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The Newton Stones and writing in Pictland, part 2: the Newton Stone ogham, Pictish Latin-letter alphabetic inscription and the Pictish symbol system

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ABSTRACT

This article re-evaluates the two inscriptions and the mirror symbol on the Newton Stone. The ogham is unusual in that it is read from the top rather than the bottom. The alphabetic inscription is intended to be read with, or to supplement, the ogham inscription. Close analysis demonstrates that the alphabetic inscription was painted onto the stone prior to carving. The carver may have followed an exemplum for the alphabetic inscription, possibly written on a wax tablet. Examination of the alphabetic script demonstrates that it is most closely related to informal scripts of the Late Antique period. The inscription is written in the Pictish language, and the stone probably dates to the 6th or early 7th century. The placement of the inscriptions and the mirror symbol may indicate that the two inscriptions were used in place of Pictish symbols.

THE NEWTON STONE INSCRIPTIONS: PLANNING, PAINTING AND ARRANGEMENT OF CARVINGS

For a physical description of the Newton Stone and its carvings, see the previous article, 'The Newton Stones and writing in Pictland, Part 1'.

The stone on which the inscriptions and the mirror symbol were carved was prehistoric, and may have been part of a stone circle (see 'Descriptions of the Newton Stone and symbol stone' in Part 1, 7–11). The stone was probably in situ when it was carved, and therefore it did not have to be quarried, shaped or moved into position. The carvers (and possibly the designers and others) came to the stone itself. The layout of the carvings, their relationship to one another, and the width of some letters in the alphabetic script imply that the monument as a whole was pre-planned. In addition to their tools, the carvers brought other necessary equipment with them, such as a brush, paint, and probably an *exemplum*.

Close examination of the carving of the letters in the alphabetic script demonstrates that an artisan (perhaps also a carver) painted the text onto the stone first, then used the paint as a guide for carving. The letters are thicker in certain places where paint applied by a brush would naturally pool, such as letter 18, the cross-section of 24, and the curves of letters 32 and 33 (see Illus 1–3 and Illus 6). This feature suggests that the carver conscientiously followed the paint as a guide, coincidentally preserving evidence that the text was painted onto the stone before it was carved. Comparative evidence of this process is also found on the Llangadwaldr inscription in Anglesey (G Charles-Edwards 2007: 81, fig 50).

Analysis of the alphabetic script (discussed below) reveals that the letters reflect forms made by a dry-point stylus on media such as wax or wooden tablets.[1] This indicates that the artisan

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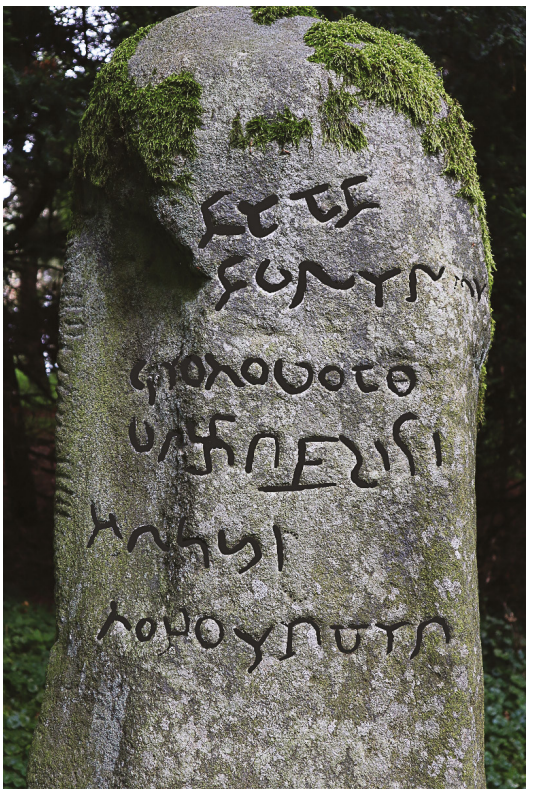
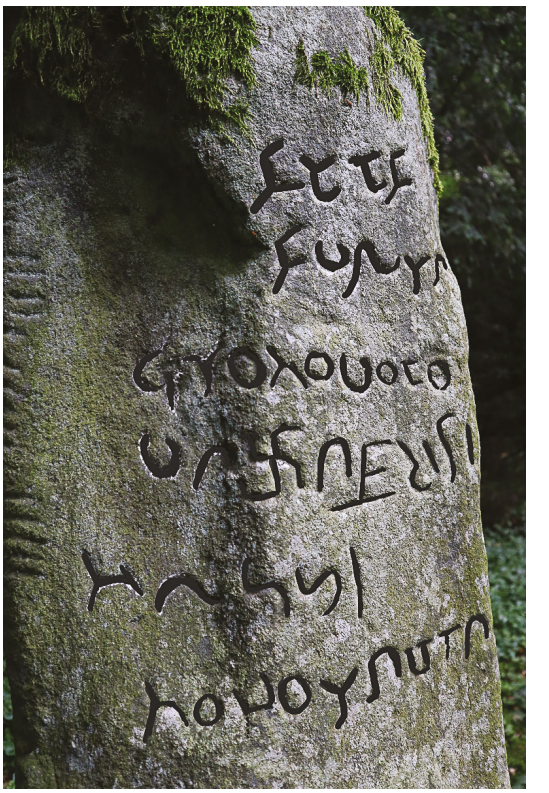


ILLUS 1 The Newton Stone alphabetic inscription digitally coloured, viewed from the front. (Photograph by Richard Marshall)

ILLUS 2 The Newton Stone alphabetic inscription digitally coloured, viewed from the right side. (Photograph by Richard Marshall)



ILLUS 3 The Newton Stone alphabetic inscription digitally coloured, viewed from the side nearest the ogham inscription. (Photograph by Richard Marshall)

(or creator of the artisan's *exemplum*) was familiar with a dry-point writing alphabet. If they had an *exemplum* before them when painting the text onto the stone, the text of the alphabetic inscription may have been written on a wax tablet, as this was the most common device used for writing in the ancient and early Christian world (G Charles-Edwards 2002: 27). Although later in date than the Newton inscription (see below), a Pictish parallel for knowledge and use of dry-point writing can be found on the 8th- or 9th-century silver chape from St Ninian's Isle (Forsyth 2020).

It is difficult to determine if the ogham was copied from an *exemplum* and pre-painted prior to carving. If it had been painted, the carver

should have realised the constricted nature of the letters at the bottom of the arris and would not have needed to modify the inscription by adding the looped stemline. Even if the ogham carver felt confident enough to cut the strokes without paint as a guide, the evidence suggests that the ogham was also pre-planned in conjunction with the alphabetic inscription.

Although the letters of the alphabetic inscription are neatly spaced in six lines, the layout of this inscription is uneven. Lines 1 and 2 of the alphabetic inscription are not next to the ogham. Lines 3 and 4 are closer to the ogham and carved over an uneven surface. Line 5 is almost adjacent to the ogham, and carved over an uneven surface, despite the fact that it could have been fitted onto the flat surface on the front of the stone. Similarly, line 6 is close to the ogham, and carved over an uneven surface. The alphabetic inscription is placed closer and closer to the ogham the further down one goes.

