

2.2

The Voynich Plants and their Names *Folio 20r-44v*

Version 2, october 15th 2022

Siv Bugge Vatne

- 1 **δλωδης λαπης λινγε**
 dlode lobe lme
dlode lape linge
 del-wode lape linge
 ?tastful "woode"
 breast ling

MEC/TH: *Linge*
 = Ling
 TH: *wodemynt* =
 Thymus sereph-
 yllum

Thymus was used
 to treat breathing
 problems.



F20r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

- 2 **βλοκλει**
 blo(kl)e
bloklei
 blod-cleif
 blood/blue-cliff

TH: *hillwort* =
 Thymus sereph-
 yllum

- 3 **βλοθμς**
 flodms
flothms
 flo(d)-thyme
 flow-thyme

MEC: *flo* =
 of a wound or
 sore: to give off
 (blood or pus)
 overflouen: med.
 of hemorrhoids:
 to bleed too
 much.
flod = flow (of
 blood)

MEC/TH: *thime*/
tyme =
 Thymus sereph-
 yllum

See f93r:
 Flo-wre = Tanac-
 etum balsamita

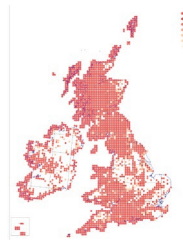


Photo source: Thymus serpyllum. Hayne, F.G., *Getreue Darstellung und Beschreibung der in der Arzneykunde gebräuchlichen Gewächse* (1805-1846)



Photo source: Thymus serpyllum. Jerzy Opiola - Own work, CC BY-SA 3.0t

The first name recognized in this folio was *lne*. I believe *lne* is related to *linge*, meaning *ling* (MEC). The sound of *ng* is simply written *n*. The drawing matches quite well with ling, but the small ling leaves are toothed. I believe the third name in this folio gives the right identification, *flo-thms*. It may be related to *flo-thymus*, meaning *river-thyme* or *flow (of blood)-thyme* (MEC). *Thime* is a registered name for *thyme*. It is especially used for **wild thyme**, *Thymus serephyllum* or **garden thyme**, *Thymus vulgaris* (TH). Thymus is a creeping dwarf evergreen shrub with woody stems just like ling. The leaves are in opposite pairs. They are sessile and has a linear elliptic round-tipped shape. They have untoothed margins. The first word in the second paragraph is *blo-clei*. It is the same name as in f10r used for *Centaurea cyanus*, and f16v used for *Eryngium maritimum*. In this folio I believe the meaning can be *blod or blue cliff or root*. *Cliff* matches Thyme's registered name *hillwort*, and it grows in rocky places. Both *flo* and *blo(d)* can refer to the known use of the herb. Dioscorides tells that it expels the menstrual flow. Applied with vinegar it dissolves new swellings and clots of blood (D). *Thymus vulgaris* is also proven to relieve dysmenorrhea (P). In f93r is *flo-wre* used for *Tanacetum balsamita*. *T. balsamita* has been used to treat menstruation problems and dysentery. In the first name is the word *lape linge* found. *Lape* means *breast*. Dioscorides told that a decoction of thyme and honey helps orthopnoea [form of asthma] and the asthmatic.



T. polytrichus: calcareous or base-rich substrates. Short grassland on heaths, downland, sea-cliffs, sand dunes, around rock outcrops and hummocks in calcareous mires. Frequent in upland grassland and on mountain cliffs, rocks and ledges.

- 1 faw2 ar o flo9
faws ar o toe
fews er o twe
?fows ?er* o twe
?dart's ?arrow*
in pairs

MEC: fawe =
?a dart
Ols English
earh (nom. sg.) =
arrow, cp. Ol ör

- 2 fote9
folie
fwlie/folie
fow/fan-lief
dart/gentian-leaf

MEC: Fan-wort
= A native species
of gentian,
also used for
narrow leaved
plantain

- 3 feto9 fote9
kRo3 fo3lo3
k-rogh foghloh
k-rogh fow-
logh/?lof
k-sharppointed
dart-?leaf



F20v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

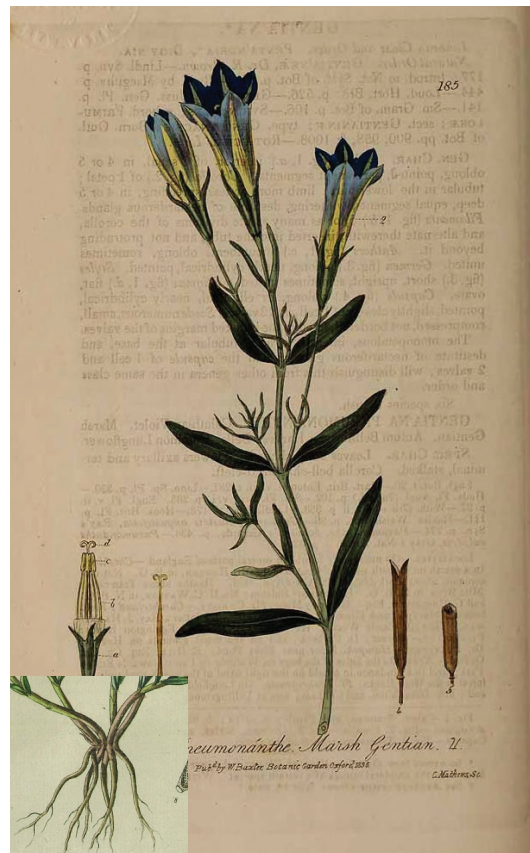
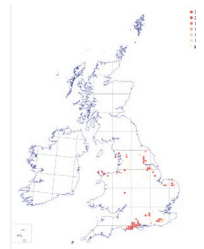


Photo source: gentiana pneumonanthe. Dietrich, A.G., Flora regni Borussici (1832-1844)



Photo source: Gentian pneumonanthe. By Bernd Haynold - CC BY 2.5

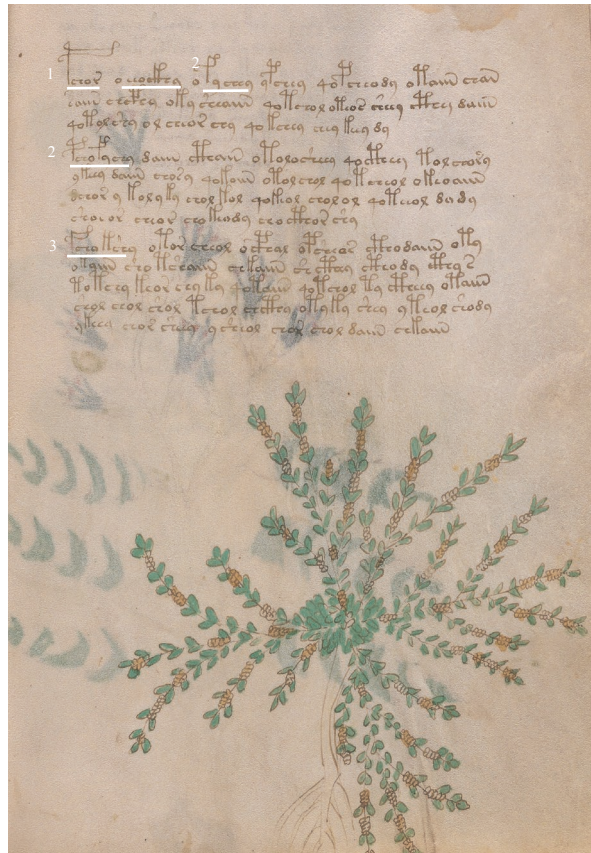
This herb was identified by the names **fews**, **fwlie** and **fogh**. The first two letters are like the registered name **Fan-wort**. **Fan-wort** is used for a native species of gentian (MEC). I do not believe that **fews**, **fofolie** and **fogh** necessarily is related to the word **fan**. But, the illustration matches well. It has th characteristic flower and bract of gantian(ella). The leaves are narrow and in opposite pairs. Because of this I will stay with the identification. The gentian most similar to the illustration is **marsh gentian, Gentiana pneumonanthe**. It is the only gentian(ella) I have seen with several layers of sepals. It also has needle shaped leaves and the largest fibrous root. I believe the names in this folio are variations of the same name. It is spelled in three different ways, **few**, **fw** and **fogh**. It may be related to the word **fow** with the suggested meaning **dart**. It is possibly referring to the needle shaped leaves. Other gentian(ella) candidates are Gentianella amarella, campestris or uliginosa, or Gentiana germanica.



Marsh gentian: Marshes and moorlands

- 1 *ḡḡḡḡ o ccoḡḡḡḡ*
 blor o mo(tl)e
blor o notle
 blod-wr o
 knotlef
 blood-wort a/of
 knotteleaf

TH/MEC:
 knotwort, blode-
 wort, staunch-
 blode =
Polygonum
aviculare



F21r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

- 2 *ḡḡḡḡḡḡ + ḡḡḡḡḡḡḡḡḡ*
 felie + blofele
fei-lie + blo-fei-lie
 vei-lief + blod-
 vei-lef
 road-leaf + blod-
 road-leaf

TH: *heyhove* = *Po-*
lygonum aviculare

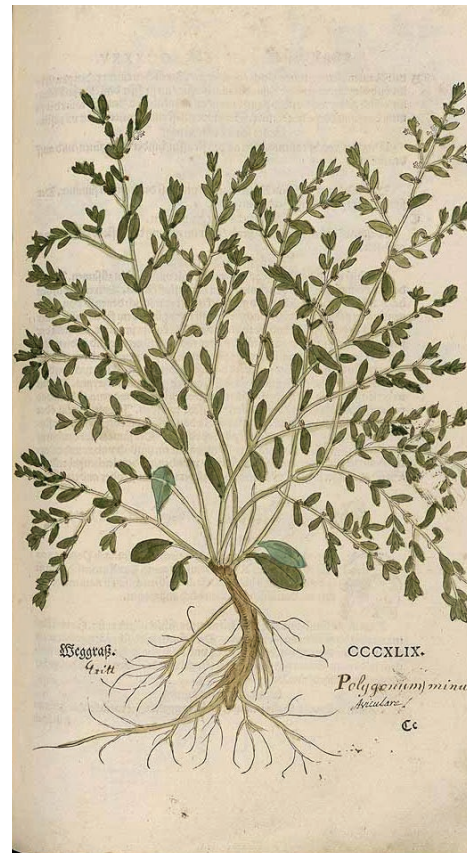


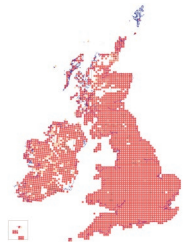
Photo source: *Polygonum aviculare*, Fuchs, L., New Kreütterbuch (1543)



Photo source: *Polygonum aviculare*. Dalgial - Own work, CC BY-SA 3.0

- 3 *ḡḡḡḡḡḡḡḡ*
 flotRe
flat-re
 flat-wre
 flat-wort

The first word that led to a possible identification in this text was *notlei*. I believe the first part, *not*, can be *knot* as in *knotte-wort*. *Knotte-wort* is a registered name for **knotgrass**, *Polygonum aviculare* (TH/MEC). This assumes that “kn” is pronounced “n” as in modern English. The illustration matches very well. The herb has rosette of branches. They have tiny leaves along the stalks and red-dish, small knop flowers between. The shape of the taproot matches well too. Knotgrass was also called *blod-wort* (TH). The first word in paragraph one and two starts with *blo*. As this herb is not colored blue, I believe it means *blod*. Another name found two places is *fei-l(i)e*. It can be interpreted *vei-l(i)ef*, meaning *road-leaf*. Knotgrass grows along roadsides. The first word in the third paragraph, *flat-re*, may be related to *flat-wre*. It means *flat-wort* (MEC). *Flat-wort* may refer to the flat, recumbent growth of knotgrass. Another reference is the use of its seed to make flat pastries like cookies or pancakes.



Waste places, roadsides, the coast. A common garden weed.
 light (sandy), medium (loamy) and heavy (clay) soils

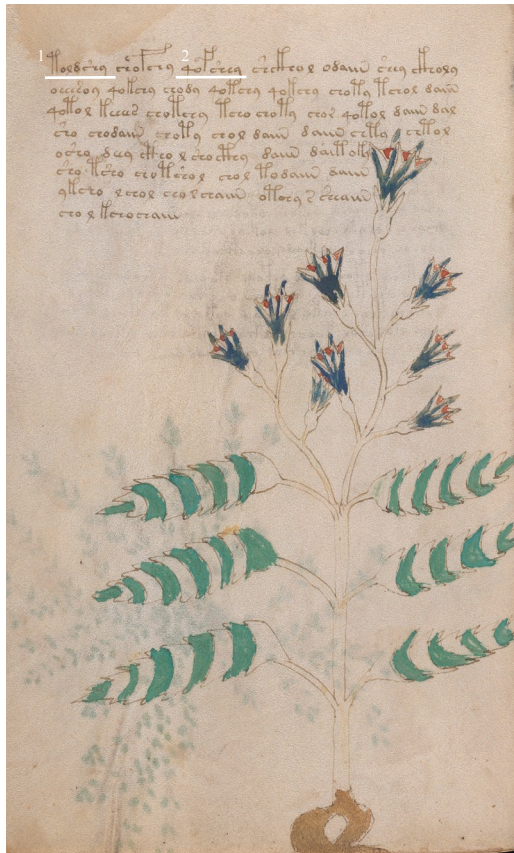
1 𐌸𐌺𐌹𐌸𐌺𐌹
ko3dRe
koghd-re
cogged-wre
cobblestoned-wort

or: **gohid-wre**
prosperity wort

TH: Sedum acre =
peniwort

2 𐌸𐌺𐌹𐌸𐌺𐌹
gofRe
gof-rie
?gofe-wride/
writhe
?bestowing
clump/wreath

MEC: **Gofe/gove**
= ppl of to give;
as noun: one who
bestows



F21v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

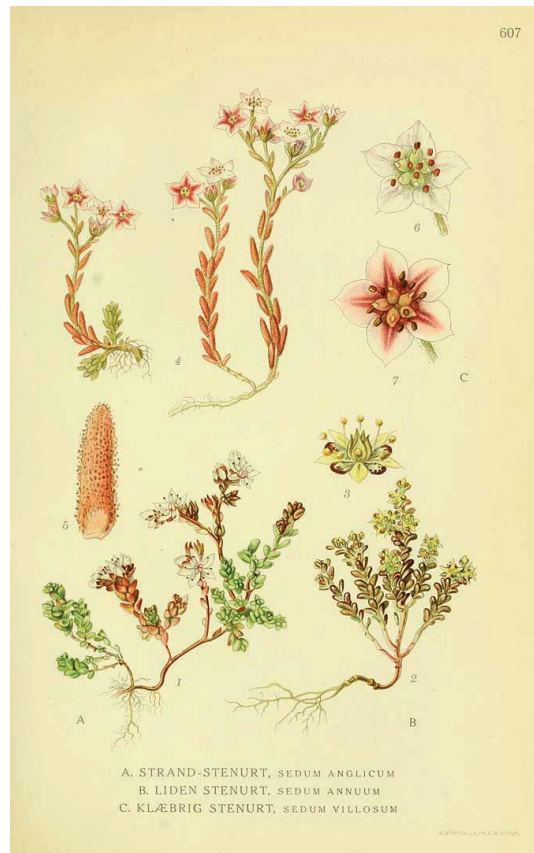
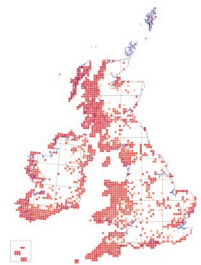


Photo source: Sedum anglicum. Billeder af nordens flora; Carl Axel Lindmann (1917).



Photo source: Sedum anglicum. I, Ekko, CC BY 2.5

The herb names in this folio do not correspond directly with any registered names (TH/MEC). The first name is **koghd-re**. I interpreted it as **cogge-wre**, meaning **cobblestone wort**. It led me to **English or white stonecrop**, **Sedum anglicum** or **album**. The stubby succulent leaves of stonecrop are quite similar to the illustration. The star shaped flower with a red inside is also similar, and the branched stalk too. There is one thing that does not match. Stone crop has leaves on the stalk. There are ways to interpret the other names in the direction of English stonecrop. It is called **gof-rie**. If the first name is not **cugge** (cobblestone), but **gohid** it means **prosperity**. This makes sense if the second name **gof** is related to the Middle English word **gofe**. **Gofe** means **one who bestows** (MEC). This can be farfetched, but there is one more association. Another Sedum, Sedum acre, is called **peniwort** (TH). The older botanists considered the White Stonecrop to possess all the virtues of Sedum acre. I am not sure the names are interpreted right, but I do believe the identification may be correct.



Sedum anglicum: Dry rocks, walls and sand dunes, often near the sea. Thin, acidic soils.

