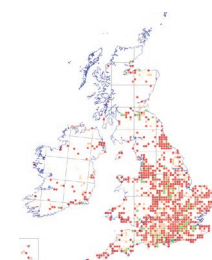


Photo source: *Agrostemma githago*. Curtis, W., Flora Londinensis (1775-1798)



Photo source: *Agrostemma githago*. By Franz Xaver - Own work, CC BY-SA 3.0

The first name in this folio is **f-rode**. **F** can either be an abbreviation of **fei** meaning *possessed of magical powers*, or **vei** meaning road (MEC). The second part **rode** is a registered name associated with many plants (MEC/TH). Of those is chicory, Chicory Intibus the plant that matches the illustration best. I am not fully settled with chicory. The leaves in the illustration are thin, untoothed, lanceolate and in pairs. Chicory do not have leaves in pairs and it has deeply lobed or toothed leaves. They are placed in a rosette at the ground, in addition to along the stalk, but not in pairs. Chicory also has a long tap root, with few secondary roots. An interesting alternative is **corncockle**, ***Agrostemma githago***. It has thin lanceolate leaves in pairs. One stalk is rising from its light-colored root that has many secondary root threads, the flower is purple. Purple flowers are colored blue in the manuscript. What is notable is that the flower in the illustration is lighter on its upper side. This matches *Agrostemma githago*, not Chicory. Looking closer at the illustrated flowers, they have a fine detail, dots are drawn on the upper side of the petals. *Agrostemma* has this kind of dotted lines on its petals. Even though the illustration has too many petals and too short sepals its appearance is closer to *Agrostemma* than Chicory. If this is a corncockle the first name **f-rode** can mean *enchanted redness*. The second name **klar**, can be read **gl-wor**, as **christa galli** is a registered name for *Agrostemma githago* (TH). The third name **gotaz** can be related to the registered name **godes-eie**, used for *Agrostemma githago* (TH).



Archaeophyte. An annual weed of cereal and other arable crops, tolerant of various soil types. Lowland.

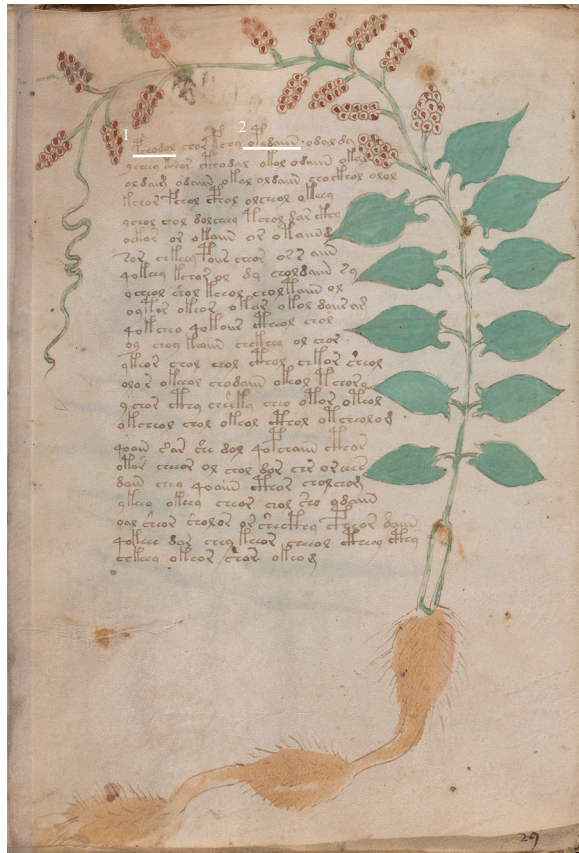
1 *blodog*
blodog
blodog
?blod-hedge/hog
?blood-hedge/
swine

TH: *Smilax aspera* is not registered
TH: Hog is found in different plant names.
MEC: Hog = swine

See f54v, field bindweed called *ogand* interpreted hog-wyn

2 *bedawn*
bedawn
bedewn
bedde-wyn
Garden plot vine

TH: See f54v, another bindweed (field bindweed) is registered as *bodwyn* and *wodebynde*.