Line 1 of the alphabetic inscription begins at the same height on the stone as does the first letter of the ogham (see below), but what separates the two is a damaged section of the stone (see Illus 3 here and Borland's drawing in Illus 3 in Part 1). The stone is blue gneiss, which is a very hard stone to carve (see 'Descriptions' in Part 1). The nature of the stone and the fact that the alphabetic letters avoid the damaged section indicate that the damage was present when the stone was carved. There is no evidence that there was ever carving in this segment. The carver of the alphabetic inscription avoided it, which is why only part of the alphabetic inscription is adjacent to the ogham.

The ogham is to be read from the top downwards, which is unusual. Almost all ogham inscriptions are to be read from the bottom up, and left to right (McManus 1991: 3, §1.5; 47, §4.4). Skene (1862–4: 293) was the first to realise that the ogham on the Newton Stone is to be read from top to bottom, and this is further confirmed by the added stemline near the base (Padel 1972a: 126; Forsyth 1996: 427).

The viewer was to begin reading the inscriptions at the same point on the monument: the first letter of the ogham at the top and the first line of the alphabetic inscription. This is why the ogham is read from the top to the bottom, and also suggests that the alphabetic inscription was to be read from left to right. If it were not for the damaged section of the stone, the alphabetic inscription would have been placed closer to the ogham. The layout of the alphabetic inscription suggests that the carver tried to align it with the ogham as much as possible, while avoiding the damaged section of the stone. This implies that the ogham was carved first and then the alphabetic inscription, and that they were planned concurrently. The alignment indicates that the inscriptions are associated with one another, even if the alphabetic inscription is not a transliteration of the ogham.[2]

The inscriptions, especially the alphabetic inscription, were given pride of place on this monument. The alphabetic inscription is carved at the top of the stone 'roughly about eye-height' (Forsyth 1996: 437), and except for the ogham on the incised stemline, nothing else occupies the front of the pillar. As the mirror symbol on the Newton Stone is only a recent discovery (see 'Descriptions' in Part 1), the carving technique of this symbol was not subject to analysis by Gordon (1953–5), and it is unknown if the ogham or alphabetic carver(s) were also responsible for the mirror symbol.[3] On most Pictish Class I monuments, the incised symbols themselves are the focus and occupy the main portion of the stone, such as the notched double-disc and serpent and z-rod of the Newton symbol stone. Although there was ample space to carve the mirror symbol beneath the alphabetic inscription, it was carved on a protruding flat surface on the lower right of the pillar. The mirror symbol was quite literally side-lined, directing the viewer's attention to the inscriptions. It is most likely that the mirror was carved at the same time as the inscriptions.

If the mirror had been carved later when the original significance of the inscriptions had been lost, it might have occupied the front face beneath the alphabetic inscription or another more visible position on the stone. Instead, the position of the mirror emphasises the importance of the inscriptions. Furthermore, if the carvings were painted when new, the mirror might have been

more visibly striking than it is today. Analysis of the alphabetic inscription indicates that paint was used prior to its carving (see above), and it is not impossible that the finished inscriptions and symbol were originally coloured.

The position of the mirror may have been determined by its function and interpretation within the Pictish symbol system. Despite multiple efforts (see eg Samson 1992; Forsyth 1997b; Lee 2010) we still do not know how the Pictish symbols were interpreted; however, the placement of mirror and mirror-and-comb symbols allows certain observations to be made. The long-standing consensus is that these are a feminine symbol, and associated with, or thought to represent, women (Allen & Anderson 1903, vol 1: xxxvi–xxxvii), and with good reason. On Class II stones such as Hilton of Cadboll (Canmore ID 15261) and Kirriemuir no. 1 (ID 32299) the mirror-and-comb symbol is adjacent to a female figure and separate from other symbols. On earlier Class I monuments, the mirror and mirror-and-comb symbol are generally placed on the lowest register of the stone (Allen & Anderson 1903, vol 1: xxxvi; Samson 1992: 50; Mack 2007: 116 and see 269–70 App B Parts 1 and 3). They commonly occur at the bottom beneath two symbols, or sometimes just one, and have been thought to act as a qualifier for the upper symbol(s) on a stone (see Forsyth 1997b: 89). As Cessford (1997: 104) observes, 'when a Mirror symbol is present there are usually three symbols' in total on the stone.

The general arrangement of the mirror (and mirror-and-comb) symbol beneath symbol-pairs on Pictish Class I stones may be reflected on the Newton Stone and explains why the mirror has been carved on the lower side.[4] Its placement may suggest that the two inscriptions take the place of symbols. If this is the case, it is highly significant, and may also explain why two different scripts were used. The information conveyed by the ogham perhaps replaces one symbol, and the information conveyed by the alphabetic script a different symbol.

THE OGHAM INSCRIPTION

The inscriptions on the Newton Stone have been subject to analysis for over two centuries. Table 1 provides a selection of the influential readings of the ogham inscription, printed here according to the conventions followed by the respective authors (for a complete list to 1922, see Diack 1922: 53–5; see also Padel 1972a: 125–6). A natural fracture on the top of the stone was read by earlier authorities as an A (see Table 1), but this can now be disregarded (Forsyth 1996: 427). The ogham inscription begins with the first five strokes over the arris beneath this fracture (letter I).

The ogham inscription has 25 letters and follows a natural ridge on the left side of the stone, curving upwards at the bottom along an added stemline. The remaining letters on the arris below the added stemline are faint and were possibly erased (see Forsyth 1996: 429, no. 20).

Although the inscription is not badly weathered, it has still proved challenging to interpret because vowels, which extend to the width of the band, are similar to strokes in the M-group, and the reading at the bottom of the arris and the drawn-in stemline is difficult (Padel 1972a: 126; Forsyth 1996: 427; compare Table 1). Gaps between the letters are apparent on the upper portion of the inscription and the added stemline; however, the inscription becomes more cramped towards the bottom of the arris. Table 2 provides a letter-by-letter reading of the inscription.

Based on examination of the stone itself, the 19th-century cast (NMS X.IB.108), high-quality photographs, and John Borland's drawing (see Illus 3 in Part 1), my reading of the ogham (with letters continuing along the lower arris shown in subscript and those on the added stemline in superscript) is:

$$\text{IDDARRNNNVORRENNI} \times {}_{\text{(i/r)OS}}{}^{\text{(i/r)OSRR}}$$

I agree with Forsyth (1996: 431) on every reading except for the troublesome part on the bottom arris. Forsyth (1996: 426) alludes to the possibility of the erased portion being repeated

TABLE 1

Selection of the Newton Stone ogham inscription readings. Three different conventions for representing ogham are shown in the chronological list of readings in Table 1. According to modern conventions, capital letters represent relatively certain readings, and lowercase letters less certain readings. Alternative readings are shown in Rhys and Padel, for example, with fractions, the more likely reading on top with the less likely alternative on the bottom. Forsyth gives alternative readings in brackets in decreasing order of likeliness. In Macalister (1940), the (o) is suggested for an omitted letter in the inscription (based on his identification of the name), and the (A) in Padel (1972a and b) is for the faint letter on the arris beneath the added stemline