1 09 09²9
03 03Re
ogh ogh-re
? egge-wre
? hedge wort

2 f²eo99
floze
floge
vei/fei-long
road/enchant-
ed-lung

TH: longwort
= ? *Pulmonaria*
officinalis
TH: ffelfewort
= ? *Pulmonaria*
officinalis

3 f²eo9
dble
th ble
the belle/pelle
the bell/"pelle"

TH: bell-wed,
bellewode, botwed
= *Pulmonaria*
officinalis

4 f²eo9
blawn
blewn
belle-wen
belle beautiful

5 eo9
lo3
log
té long
this longue



F22r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

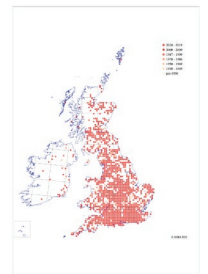


Photo source: Blackwell, E., curious botanical (1737-1739)



Photo source: By Alvals - Own work, CC BY-SA 3.0

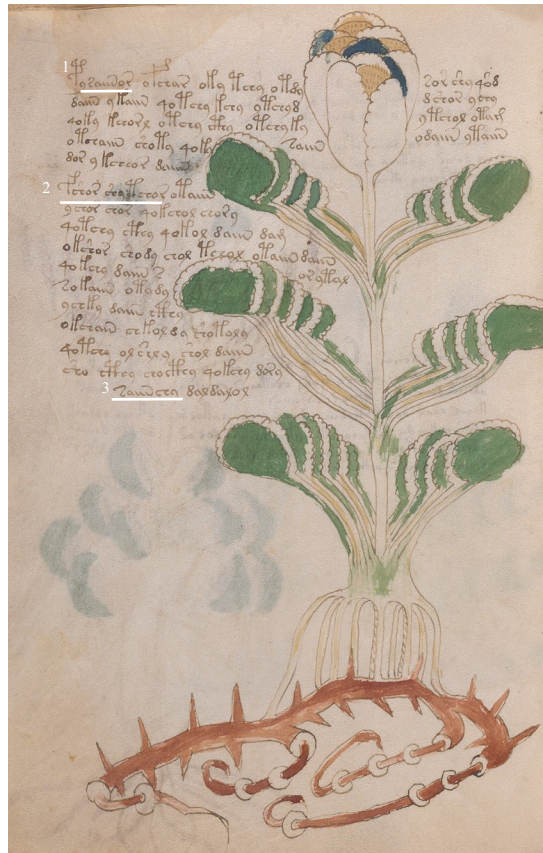
There are two names repeated several times for this herb, *log(e)* and *ble/ple*. I believe *log(e)* is related to *long* and *ble/ple* is related to *belle* and *pelle*. *Long* and *bell/pelle* can be found in the registered names *bell-wed*, *pelle marina* and *longwort*. They are all registered for *lungwort*, *Pulmonaria officinalis* (TH). The illustration matches lungwort quite good. The shape of the leaves is the same. The stalk is branched into numerous pedicels with violet and pink flowers. The flowers that are colored blue in the illustration, are belle shaped. The red shapes in the illustration may be buds. The root is fibrous, giving rise to several stalk, a single one with flowers. There is another plant in the Voynich manuscript also called *loge*. It is Helleborus in f35r. Helleborus is also registered with the name *lungwort* (TH).



Lungwort was cultivated in Britain before 1597, and is naturalised in woodlands and scrub, on banks and rough ground, and also occurring on rubbish tips and waste ground, hedges, sunken roadsides, mostly calcareous, stony or pure clay loam soils.

1 f22v
besawnor
pe/be-sewn-wr
pé/be-swene-wr
“pe”/be sleep wort

MEC: Swene =
(SM) sleep.
TH: *slep-worte* =
Lactuca virosa, ?
Lactuca sativa
TH: *Pé de poleyn*
= *Tussilago*
farfara. See f8r,
called *pé ruff*, *pé*
leif, *coltis-pé*



F22v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

2 f22v
fRor Reklor
fei-rwr reiklwr
vei-ráver
runcele-wr
road-rover
lettuce wort

TH: *Runcele* =
Lactuca virosa,
serriola
TH: *rukel* = *Eru-*
ca sativa, *Sium*
and *Raphanus*
raphanistrum,
Sinapis arvensis,
also called *ruge*.

See f51r, *Lactuca*
serreola

3 f22v
sawnle
sewn-lei
sewn-leif
sleep-leaf

This herb was identified by the word *sewn*, close to *swene*. *Sweven* or *swene* (South and West England) is a word for *sleep* (MEC). *Sewn* is appearing as the first words in paragraph one *sewn-wr*, and in the headline under the text *sewn-lei*. *Swene* or *sweven* is not found in any registered names. As it means *sleep* it is worth looking up *sleep* in the Medieval plant names. *Sleep* found in *slep-wort*. The name is registered for *Lactuca virosa*, *serreola* and ?*sativa* (TH). *Lactuca serreola* is identified in f51r, with its characteristic leaves with spined ribs. Another name in this text is *reikl-wr*. It is close to *runcele* used for **wild lettuce**, *Lactuca virosa* (TH). It is not possible from the illustration to decide whether this is *Lactuca virosa* or *sativa*. The illustration is quite strange. The illustrator has laid a lot of emphasis on the leaves and the root is matching with its white lumps. *F-rwr* may indicate that it grows in the wild. I believe it is related to *vei-ráver*, and means **road-rover**. Wild lettuce grows by roadsides. It has also been cultivated since at least 1200.



Photo source: *Lactuca sativa*. Fuchs, L., New Kreüterbuch, t. 167 (1543).



Photo source: *Lactuca sativa*. Forest & Kim Starr, CC BY 3.0



Lactuca sativa has been cultivated since at least 1200.
Grassy places by roads, canals etc and on banks near the
sea.

1 **℥δoδ**
ldo(rd)

lthort
lith-wrt

TH: *Lithwort* =
Sambucus ebulus

2 **℥εoδg**
flozde

flohde
fel-aude
mountain-elder

MEC: *Fel* = A
hill or mountain;
also, an upland
waste or pasture;
a moor or down
TH: *elre*,
elleryn, *elder*, *el-*
len, *ylder*, *heller-*
ene = *Sambucus*
ebulus
MEC: (SW)
yölde, *yhold*,
yolle, (SE) *aude*
= old

The name elder
is not believed
to stem from
old, but if a
variation of old
is *aude*, then
it is possible
that a variation
of elder can
be something
similar.

3 **℥℥oδg**
gotozde
gotohde
gut-aude
Gut-elder

4 **℥εoδ**
3kRoz
k-roh
?k-rogh
?k rogh land



F23r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

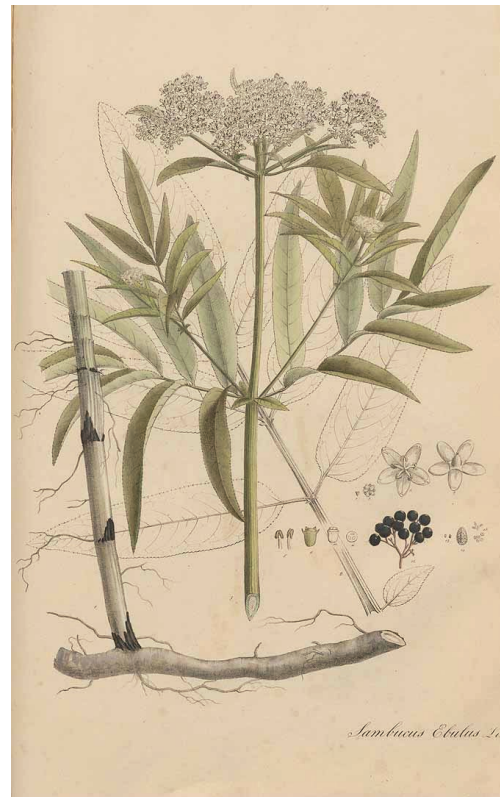


Photo source: *Sambucus ebulus*. Nees von Esenbeck, T.F.L., Wijhe (Weyhe), M.F., *Plantae medicinales* (1828-1833)

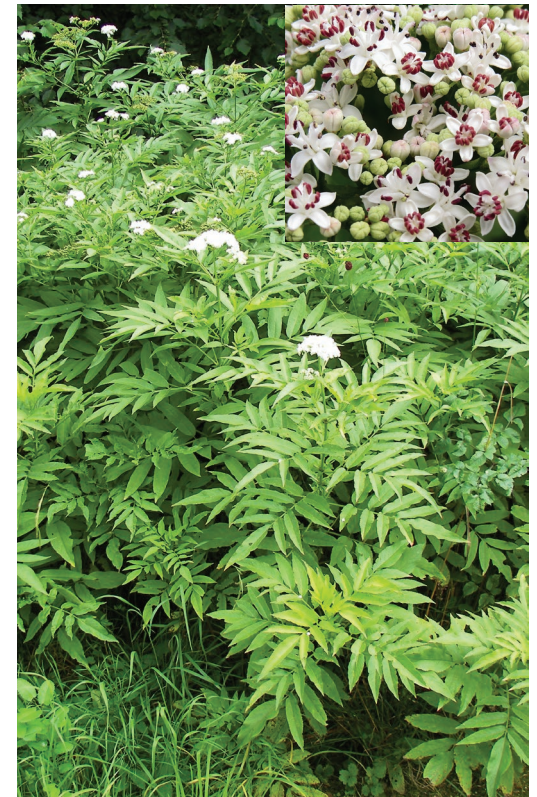
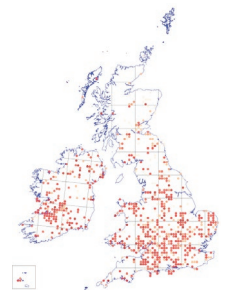


Photo source: Willow - Own work, CC BY 2.5 and Аймаина хикари - Own work, CC0

This herb is called ***lithwrth***. I believe the name is related to ***lith-worth***. ***Lith-worth*** is a registered name for **dwarf elder, *Sambucus ebulus***. There are striking similarities between the illustration and dwarf elder. In the same way as in the illustration, dwarf elder has pinnate leaves with 5-9 leaflets. The stems are erect, usually unbranched. It is growing in large groups from an extensive perennial underground stem rhizome. I believe the illustration shows how the herb multiplies by root. A second way to multiply dwarf elder is by its branches. This may be depicted in the illustration. The branches are connected like a bridge between the two plants. Its second name ***flohde***, may be related to ***fel-aude***, meaning ***mountain*** or ***upland elder***. Dwarf elder grows as a non-cultivated plant at higher altitudes. Dioscorides describes that “boiled with water for bathing it softens the womb and opens the vagina, and sets to rights any disorders around it.” Name 3 in this text is ***gotohde***. It may be related to ***got-aude***, meaning ***stomach-elder*** (MEC). In a wider sense ***got*** means “the stomach, the digestive tract, the anus, the omentum, the belly, abdomen, the intestines” (MEC).



Near forests, rivers and as a non-cultivated plant at higher altitudes, waste ground, woods, hedgerows and scrub. Tolerates chalk soils.

1 **δανωρ**
dauo3
deurogh
douwort-?hegge
dove wort hedge

TH: dowort =
Aquilegia vul-
garis

2 **δauwe**
dauwe
deuwhe
douw-hei
dove hedge

TH:
Dove's Foot/
Dove-wort =
Aquilegia vul-
garis

3 **γκοιόκωρ**
gokiokor
gokiokwr
?cokk-yeks-wr
?gog-yeks-wr

TH: cokkesfot,
yekysters* =
Aquilegia
vulgaris
MEC: Gog =
Marsh

4 **κρογ ρωρ**
kRo3 Ror
K-rogh rwr
k rogh ráver
k rough land
rover

A habitat is
grassland, also
called
rough land.

5 **ριτρε**
RitRe
rit-re
wryte-wre
bended herb

The flowers
of aquilegia
vulgaris is
bended down-
wards.

f23v *Aquilegia vulgaris* / European Columbine

Akeleie



F23v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

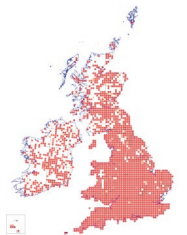


Photo source: *Aquilegia vulgaris*. Dodoens [Dodonaeus] J. R., *Stirpium historia commentariorum. Imagines ad vivum expressae* (1553-1554). And Bessler, B., *Hortus Eystettensis* (1613).



Photo source: *Aquilegia vulgaris*. Krzysztof Golik - Own work, CC BY-SA 4.0

The two first words in paragraph one may be variations of the same name. The first is **deur-ogh**. **Deur** is probably related to **dowrt**. **Dowrt** registered name for **European columbine**, **Aquilegia vulgaris** (TH). The second word is **dauwhei**. I believe **dauw** it is related to **dove**, which is part of another name for European columbine, **dove-wort** (TH). The third name is **gok-iok-wr**. Parts of it are found in yet other registered names for European columbine. **Gok** reminds of **cok** in **cokkesfot**. **Iok** reminds of **yek** in **yekesters** (TH). The word **gok** is not necessarily referring to **cokkesfot**. It may be related to **gog**, meaning **swamp**. European columbine grows in fens. The illustration matches European Columbine very well. The flower shape is characteristic. The stem is branched and the leaves have complex shape. Their colors are green and light brown. The root looks similar too, and several stalks grow from it.

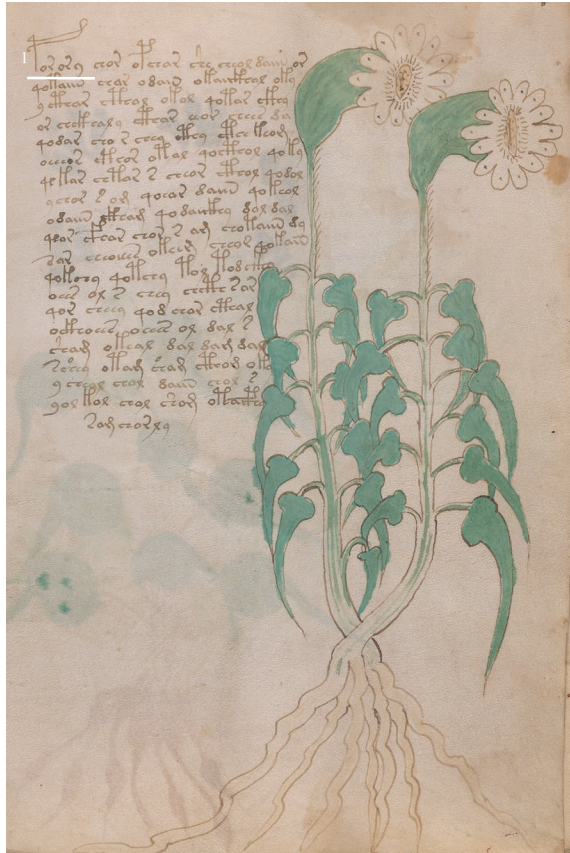


Calcareous soils or fenland peat woodland glades and open scrub, by woodland rides and streamsides, in damp grassland and fen, and on scree slopes. Garden escapes can be naturalised in quarries, on roadsides, railway banks and old walls

1 orore
 orore
orwre
 hore-wre
 hare wort

TH: *hor(e)wort*,
Hare's-wort
 = ?*hieracium*
pilosella.
 Is it nar-
 rowleaved hawk-
 weed, *Hieracium*
umbellatum?

TH: *hareberd*,
harebell,
hare-teasel,
hare-thistle,
hare's beard =
sonchus olera-
ceus



F24r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

The herb in this page is called **or-wre**. It is close to **horwort**, a registered name associated with mousear hawkweed, *Hieracium pilosella* (TH). The herb illustrated does not look like *H. pilosella*. There are many other herbs with **hare** or **hore** in their names. *Sonchus oleracea*, for example, is called **hareberd**, **harebell** and **hareteasel** (TH). I am not really satisfied with the match of *Sonchus oleracea* either. At the moment this her is unidentified.

1 𐌿𐌺𐌴𐌹𐌸𐌰𐌹

klodar

kloder/klwder*Calo-der/**cal-wod-?er*

TH: *Calwort*, *wodeburne* = *Anchusa arvensis*.

2 𐌿𐌺𐌴𐌹𐌸𐌰𐌹

obo(rd)

opwrd*hope-wurd*

raised dryer ground wort

3 𐌿𐌺𐌴𐌹𐌸𐌰𐌹

Rod

roth*ruth*

TH: *Rutherstunge* = *Anchusa officinalis*

4 𐌿𐌺𐌴𐌹𐌸𐌰𐌹

obRode

oprothe*hope-ruth**Hope:*

Raised dryer ground or hope

5 𐌿𐌺𐌴𐌹𐌸𐌰𐌹

kolo3

kologh*Cal-hedge*

6 𐌿𐌺𐌴𐌹𐌸𐌰𐌹

klo3 odaw(rd)

kloh wdewrd

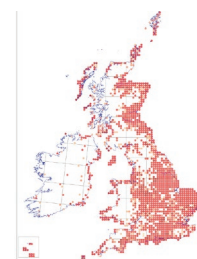
cal-?hedge wode-wort



F24v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

Photo source: *Anchusa officinalis*. Dietrich, A.G., *Flora regni Borussici* (1832-1844)Photo source: *Anchusa officinalis*. Ståle Johnsen - CC BY-SA 3.0

This herb was identified by the first part of the word **kloder**. I believe **kl** is a syncope of **cal** or **gal**. They are both parts of registered names for *Anchusa arvensis*. *Anchusa arvensis* was called **calwort** or **gallwort**. **Kloder** can be interpreted as a syncope of **calo-der**. **Der** is found in many of the blue herb's names in the manuscript, see f17r, f18r and f40r. Wode is part of yet another registered name for *Anchusa arvensis*, **wodeburne** (TH). **Wode** and **cal/gall** is also found in the texts's last name, in the underline, **kloh wdewrth**. I would read it **calo(h wode-wrth)**. The illustration does not match *Anchusa arvensis* very well. But it matches another *Anchusa*, the **common bugloss**, *Anchusa officinalis*. *Anchusa officinalis* is registered as **rutherstunge** (TH). A word in this folio related to **ruther** is **rothe** and **op-rothe**. The common bugloss is an old medicinal plant used against cough.



Roadsides, pastures and waste ground, preferring warmer areas.