F17v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

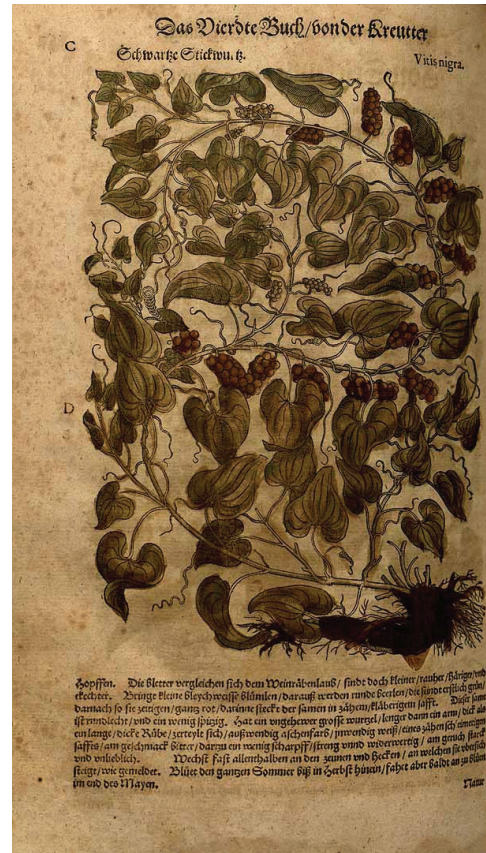


Photo source: *Smilax aspera*. Mattioli, P.A., New Kreüterbuch (1563)



Photo source: *Smilax aspera*. CC BY-SA 3.0.

The herb in this folio is identified by the illustration. A search for herbs with hastate shaped leaves matched it with **rough bindweed, *Smilax aspera***. It has red berries in clusters, tendrils and a climbing flexible stalk. The leaves are petiolated, alternate and heart-shaped. Its root is large tuberous and hairy. The herb in this page is illustrated long and with a bend. The same shape as other climbing and creeping plants in the manuscript. See f54v, f94r, f95v1, f96v, f49r and f95r1. Rough bindweed is not registered (TH/ MEC). The names in this page is *blodogh*, maby related to *blod-hégge*, meaning *blood-hedge/bush* (MEC). Rough bindweed grows in bushy places. Another name in this folio, that leads to rough bindweed, is *bedewn*. It is close to another bindweed's registered name, field bindweed, called *bodewyn*. Field bindweed is found in f54v, with the Voynich name *bodewn*. The last part of the name *wn* is probably related to *wyn*, meaning *vine* (MEC). The leaves and root of rough bindweed are edible. The root is alterative, demulcent, depurative, diaphoretic, diuretic, stimulant and tonic. The ripe fruits are squeezed and applied to the skin in the treatment of scabies

Garden plant
From the mediterranean. Bushy places, river banks and ravines

1 𐌸𐌹𐌹𐌸𐌹𐌸𐌹
(sd)raurde
streurde
sterre-wurd
star-worte

TH: *starwort* =
Aster amellus
MEC: *sterre* = star

2 𐌸𐌹𐌹𐌸𐌹𐌸𐌹
eoar
eiwer
ei-wert
eye-wort

TH: *steileie* = Aster

3 𐌸𐌹𐌹𐌸𐌹𐌸𐌹
klor
kl-or
glewort

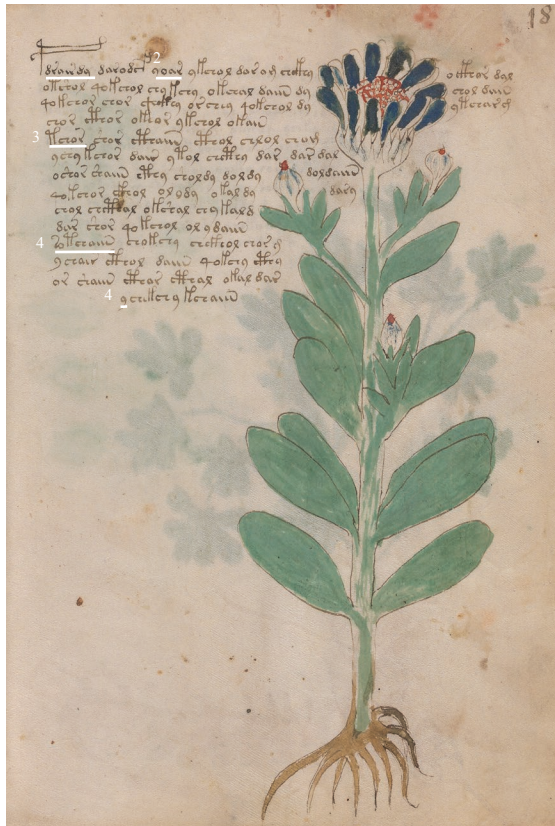
TH: *Glewort* =
?Aster

See f19r called
𐌸𐌹𐌹𐌸𐌹𐌸𐌹

4 𐌸𐌹𐌹𐌸𐌹𐌸𐌹
soklawn
soklewn
sokle-wan
suckle grayish/
lusterless

See f8v, *Calenula*
officinalis called
gold-suckle

5 𐌸𐌹𐌹𐌸𐌹𐌸𐌹
e little
ei little
ei ?lit-lef
eye ?lettuce leaf



F18r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

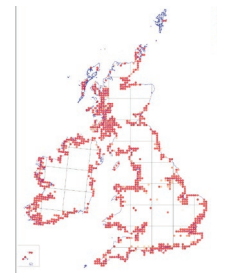


Photo source: Aster tripolius. Dreves, J.F.P., Hayne, F.G., Botanisches Bilderbuch (1794-1801)