Reference	*Reading*
Skene (1862–4: 296)	UD DDAROT NUN NGORRMAONN EAGE JOSA EI
Brash (1872–4: 139)	AIDDARCUN FEAN FORRENNI EA(I or R)S IOSSAR
Southesk (1883–4: 44)	(A)IDDAI QNEAN FORRERI IBH UA IOSIE
Graves (1885–6: 300)	AIDDAI CUNNING ORRKONN IP [.....] ROSII
Southesk (1885–6: 30)	AIDDAI QNNN FORRERR IPH UA IOSII
Ferguson (1887: 138)	ILTUDD M(A)Q QUINS(ANTI)N FORTRENNQ REGS GIST
Rhys (1891–2: 280)	IDDA $\frac{r}{i}\frac{hc}{q}$ NNN VORRENN IP $\frac{u}{o}$A IOSIF
Stokes (1892: 542–4)	EDDAR ACNNN VOR RENNI PUI H IOSIR
Southesk (1893: 71)	IDDAI QNNN FORRERRI GHUA()–IOII
Nicholson (1896: 7)	AEDD AIQ NNN VOR RENN I PUA ROSIR
Browne (1921: 119)	AIDDAI FORTRENNI QNNN UA IOSII
Diack (1922: 16; 1944: 91)	IDDAIQNNN VORRENNI CI OSIST
Macalister (1935: 393)	IDDARRNNN VORRENN IPUOR
Macalister (1940: 193)	IDDARRN(O)NN VORRENN IPUOR
Padel (1972a: 131)	IDDAR $\frac{r}{i}\frac{q}{r}$NNNVORRENN I $\frac{k}{p}$U(A) IOS $\frac{r}{i}\frac{z+}{e+}$
Padel (1972b: 197)	IDDA $\frac{RQ}{IR}$NNNVORRENN IKU(A)IOS $\frac{RZ}{IE}$
Forsyth (1996: 431)	IDDARRNNNVORRENNIXO(t/c)(c/e) (i/r)OSR(r/n)

at the beginning of the added stemline but does not reflect this in her reading and suggests the remains are 'insufficient'. After the *x-forfid* character, although it is difficult to see on the stone itself and in recent drawings, the cast (Illus 4) shows five strokes evenly spaced across the arris here. At this point on the bottom of the pillar, the stone tapers considerably on either side of the arris. Although the first stroke is slightly shorter than the remaining four, if it were longer on the right it would have touched the tip of the *x-forfid* character; it extends to the full width of the band, as much as it can allowing for the narrowing of the stone face. It is difficult to tell if the first and second strokes slope to the right, which would suggest an R, but the final three strokes are horizontal, which may indicate an I. The remaining four strokes occupy the full width of the band and follow the arris towards the right. The spacing is even between these, suggesting they probably belong to the same letter. The carved stemline begins to the right of the arris at the third stroke of this letter.

The remainder of the ogham on the stone's edge is very faint. There is a small gap between the final stroke of the preceding letter and the next stroke, which extends horizontally across the arris. In the cleaned image of the stone (Canmore

TABLE 2
Letter-by-letter reading of the Newton Stone ogham inscription

Letter	*Reading*	*Comment*
1	I	
2	D	
3	D	
4	A	
5	R	
		There is a large gap between letters 5 and 6. There is a faint line across the arris at this point (seen more clearly in Illus 5 and Borland's drawing Part 1, Illus 3). The left tip of this line is forked, which suggests it is a natural feature on the stone. The large gap between letters 5 and 6 may have been left by the carvers to avoid this feature, or, as Forsyth (1996: 428, no. 6) notes, because of the 'two successive letters of the same *aicme*'.
6	R	It is difficult to determine if the five strokes across the arris are perpendicular or if they are sloped, as they are not as markedly sloped as the R of letter 5. I agree with Forsyth (ibid) that the 'feel' of these strokes is a downward slope.
7	N	
8	N	
9	N	
10	V	
11	O	
12	R	
13	R	
14	E	The letters become more cramped at this point, with almost no spaces between them.
15	N	
16	N	
17	I	
18	×	*x-forfid* having the value of /*k*/ or /*χ*/ (spirantised /*k*/, ie /*ch*/), later developing into /*eä*/ and /ɛ:/ (*é*) in Primitive Irish. The Newton ogham likely has the former, consonantal value.
19 arris	i/r	Five strokes are visible on NMS X.IB.108.
20 arris	O	Two horizontal strokes are visible in the cleaned image of the stone (Canmore ID SC1441050). This is visible in the cast NMS X.IB.108.
20 arris	S	Four faint strokes are visible on the left of the arris.
21 stemline	i/r	Five strokes are carved over the curve of the stemline, making it difficult to tell if they are sloping or perpendicular. The first two, however, seen to slope in the same general direction as other examples of R in this inscription. This letter is probably intended to be a correction or clarification of 19 arris.
22 stemline	O	
23 stemline	S	
24 stemline	R	
25	R	

ILLUS 4 Lower portion of the ogham inscription on the 19th-century plaster cast of the Newton Stone in the National Museums of Scotland, NMS X.IB.108. (Photograph by Kelly Kilpatrick)

ID SC1441050), a horizontal stroke across the arris of similar length follows; this is just visible in the cast. The two strokes are probably an O, and these strokes are similar to the O further up the arris at letter 11.

While there is only a little space between this letter and the following stroke, the remaining strokes appear to be to the left of the arris, suggesting a different letter. Although difficult to determine in the cast, these are shown in Borland's drawing (Illus 3 in 'Part 1' and Illus 5 here) and visible in Canmore ID SC1441050. While normally strokes to the left of the stemline would place the characters in the H-group, this inscription is to be read from the top downwards. Therefore, the letter belongs to the B-group, and is an S. After these strokes nothing more is

ILLUS 5 Drawing of the Newton Stone ogham inscription and alphabetic inscription. This drawing is based on examination of the stone itself and high-quality photographs taken on 6 September 2019, the 19th-century cast (NMS X.IB.108) and high-quality photographs of the cast taken on 2 May 2019, as well as John Borland's drawing (see Part 1, Illus 3) and cleaned images of the stone available on Canmore ID SC1441050 and SC686752. (Drawing by Richard Marshall)

visible on the arris. The first three letters on the added stemline are the same as the faint letters on the bottom arris. The carver may have realised that they would run out of space for the ten perpendicular strokes needed to carve the final RR and added the stemline in the middle of the first letter of this sequence.

The first word is IDDARRNNN. In the words of Padel (1972a: 127), the three Ns are 'perfectly clear', and probably signify the end of the word. IDDARRNNN appears to be a variant of the same name found on the Brodie ogham inscription (Canmore ID 15529; Allen & Anderson 1903, vol 2: 132; Fraser 2008: 104, no. 151) and Scoonie ogham inscription (Canmore ID 31328, NMS X.IB 110; Allen & Anderson 1903, vol 2: 347; Fraser 2008: 70–1, no. 84), and possibly in the Latin minuscule inscription of the Auchenblae, Fordoun cross-slab (Canmore ID 36458). Forsyth (1996: 154–5, 486) reads the first ten letters of the Brodie Stone as EDDARRNONN[- or -] EDDARRNONN[-, and Scoonie as EDDARRNONN. On the Fordoun cross-slab, now in the vestibule of Auchenblae Church, is a fragmented inscription in Latin minuscule reading PIDARNOIN. The upper part of the Latin inscription is broken away, and it has been suggested (Jackson 1955: 140) that the initial P was carried over from the previous, now lost word on the line above.[5]

The name on the Brodie and Scoonie inscriptions is the Pictish male personal name *Etharnon*, a name that has been widely discussed (Padel 1972a: 33–4; Forsyth 1996: 486–91; Rhys 2015: 245–8, §3.4.2.1). This is the same name as an individual mentioned in an *obit* in the Irish Chronicles *c* 669: 'Itarnan and Corindu died amongst the Picts.'[6] The name *Etharnon* is probably derived from Latin *Aeternus* or late vulgar Latin *Eternus* 'eternal, everlasting, endless, enduring' (Padel 1972a: 33–4), and may have been directly borrowed from the Latin name or via the common Brittonic name of the same origin.[7] The Latin name was borrowed into Brittonic and became Middle Welsh *Edern* or *Edyrn* through regular sound changes (eg Latin *Aeternus* > vulgar Latin *Eternus* > Old Welsh *Etern* > Middle Welsh *Edern*; see Rhys 2015: 245–8, §3.4.2.1; Jackson 1953: 279–80; Schrijver 1995: 58, 65–6). The Brittonic form of this name is attested in four inscribed stones in Wales, all of which are dated to the 5th or 6th centuries:

Clydai no. 1 (late 5th or early 6th century): ETTERNI in Latin letters and ETTERN[-] in ogham (Edwards 2007: 316–17).