- 1 𐌺𐌹𐌳𐌳𐌰 𐌸𐌺𐌹𐌳𐌰
 flozde soRe
flogde so-re
 fei/vei-long the
 seoh-wre
 enchanted/road-
 lung the sooth
 wort

TH: *lungwort*
 = *Marrubium*
vulgare
 MEC: *Seoh*
 (SWM) = sooth



F25r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

- 2 𐌺𐌹𐌳𐌳𐌰 𐌸𐌺𐌹𐌳𐌰
 ite Rode
ite rode
 wite rode
 white stalk

TH: *rodelet*
 = *marrubium*
vulgare

- 3 𐌺𐌹𐌳𐌳𐌰
 o k or
a k or/wr
 a k-hor/wr

TH: *horehound*,
herhone, *hare-*
hoffe = *marrubi-*
um vulgare

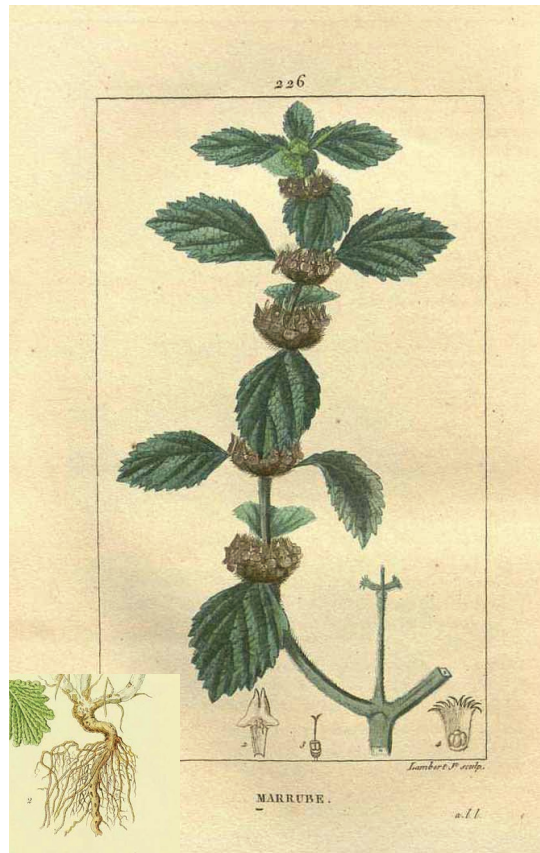
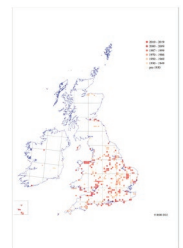


Photo source: Chaumeton, F.P., Flore médicale (1828-1832)



Photo source: Aceria fraxinivora. By Lairich Rig, CC BY-SA 2.0

Some of the words in this text can be related to registered names for **white horehound**, **marrubium vulgare**. What matches white horehound is the white stalk, the shape of the leaves and partly the brown shapes and their placement. The root is also not so bad. The words that led me to white horehound are **flogde** and **logde**. **log** is a word interpreted as related to **long**, menaing **lung** in f22r and f35r. White horehound is registered as **lungwort** (TH). White horehound are used to make bittersweet hard candies. They are dark-colored, looking almost like the brown shapes in the illustration. Like other products derived from *M. vulgare*, they are sometimes used as an unproven folk treatment for coughs and other ailments.



Native only near the sea on open, exposed cliff-top grasslands and slopes overlying limestone and chalk, and on sandy banks and verges in Breckland.

1 ocean
omawn
omewn
omounde

TH: The two ferns
Osmunda regalis
and Polypody vul-
gare = *omounde*

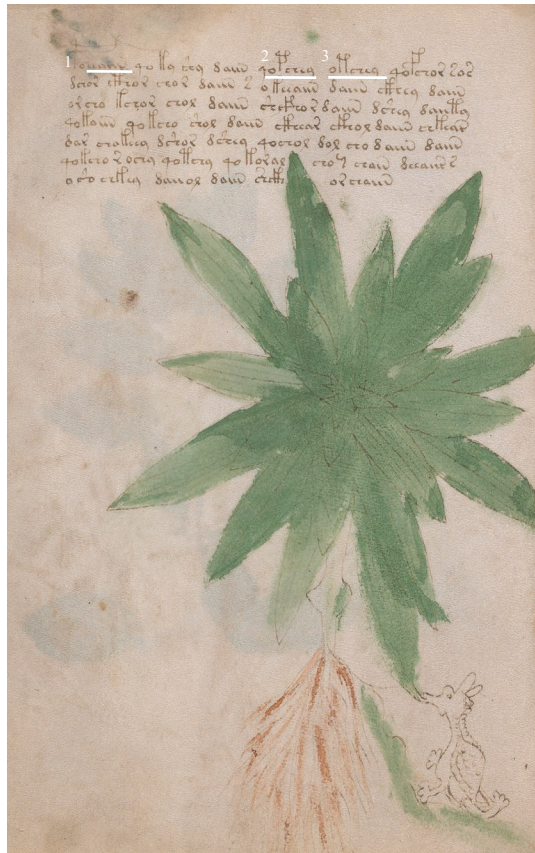
2 40f7e9
goblie
goblie
gobbe-lief
lump-leaf

MEC: gobbe =
mass, lump.
Used about the
sori?

3 0f7e9
oklie
oklie
o kei-lief
a "kei"-leaf

MEC: *Wode-kei* =
the fern Polypodium
vulgare

See the ferns:
kei-reos, f3r
kei-rauen, f28v



F25v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

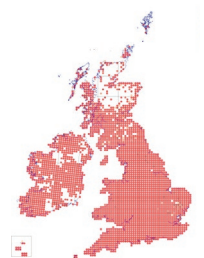


Photo source: *Asplenium scolopendrium*. *Plantes des Alpes et des Pyrénées, gravées et enluminées*, 1. 10, vol 2 (1792).



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

The first word in this folio is **omewn**. It is close to **omounde**, a name registered for the ferns *Osmunda regalis* and *Polypody vulgare*. I believe this is the fern **hart's tongue**, *Aspeleium scolopendrium*. Its root and the rosette leaves match the illustration. The other names found are also suggesting a fern, **gob-lie** and **k-lie**. I interpret **gob-lie** to be related to **gobbe-leaf**. It means **lump-leaf** and can be associated to the sori lumps on the leaves. **K-lie** I interpret as **kei-leaf** where **kei** is a name common for the ferns in the manuscript. See f3r and f28v. **Kei** is also a part of a registered name for *Polypodium vulgare*, **wode-kei** (MEC).



The plants grow on neutral, calcium-rich, and/or lime-rich substrates under deciduous hardwood canopies.

1 *Ḥeccaḥ*
blidar
blider
bili-dere

TH: *bilerne*,
bilrin, *billurs*,
ber(le), *byldryse* =
Veronica beccabunga

2 *Ḥeccaḥ*
flmke
flemke
fei-lenke/lemke

TH: *More-*, *mid-*,
dle-, *water-lemke*/
lenk =
Veronica beccabunga

3 *Ḥeccaḥ* *ḥar*
blide dar
blide der
?bilide dere

See 1

4 *Ḥeccaḥ*
otlme
wt-lme
wete-leme
water

TH: *water-lemke*,
leme =
Veronica beccabunga

5 *Ḥeccaḥ*
otiRe
wti-re
wete
water-wort

TH: *water-lemke*=
Veronica beccabunga



F26v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: *Veronica beccabunga*, vol. 10 - plate 36 in: Jacob Sturm: *Deutschlands Flora in Abbildungen* (1796).

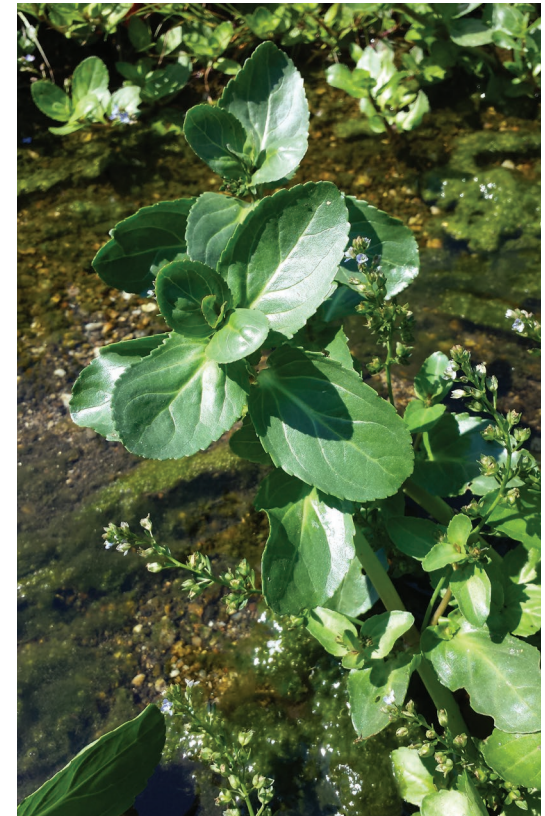
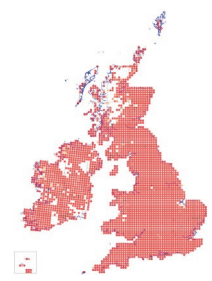


Photo source: *Veronica beccabunga*. Stefan Iefnaer - Own work, CC BY-SA 4.0

This herb is called **blider** and **flemke**. **Blider** can relate to *bilerne*, *bilrin*, *billurs* or *bildryse*. They are registered names for **brooklime**, *Veronica beccabunga* (TH). Brooklime is matching the illustration well. It has many blue flowers. It is branched and the leaves are ovate with a wavy margin. They are opposite and in pairs. The root is fibrous. There is another name in this folio that refers to *Veronica beccabunga* too. The second name, **flemke**, can be read **fei-lemke**. **Lmke** is related to brooklimes registered names *more-/ middle-/ water-lemke* and *lenke* (TH). **Fei** means *death* and may be associated with brooklime's poisonous root. There is also another interesting name, **wti-re**. It may be interpreted *wete-wre*, meaning *water-wort* (MEC). It also has **wt** in another name **wtlme**. This word can be read **wete-leme**. **Leme** is another registered name for *Veronica beccabunga*.



Streams, ditches, ponds, springs.

- 1 2or 2er 2orle
 sor Rie Rokio
sor rie rokio
 shor writhe rukel
 shore wreath
 rukel

TH: *rukel* =
Eruca sativa

MEC: *shór/sor-* =
 A shore, bank,
 coast, a wharf,
 a slope, hillside,
 cliff
Rive/rie = coast
 of the sea, shore,
 beach

- 2 2er 2er
 tlle lie
tlle lie
 tlle lie
 ?cultivation leaf



F27r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: Three kinds of Eruca. Weinmann, J.W., Phytanthoza iconographia (1737-1745)



Photo source: Eruca sativa. Leo Michels - Own work, Public Domain
 By Michel Chauvet - Own work, CC BY-SA 4.0

The first three words in paragraph one are **sor rie rokio**. It was not unusual to write the sound *sh* simply with the letter *s*, in the Middle Ages. **Sor** can then be read *shór*. *Shor writhe rukel* can be translated to **shore wreath rocket** (MEC). **Rukel** is a registered name for **rocket/Eruca sativa** (TH). Rocket is typically found on the sea cliffs on either side on the English Channel. The leaves in the illustration are not pinnate and deeply lobed like rocket leaves. There are some subspecies illustrated without lobed leaves. The root matches, and the flowers too. The flower is colored blue in the illustration. Erucas are white or yellow. Eruca sativa has a deep purple bract. This may be the cause of the blue color in the illustration.



Rocket is a leaf vegetable grown in gardens since 1200. Typically restricted natural occurrence to limestone sea cliffs, like the chalk cliffs on both sides of the English Channel, and the windswept coast on the western side of the Isle of Wight.

1 𐌺𐌺𐌺𐌺
folof
folof
fol-lof
fool's lovage/?cress

TH: *lovage* or
luvestiche = ?used
for the Apium
plants *Ligusticum*
scoticum, *Levisti-*
cum officinale

2 𐌺𐌺𐌺𐌺
eklar
aikler
ache-leir
Apium-clay

TH/MEC: *Ache* =
Apium plants

Nasturtium offici-
nale grows in clay
soil.



F27v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

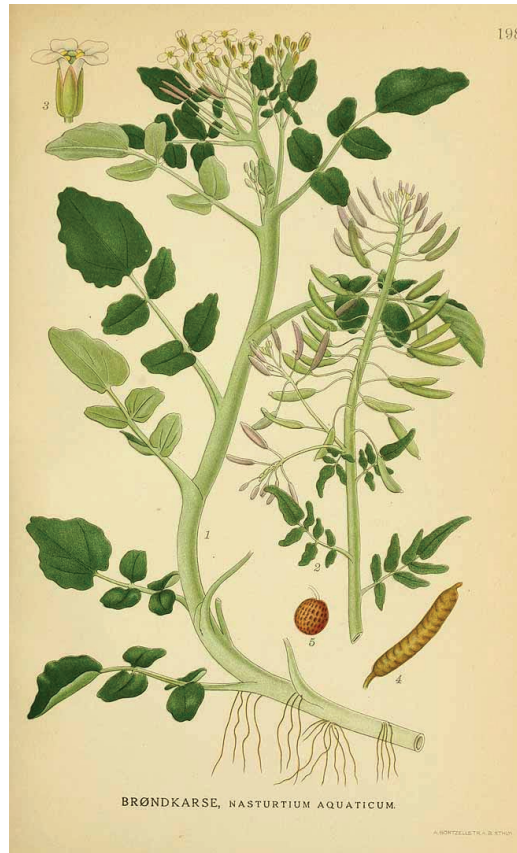
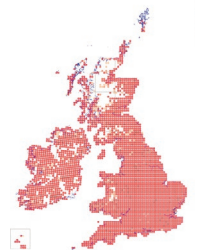


Photo source: *Nasturtium officinale*. Lindman, C.A.M., *Bilder ur Nordens Flora*, vol. 1 (1922)



Photo source: *Nasturtium officinale*. By Stefan Iefnaer - CC BY-SA 4.0.

This plant is interesting. The first name is **folof**. It can be associated with **fól-lof**, meaning **fool love** (MEC). **Lof** is a variation of **love**. **Love** is found in the names of the Apium-plants *Ligusticum scoticum* and *Levisticum officinale* (TH). I do not believe this is any of those Apium herbs. In the Voynich manuscript *Levisticum officinale* is found in f14v, called **love**. There are two possible candidates for the herb in this page. It is **fool's cress**, *Helosciadium nodiflorum* (former **Apium nodiflorum**) and **water cress**, *Nasturtium officinale*. Whether the herb in this folio is fool's cress or water cress is hard to tell. They both have white flowers and a branched stalk. The leaves are ovate with wavy margins. Since the name is **fool-love**, it may mean that this is not a real Apium, but one mistaken to be.



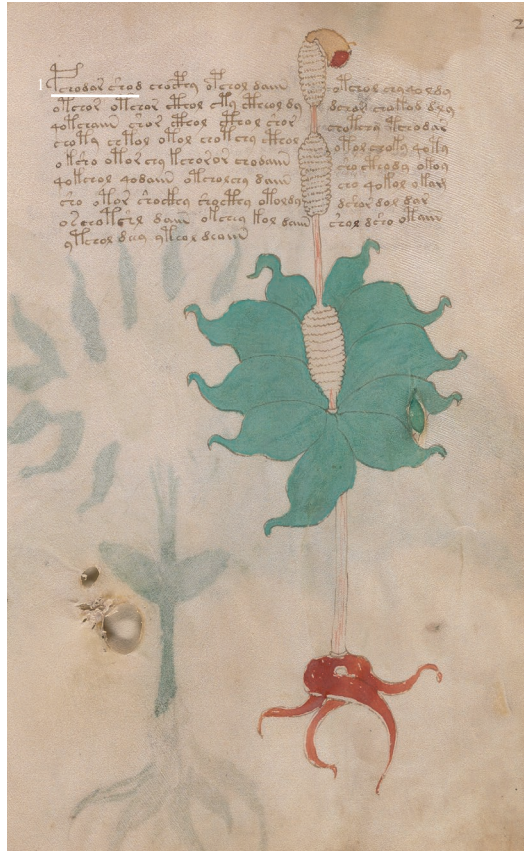
Nasturtium officinale. gravel, sand, silt or clay. edges of rivers, streams, ditches and springs, but not in stagnant water.

¹ ƒroðar 208
blodar Rod
blader rod
blader rod
bladder

MEC: Rode =
associated with
Heliotropium
europæum

MEC: Blader =
bladder.

TH: Heliotrope is
not registered



F28r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: Heliotropium europaeum. Dioscorides, P., De materia medica (Codex Vindobonensis) (512)



Photo source: Heliotropium europaeum. Stefan Iefnaer - Own work, CC BY-SA 4.0

The herb in this illustration is called **blader rod**. **Rod** is associated with many plants (TH). Of those, the illustration matches heliotrope (MEC). The **European heliotrope, Heliotropium europeum** has some similarities. The shape of the leaves matches. It has inflorescences that are coiled spikes of white tiny flowers placed along the stalk. There is a bend on the upper part of the stalk. The first part of this herb's name is **blader**. **Blader** may mean **bladder**. It is said that the plant was used in European botanical medicine to treat bladder issues like urinary inflammation. I do not find good sources for this. Dioscorides says about European heliotrope that "*Boiled with water and taken as a drink as much as a handful of this expels phlegm and bile through the bowels*". Bile is a bitter greenish-brown alkaline fluid. It aids digestion and is secreted by the liver and stored in the gall bladder. Based on this I translate the name **blader rod** to **bladder "rod"**.

No map is found.
European heliotrope is
native to UK.

Roadsides and waste places.

1 ro3
Ro3
rag
rayge

TH: Rayge =
Osmunda
regalis

2 $\text{rouwn} + \text{krouwn}$
Rouwn + kRown
rouwn + k-rown
rauen and kei-
rauen
row(?ed) and
"kei" row(?ed)

MEC: (early SW
& SWM) reawe,
pl. *rauen*: row,
group.