Photo source: Aster tripolius. Bjoertvedt - Own work, CC BY-SA 4.0

This herb is called *stereurthe*, *ei-wer*, *kl-wr*, *soklewen*, and *ei-little*. Parts of four of these names are registered for Aster (TH). *Ei* in *ei-wer* and *ei-little* is found in *steileie* (TH). *Kl* in *kl-wr* can be associated with *gle* in *glewort*. Both *steileie* and *glewort* are associated with Aster (TH). *Stereurthe* is close to *sterreworte*, a name registered for Aster Amellus. The name that is not related to any of the registered ones is *soklewen*. It can be associated with the plant in f8v, called *glod-sookl*. It is identified as the rayflower *Calendula officinalis*. The illustration in this page shows a blue ray flower with red center. There are blue Asters, like **sea aster**, ***Tripolium pannonicum*** and **European Michelmas-daysie**, ***Aster amellus***. The buds of sea aster may have a red top, and it's center may be red too, like the ones in the illustration. The leaves and the thin branched root match well. The young leaves of sea aster and European Michelmas-daysie are edible (P). Dioscorides tells that Aster helps inflammation of the eyes (D).



Sea aster: Salt marshes, estuaries and occasionally to inland salt works
European Michelmas-daysie: Cultivated .

1 *Ḥoḡḡ ʿar ʿḥeḡ*
kozd Ror ekRe
kuchd rar eik-re
cuched rar ache-
wre
 hunched lightcol-
 ored Apium wort

TH: *ache* = *Apium graveolens*
 MEC: *äche* = any
 celery-like plant



F18v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

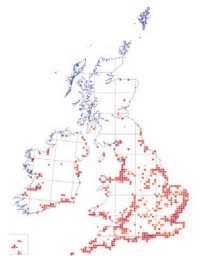


Photo source: *Apium graveolens*. Il. Osch, F., *Kräuterbuch, unsere Heilpflanzen in Wort und Bild*, Zweite Auflage (1905).



Photo source: *Apium graveolens*. Rasbak - Own work, CC BY-SA 3.0

This herb is called ***cuchd rar eik-re***. I believe it is related to ***cuched rar àche-wre***, meaning ***hunched light colored Apium-wort***. *Àche* is registered as a name used for *Apium graveolens* and other *Apium* plants (TH/MEC). The illustration shows a hunched root similar to **wild celery, *Apium graveolens***. The stalk and leaves are also recognizable. Except from the white color, the illustrated flower does not look like the umbellifer of wild celery. But, some of the flower clusters in the manuscript, are drawn like one large flower, or almost like a symbol. See for example the earwort in f40v and masterwort in f33v. Even though the flower is not similar, I believe this is a wild celery. The name matches fully. The shape of the leaves illustrated matches. The root has the characteristic rounded bulb. it also has a longer root leading downwards from the bulb.



Sea-walls, beside brackish ditches, on tidal river banks and drift lines, and the uppermost parts of saltmarshes. *Apium graveolens* has been cultivated as a vegetable since antiquity.

- 1 𐌹𐌺𐌴𐌹𐌺
blor
blwr
bel-wr/blo-wr
bell-wort/blue-
wort
- 2 𐌹𐌺𐌴𐌹𐌺
godle
godle
God-lef
God leaf
- 3 𐌹𐌺𐌴𐌹𐌺
gokre
gok-re
gog-wre
marsh/God-wort
- 4 𐌹𐌺𐌴𐌹𐌺
gokle
gokle
gog-lef
marsh/God-leaf
- 5 𐌹𐌺𐌴𐌹𐌺
eklor
eiklar/eiklwr
ei-clare
eye-beautiful
ei-glew-wr
eye bliss-wort



F19r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: Lindman, C.A.M., Bilder ur Nordens Flora