Llannor no. 3 (first half of the 6th century): ETERNI in Latin (Edwards 2013: 293–5).

Barmouth no. 2 (5th century): AETERN[-] ET AETERN[-] in Latin letters and the missing endings may have been -A, -E, -I or -ALIS (Edwards 2013: 374–6).

Margam no. 1 (second half of the 6th century): Latin inscription in four lines recording the name ETERNALI (Redknap & Lewis 2007: 402–8).[8]

Rhys (2015: 245–8, §3.4.2.1) provides a thorough linguistic discussion of the names *Itarnan* and *Edern*, and notes (ibid 248) that the variation between initial *E* and *I* in historical sources and inscriptions is not problematic, as these are regularly 'confused'.

IDDARRNNN on the Newton Stone inscription appears to lack the final syllable (-ONN) found on the Brodie and Scoonie stones, and *-an* of *Itarnan* in the Irish Chronicles. This final syllable may be a Celtic diminutive ending, possibly *-an* (*-án*) in early Irish written sources and epigraphic -ON(N) on the Pictish inscriptions (Forsyth 1996: 487; Rodway 2020: 177, §2.4). Macalister (1940: 211) suggested that the O between the Ns was omitted in the Newton ogham, and added (*o*) in his reading (see Table 1); however, Forsyth (1996: 435) notes that such a mistake (ie missing two strokes for O) is 'unlikely'. It is more conceivable that the carver missed a single stroke (letter A) between the first and second N.[9] The Lunnasting inscription also has a name ending in three Ns (AHEHHTTANNN), but this name ends with the vowel before the Ns (ie, it already has what might be the *-an* ending), whereas Newton does not. Either the carver made a mistake, or the spelling as we have it on the Newton Stone is the Pictish cognate of Brittonic *Edern*, without the diminutive ending. If this were the case, the Newton ogham demonstrates that a form of

the name with and without a diminutive ending was current in Pictland (cf Drust/Drostan, Talorg/Talorgan; see Forsyth 1996: 489).

While the next nine letters are clear, the second word is considerably more complex than the first. It is either VORRENN, VORRENNI or perhaps VORRENNI×.[10] Celtic */w/ (represented as ogham V) became *f* in Irish and *gu* in Old Welsh (> *gw* in Middle Welsh), and *u* or *uu* in Pictish (Jackson 1953: 385–94, §49). Therefore, we would expect the prefix of the Pictish name to be **Uor-* or **Uuor-*. This prefix is derived from the Proto-Celtic preposition **ufor-* 'on, over' (cf Gaulish *ver-*; Brittonic **wor* > Old Welsh *guor* [> Modern Welsh *gor-*], Old Breton *guor-*, *gor-*; and Old Irish *for-* (Evans 1967: 279–80; Matasović 2009: 398)). When used as a prefix in a personal name, this has the meaning 'super, over' (cf the name of the British king Vortigern from **wor* and **tigernos* 'overlord' in Jackson 1982: 36). Forsyth (1996: 435) compares the name on the Newton Stone with the Irish male personal name *Forann*.[11] *Forann*/*Forand* is attested in the genealogies of the Ciarraige, and the name *Forannán* (with *-án* diminutive) was popular among the Airgíalla (see O'Brien 1962: 139–53 (eg 160 a 28 *Foraind* and 161 a 13 *Forainn*), 299 (159 b 49) and 146 (141 b 57 *Forannān*)).[12] The correlation between Irish *a* and Pictish *e* in the final syllable of the name may not be problematic (compare Pictish *Uuen* and the Irish cognate *Eogan*, variations between *Talorgen* and *Talorgan*, and see Forsyth 1996: 436), but is perhaps more complex than it at first seems. Clancy (2017: 109) in his analysis of the name DROSTEN on St Vigeans 1 (vs *Drostan*) observes that Irish texts recording Pictish names 'present some genitive forms in *-en* where *-ain* or *-áin* might be expected' and suggests that the *-en* might be a Pictish nominative or genitive.

It is uncertain where the name ends. Forsyth (1996: 434) suggests the double NN may indicate word termination. There is, however, almost no space between the second N and the I, and the inscription itself becomes more constricted at this point. The internal R of the name is also doubled (as are the internal consonants in IDDARRNNN), which suggests the double consonant alone is not indicative of word termination in this inscription. If the following I belonged with VORRENN, it could be a singular masculine genitive ending, perhaps intended to reflect conventional ogham morphology, as names are almost always recorded in the genitive case (McManus 1991: 101). Unfortunately, our evidence for the Pictish language is so scarce that only a few grammatical observations can be made. Pictish went through syncope (loss of internal syllable) and apocope (loss of final syllable) by the early medieval period, the former dated by Jackson (1955: 166) to the second half of the 6th century and by Sims-Williams (2003: 285) to the second half of the 5th century, and the latter beginning in the late 5th century (see also Koch 1983; James 2013: 68–9).[13] The only other example of a possible *i*-inflectional ending in the Pictish ogham corpus is found on the Auquhollie Stone in Kincardineshire, which is probably an early ogham inscription (Forsyth 1997a: pl 4). It records at least two names, one of which may preserve a masculine genitive ending in I (Forsyth 1996: 41–54).

Another possibility that has not been explored is the reading VORRENNI×. The *x-forfid* character is an additional letter in the ogham alphabet, also found on several Pictish oghams (cf Aboyne, Burrian, Cunningsburgh, Formaston, Golspie and Lunnasting). The *x-forfid* originally had the phonetic value of /*k*/ or /*χ*/ (spirantised /*k*/, ie /*ch*/) (McManus 1991: 79, §5.3; Forsyth 2007: 465), and Sims-Williams (1992: 45–55) argues strongly in favour of the latter. It developed into /eă/ and /ɛ:/ (*é*) in Primitive Irish (Sims-Williams 1992: 51–5; Forsyth 2007: 465). In Irish oghams it is usually possible to determine whether the *x-forfid* is consonantal or vocalic. If it is consonantal, the letter K is used in transliterations, and if it is vocalic the letter E is used. Although the value of the *x-forfid* on most Pictish oghams is likely to be /*e*/ (cf Lunnasting and Formaston), on the Newton Stone it is possibly intervocalic (Padel 1972a: 129) or in word-final position. This and its early date (see below) suggest it probably has the earlier consonantal value, and the sequence can be transliterated VORRENNIK.