See the ferns
k rios, f3r
k-lie(f), f25v

3 gokrie
gokRie
gokrie
gog-writhe
marsh wreath

Osmunda
regalis grows
in marshes

4 logh ovr
logh ovr
logh ovr
lough over
lake "over"

TH:
eververne
= Osmun-
da regalis.
Eververne,
overfern
= the fern
polypodium
vulgare.



f28v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

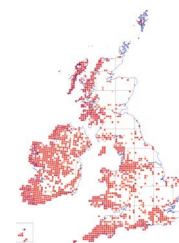


Photo source: Osmunda regalis. Blackwell, E., Herbarium Blackwellianum (1747-1773)



Photo source: Osmunda regalis. Krzysztof Ziarnik, Kenraiz - Own work, CC BY-SA 4.0

This is the third fern in the manuscript. All the first words in the three paragraphs are names leading to a fern. **Rag** is close to **rayge**, a registered name for **royal fern, Osmunda regalis**. The second name is **k-rown**. **K** was also found in the fern names in f3r and f25v. **K** can be an abbreviation for **kei**, as in the registered fern name **wode kei**, used for Polypodium vulgare (MEC). The last part of **k-rown** can be related to **rouen**. It means **row** (MEC). Based on this I translate **K-rown** to **fern group**. The last name is **logh-over**. The second part of the name, **over**, is close to **ever**. **Ever** is found in **eververn**, a registered name for Osmunda regalis. **Logh** may be the word **lough** meaning **lake** (MEC). One of the habitats of royal fern is shores of lakes. It is a strange fern illustration. It looks more like a flower than a fern. But, the root is matching very well, and the upper shape could be the whole fern rosette.

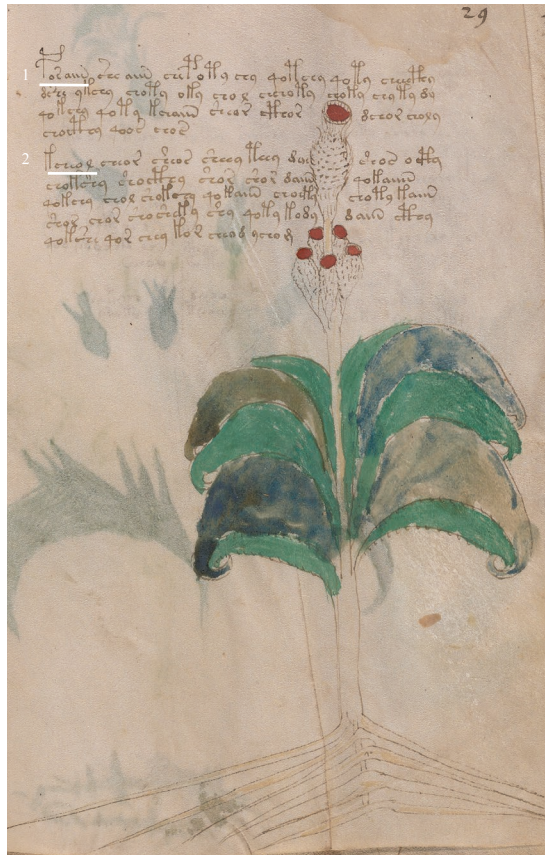


Floodplain (river or stream floodplains), forests,
shores of rivers or lakes, swamps.

1 oē and
os awn
ws ewn
wes-wen
wash lump

2 cecog cecod
liog lior
lioch liwr
leache liver/
lawr
cure liver/me-
dicinal wash

TH: *Locher* =
Dipsacus fullonum/
sylvestris



F29r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



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



Photo source: By MPF - Own work, CC BY-SA 3.0

The first word in the second paragraph is **lioch**. There is a herb reistered with the name **locher**. It is **wild teasel, *Dipsacus fullonum***. The illustration may be interpreted as a wild teasel. It has lanceolate leaves with a row of small spines on the midrib on the lower side. The sessile leaves are placed like a cup at the lower stalk. The inflorescence is violet to dark pink. It is ovoid with a basal whorl of spiny bracts. The root is light-colored, and gives rise to one stalk. The first words in this folio is **b ws ewn ri ewn**. It can be interpreted **bi wes wen wri wen**, and it means **with wash lump turn lump (excrecence/cyst/wart/swelling/pustule)**. Dioscorides writes “They say that it is a cure for protruding and hanging warts”. The first word in the second paragraph is not necessarily related to **locher**. **lioch** may be related to **leache**. It means to cure or medicine.



Rough grassland, wood margins, thickets and hedgerows, and on roadsides and waste ground on a very wide range of soil types

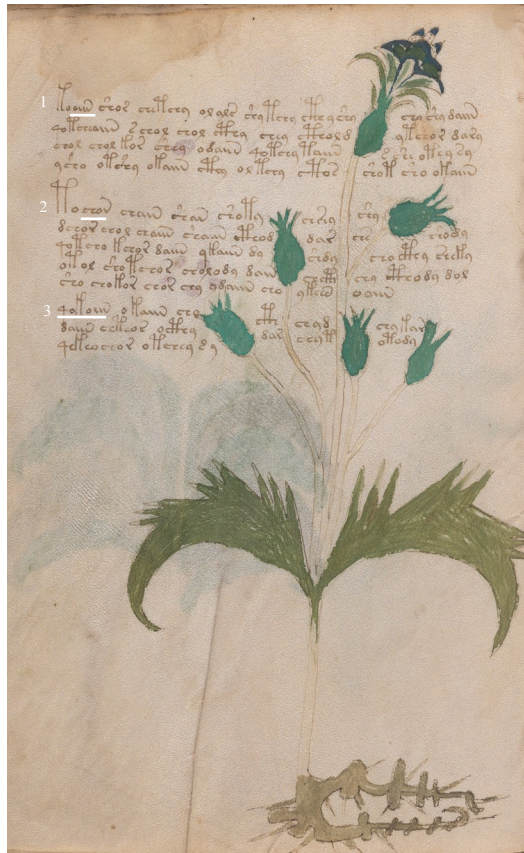
1 ɔwɔ
own
own
houn

MEC: hóund,
hwnde, houn =
dog
TH: Hound's-
Tind, hound-
stong(-leve) =
Cynoglossum
officinale

2 ɛɔɔ
lon
lan/lon
lang/long
"lang (de chien)/
lounge

TH: lang de
chien, chenlange,
cerlaunge* =
Cynoglossum
officinale

3 ɔɔɔ
got own
got own
got-houn
gut hound



F29v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

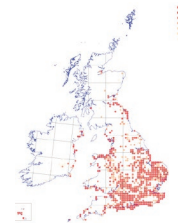


Photo source: *Cynoglossum officinale*, vol. 11 - plate 03 in: Jacob Sturm: Deutschlands Flora in Abbildungen (1796).



Photo source: *Cynoglossum officinale*. Stefan Iefnaer - Own work, CC BY-SA 3.0

There are three paragraphs in this folio. The first word in each paragraph is a plant name, *own*, *lan* and *gotown*. *Own* is found in two of them. Since *h* is omitted at the beginning of words, I believe *own* can be related to *houn*. Variations in spelling of *hound* in Middle English is *hóund*, *hounde*, *hund(e)*, *hond(e)*, *hount*, *hwnde*, *howund*, *hwond*, *houn(e)*, (*error*) *hand*. *Hound* is found in the registered names of *houndstongue*, *Cynoglossum officinale*. It was called *Hound's-Tind* and *houndstong(-leve)*. The second name, *lan*, may also be related to *lang*. *Lang* is part of two names registered for houndstongue, *lang de chien* and *chenlange* (TH). The illustration matches houndstongue. It has purple funnel-shaped flowers at the top the stalks. It is hairy (see the buds). The leaves are greyish green, lanceolate to oblong, and it has a tap-root. Dioscorides writes "*The herb (boiled and taken as a drink with wine) soothes the bowels*". The third name is *got-own*. I read *got-houn*, in the sense of *gut-hound*.



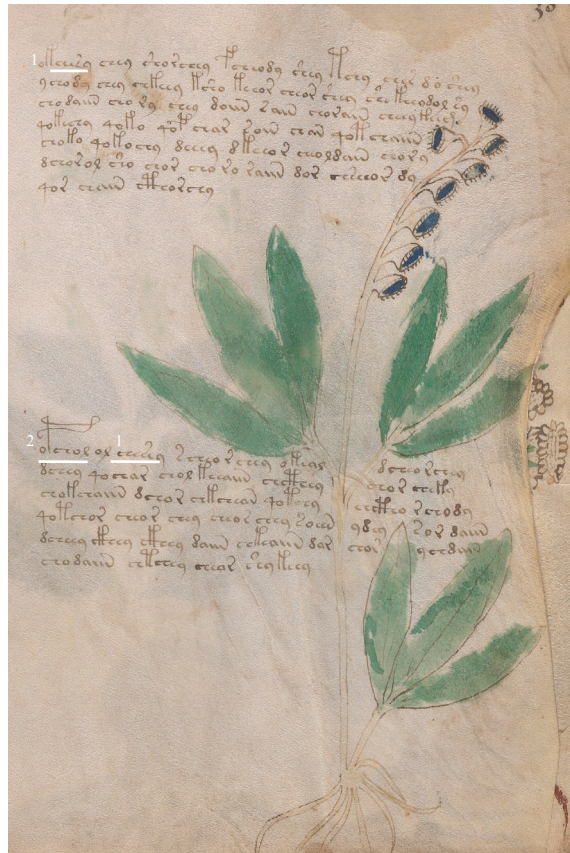
Mostly on dry, often base-rich soils. Habitats include coastal dunes, shingle, open grassland, woodland margins and clearings, field edges, cleared land and gravelly waste

1 $\pi\epsilon\lambda\gamma$
lise
lise
lis
lice

TH/MEC: Louse-
herb, herbe pur
netis and lyes
= Delphinium
Staphisagria

2 $\sigma\tau\epsilon\sigma\gamma$ of $\pi\epsilon\lambda\gamma$
oblo3 o3 lisis
?oplag ogh lise
?of pläge ogh lise
?of plague* gain
possession of lice

*also: a wound;
sore, disease,
morbid condition.



F30r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: Staphisagria macrospermat. Cassone, F., Flora medico-farmaceutica (1847-1852)



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

This herb is called *lise* and *lisie*. The name reminds of *lice*. There is a plant registered as *lous-wort* or *herbe pur netis and lyes*. It is **lice-bane**, *Staphisagria macrosperma* (TH). The illustration fits quite good. It has blue flowers in racemes. The large palmate leaves have ribs. The root is small and light-colored. The flowers seem simplified in the illustration and the leaves are divided in three, not five. The second name is *oblogh* or *oplagh* or something similar. I have an interpretation of the word if it is read *o plag*. I will then read the three first words in paragraph two *o pläge ogh lise*. It means *in (a state of) plague gain possession of lisie*. *Pläge* may also mean *a wound, sore* or *disease*. Dioscorides writes about lice-bane that “It is good bruised and rubbed on with oil for pthiriasis [psoriasis] itches, and parasitical skin diseases”. “This also represses rheumatic gums. With honey it heals apthas [small ulcers] in the mouth, and it is mixed with warm compresses for burns”.

Garden plant. Native to Asia Minor and southern Europe.

No map:
Not found as a wild plant growing in Great Britain or Ireland.

1 ꝥꝥꝥꝥꝥ
tmdie
tndie
tint-deie
pigment dye

MEC: *Tint(e)* =
dye, pigment
Deie = Dye

2 ꝥꝥꝥꝥꝥꝥꝥ
kRotiade
k-roti-wde
k-roti-wode
K-"rooty"-dye-
stuff

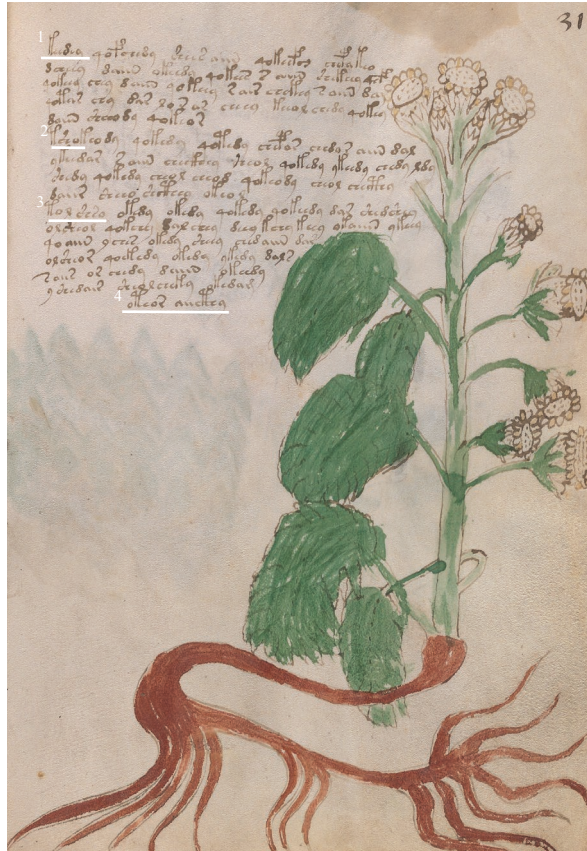
TH: *Wayde* =
Rubia tinctorium
MEC: *wode* =
Isatis tinctoria,
Reseda luteola,
also, ?any of
several red,
blue, or purple
dyestuffs
Róti = full of
roots, having
many roots.

3 ꝥꝥ ꝥꝥꝥꝥ
ko 3 Rso
co-h-rso
có-hie-rus
?Craw-hew-red

MEC: *rus* = of
hair: Red

4 ꝥꝥꝥꝥꝥꝥꝥ
okior aw(kl)e
a cior ewkle
a cüre hew-kle
A cure pig-
ment-?root

MEC:
Hew: color,
dye, pigment
Cuir: med-
icine, cure,
health,
Clei: claw-
shaped root.



F31r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

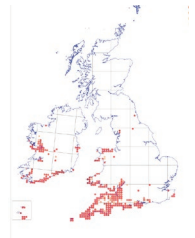


Photo source: *Rubia peregrina*. Flore coloriée de poche du littoral méditerranéen de Gênes à Barcelone y compris la Corse; texte par O. Penzig. Pl. 48 (1902).



Photo source: *Rubia peregrina*. By Isidre blanc - Own work, CC BY-SA 4.0.

The first name of this herb is **tindie**. It can be a combination of **tint** and **deie**. **Tint** and **deie** are two words for **dye**. **Tindie** is not a registered name. It led me to research plants used for making dyestuff. The illustration shows the longest root in the manuscript. I found two plants used for dyestuff with a very long root. It is **rose madder**, *Rubia tinctorum* and **wild madder**, *Rubia peregrina*. Their appearance is very much the same. They match the illustration well. In addition to the long root, they have many white or light-yellow flowers. The leaves are ovate with toothed margins. What is not matching is the placement of the sessile leaves in a rosette around the stalk. This may be an error. The second name, **k-roti-wde**, is also pointing in the direction of a root dye. Part of the word, **roti**, may be interpreted as **full of roots**. The last part **wde** may be related to **wayde**, meaning **dyestuff** (MEC). **Wayde** is a name registered for *Rubia tinctorum* (TH). The last part **wde**, may also be read **wode**. **Wode** is registered for other dyestuff plants. Non of them are matching the illustration. The last name is **cior ewkle**. It can be read **cüre hew-cle**, and means **cure dye-claw** (MEC).



Hedge banks, scrub, walls, cliffs and other rocky places near the coast, or very locally on calcareous soils further inland. Lowland.

f31v *Scandix pecten-veneris* / Sheperd's needle

1 *ƒoðanð ƒccðg*
bodaŕ Rmde
pwdeur rnde
powkde-wr rinde or
pôd-wäre rinde
seed spindle

TH: *puck-, puk-,
pouk-, powk-nee-
dle* =
Scandix
pecten-veneris
MEC: *Pôd-wäre* =
seed, legume

2 *ſccðg*
okmde
akmde
âche-mède
Apium-meadow

3 *ƒccðg*
blmode
plnode
pil-nôde/nodel
arrow knot/head

MEC: *Nôde* =
lump, a boss at
the intersection of
the ribs of a vault
+ *nôde* seems
to mean 'head'
sometimes

See also the Welsh
name of sheperd's
needle: *nodwydd*
y bugail, where
nodwydd means
needle

4 *ſccðg ƒccð ƒccð*
obað Rio okar
o peg rew o ker
a peg wreah o
"ker"
a peg covered of
carot family

ƒccð and *ƒccð* are
used for carrot
family, see f4v,
f33v, f39v, f43r,
f96r



F31v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

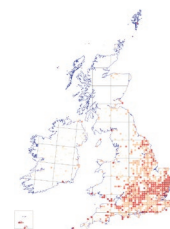


Photo source: Scandix pecten-veneris. Dodoens [Dodonaus], R., Stirpium historia commentariorum. Imagines ad vivum expressae (1553-1554)



Photo source: Scandix pecten-veneris By G.Hagedorn Own work, CC BY-SA 3.0

This herb was a mystery for me for a long time, until I found the words *opeg rew oker* (4) in the second paragraph. Searching for *peg* among the vernacular medieval plant names I found *puck-, puk-, pouk-, powk-needle*. They were used for *sheperd's needle*, *Scandix pecten-veneris* (TH). Sheperd's needle has many of the same characteristics as the illustration in this folio. *Peg* means *pin* (MEC) and may be a description of the herb's appearance. *Opeg rew oker* may be related to *a peg wreah o ker*, translated to *a pin covered of carrot family*. Sheperds's needle belongs to the carot family. In the Voynich manuscript the plants in the carot family are called *kar* or *ker*, see f4v, f33v, f39v, f43r and f96r. This herb's second name *plnode* is interesting. *Pil* means a *pointed missile of some kind* (MEC), like an arrow or a needle. *Nod* is found as a part of the sherperd's needle's Welsh name, *nodwydd y bugail*. *Nodwydd* means *needle*. In Breton needle is *nodoez*. The etymology of the English word *node* says that it stems from early 15c. it comes from Latin *nodus* meaning *knot*. *Node* can also be an error for *nodel* meaning a *head*, also from early 15c. If the word *plnode* is related to English it can be translated to *needle knot* or *needle head*. In the last sense the name will be *needle-head*.