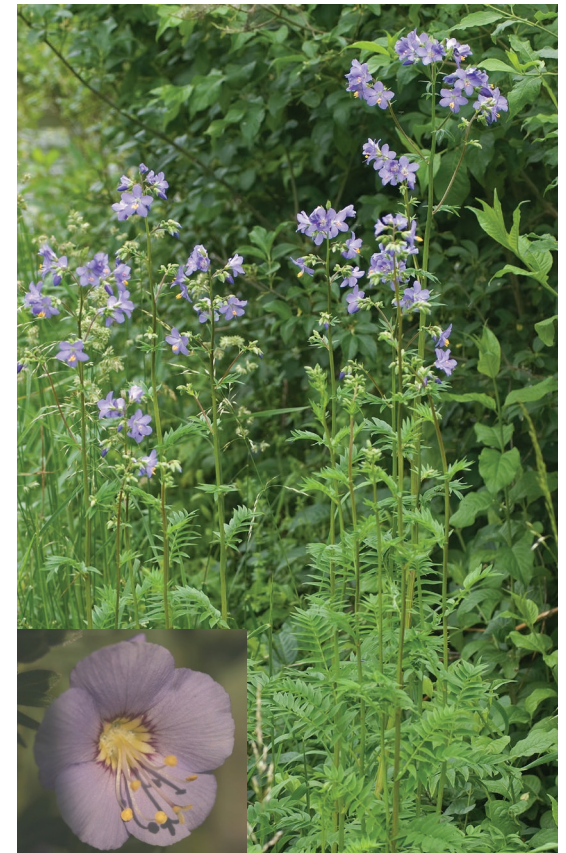
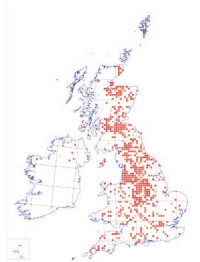


Photo source: By OhWeh - Own work, CC BY-SA 2.5

See f19v, Valeri-
an, called 𐌹𐌺𐌴𐌹𐌺

This herb was first identified as cuckoo flower, *cardamine pratensis*. Cuckoo flower is called **gókflour** (MEC) and the herb in this page is called **gok-re**. But even though there are similarities, the match was not satisfying. The shape and color of the flower is different. The leaves are quite similar but not similar enough. I believe **Jacob's ladder, Polemonium caeruleum** is a better candidate. It has blue bell flowers with a yellow color on the inside of its petals. The shape of the flower is like the illustration. The many flower buds, and the branched stalk match too. It also has pinnate leaves and a root with numerous stalks rising from it. I find no registered medieval names for *Polemonium caeruleum* (TH/MEC). One of the names in the Voynich text is **blor**. I believe it can be read **blo-wr**, meaning **blue wort**. **God** and **gok/gog** is found in several of the names, both mean **God**. **Gog** can also mean **marsh** and one of the habitats of Jacob's ladder is the margins of marshes. Jacob's ladder is also called Greek valerian. It is interesting that the next folio shows a Valerian, and that both are called 𐌹𐌺𐌴𐌹𐌺 or 𐌹𐌺𐌴𐌹𐌺.



Margins of woods and swamps, by streams,
especially on turf and usually in limestone hills
roadsides.

1 **lewn**
lawn
lewn
leoven
love

MEC/TH: *Love-wort* = valerian

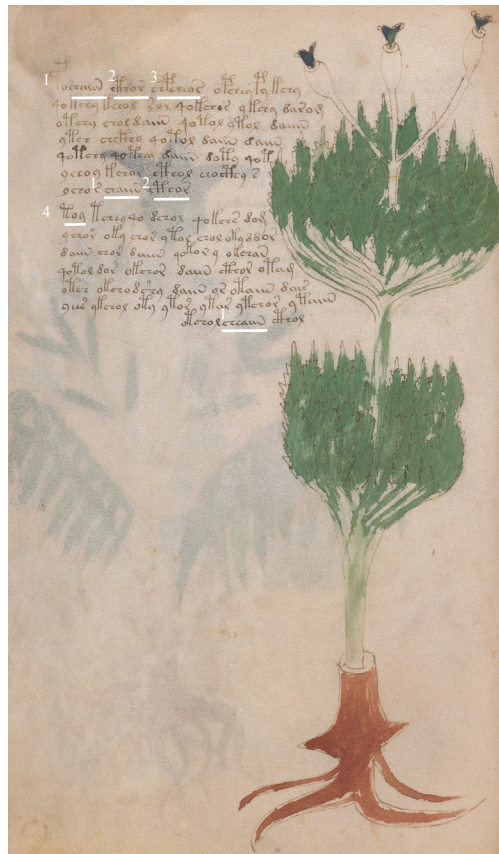
2 **klwr/klar**
(kl)or
klwr/klar
?kel-wr/clare
?cool-wort/beautiful