As the *x-forfid* follows a vowel (I), could this be the early Celtic suffix *-*ico-/ā-* (see James 2020: 159–60, sv *-īg*, *-eg*)? The masculine *-*ico-* > Brittonic *-īg* and feminine *-*icā-* > Brittonic *-eg* and > *-ech* in Old Irish.[14] If this is the case, although -I× (or /-IK) looks at first like the masculine form, this is perhaps superficial. The I in the first name IDDARRNNN might have the phonetic value of /*e*/ (see above), and if the second I here has the same value, then we might have the feminine suffix. It is difficult to determine, and few historical Pictish women have been identified by name for comparison.[15] Drusticc, a daughter of Drust (who was probably a 6th-century Pictish king, see Calise 2002: 215–16) is recorded in the *Book of Leinster* and *Liber Hymnorum*. The name Drusticc is based on the masculine personal name Drust. From context, *-icc* of Drusticc might be a feminine suffix added to a masculine name, and though this may seem similar to the form on the Newton ogham, geminate *-cc* in Middle Irish is /*k*/. If the *x-forfid* on the Newton ogham represents /*χ*/ (spirantised /*k*/ or *ch*), then this is not the same phoneme.

The second name may remain a mystery until the value of *x-forfid* is determined on the Newton Stone and other Pictish oghams, but we should bear in mind the possibility that it could be a woman's name. The Newton ogham lacks the common 'X MAQQ(I) Y' formula between the names, and because of this we cannot necessarily speculate a father–son relationship. If the second name is feminine, the individuals named might have had a son–mother, brother–sister, father–daughter or husband–wife relationship. We should not lose sight of the fact that the Newton Stone also has a mirror symbol, which might add further weight to the possibility of a woman's name being recorded in one or both inscriptions (see above).

The final letters reads either IOSRR or ROSRR. Forsyth (1996: 434–5) compares this with the Irish male personal name *Ross* and other similar forms; however, she admits the final R is 'a puzzle'. Three Pictish ogham inscriptions (Golspie, Auquhollie and Birsay 1) may also end in RR, and Pool possibly has penultimate R (Forsyth 1996: 435). The final RR on the Newton and other oghams might be a passive verbal ending in *-r*, comparable with other Celtic languages (eg the Welsh present impersonal verbal ending *-ir*, originally from a Brittonic passive; see Jackson 1953: 589–90). We know nothing about Pictish verbal morphology.

THE NON-OGHAM INSCRIPTION

The six-line inscription across the top front of the stone has been extensively studied over the past two centuries. Numerous theories about its meaning and language have been suggested. While an entire paper could be written about the antiquarian interests in this inscription, I will only provide a summary here. Table 3 contains a selection of the suggested languages of the script to illustrate the complex and varied historical interpretations of this inscription (for bibliographies see Diack 1922: 53–5 and Okasha 1985: 54–5).

Mill (*ante* 1863) was the first to suggest that the inscription presents a non-Insular language and script, and from there outlandish theories snowballed. Thomson (1862–4) devoted an entire article to summarising previous translation attempts, as well as his own quest for the answer. He introduced the Newton inscription to a number of scholars across Europe and was variously told that the script was Latin in a debased character intermixed with Greek, Celtic (modern), Phoenician, Palmyrene, a joke and Gnostic. Towards the end of the 19th century, Stokes (1892: 543) noted: 'It has been read into Punic, Syriac, Greek, Latin, French, Icelandic, and various kinds of gibberish.' Macalister (1935: 389) wrote a seething review of the subject:

> Decipherer after decipherer has visited it; published an interpretation of it; and then they, like the Baker, 'softly and suddenly vanish away', as though scared by their own temerity, leaving the arena vacant for the next-comer. No one has troubled to dispute any of these readings: no one, not even any of the authors themselves, has ventured to defend them. There has never been a 'Newton Stone' controversy; the literature of the subject, like that of the 'Number of the Beast', resembles a series of disconnected runaway knocks, inflicted by street urchins on the door of a tempting corner house.

TABLE 3
Selection of previous languages and scripts suggested for the Newton Stone alphabetic inscription

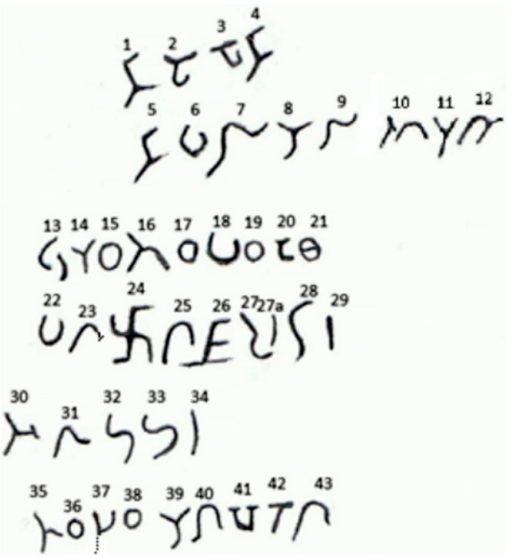
Reference	*Language of the inscription*
General Charles Vallancey [*ante* 1812] (cited in Stuart 1821: 317)	Suggested the first two lines read *Gylf Gomarra*, but there is no account of his proposed language or script
Stuart (1821: 317)	Neither Roman nor Runic; perhaps a northern language (ie Norse or Danish)
Mill (1863: 147)	Phœnician (translated via Hebrew)
Skene (1862–4: 296)	Debased Roman, but admits 'the main inscription is written in a character to which we have not a key' (p293)
Moore (1865: 48)	Arian with Hebrew characters, with Sanskrit and Buddhist references
Brash (1872–4: 134)	Debased Roman letters
Southesk (1883–4: 44)	Greek
Graves (1885–6: 301–4)	Greek and Latin
Ferguson (1887: 138–9)	Tangible Latin
Rhys (1891–2: 286)	No comment
Stokes (1892: 543)	Debased Roman cursive
Southesk (1893: 71)	Graeco-Roman, Hiberno-Saxon, with some characters in Greek
Nicholson (1896: 2)	(Probably) Latin
Browne (1921: 119)	Greek with mixture of other script (Latin is implied)
Diack (1922: 7–15)	Roman cursive
Macalister (1935: 394)	Greek-looking characters, but obviously not Greek. Believed it was a forgery
Simpson (1965: 114)	Debased Roman cursive
Forsyth (1995: 9; 1996: 438)	Debased Roman cursive

He then goes on to critique the various interpretations, including that of the 'redoubtable' General Vallancey, Phoenician explanations, one that requires the presence of Buddhist missionaries in early medieval Scotland, and, among others, a reading 'obscurely specified as Yore-Welsh' (Macalister 1935: 389–90).

The alphabetic inscription has a complicated and controversial history, which has, in many respects, hindered the modern study of this unique monument. Most letterforms indicate that we are dealing with a script based on Roman letters. For example, the letter O (15, 19, 36 and 38) is obvious, and letters 2 and 3 are T. Letters 10 and 13 were previously interpreted as multiple characters, but these are M and G respectively, a type found in stylus writing, such as on wax tablets. Putting previous far-fetched notions aside, fresh analysis of the inscription and careful comparison of its letterforms provides a wealth of new information about this inscription and the early history of writing in Pictland.

COMPARISON OF THE ALPHABETIC INSCRIPTION

The alphabetic inscription contains 43 or 44 characters, many of which are repeated. In addition to the Os, the frequently occurring letters 1, 4, 5 and 8, 11, 14, 39 are best interpreted as vowels, probably E, though the precise phoneme they represent is uncertain.[16] See Illus 6 for the numbering of the letters.