Arable fields, particularly on calcareous clay soils.

- 1 **flewn**
flown
flown
flue-wyn
fluff-vine

TH: Fluff =
16th-century
flue 'down, nap,
fluff', apparently
from Flemish
vluwe
TH: wild wyne
= Clematis
vitalba



F32r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

- 2 **re-tiwde**
Retiode
re-tiwde
wr-tie-wode
wort tie wode

TH: halfwode,
wodebynde =
Clematis vitalba



Photo source: Clematis vitalba, Curtis, W., Flora Londinensis (1775-1798), vol. 4 (1781)



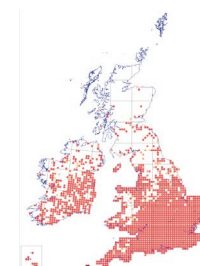
Photo source: Clematis vitalba. BerndH, CC BY-SA 3.0

- 3 **dawode**
dawode
thewode
théve-wode
bush wode

MEC:
Théve = bush

- 4 **flo**
flo
flo/flw
flue
fluff

This herb was identified by the names *re-tiwde* and *thewode*. I interpret these names as *wr-tie-wode*, meaning *wort rope "wode"*, and *théve-wode* meaning *bush "wode"* (MEC). A plant called *wode* that matches the illustration is *old man's beard*, *Clematis Vitalba* (TH). Old man's beard was used for rope making and it is a climbing shrub. Climbing and creeping plants are called *wn* in the Voynich manuscript (f17v, f49r, f54v, f94r). I relate it to *vyn* and translate it to *vine* (MEC). Assuming this is the "vine" old man's beard, the very first name in the text, *flown*, can be divided to *flo-wn*. *Flw* is not only found in this first name, but also as the first word of the second paragraph. I believe *flw* can be associated with the modern in English *fluff*. The etymology of *fluff* says it apparently comes from Flemish *vluwe*. In the 16th century it had become *flue* in English, and meant *down, nap* or *fluff*. This reading of the word fits with the Clematis vitalba's fluffy flowers.



On top of hedgerows, bushes, scrub or trees. It favours chalky soil.

- 1 **liod awn**
liod ewn
 leat/lout ew-wyn
 prostrated ivy-
 vine

MEC:
Eulew = a kind
 of ivy

- 2 **dawoa(rd)**
dewoert
 the ew-wort
 the ivy-wort

- 3 **ro blwr**
 Ro (bl)or
ro blwr
 wreo bel-wort
 covering(?)
 bell-wort

(WM) *wreo*
 (SWM) *wreon*
 = cover



F32v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

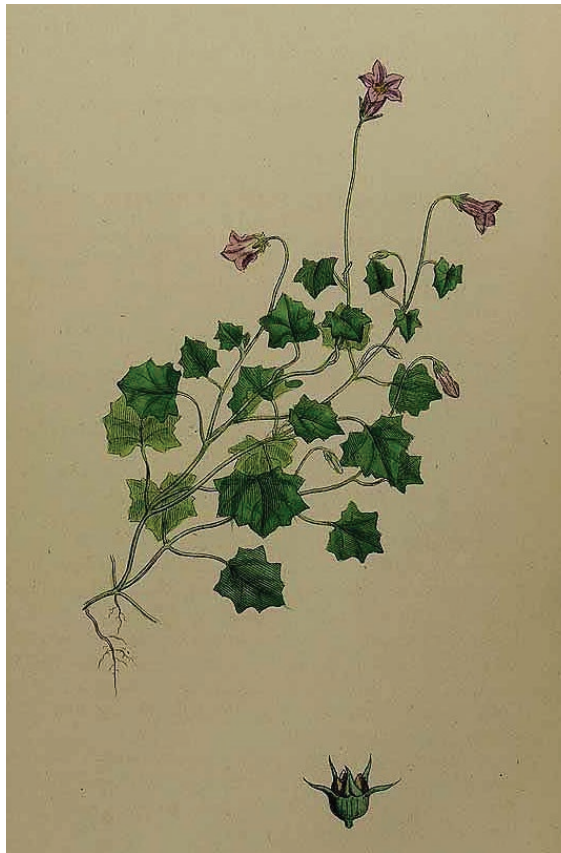
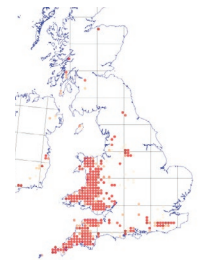


Photo source: *Hesperocodon hederaceus*. Smith, J.E., English botany, or coloured figures of British plants, ed. 3 [B] [J.E. Sowerby et al] (1863-1899)



Photo source: *Hesperocodon hederaceus*. By Aroche - Own work, CC BY-SA 3.0

This herb was identified by the second word in paragraph two, **blor**. *Blor* I interpret as *bel-wr*, meaning *belle-wort*. This word, together with the ivy-shaped leaves, led me to *ivy-leaved bellflower*, *Hesperocodon hederaceus*. The first word in this text is **liod ewn**. *Liod* can be related to *lout* (error: *louth*) meaning to bow, bend, prostrate oneself. The last part *ewn*, can either be read *wyn* or *ew-wyn*. It means *vine* and *ivy vine* (MEC). Translated in this way *liod ewn* can mean *prostrate evy-vine*. The second name is quite obvious, *ew-oert*. It is close to *ew-wort*, meaning *ivy-wort* (MEC). The third name is **ro blwr**. *Ro* can be read *wro* in the same way as *re* is read *wre*. *Wro* can be related to *wreon* (SWM)/ *wreo* (WM) meaning to *cover*. Ivy-leaved bellflower is a ground cover. The illustration fits ivy-leaved bellflower. It has several blue bell flowers with a phyllary, and ivy-shaped leaves. I have not found any pictures of the root. It is commonly found in Southern England, and Wales, but also in North West England, Western Scotland and Ireland.



Short-grassed areas beside streams, with moist, acidic soils, and is almost never found in basic soils and stagnant water.

1 𐌿𐌺𐌴𐌳𐌰𐌿𐌸 𐌺𐌴𐌳𐌰𐌿𐌸
 kRdar R(sd)ar
k-rther rster
 k-writher
 wrister
 k deciever/anger
 violent tugger

MEC:
 wróther-hele
 = with evil
 outcome, in ill
 humor. Don
 wróther-hele =
 behave badly
 wréthe/wraðer
 (early masc.
 infl.) = anger +
 wrinkel

wriste = violent
 tug



F33r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: Mandrake, cropped scan from 15th century manuscript Tacuinum Sanitatis.



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

This herb was identified by the human headed root in the illustration. A human root is typical for **mandrake**, *Mandragora* (?*officinarum*). The Voynich name **k-rther rster**, is interesting. One reading is **K-writher wrister**. I translate it to **K-deciever violent tugger**. In one superstition about mandrake, people who pull up its root will be condemned to hell, and the mandrake root would scream as it was pulled from the ground, killing anyone who heard it. Therefore, in the past, people have tied the roots to the bodies of animals and then used these animals to pull the roots from the soil. (Wikipedia / John Gerard *Botanical, General Histoie of Plants*, 1597). The illustration is not the best. The leaves are not in a rosette and their shape are only partly matching. The striped green bell flower is characteristic. A try on translation of the first line goes: 𐌿𐌺𐌴𐌳𐌰𐌿𐌸 𐌺𐌴𐌳𐌰𐌿𐌸 𐌺𐌴𐌳𐌰𐌿𐌸 𐌺𐌴𐌳𐌰𐌿𐌸 𐌺𐌴𐌳𐌰𐌿𐌸 𐌺𐌴𐌳𐌰𐌿𐌸 / **k-rthet rster riplde blade e fuht go fatlede** / Chi-writher wrister replide bláde e fought go fatlede (of fatelen) / **Christ-deciever voilent tugger wrinkled leaves in fight go shaped**.

M. officinarum is native only to north Italy and part of the coast of former Yugoslavia.

1 𐌹𐌺𐌹
kar
ker
“ker”

TH: cherlok =
Peucedanum
ostruthium

𐌹𐌺𐌹 and 𐌹𐌺𐌹 are
used for carrot
family, see f4v,
f31v, f39v, f43r,
f96r

2 𐌹𐌺𐌹𐌹
kRde
k-rde
?K-rede/Ker-
wride
?K-red/Carrot
family clump

TH: rede/wyt
crowratyl = ?
Peucedanum
ostruthium



F33v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: Oeder, G.C., Flora Danica (1761-1861)

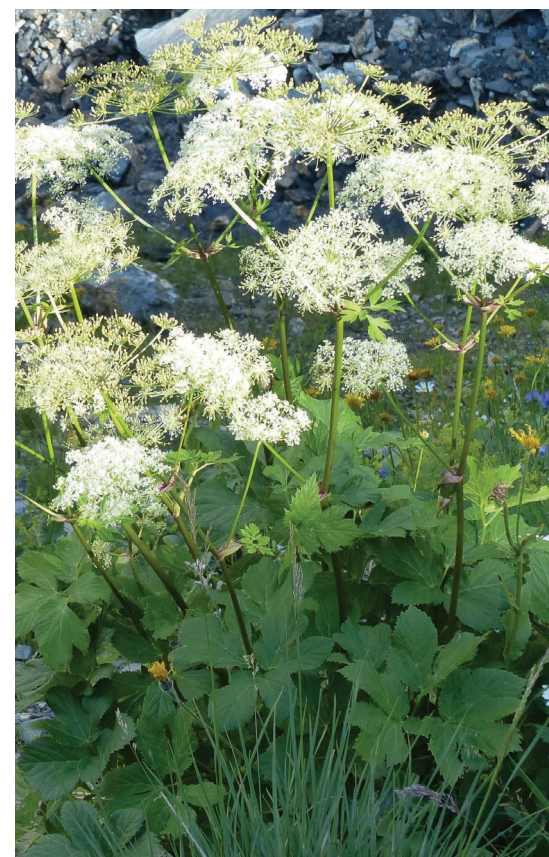


Photo source: Andrea Moro - http://dryades.units.it/floritaly/index.php?procedure=taxon_page&tipo=all&id=3634 <http://dryades.units.it/dryades/plants/foto/TS181687.jpg>, CC BY-SA 4.0

At first, I thought this was a Chervil. Name number one is **ker**. It occurs as the first word both in paragraph one and in the headline (under the text). **Ker** led me to **Cer-folio**, a registered name for chervil, *Anthriscus cerfolium* (MEC). But the leaves are not matching chervil. The root is different too. I later found that **ker** is a repeated name in the manuscript, naming plants in the carrot family. I searched for plants in the carrot family with palmate leaves. It led me to **masterwort**, *Peucedanum ostruthium* (*Imperatoria ostruthium*). The most striking about masterwort is how well the root matches the illustration. I have found no other plants with this peculiar kind of root. The flower in the illustration is only similar if one sees the large rounded shape as an umbellifer. The blue, white and yellow shapes in the flowerhead seem schematic. Like the flower in f40v, it has striking similarities to the symbolic shapes that may be water, light, air and fire in the rosette map.



Woodland, damp fields,
river banks and mountain
meadows.

1 *leo-eppe*
lioible
lioiple
leo-eppel
lion-
apple/ball

TH: *lyon-
nestooth* =
Succisa pratensis
MEC: *lion* = lion,
fig. Christ, the
Devil



F34r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

2 *oza* *ayv*
oza *ayv*
aher eih
aher-ayv
dread/dan-
ger-ayv

TH: *herbe ive*,
herb ayv = *Succi-
sa pratensis*

3 *kleo ahlite*
klio a3l(t)e
k-lío ahlite
k-leo ahe/egh/
ayv-lite
K-lion dread/
eye-ayve-lite

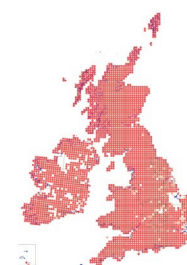


Photo source: Fuchs, L., New Kreütterbuch (1543)



Photo source: *Succisa pratensis*. Stefan Iefnaer - Own work, CC BY-SA 4.0

This herb was identified to be **devil's bit**, *Succisa pratensis* by the name **lioiple**. It is close to **leo-eppel**, meaning **lion-apple** or **lion-ball** (MEC). **Lion** is part of the name **lyonnestooth**, registered for devil's bit (TH). **Apple** and **ball** are both good references to the sphere-shaped flower. **Lion** was a word used figuratively, either for Christ or the Devil (MEC). The root looks like a lion in the illustration, and the modern English name has Devil in it. The illustration matches well. There is one thing that is not right if this is devil's-bit. The leaves have the same lanceolate shape. But, instead of being attached one by one to the stalk, five leaves are attached to one pedicel. Except from this, everything matches well. It has a large root and three blue ball-shaped flowers. Even how some of the flowers are bended downwards matches.



Moist to moderately free-draining habitats, favouring mildly acidic soils. Woodland rides, heathland, grassland and mires, in the uplands on cliff ledges and in ravines

1 2c28g
slide
slide
slite

TH/MEC: *Slite* =
Cyclamen

†c2c2a2
?
?



F34v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

The first word in paragraph one is *tslide*. The closest I get to a registered plant name that leads to a plant that has some similarities to the illustration is *slide*. *Slite* is registered for Cyclamen, cyclamen hedrifolium. The interpretation is not really satisfying as the illustration is not convincing. The leaves are attached to the stalk in a mistaken way and the flowers are not at all similar. The shape of the leaves matches quite well, and the root is large.

1 *kl̥oo ɹ loʒe ɹe*
(kl)oo r loʒe Re
klow r lohe re
clow h)er longe
wre

TH: *Lungwort* =
Helleborus foetidus/viridis/niger
MEC: *Clowe-*
thunge = *Helle-*
borus niger.
MEC: *lóngewort*
= Prob. *Vera-*
trum album or
V. viride); ?also
Helleborus niger



F35r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

2 *flaw ɹeal*
bawn liar
pewn liar
pomme ?

Is this herb
associated with
Ranunculus?
Clow-thunge
was also used
for *Ranunculus*
(MEC) and *lior*
is found in the
plant name in f5v
for *Ranunculus*
asiaticus.



Photo source: *Helleborus niger*.. Zorn, J., Oskamp, D.L., *Abbeildingen der artseny-gewassen* (1796-1800)



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

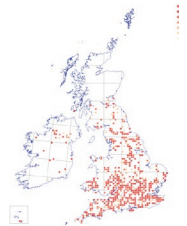


Photo source: Migas, CC BY-SA 3.0

3 *ɹeolɹeand*
Rorawn
rarlewn
rarloven
light colored love

TH: *lowungewort*
= *Helleborus*
foetidus/viridis/
niger

The first word in paragraph one is **clow**. **Clow** is found as part of the medieval vernacular plant name **clow-thung**. It was used for **hellebore**, **Helleborus** (TH/MEC). Two other words in the text are also matching registered names for hellebore, **lohe** and **lewn**. **Lohe** I believe is related to **lung**. **Lung** is found in the name **lungwort** and **lóngwort** registered for hellebore (TH/MEC). **Lohe**, in the meaning of **lung**, is also found as a name in f22r. In f 22r it was used for a herb that in modern English is called lungwort, *Pulmonaria officinalis*. **Lewn** can be related to the name **lowungewort**, also registered for hellebore (TH). In the second paragraph of this folio **lewn** is written eight times. **Lewn** is found in other plant names in the manuscript. In f14v and f19v it is translated to **love**. I believe the illustrated herb is a black hellebore, *Helleborus niger*. It has a red stalk and a pink root. At the center the white to light purple flower is red. It also has a rosette of toothed leaves.



Helleborus Viridis, grown in gardens since medieval times. Shady habitats, usually on chalk or limestone, found in woodland glades, rocky dingles and old hedge banks. Clay soil.

- 1 **ḡarlor**
barlor
berlwr
barel-wr / perl-wr
Barrel/pearl-wort
or
be ere-?
be ivy-?

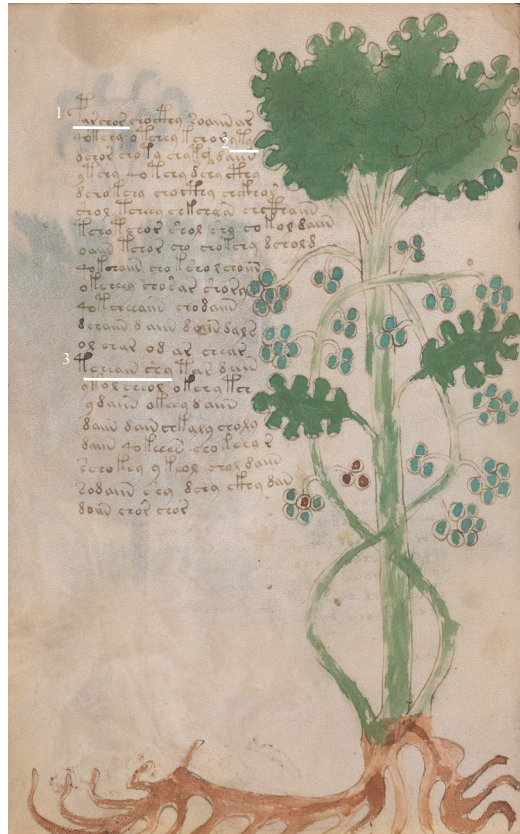
MEC:
Barel = barrel
Pér! = pearl
TH: ere = Hedera
helix

- 2 **ḡle**
ake
eike
aike
Oak

MEC: Ók/aik/aike
= Quercus robur
and ilex
TH: oak, ok, hok
= oak

- 3 **ḡleand re**
kliaun re
clieung re
cling/clóng wre
cling(ing) wort

Cling: referring to
the climbing grip
of Hedera helix?
Hedera stems from
Greek χανδάνω
(khandánō) 'to
get, grasp'. helix
means spiral.