See f19r, greek valerian, called **lewn**

3 **libliws**
liblios
libliws
lib-liwes
love/life-leaves

See f16v, *lib-lief*, used for the afrodisiac *Eryngium maritimum*

4 **koe**
koe
koe
kae/cowze
craw/cow



F19v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

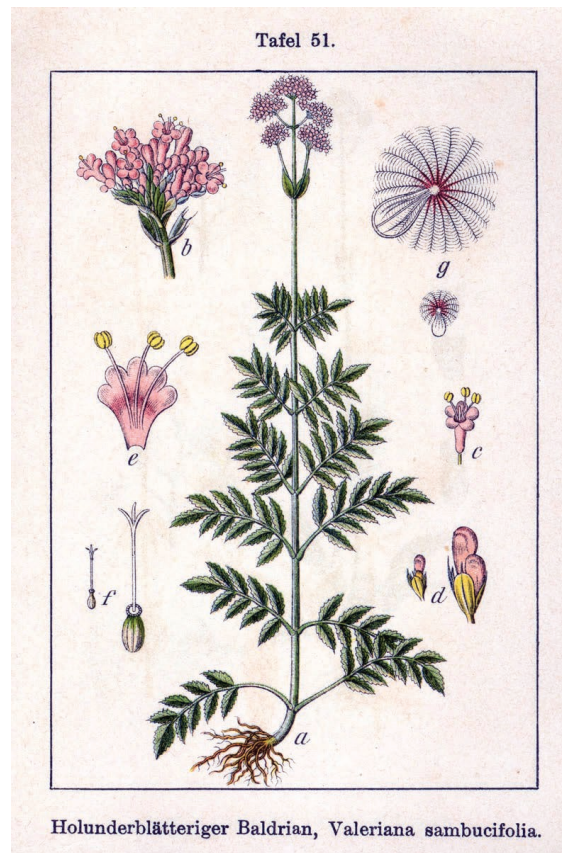
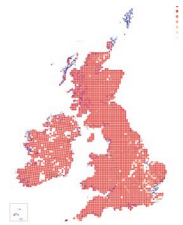


Photo source: *Valeriana officinalis*, . Johann Georg Sturm (Painter: Jacob Sturm) - Fig. from Deutschlands Flora in Abbildungen (1796).



Photo source: H. Zell - Own work, CC BY-SA 3.0

This herb is called a **lewn klwr/klar**. I believe this is related to *leoven gle-wort* or *leoven cläre*, meaning *love bliss wort* or *love beautiful* (MEC). *Love-wort* is a registered name for **valerian**, *Valeriana officinalis* (TH). **Lewn** is found both in the first paragraph and in the headline (under the text). **lewn** is also found as a name in the former folio, showing a greek valerian. The illustration matches valerian. It has one stalk rising from the root and it has many leaves. The stalks divides into three pedicels with small flowers. There is also another name that may mean love. The third word in the text is **libliws**. I interpret it as *lib-liwes*. **Lib** has previously been found in f16v. In f16v **lib** is translated to **love** because the name was used for an aphrodisiac, *Eryngium maritimum*. It makes sense to translate it to **love** in this case too because Valerian was called **love-wort**.



damp locations on the banks of streams and rivers, damp pastures, also elevated ground in mountainous areas

SOURCES

Plant names and translations

Plant Names of Medieval England. Tony Hunt, D.S. Brewer, Cambridge 1989.

The online *Middle English dictionary* at *Middle English Compendium*: <https://quod.lib.umich.edu/m/middle-english-dictionary/dictionary>

Pictures from the Voynich manuscript

Beinecke Rare Book and Manuscript Library, Yale University.

Botanical illustrations

1. Wikimedia Commons
2. <http://plantillustrations.org>

Photos

Wikimedia. All the photos used are either Public Domain or license free by Creative Commons. Attributions are given to the photographers. Some photos are cropped.

Habitat and maps of distributions of the flora

Online Atlas of the British and Irish flora: <https://www.brc.ac.uk/plantatlas/>

Medicinal uses of herbs

De Materia Medica, Dioscorides. Tess Anne Osbaldeston, 2000, IBIDIS PRESS cc.

<http://www.cancerlynx.com/dioscorides.html>. Dioscorides is chosen as it is known that *Materia Medica* was widely read in Europe for more than 1500 years, after its creation 50-70 CE.

Plants for a future: <https://pfaf.org/user/Default.aspx>

Medicinal Plants in Folk Tradition. An ethnobotany of Britain & Ireland. David E. Allan & Gabrielle Hatfield. Timber Press 2004.

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