Illus 6 Drawing of the Newton Stone alphabetic inscription, with letters numbered. (Drawing by Richard Marshall)

The first group, letters 1, 4 and 5, have proved difficult to interpret. Many previous authorities have read these as E (Rhys 1891–2: 286; Stokes 1892: 543; Diack 1922: 7–15; Macalister 1935: 394). There are some similarities with F and E in the dry-point glosses of the *Codex Usserianus Primus* or *Ussher Gospels* (TCD MS 55; henceforth *Ussher I*), which are dated to *c* 600 (G Charles-Edwards 2007: 84, fig 56; Ó Néill 1998: 9–10) or possibly as early as the 5th century (Dumville 1999). Although the Es in *Ussher I* are generally not closed (Ó Néill 1998: 9–10), the lower curve of uncial E always extends beneath the tongue. Letters 1, 4 and 5, do not have this feature.

If we were to compare the *ductus* of letters 1, 4 and 5 (Illus 7), we can see that these are made of four strokes, whereas the examples of F (and most Vindolanda Es, see Table 4) are only made of three strokes and the first is always straight. This rules out the letter F. The first stroke of the remaining E examples in Table 4 are bowed, except for Oxyrhynchus. While no parallels have been found to demonstrate this letter is an E, if this were an E it is possible to generate a sensible reading (see below). It is perhaps intended to be a geometric or ornamental capital.

Letters 2 and 3 are both T, the style of which is chronologically widespread (see eg Bischoff 1990: 64 older and later Roman Cursive, 67 uncial, 74 half-uncial, 85 Insular half-uncial and minuscule). Examples of this type are numerous, not just in documents written by pen (cf the Vindolanda Tablets and the *c* 540 *Vatican Papyri Marini 116* in Van Hoesen 1915: 164, no. 88), but also in epigraphic and dry-point inscriptions (cf the *Ussher I* glosses and Springmount Wax Tablets). Compare the cursive alphabet tables of Gaulish inscriptions (eg *RIG* II-2, figs 196, 198a–c), the TT on an Insular minuscule and half-uncial slate inscription from Inchmarnock (Forsyth & Tedeschi 2008: 140, fig 6.22), and the Drosten Stone at St Vigeans (Canmore ID 35560).

Letter 6, 18 and 22 are U or possibly V, as these were interchangeable, though whether or not these letters had a vocalic or consonantal value (or both) is uncertain. The exit stroke made by a stylus or pen in the *exemplum*, which leans to the left, is faithfully preserved on each letter in this group. Letter 6 could conceivably be an O, as O is often not fully closed on wax-tablet scripts (cf Springmount example in Table 4), but it is most likely a U.

(Left) ductus of Newton letter 5 (four strokes; and note ambiguity of the direction of the top stroke) compared with the three-stroke F on the Whitefield 'Yarrow Stone' (right).

From left to right, comparison of Newton letters 8 and 11 with letter E Poitiers *L-110 and letter Y fol. 129r Ussher I Glosses. Note the uncertainty whether the first stroke of Newton 8 is a single curve or two strokes.

From left to right, comparison of Newton letter 16 with Letter N Rom *L-103, letter N fol. 86r Ussher I Glosses, and letter h Nevern 4.

ILLUS 7 Comparison of the *ductus* of select Newton Stone letters and comparative examples from Table 4

Letter 7 is an R. Letter 9 is most likely an R, and 23 and 31 may belong with this letter-group as well. An R distinguished by the transverse arm sloping downwards to a dip then extending upwards is characteristic of Old and New Roman Cursive, half-uncial and Insular minuscule. It can be difficult to distinguish R from N in some later Roman Cursive texts (cf G Charles-Edwards 2007: 82, fig 51). Letter 9 could conceivably be an N, but this is unlikely in comparison with letter 16 (see below). Letter 23 may belong to this group as well. It is carved over an uneven surface, which obscures whether it has a transverse arm. The Rs on the Newton Stone are monoline letters and do not have a descender, which is characteristic of uncial (contrast with the half-uncial Rs and Ns in the *Ussher I* glosses or the Springmount Wax Tablets; see G Charles-Edwards 2002).

Letters 8, 11, 14 and possibly 39 are difficult. Diack (1922: 7–15) interpreted these as a minuscule *g*. Letter 13 is certainly G (see below), and although the Newton script may be a semi-majuscule script, these letters are unlikely to be *g*. Frequently recurring letters are probably vowels.[17] These letters slightly resemble an Old Roman Cursive E, which would develop into an unenclosed New Roman Cursive and half-uncial E (see Table 4). The *ductus* of the letters in this group, however, are dissimilar to most Roman Cursive E examples. They could be a Y (cf Bischoff 1990: 85, nos 13, 14), particularly letters 8 and 39, which curve in the same direction on the lower part of the ascender as the half-uncial *y* (cf *Ussher I* fol 129r). Y is the most likely letter for 8 and 39, and possibly 11 and 14 though these have more similarities with Roman Cursive E. But how was Y pronounced? Y was not a native letter in the Latin alphabet, but borrowed from Greek, where the earlier pronunciation was /*u*/ and later /*i*/ (Kent 1940: 47–7, §34). While the *ductus* of 8 and 39 does not match those of E, *if* the letter had the vocalic value of *i* or *e* (or something in between) it is possible to detect words in this inscription.[18]

Though letter 10 has previously been interpreted as two distinct characters (see eg Diack 1922), this is a disjointed M, a type found in Roman and Late Antique informal scripts, particularly on media engraved in dry point, such as wax tablets or ceramics (see Table 4, and cf Gaulish examples *RIG* II-2, figs 198a–c). The first line is the descender, and the following arch is the second bow of the M. The bow is more reminiscent of New Roman Cursive forms. This letter and the following on line 2 are carved on

an uneven surface and extend around the edge of the stone.

Letter 12 is especially difficult. While the letter looks similar to the abbreviation for Latin *per* in a gloss in *Ussher I* (fol 129r), the Newton Stone letter lacks a descender. There is also some similarity with wax-tablet and cursive P (cf Gaulish examples), and Q is another possibility. Letter 12 does not look like a P or a Q, but if it were, the reading (see below) may be intelligible.

Letter 13 has been previously interpreted as two distinct letters (see eg Diack 1922), but this is in fact a G, the type of which is widely attested in Roman and Late Antique informal writing, including wax-tablet and cursive scripts, and in early lead inscriptions (Van Hoesen 1915: table B; *RIG* II-2 figs 198a–c; Bischoff 1990: 56, no. 4). An epigraphic example of this type of ('cursive') G is found on the Roman-capital inscription from Llanmadog 1, where it may have been used to distinguish G from C or copied as such from an *exemplum*; this stone is dated to the first half of the 6th century (Redknap & Lewis 2007: 358–9). This style of G is not characteristic of Insular half-uncial or Insular minuscule.

Letters 15, 17, 19, 36 and 38 are enclosed Os.

Letter 16 might be the same as 35, although 16 is considerably larger and more rounded in shape. The curved arch is closer to New Roman Cursive and half-uncial minuscule *n*. There are some similarities between the half-uncial *n* and *h* in the *Ussher I* glosses (fols 86r, 143r), both of which have long descenders beginning well above the arch of the letter. The *ductus* of 16, however, is broken (similar to letters 1, 4, 5), whereas the stem of the *Ussher I n* and *h* is straight. The broken *ductus* may be a stylistic feature of the letters on the Newton script, which makes it difficult to reconcile some of the Newton letters with comparative examples. This feature may be due to the hard nature of the stone (see 'Descriptions' in Part 1) and the difficulty the carver(s) faced when trying to engrave curved features. *If* this letter were read as an *n* (minuscule), a possible reading emerges (see below).