F35v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: Top: Hedera helix, Dioscorides, P., De materia medica (Codex Vindobonensis) (512). Lower: Quercus robur. Prof. Dr. Otto Wilhelm Thomé Flora von Deutschland, Österreich und der Schweiz (1885).



Photo source: Top: Hedera helix by H. Zell - Own work, CC BY-SA 3.0 . Lower: Quercus robur. FoeNyx, CC BY-SA 3.0

Eike is the word that identified the plant in this folio. **Eike** it is not far from **aike** registered for **brittish oak, Quercus robur** (MEC). The shape of the leaves matches, and the circles in green and brown may be the nuts. The first name in the paragraph is **barlor**. My first interpretation was **perl-wr**. It means **pearl wort** (MEC). The other interpretation is **barel-wr**, as oak was used to make **barrels**. There is a third possibility. This page has been compared with similar drawings in other manuscripts by other Voynich researchers. For example, it is very similar to the oak and ivy page in fol. 60r of the Paris MS BN Lat.6823. For these comparisons see <http://www.voynich.nu/illustr.html#n10> and <https://voynichrevisionist.com/tag/manfredus-manuscript-bnf-lat-6823/>. In the Paris MS an ivy is climbing the oak. The similarities to the oak and ivy illustrations are striking. The illustration in this page lacks the leaves of the climbing plant, but the root, the climbing stalk and the berries are there. **Ivy, Hedera helix** is registered under the name **ere**. And the first name **barlor**, can be read **berlor**, and divided to **be er-lor**. Either the leaves of the Ivy are forgotten or the artist has left out the ivy. Instead, the twisting branches and green and brown pearls has been kept as part of the oak.

- 1 𐌿𐌺𐌰𐌹𐌸𐌰𐌿 𐌸𐌰𐌹𐌸𐌰𐌿
 blafdan goraun
blefden goreun
 bluffed gourden
 puffed up gourd

TH. Gourden
 = ecballium
 elaterium

- 2 𐌿𐌺𐌰𐌹𐌸𐌰𐌿 𐌸𐌰𐌹𐌸𐌰𐌿
 𐌸𐌰𐌹𐌸𐌰𐌿 𐌸𐌰𐌹𐌸𐌰𐌿
 bodawr (bl)e
 go eblōz so(rd)
podewr pile
 go iblogh sard
 pód-ware pile go
 eblow shard
 seedpod-wort
 peel go blowing
 scattered/cut

MEC: pód-
 ware =
 seeds of legums,
 ?other kind of
 seed grains.



F36r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: Ecballium elaterium (L.)
 Bulliard, P., *Herbier de la France* (1780-1798), vol. 2 (1781-1782).



Photo source: Ecballium elaterium. By RickP, CC BY 2.5

This herb is called **blefden gor**. **Gor** and **gourd** are names registered for Ecballium elaterium and Citrullus colocynthis (TH/MEC). Even though the leaves match Citrullus colocynthis perfectly, the large tuberous root and the seed pods match only **squirting cucumber, Ecballium elaterium**. I have three possible interpretations of the name **blefden**. It can be related to **blouen** meaning to **blow**, or **belef** meaning at **rapid rate** or **speed**, or **bluffed** meaning **puffed up** (MEC). They all make sense associated with the modern name squirting cucumber. A fourth interpretation of **blef** is **bluff**, meaning **steep bank**. Squirting cucumber is found as a naturalized garden escape on sea cliffs. I believe **bluffed** (puffed up) is most reasonable. The seed pod of squirting cucumber is puffed up until it bursts and squirts out the seeds.



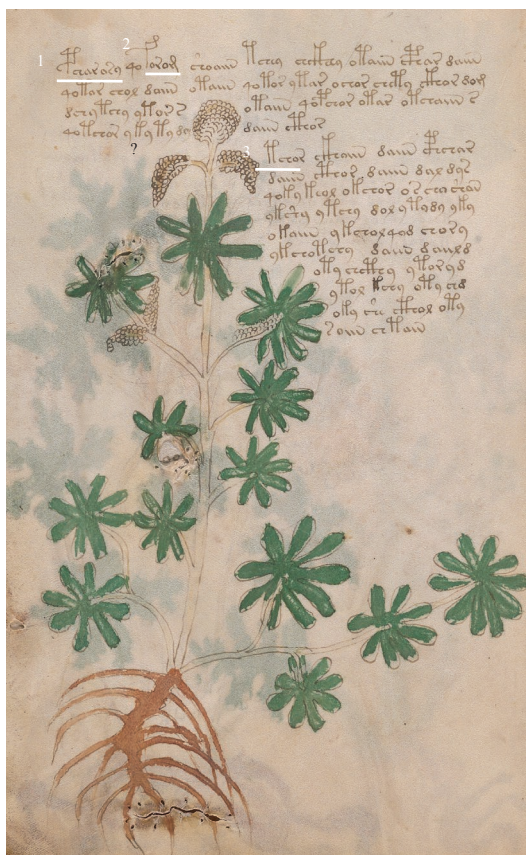
Ecballium elaterium was known in cultivation in Britain by 1548. Hot dry places on waste ground and roadsides, usually close to the coast

1 𐌺𐌿𐌳𐌰𐌶 𐌲𐌰𐌸
blar ose
pler ose
bi lér washe
be face wash

2 𐌺𐌿𐌲𐌰𐌸
foro(rd)
fwrwrt
féver-wort
forwrt
vare-wort

MEC:
féver = fever
Alchemilla was a
febrifuge.
vare-wort = Tor-
mentil

3 𐌺𐌿𐌲𐌰𐌸
klor
klwr
k-laver/kille-wr
k-wash/sore-wort



f36v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

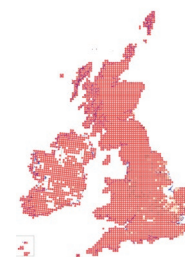


Photo source: Alchemilla alpina. Oeder, G.C., Flora Danica (1761-1861)



Photo source: Alchemilla alpina. By Udo Schmidt from Deutschland - Alchemilla alpina L., CC BY-SA 2.0

I first thought this herb was called *forwrt*. It is close to the registered name *vare-wort* used for tormentil, *Potentilla*. The leaves matched very well, but the flowers are different. The flowers of *potentilla* are few. It is easy to draw their typical flower shape with four yellow petals. I can find no explanations for why they would be drawn as many small circles. The leaves of *potentilla* also have typically only five leaflets. There is another herb that matches the illustration better. it is **Lady's mantle, Alchemilla**. The leaves in the illustration look exactly like *Alchemilla alpina*. The flowers are so small and many that they may be expressed simplified as in the illustration. The shape of the root matches well too. *Potentilla anserina* and *Alchemilla arvensis* are found under the same registered name *argentina* (TH). Maybe they were both called *vare-wort*. Another possibility is to interpret 𐌺𐌿𐌲𐌰𐌸 to be read **fwrwrt**. It is related to **fever-wort** and means **fever wort** (MEC). Laidies mantle has been used in botanical remedies for centuries as a febrifuge (P). The freshly pressed juice is used to help heal skin troubles such as acne (P). The first name in this folio is *ler wse*. I believe it is related to *lér washe*, meaning *face wash*. There are no matching names registered for *Alchemilla*, and *Alchemilla alpina* is not registered at all.



Potentilla erecta: more or less acidic soils, including lowland, upland and montane grassland, hay- and fen-meadows, moorland and heathland, blanket and raised mires, open woodland, wood borders and hedge banks

- 1 **ko(ble)g**
 ko(bl)og
kobloh
 ?ko-blache
 ?cow black
 or
 ?bile-ogh
 ?bile-cliff

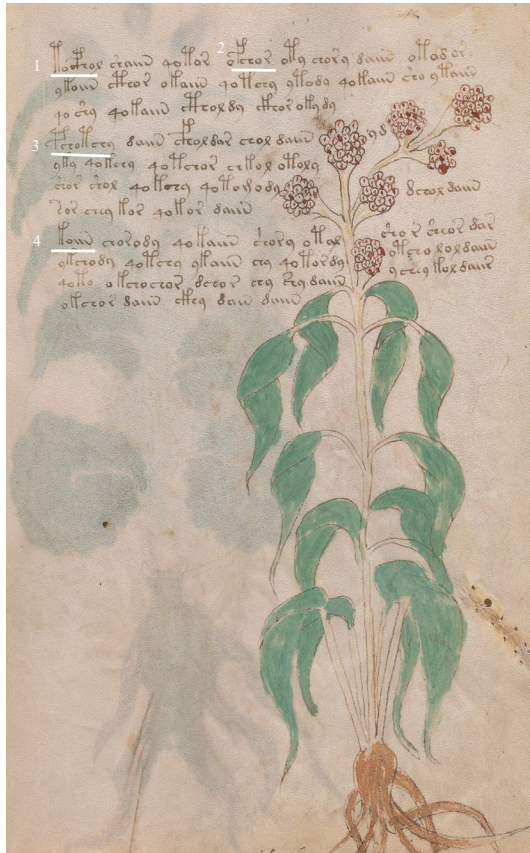
Cliffs are one of the habitats of *Centaurium erythraea*.

- 2 **flor**
flwr
 fil-wr

TH: *filwort* (?*felwort*), *feldwort*
 = *Centaurium erythraea*
 Modern english:
filwort = *Centaurium erythraea*

- 3 **blokle**
blaklei
 ?*blach-leif*
 ?black-leaf

- 4 **town**
?town/t own
 ?*toum/te wind*
 ?empty/this wind



F37r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

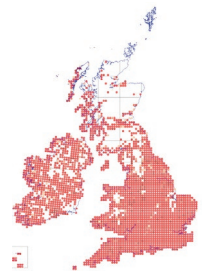


Photo source: *Centarium erythrea*. Fuchs, L., *New Kreüterbuch* (1543)



Photo source: *Centaurium erythraea*. Hans Hillewaert, CC BY-SA 3.0

The name I first found in this folio is **flwr**. **Flwr** can be related to **filwort** (?*felwort*), **feldwort** and **feltrike**. They are names registered for **common centaury**, *Centaurium erythraea* (TH). The clusters of pink florets and the shape of the leaves matches. The leaves' placement on the stalk as pairs is also similar. It has the fibrous root as well. In addition to the leaves along the stalk, the artist has drawn the rosette at the ground as well. That the leaves are not sessile is an error. The first word of the second paragraph is **bloklei**. There is a small space between **blok** and **lei**. **Bloklei** is seen previously in the manuscript, where it was translated to **blue clay**. Common centaury grows in clay soils. But, as the spelling is different in this case. K and l is seprated, even with a small space. I believe **bloklei** can be divided to **blok-lei**. I relate it to **blach-leif**, meaning **black leaf** (MEC). Dioscorides writes «Boiled and swallowed down, it expels bile and thick fluids through the bowels.» **Black** may have something to do with the secretion black bile, one of the four humors.



chalk and limestone grassland, heathland, woodland rides and open scrub, dune grassland, clifftops, quarries, spoil-heaps and road verges, loamy, dry to moist.

1 𐌹𐌺𐌰𐌸𐌰 𐌹𐌺𐌰𐌸𐌰
Rode go(kl)e
rode gokle(i)
rode cokell(-eye)

TH:
Rodewort = Salvia
sclarea.
?cokkispore =
Salvia pratensis,
sclarea, verbenaka.
cokell =
Salvia pratensis
godes-eye =
Salvia sclarea.

2 𐌹𐌺𐌰𐌸𐌰
gokor
gokwr
Cok/gog-wr
Cock/God wort

3 𐌹𐌺𐌰𐌸𐌰
kodaun
ko-?theung
?côu-toung
Cow-tongue

TH: *cowshype* =
Salvia sclarea



F37v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: Salvia sclarea. Dodart, D., Recueil des plantes gravées par ordre du roi Louis XIV (1788), vol 2.



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

All the words starting the three paragraphs, **rode gokle**, **gok-wr** and **ko theung**, are related to **clary**, **Salvia**. **Rode** is registered for Salvia sclarea. **Gokle** and **gok-wr** may be related to **cokell** and **cokkispore**. They are registered for Salvia pratensis and sclarea (TH). The illustration fits Salvia sclarea and Salvia verticillata quite good. They have large rounded leaves and a large taproot. The stalk is firm and thick. It has racemes of white, purple and violet flowers. The flower shape does not match. But, this kind of simplified flower is also found for other plants with racemes. See f14v, f55r and f94v.

Cultivated herb

1 𐌹𐌺𐌾𐌹𐌸
ko3or
kohor
?ko-wr
?crawwort

TH: *crowwort*
= ?*spergula*
arvensis



F38r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

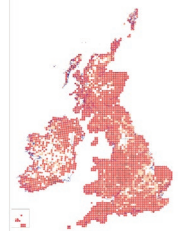


Photo source: Gourdon, J., Naudin, P., Nouvelle iconographie fourragère, Atlas (1865-1871)




Photo source: Kenraiz, Krzysztof Ziarnek - Own work, CC BY-SA 4.0

This illustration puzzled me. It looked like a fern, but it has stalks with flowers. The name **kohor** first made sense when I found that 𐌹 represents a sound that relates **gh** in modern English, like in tough or rough. In this way I wonder if 𐌹 can represent a **f**-like sound. Maybe even or a sound that can be confused with **w**. If **kohor**, can be read **ko-wr**, the name leads to a herb that fits the illustration. **Ko-wr** means **craw wort** (MEC). **Crawwort** is a registered name associated with **corn spurrey**, **Spergula arvensis** (TH). Corn spurrey has needle shaped leaves growing in upward pointing rosettes. It has small white flowers and a small fibrous root with several stalks growing from it. I do not know what the yang-shapes are. I leave a question mark here since I have only one name, and this name is not matching fully.



Open, disturbed habitats on light, often sandy soils, most frequently in arable fields but also on seashores, roadsides and waste ground.

1 
 otlob
 atlap/wtlap
 at-lappe/wet-
 lappe
 food-burdock/
 water-burdock

TH: *Lappe*,
waterbardan,
waterclete
 = Greater
 Burdock



F38v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

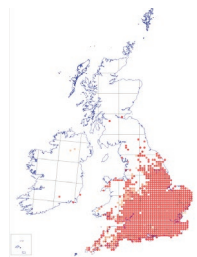


Photo source: *Arctium lappa*. Blackwell, E., *curious botanical* (1737-1739)



Photo source: *Arctium lappa*. Christian Fischer, CC BY-SA 3.0

The name of this herb can be *wt-lap* or *at-lap*. **Lappe** is a registered name for **greater burdock**, *arctium lappa* (TH). *Wt-lap* is transferable to *wet-lappe*, and means *water burdock* (MEC). *At-lap*, is transferable to *at-lappe* and means *food burdock* (MEC). The name can refer to that greater burdock is edible. But, water is also found in two of its registered names, *waterbardan* and *waterclete*. The illustration matches great burdock very well. It has large heart-shaped leaves. A single red stalk is growing from the root. It has a light-colored taproot. The flower is purple. I would rather have chosen red for its color, but it seems like the artist have a preference blue for dark purple flowers.



Waste places, roadsides, fields, forest clearings.
 preferring calcious soil

- 1 **ƒeſo cēcē**
 ki(sd)o lRd
kisto l-rd
 kiste elle-wride
 Chest "elle"?elf
 clump

TH: *Elle* = *Inula helenium*.
 TH: *red /rod* =
 used for Clen-
 dula, and Bellis
 Perennis
 MEC: *wride* =
 stalk, or clump of
 stalks or leaves

- 2 **ƒeoff**
 (b)luofe
bluofei
 blou-fei
 blue fairy

- 3 **cēdau**
 ldaun
ldun
 elle-dun
 "elle"-dun horse

TH: *elle* =
Inula helenium

- 3 **ƒeſau**
 bldawn
bldewn
 blod-heuen
 ?blue-dyestuff

- 4 **ƒeſau cēcē**
 bl(sd)ar Ri(sd)e
blster riste
 blister riste
 blister comfort



F39r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: *Inula helenium*. Fuchs, L., New Kreütterbuch (1543)



Photo source: *Inula helenium*. Karelj - Own work, Public Domain

This herb is very interesting. A part of two of its names is *l*, found in *lrd* and *ldeun*. *Elle* is a name registered for **Horse-heal, *Inula helenium***. The second name is *bluofei*. It can be related to *blou-fai*. It means *blue fairy*. This name can be associated with two traditions. The root of horse-heal can be used to make a blue dye, and the plant was traditionally held to be associated with the elves and fairy folk. *Fei* is a word used many times in the Voynich manuscript. Actually, it is the very first word in the whole manuscript. *Fei* can mean *enchanted* and *person or place possessed of macigal powers* (MEC). *Fay* is also a word for *fairy*. It comes from Latin *fata*, *the Fates*. I have always wondered if *fei* is connected to the women in the baths. Could this be the first hint that *fei* really means *fairy* in the manuscript? The fourth name is *blster riste*. It is close to *blister riste*, meaning *blister comfort* (MEC). Horse-heal is recorded used to treat wounds in Sussex (FM).



Grown in gardens for its medicinal and ornamental value since at least 995 Garden outcasts on road- and lane-sides and by woodland margins, but seldom far from habitation.

1 **ƒeaur**
b(sd)aur
psteur
paste-wr

TH: *pastnep* =
Sium sisarum

2 **ƒeaur ƒeaur**
barde Ride
berde ride
?be erde wride
?be earth clump

3 **ƒeaur**
kar
ker
"ker#

TH: *Kerlock*,
skirw = *Sium*
sisarium

ƒeaur and **ƒeaur** are
used for carrot
family, see f4v,
f31v, f33v, f43r,
f96r



F39v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: Dodoens [Dodonaeus], R., *Stirpium historia commentariorum. Imagines ad vivum expressae* (1553-1554)

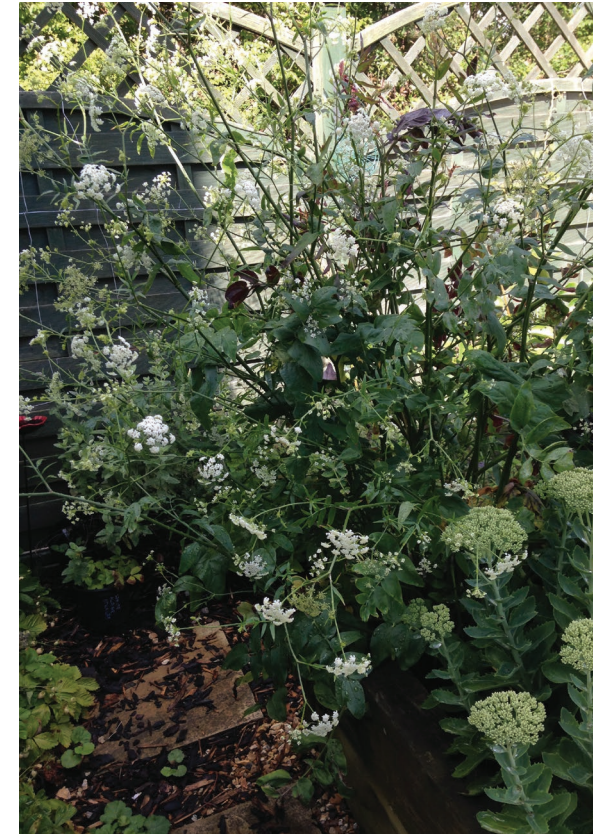


Photo source: UnconventionalEmma CC BY-NC 2.0.

The first name of this herb is *psteur*. It may be related to *paste-wr*. The first part of the word, *past*, is found in the registered name *pastnep* and *pastinak*. they are registered names for *skirret*, *Sium sisarum*. The illustration fits quite well with *skirret*. It has a cluster of large hairy tuberous roots, a branched stalk, and umbellifers. The leaves in this illustration are a bit strange to be *skirret*. They are curled. Another repeated name in this folio is *ker*. *Ker* is used for herbs in the carrot family in the manuscript. See f3v, f4v, f33v, f43 and f96r. *Sium sisarum* is a root vegetable in the carrot family.

Garden plant

The plant is said to be of Chinese origin, but arrived in Europe by or before Roman times. Maud Grieve in *A Modern Botanical* mentions that it has been cultivated in Great Britain since 1548.

1 𐌲𐌺𐌹𐌸 𐌹𐌺𐌴𐌸𐌰𐌶
lie tiodar
lie tioder
lie ?tinder
lye flamable ma-
terial / ?incense

2 𐌲𐌺𐌹𐌸 𐌹𐌺𐌴𐌸𐌰𐌶
𐌸𐌰𐌶 𐌰𐌺
t Rio tlie
(sd)ar au(rd)
t rio t lie
ster eurt
te rew te lie
stér wurt
This warm this
lye incense wort

MEC: *Stér* =
to treat (a sick
person with the
smoke or fume
of a burning me-
dicinal substance
or preparation);
suffuse or per-
fume (sb.) with
incense

Se f94v: fleabane
called ster-wen.
Used as incense.



F40r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: Dodart, D., Recueil des plantes gravées par ordre du roi Louis XIV (1788)



Photo source: Hans Hillewaert, CC BY-SA 3.0

This herb was identified by appearance. I ended up with **French lavender, *Lavandula stoechas*** because it has a large violet flower on top of a lump. It has thin spiny leaves in clusters and a branched tap root that match the illustration. I found an interesting part of a name in the second paragraph that can be associated with lavender. There the herb is called **ster eurt**. The last part I interpret as a variation of **wort**. But the first part, **ster**, may be related to **stér**. It means **to treat a sick person with the smoke or fume of a burning medicinal substance or preparation; suffuse or perfume (sb.) with incense** (MEC). Lavender (*Lavandula angustifolia* ssp. *angustifolia*) was used to scent linen and to keep moths and insects from woolens, and it still is. French lavender is one of two lavenders known to have been used in the middle ages. The other one is English lavender.

Cultivated
Pot herb
Needs heat

Rock garden

- 1 **blis(d) aun**
blisteun
 blist-unden
 or
 blessed-”unden”
 be ?listung
 be lightning

TH: earunden =
Sempervivum
tectorium

MEC:
 Liste: light
 Blist: joyous,
 blessed

- 2 **k oms lide**
k-ons lithe
 k-un(d)’s lithe

- 3 **bli(sd) je lik ar**
bliste lik er
 bliste leek ere
 blessed leek ear

TH: housleek,
 earwort, earunden
 = *Sempervivum*
tectorum



F40v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

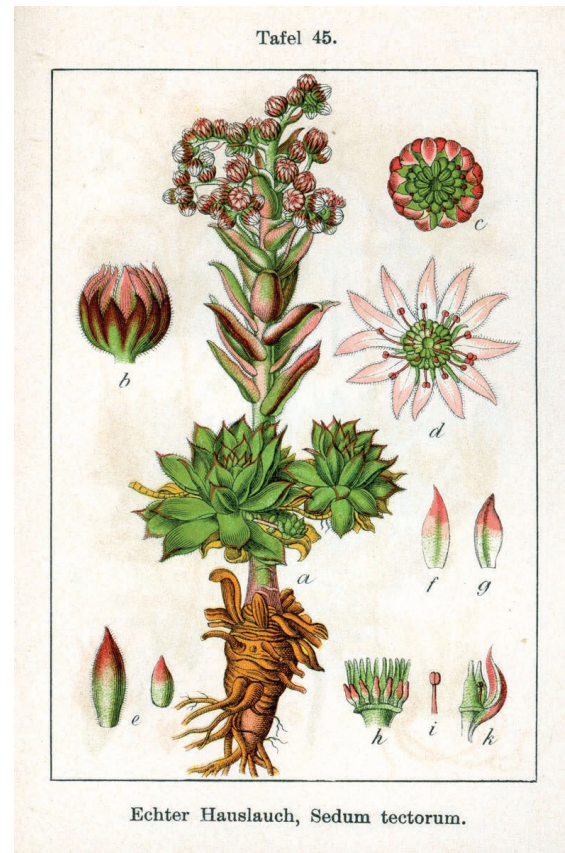
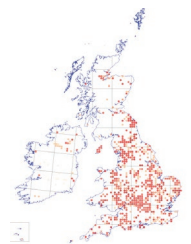


Photo source: *Sempervivum tectorum*. Johann Georg Sturm (Painter: Jacob Sturm) - Fig. from book Deutschlands Flora in Abbildungen (1796).



Photo source: *Sempervivum tectorum*. Bouba - by Bouba, CC BY-SA 3.0

This was an important plant in the decoding because the text has a headline. The headlines were usually written under the text. In the headline in this page there are two words that are quite easily recognizable, **lik er**. I found these words before I was advised to check Tony Hunt's Plant names of Medieval England. **Lik** is close to **leek** and **er** is close to **ear**, so I interpreted **lik er** as **leek ear**. These two words are found in the modern vernacular names of **roof housleek**. It is also called **earwort**, in Latin ***Sempervivum tectorum***. The Voynich name **lik er** also fits with the medieval vernacular names **hous-leek** and **erwort**. They are registered names for housleek earwort (TH). The illustration matches well. It has a red and green characteristic stalk. The succulent leaves are placed in a rosette. It cannot be any other herb as far as I understand. There is one strange thing though. The clusters of flowers are in the illustration appearing as one single large flower. It looks like one of the shapes in the upper left corner of the rosette map. There are also other registered names for *Sempervivum tectorum*, like **earunden** (TH). A word like **unden** is found in the very first word in paragraph one. There this herb is called **blithe-un** or **lithe-un**. **Lithe** means **fair**, **peace** or **light**. *Sempervivum tectorum* has been grown in gardens since at least 1200 (Harvey, 1981). It was often planted on porches and roofs as a supposed protection against fire, lightning and thunderbolts.



Roofs, old walls, chimneys and rocks, especially on limestone. It was known in the wild by 1629. Cultivated in rock gardens

1 𐌹𐌸𐌹 𐌹𐌸𐌹𐌹𐌹𐌹
Rue tidazme
rue tithehmei
rue tithymal

TH: *Rue*, *ruode*,
rew = *Talictum*
flavum/minus
TH: *Tithymal*
= *Euphorbia*
lathyrus/esula,
anthemis cotula.

2 𐌹𐌸𐌹 𐌹𐌸𐌹𐌹𐌹𐌹
Rudie bozli(sd)e
rudie pogliste
rudie piggl-liste
"rudie piggl"-light

TH: *Pigell* =
Ruta graveolens,
Talictum flavum/
minu

MEC:
Lithe = peace,
pleasure, gentle,
fair.
Lithe = light,
brightness, luster



f41r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

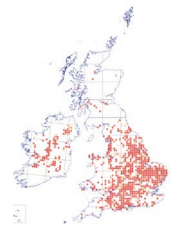


Photo source: Lindman, C.A.M., *Bilder ur Nordens Flora*, and Dodoens [Dodonaeus], R., *Stirpium historia commentariorum*. Images ad vivum expressae (1553-1554)



Photo source: By Ireen Trummer - Own work, CC BY-SA 3.0

There are three names in this folio, **rue**, **rudie** and **poghl**. They all seem to be related to the medieval vernacular names, **rue**, **ruode** and **pigell**. They are registered for **meadow rue**, **Thalictrum** (TH). The illustration fits quite good with meadow rue. The leaves do not fully justify meadow rue's leaf shape. But how the leaves are attached on the stalk match. So do the the shape of the root and the white and yellow umbellifer. **Lithe** is found in the name in the second paragraph. It means **light** (MEC). It may refer to the white and yellow flower.



Damp habitats including fens, water meadows, ditches and stream sides but always where the soil, or the water that moistens it, is base rich

f41v ?*Oenanthe pimpinelloides* / ?corky-fruited water-dropwort

1 ccṛoḃaḡ
mrodaz
mrotheḡh
mire-theḡh
marsh stalk

MEC: Mire/mirre/
(Chiefly SWM)
mur(e) = bog, bog,
marsh, swampland,
mud, ?also sand,
pool, stream

2 ꝥṛṛoḃaḡ
blode
bliode
?bleode
?blue

*Oenanthe pimpi-
nelloides* has deep
purple buds and
fruits



F41v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

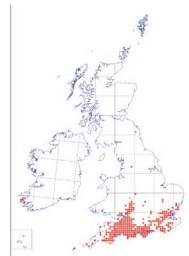


Photo source: *Oenanthe pimpinelloides*. Smith, J.E., English botany, or coloured figures of British plants, ed. 3 [B] [J.E. Sowerby et al] (1863-1899)



Photo source: *Oenanthe crocata*. By Alvesgaspar - Own work, CC BY-SA 3.0

I first thought this was yarrow. I thought the first part, **mro**, was related to **miro** in **mirotheḡh**, in **mireflon**. They are registered name for yarrow (TH). But, **mireflon** was not a vernacular name, and all the other names in the Voynich manuscript are related to vernacular names. It did not follow the pattern. The root and leaves of yarrow did not match very well either. Another interpretation of **mro** came after noticing that many of the plants in this manuscript have habitats in their names. It can for example be marshes, cliffs and rough land. **Mr** in **mirotheḡh** may be a syncope of **mire**. It means meaning **marsh** or **mud**. Looking at the leaves and the flower I believe it is an umbellifer that is illustrated in this page. There are several umbellifers growing in marshes. **Corky-fruited water-dropwort**, *Oenanthe pimpinelloides* is a good candidate. It grows in damp habitats. It has an umbellifer with deep purple fruits. The leaves are quite similar to the illustration. The root roots are small tubers attached to fibers. *Oenanthe* is not registered by Tony Hunt.



Damp and dry grassland

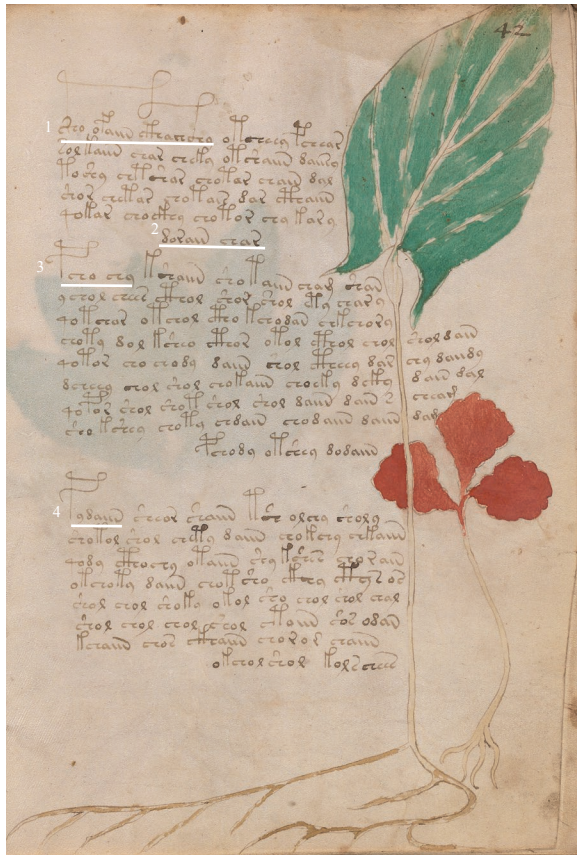
1 𐌹𐌺𐌰 𐌱𐌹𐌸𐌰 𐌸𐌹𐌶𐌰𐌸𐌰
Ro ofawn (k)al(k)le
ro ofewn klelklé
ro o fewne clel-cle(if
remote place of few
“cyl”-claw/hill/clay

TH: *Clyll* also called
scilium, *Anglice clyl*.
Unknown plant.
London, B.L. Sloane
3149 ff. 2r-13r, a slim
volume of medical
texts. The copy
seems to date from
the middle of the 15th
century.

2 𐌸𐌹𐌸𐌰 𐌸𐌹𐌸𐌰
doraun lar
?dorum ler
?the arum lér
?the gold death

3 𐌸𐌹𐌸𐌰 𐌸𐌹𐌸𐌰
blo le
blo le
blod lef
blood leaf

4 𐌸𐌹𐌸𐌰 𐌸𐌹𐌸𐌰
bedawn Rior
bedewn wreo-wr
bedde-? wreo-wr
garden plot-?
cover wort



F42r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: *Arum maculatum*. vol. 1 - plate 63 in: Jacob Sturm: Deutschlands Flora in Abbildungen (1796).



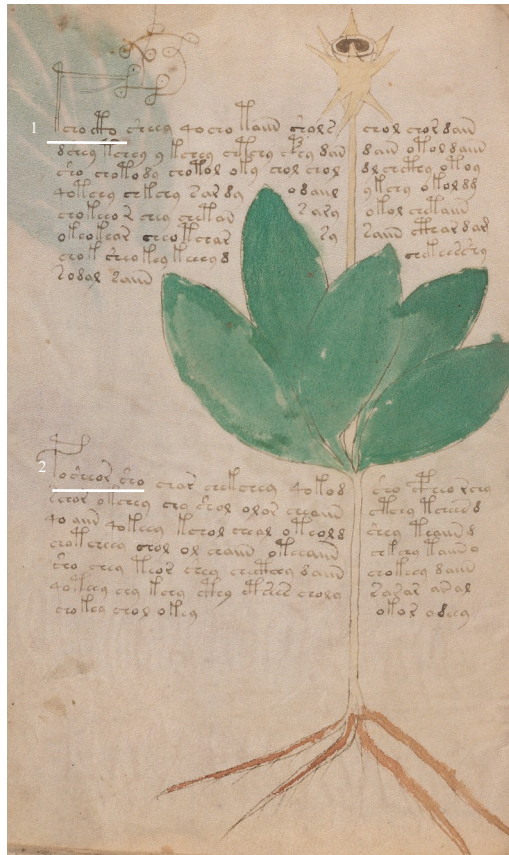
Photo source: By Salicyna - Own work, CC BY-SA 4.0

This herb was first identified as *Arum maculatum*, since the first word in headline one is **doreum**. I interpreted it as **the arum**. But *Arum maculatum* has a bulbous root. Another candidate is **may lily, *Maianthemum bifolium***. Many of the may lilies has a non-flowering stem. It usually has only one leaf. The root is a thin runner like in the illustration. Mat lily often grows in the same places as wild strawberry. Sometimes the of wild strawberry get red and looks like the leaf to the right in the illustration. There are no registered names for *Maianthemum bifolium* (TH). The first name in the folio is **ro ofewn klelkle**. There is a plant registered as Clyl, but it is unknown which plant it is (TH). May lily is native. It is known in both cultivation and the wild by 1597. May lily is also called false lily of the valley. Looking up lily of the valley, it is registered as clofwort or glofwort, cloveort, goldwort, golwort. In relation to this the first headline may be read **the arum lér**, in the meaning of **the gold death**. May lily is very poisonous.



free-draining acidic soils in
Quercus-Betula woodlands,
but also persisting at sites
replanted with conifers.