Letter 20 may be an angular C. While similar in style to Old Roman Cursive C (see Bischoff 1990: 64), this type of C is widely attested in epigraphic inscriptions (see eg Whitefield 'Yarrow Stone' Canmore ID 53078), and also in the dry-point glosses of *Ussher I* (eg fol 129r). The top of this letter, however, has a small extension to the left. This could indicate that the letter is a T rather than a C, though this feature is not as large as on letters 2 and 3.

Letter 21 is troublesome, as this resembles Greek theta. The earliest illustrations (see Illus 7 and 8 in Part 1 and *Gentleman's Magazine* 1807 fig 7) show a shadow or dot in the centre of the O. Recent examination confirms that there is an incised line through this O, and this is also preserved in the 19th-century cast (NMS X.IB.108). If the Newton Stone were set in a Classical context, this symbol might stand for the *theta nigrum*, a symbol for 'dead' attested in numerous Roman epigraphic inscriptions and papyri (see Mednikarova 2001). The *theta nigrum* is also found on an early 5th-century lead coffin from Rhuddgaer in Anglesey, which may have an Irish context (Sims-Williams 2007: 204; Coflein NPRN 300908). Similarly, in later Latin manuscripts this symbol was an abbreviation for *obiit* 'died'. A symbol composed of a circle with a central dot is also found in a dry-point gloss on fol 36v of *Ussher I* and in the late 6th- to early 7th-century *Cathach of Colum Cille* (Ó Néill 1998: 23). On the Cubert and Yealmpton stones in Cornwall, the Os also have a central dot (Okasha 1993: table 1a, 97–9, 338–40).

A similar letter is found in Gaulish inscriptions. After the Roman conquest of Gaul, the Latin alphabet was adopted and replaced Greek as the alphabet used for writing; however, the Gauls preserved three letters from the Greek alphabet to represent sounds in Gaulish that were not found in the Latin alphabet (Stifter 2008: 112). Theta was one of these letters. Gaulish also employed the Greek delta with a cross-bar for the sound /*ds*/ or /*st*/, and the informal script used on the La Graufesenque pottery represented the letter Q as a circle with a line through the centre. It is uncertain whether this is the interpretation of letter 21.

Letters 23, 25, 40 and 43 are problematic. The letters in this group are formed by a single-stroke arch; however, the bows of 25 and 40 are more

pronounced, 40 shows an approach stroke, and 43 has a slight curve at the end of the bow. Letter 23 is the smallest in this group, and is carved on an uneven part of the stone surface, and it may be an R (see above).[19] Although the letters in this group appear to be similar to examples of cursive and half-uncial minuscule *s* (cf the *Ussher I* dry-point gloss fol 146v) and *p* (cf *Ussher I* fols 25r, 86r, 126v) they lack ascenders and the bow descends considerably further on the right than in examples of *s* and *p*. It is also noticeable that letters 23 and 43 are slightly sloped, although this may be due to the surface of the stone where they are carved. As letters with this shape occur multiple times, they might be vowels, particularly 25 and 40.

Letter 24, the swastika-like character, has attracted the most attention. This is unlikely to be an X, as the approach and exit strokes do not look like those of an X (compare Table 4). Only two of the limbs end with an additional horizontal line extending from the end of the arm. It is slightly different from early epigraphic examples of the swastika, such as the Roman altar from Birdoswald (*RIB* 1877), or the bent-arm cross on Monymusk 3 (Canmore ID 116668; Fraser & Halliday 2007: fig 7.11). It perhaps notes a change in the text, and such features are sometimes used as punctuation preceding personal names.[20] The Llanlleonfel Stone, for example, has a cross dividing the first part of the inscription with the personal names from the remainder (Redknap & Lewis 2007: 215–20).

Letter 26 is problematic. Although the horizontal line beneath is different in character from the remainder of the carving, it does not appear to be a natural feature, and is conjoined with the vertical stem. This horizontal line extends the full width of letter 26 and to the left below letter 25. If the under-line was removed, we would be left with a letter similar to 1, 4 and 5. Despite the similarity, letter 26 has a straight *ductus*, not a broken *ductus* as do 1, 4 and 5. Letter 26 is closer to examples of F (cf Table 4 under letters 1, 4, 5). The line beneath may be an otherwise unattested epigraphic ligature, perhaps for IF, FI, LF or FL.

Letters 27 and possibly 27a have previously been interpreted as two distinct letters, L and I (eg Diack 1922). This identification may be correct, but the curved bow of letter 27 might be a D or a B, and the vertical line next to it (27a) was intended to close the bow. This has parallels with D and B in informal scripts on wax tablets (see Bischoff 1990: 56, 64). The ascender of 27 is, however, on the wrong side for a D or a B, but a parallel is found in a Gaulish example (see Table 4 *RIG* II-2 fig 198c (65)). This letter is also similar to the *b* in the 5th-century *CLA* 3/398 written at Bobbio (see Table 4).

Letters 29 and 34 are the letter I, and 27a may belong with this group as well (see above).

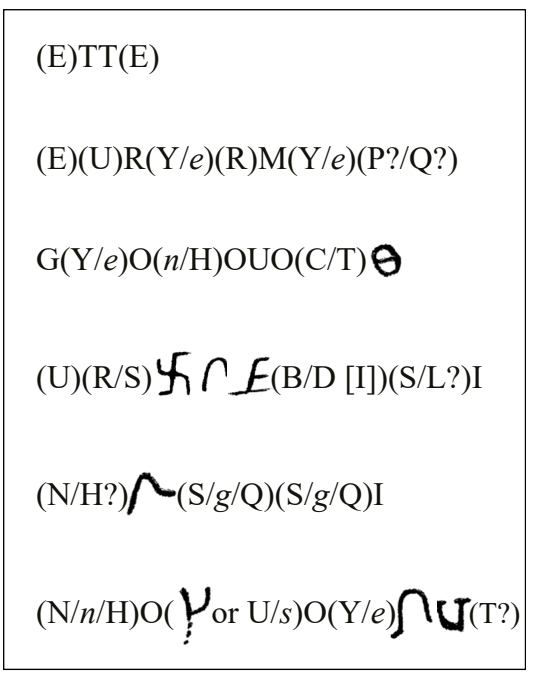
Letter 28 may be an S. This type of S is found in Roman Cursive on wax tablets. Letters 25 and possibly 23, however, have also been suggested to be an S, as has 37, and it is unlikely that there are three variants of S on the same inscription. While L is another possibility, letter 28 does not curve in the same way as most examples of L (*RIG* II-2, figs 198a–c).

Letter 30 appears similar to an Old Roman Cursive H (see eg Bischoff 1990: 46, no. 2 Oxyrhynchus), the half-uncial examples of N, and some cursive examples of M, but like letters 1, 4, 5 and 16, the *ductus* of the first stroke is not a single straight stroke, but is broken into two. Diack (1922: 7–15) transliterated line 5 as MAQQI, but letter 10 above is an M, and this letter is the same whether majuscule or minuscule. If it were not for the slight extension on top of the final stroke of 30, this might be the same letter as 16, suggested above to be a minuscule *n*.[21] Letter 30 is the first letter on the fifth line, and if this inscription adheres to word-division (see below), it may signify the start of a new word. Majuscule N is also a possibility (cf *RIG* II-2 fig 196 examples in Table 4).