- 1 **ꝥꝥꝥꝥ**
blo (kl)o
plo klo
pilo/bell o - cló
pile/bell-claw
- TH: Not registered.
Modern English
name: *spiked dev-
ils's claw* = *Phyte-
uma spicatum*



F42v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

- 2 **ꝥꝥꝥꝥ**
Rior Ro
?riwr
?river ru/wro
?river sharp
pointed/isolated
place/out of the
way spot



Photo source: *Phyteuma spicatum*, plate 201 in: A. Masclef: Atlas des plantes de France Paris (1891).



Photo source: *Phyteuma spicatum*. Angela Duyster - Own work, CC BY-SA 3.0

The first name in this folio is **blo klo**. I believe it is related to **bel o cló**, meaning **bell of claw**. There are no registered names that can be associated with this. But there is an herb with the modern English name **spiked devil's claw**, ***Phyteuma spicatum***. It matches the illustration well. The white bell flower is spiked. It has a thin root and ovate leaves. The leaves in the illustration is placed in a rosette at the middle of the stalk. I believe the placement is an error. Spiked devil's claw has leaves both growing from the root and along the stalk. Spiked devil's claw has been grown for centuries as a medicinal plant, and was first recorded in the wild in 1640.



Woods, thickets and meadows, usually in dry non-acid soils

1 **kerwodeyn**
karodawn
kerwdewn
“ker”-wode-wyn
“ker”-wode-vine

TH: *Wood-chervil*
= *Asparagus officinalis*.

ker and **ker** are
used for carrot fam-
ily, see f4v, f31v,
f33v, f39v, f96r

2 **offkar**
oflkar
offker
a fyl-ker

TH: *wodefyle* = *Asparagus officinalis*.

3 **rise okie tRie**
p-rise wkie t-rie
bi rise/rishe wakie
té writhe/wride
By highland/rush
spring up this
wreath/clump

MEC: *wakie* (chief-
ly early or K) =
spring up

Asparagus officina-
lis subsp. *prostratus*
grows between the
rush *Festuca rubra*



F43r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: *Anthriscus sylvestris*. Prof. Dr. Otto Wilhelm Thomé Flora von Deutschland, Österreich und der Schweiz (1885).



Photo source: *Asparagus officinalis* subsp. *prostratus*. Rasbak - Own work, CC BY-SA 3.0

4 **kerwieder***
bRdar
?b rder
*?Be wieder**
*?be covering**

MEC:
*wried = ppl. of
to cover, bunch
or cluster thickly
over the surface
of

This herb is called **kerwdewn**. It may be related to **ker-wode-wyn**, and associated with **wode-chervil**. **Wode-chervil** is registered for **asparagus**, **Asparagus officinalis** (TH). In the Voynich manuscript **ker** is used for plants in the carrot family. See f31v, f33v, f39v, f43v and f96r. *Asparagus* is not part of the carrot family. But, since *Asparagus* was associated with chervil (in the carrot family) in its medieval name, it is not unlikely that it may have been called a **ker**. *Asparagus* has a large carpet of roots. It has thick stalks and bushy tops with white and yellow flowers. It matches the illustration well. I wondered what **wn** means in this case. I found that the *asparagus* native to the western coasts of Europe, *Asparagus officinalis* subsp. *prostratus*, often has prostrate stems. Because of the prostrate stems, they may have been called a **wine**. This can explain the name **wn**. Another name in this folio, **flker**. It can be read **fyl-ker**, and be related to the registered name **wodefyle**. **Wodefyle** is another registered name for *Asparagus officinalis* (TH). **Rise** in the third name may be related to **rishe**, meaning **rush**. On sea-cliffs, *asparagus* often grows through a dense mat of the rush *Festuca rubra*. Another interpretation is that **rise** means **rised land**.



A. *officinalis* subsp. *prostratus*: coastal habitats such as cliffs, sand dunes and shingle beaches.

f43v *Geum urbanum* / wood avens
Betonica officinalis (Stachys officinalis) / wood betony

1 𐌲𐌰𐌱𐌰𐌸𐌰
bdsauere
bdseure
bet-soure

TH: brone sourwort,
betony, botoyne,
beteyn =Betonica
officinalis

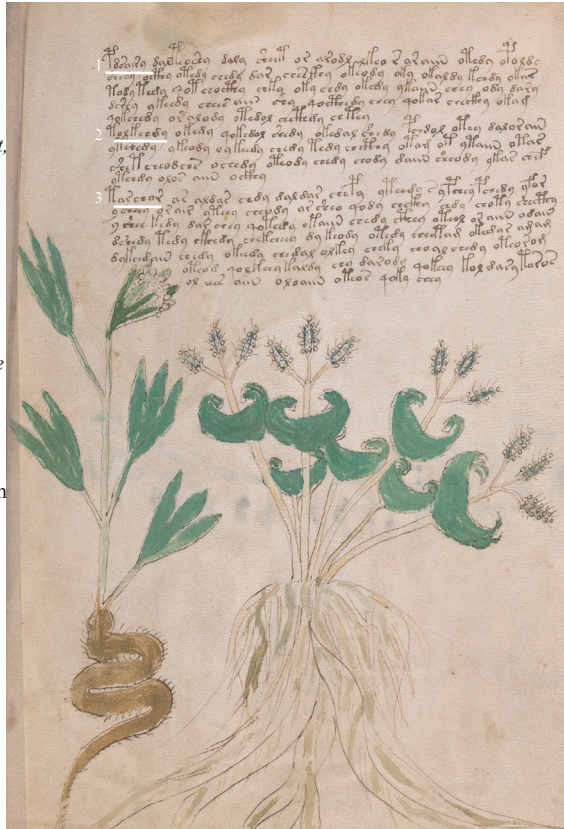
2 𐌲𐌰𐌿𐌸𐌰𐌸𐌰
koztıl(sd)e
kohtlste
?k aghte-liste o tiste
?k wealth-cunning
of trust/safe

Hildegard von
Bingen called *Geum*
urbanum beneticta,
maning “the bless-
ed” (Urttekilden)

3 𐌲𐌰𐌷𐌰𐌸𐌰
karlor
kerlwr
gar-levre
?carlowre

TH: gariofile, pé
de levre = *Geum*
urbanum

TH: Carlowre =
Unknown plant;
Error for carlock?



F43v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.



Photo source: *Betonica officinalis*. Curtis, W.,
Flora Londinensis (1775-1798)



Photo source: *Betonica officinalis*. Curtis, W., Flora Londinensis
(1775-1798)

Legebetone
Kratthumleblom

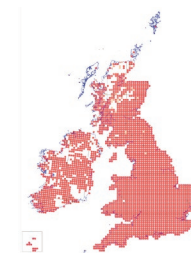


Photo source: *Betonica officinalis*. I, Rolf
Engstrand; licenca: CC BY 2.5

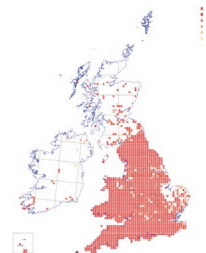


Photo source: By Krzysztof Golik - Own
work, CC BY-SA 4.0

Bdseure is the first plant name in this folio. Both **bet** and **soure** is found in the registered names of **wood betony**, **Betonica officinalis**. It was called **betony** and **brone sourwort** (TH). Betony has opposite narrowly oval leaves with jagged margins. It has several stalks growing from the branched root, and small purple flowers in racemes. The second plant name, **kohtlde**, I have not found any solution for. The third plant name seems to be **karlwr** and belongs to the herb illustrated to the left. I believe it can be read **gar-levr**, and is related to two of the registered names **garifoloe** and **pé de levre**. They were used for **wood avens**, **Geum urbanum** (TH). Wood avens has yellow flowers. its leaves are divided into three leaflets. The root is depicted as a snake. In folklore, wood avens is credited with the power to drive away evil spirits, and to protect against rabid dogs and venomous snakes (Wikipedia). Dioscorides associates wood betony with snakes, wood avens is not mentioned. He writes about wood betony: “Three teaspoonfuls are given with a pint of wine to those bitten by venomous creatures.”



Geum urbanum. Woods,
scrub, hedge banks, walls
etc, usually on good damp
soils.



Betonica officinalis. Damp,
not waterlogged sites, slight-
ly calcareous, weakly acidic
soils. Meadows, lightly
grazed pasture, hedge banks
and open woodland.

1 𐌹𐌺𐌹𐌸𐌹𐌸
kRodbe
k-rod-pé
k-rod-pé

TH: *rodewort* =
Chrysanthemum
vulgare
See f8r: *pé-ruff* =
Lactuca muralis

2 𐌹𐌺𐌹𐌸𐌹𐌸
ora(bl)e
oreple
or-aple
gold-apple

TH: *seynt Mary*
gold, *holygold* =
Chrysanthemum
vulgare

3 𐌹𐌺𐌹𐌸
tams
tans
tansy

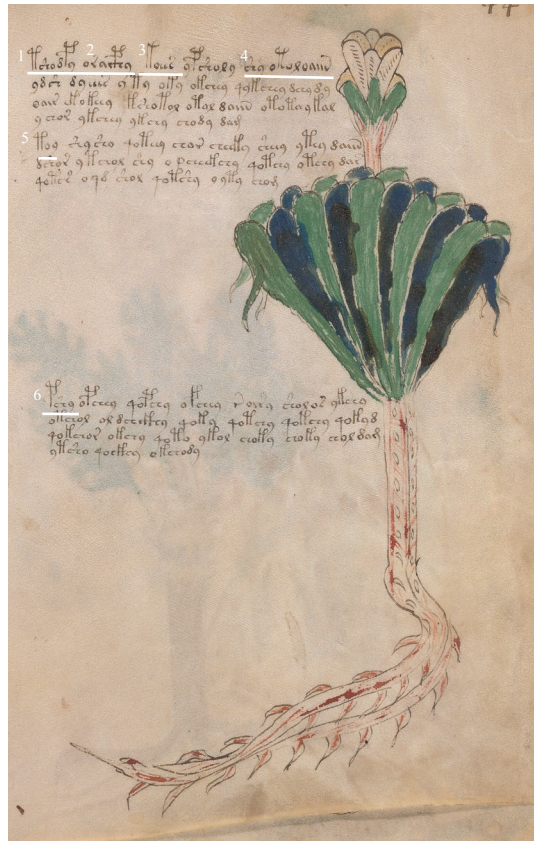
TH: *tansy* =
Chrysanthemum
vulgare

4 𐌹𐌺𐌹𐌸𐌹𐌸
Re oko3oawn
re okohuewn
wre o có-heuen
Wort of craw-dye-
stuff

5 𐌹𐌺𐌹
koe
koe
cóe/cóu
Craw/cow

See f54v, also a
Chrysanthemum
called *cow*.
TH: *Crawgold* = ?
Tussilago farfara

6 𐌹𐌺𐌹
bRe
p-re
pé-wre



F44r. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

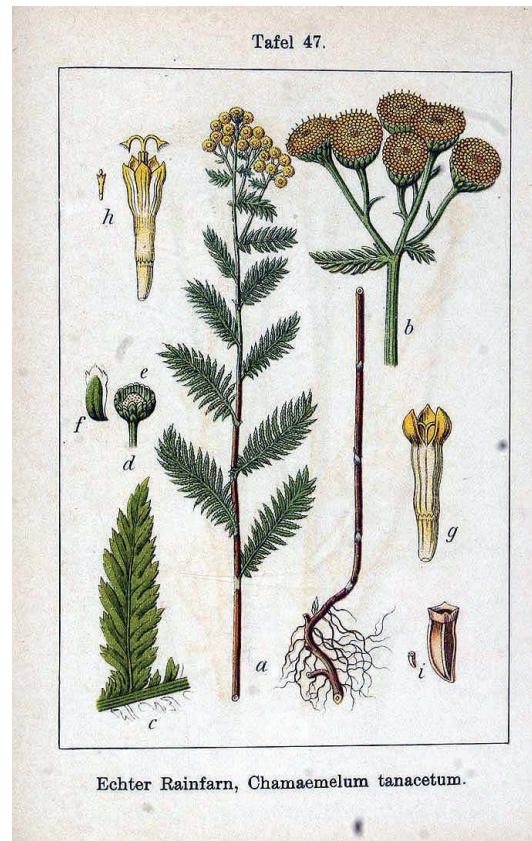
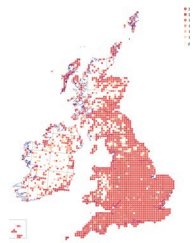


Photo source: *Tanacetum vulgare*. Sturm, J., Krause, E.H.L., Lutz, K.G., Flora von Deutschland in Abbildungen nach der Natur, Zweite auflage (1900-1907)



Photo source: *Tanacetum vulgare*. MurielBendel - Own work, CC BY-SA 4.0

This herb has many names. It is called *k-rod-pé*, *or-eple*, *tans*, *ei-p-rogh*e, *ko-hue-wen*, *ko(e, re-ro, p-re* and *p-lie*. *Tans* is the name that first led to an identification. It is close to *tansey*, a name registered for *tansey*, *Tanacetum/Chrysanthemum ?vulgare* (TH). The illustration has a root that is similar to the one of *tansey*. It has a single stout, reddish erect stem. Note the details on the stem and how they fit the Sturm's illustration. The finely divided compound leaves is probably simplified in the illustration. They are directed upwards like *tansey*'s, but depicted as a rosette. *Tansey* has yellow, button-like flowers. The color is right in the illustration, but the shape is strange. Even though the illustration is strange I will stay with *tansey*. For example, is *ko* (5) also used for the two other *Tanacetums* in the manuscript, *Tanacetum parthenim* in f54v, and *Tanacetum balsamita* in f93r.



Grassland, freshwater, farmlands, wetlands, woodland, towns and gardens.

1 $\text{K}^{\text{ro}} \text{gok}^{\text{re}}$
 kRo gokRe
k-ro gok-re
 ?Chi-Rho/k-rod
 gog-wre
 ?Crist/k-?red
 marsh wort

MEC:
 Cok = cock
 Gok = cuckoo
 Gog = marsh, God

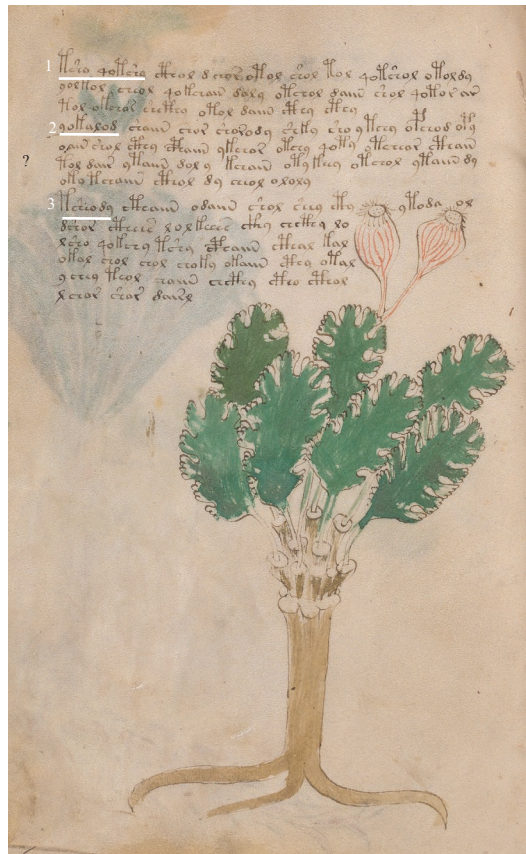
TH: hen-pensye
 = Pedicularis
 palustris

Chi Rho is a
 Christogram, the
 greek letters.

2 g^{otazod}
 e otazod
e wtehoth
 e wete-hóth
 in wet-heath

MEC: hóth (chiefly
 SE) = heath

3 K^{riode}
 kRiode
k-riode
 k-reade
 k red



F44v. Photo source: Beinecke Rare Book and Manuscript Library, Yale University.

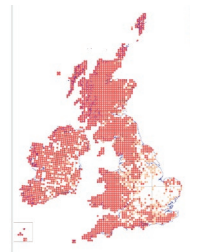


Photo source: Pedicularis sylvatica. Bilder ur Nordens Flora, Carl Axel Magnus Lindman (between 1917 and 1926).



Photo source: Pedicularis sylvatica. By Konrad Lackerbeck - Own work, CC BY 3.0

This herb's name is **k-ro gok-re**. **K-ro** reminds of the Greek Christogram **Chi-Rho**. **K** may refer to Christ, but **ro** can also refer to **red** also written **rod**, meaning **red** or **purple** (MEC). The third name of this herb is **k-riode**, may be another variation of the word **red** (MEC). I first thought this was a Silene as it has a bladder flower. One of the registered names for Silene is **cockle**, close to **gok-re**. But, the leaves are very different from the smooth edged lanceolate leaves of Silene. There is another plant with bladder flowers. It has leaves with pinnate lobes and toothed margins like in the illustration. It also has a light-colored taproot giving rise to several stalks. It is **louswort**, **Pedicularis**. **Gok** may be related to **gog**, meaning **marsh** (MEC). Louswort grows in the drier parts of marshes. This habitat may also be reflected in the word **wtehoth**. It starts the second paragraph. **Wtehoth** can be related to **wete hóth**, and be translated to **wet heath** (MEC).



Damp acidic soils. Moorland, wet flushes in mountainous areas, grassy heathland, lakesides and the drier parts of marshes and bogs

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.

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.

Siv Bugge Vatne

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Oslo, October 15th, 2022

buggevatne@gmail.com