Letters 32 and 33 could conceivably be cursive Q (see Van Hoesen 1915: table 6, cols 1–2). Even though letter 13 is a G, 32 and 33 resemble minuscule *g* (cf *RIG* II-2 fig 196 examples in Table 4). This letter also resembles the letter *g* of three Cornish Category I stones, particularly Fardel, but also Lancarffe and Lewannick II

(Okasha 1993: table 1a, 103–8, 126–8, 150–3). S is another possibility (cf Table 4 under letter 28).

With the exception of 36 and 38 (O) and 39, which seems to belong in the same group as 8, all the letters in line 6 are problematic. Letter 35 may be the same as letter 16, but the arch is smaller.[22] Letter 37 is uncertain. Though it is normally represented with a descender, without this the letter has the same exit strokes as the U/V of letters 6, 18 and 22. If the line connected to this is a natural part of the stone, then it might be U or a V. If the line is attached, I have found few comparisons other than K and New Roman Cursive S (see Table 4 and compare Illus 3). Although letter 40 has been grouped with 25, 43 and possibly 23 above, it has an approach stroke at the bottom, and the bow extends too far down for it to be a letter S. Letter 41 is distinguished from the 6, 18 and 22 group because it has what appears to be a seriphed top and is squarer in style, which probably has some significance. Perhaps the seriphs were intended to distinguish letter 41 from the letters 6, 18 and 22 (maybe one is vocalic U and the other consonantal V), or it might be a ligatured letter, the second part possibly being the letter T (see Table 4). Although letter 42 looks like a T, it does not have the bottom curve as in letters 2 and 3. Perhaps this is a T, or a ligatured letter?



Illus 8 Cautious transliteration of the Newton Stone alphabetic inscription

A very tentative reading of this inscription based on the above palaeographic analysis follows (Illus 8). Unique letters are unchanged. Where a letter is comparable with minuscule, this is shown in lower case and italics. Less certain letters are in brackets, with possible transliterations shown between /. Note that letters transcribed as Y may have the phonetic value of *i* or *e* (see above), and U may be interchangeable with V.

ANALYSIS OF THE ALPHABETIC SCRIPT AND DISCUSSION OF WRITING IN NORTHERN PICTLAND

Though a variety of different scripts and languages have been suggested for the alphabetic inscription (see Table 3), the script on which most scholars agree is 'debased Roman Cursive'. Cursive was the type of script used in everyday, informal writing and is intended to make the act of writing faster by avoiding pen lifts, and so letters in cursive are generally ligatured or connected. While there are three potential ligatured letters on the Newton inscription (see discussion of 26, 41 and 42 above), otherwise none of the letters are connected. The script as it appears on the Newton stone is a set script rather than a cursive script.[23]

Apart from the unique letterforms, of the 43 or 44 letters all have parallels with letters in the Latin alphabet (in its various stages between early informal Roman scripts to half-uncial). There are some notable differences, however. A characteristic of the Newton script is the broken *ductus*. This feature is found on letters 1, 4, 5, 16, 30 and possibly 35. Except for Os, Is and possibly Us (depending on whether they are vocalic or consonantal), the letters representing vowels are not those commonly found in the Latin alphabet, which may be linguistically significant. There

is a conspicuous absence of the vowel A, which leads me to suspect that some of the uncertain letters (potentially 25 and 40) may be As.

From an epigraphic perspective, the Newton Stone is remarkably different from other stone monuments in Britain and Western Europe in the Late Antique and early medieval periods. Traditionally, incised capitals were used for epigraphic inscriptions and cursive for everyday use, with book hand such as half-uncial and minuscule being a register in between the most formal (capitals) and least formal (cursive) scripts (T M Charles-Edwards 2013: 119). Although comparisons can be made between the bilingual ogham and Latin-inscribed stones of western Britain, these draw on the Roman convention of incised capitals, though 'cursive' letterforms occasionally intrude into these inscriptions (G Charles-Edwards 2007: 80). Less formal and cursive script did influence several Roman epigraphic inscriptions, particularly in northern Britain (see eg *RIB* 3441, 3229, 3433, 3525 and 3504).

The letters on the Newton alphabetic inscription are most similar to Late Antique informal writing found on media such as wax tablets, lead curse tablets and ceramics (cf Table 4). This confirms that it is a stylus script. One of the major hindrances to studying the early use of stylus scripts in Britain is the lack of surviving evidence. Most of the comparative material for ancient and Late Antique/early medieval informal writing survives on lead or ceramic inscriptions, graffiti, wax tablets and papyri. Curse tablets (such as those from Bath), the Vindolanda Tablets and London Bloomberg wax tablets (Tomlin 2016), as well as a few examples of signatures and graffiti (*RIB* 3442, 3041), are the earliest surviving Insular examples.

The Newton Stone was certainly intended to impress its audience, but *who* was expected to read the inscriptions? The audience needed to be familiar with not one but three systems of conveying information: Pictish symbols, ogham and a Latin-letter stylus script. The arrangement of the inscriptions also required its audience to have specialist knowledge in *how* to read the inscriptions. The audience would have to know, or recognise, that the ogham is read from top to bottom. The spectacle of writing itself may have been enough to satisfy the commissioners, though the fact that some words are discernible (see below) suggests that the inscription is genuine. This implies that some people in early Pictish Aberdeenshire had knowledge of writing using an informal, stylus-based Latin-letter script. While capitals are conventionally used in Roman and post-Roman inscriptions throughout the remainder of Britain, in northern Pictland there were no pre-existing inscriptions in Roman capitals to act as a model, and the Newton designers instead relied on the local script.

Another pressing question is how this script and knowledge of Latin-letter writing reached northern Scotland. Diack suggested that knowledge of writing north of the Forth came not from the Church, but from Roman Britain from the 'first century onwards' (quoted from Simpson 1943: 104). Contact with Roman Britain is the most likely explanation for the spread of writing into Pictish territory, but some letters on the Newton Stone, notably 21, have parallels with Gaulish inscriptions and this is worthy of further comparison. Writing was most likely introduced to the northern Picts through trade and commerce with neighbouring cultures, and this is further suggested by the fact that the Newton script is an informal stylus script, the type used for everyday transactions.

The archaeological context and the local environs of the Newton Stone demonstrate that it was located not in a cultural backwater in the Pictish period, but in a politically significant region. The Pictish hillfort at nearby Tap O'Noth, recently surveyed as part of the Northern Picts Project, has been shown to have been one of the largest known Pictish settlements.[24] Even closer to Newton, the hillfort on the Mither Tap o'Bennachie (which preserves the Pictish territorial name *Cé*, see Kilpatrick forthcoming) has been confirmed to be a Pictish fortification (Noble 2019: 45). Recent excavations and place-name analysis at Rhynie have shown that this was a Pictish royal centre with a cult function (Noble

et al 2019). Given this background, it is hardly surprising that at least some Picts, perhaps merchants and traders, had knowledge of writing.

PRELIMINARY INTERPRETATIONS AND COMPARISONS

Despite the complexities of this inscription, there is hope. A few words are discernible and comparative suggestions can be made for others.

The most likely interpretation of line 1 is ETTE. This sequence and similar variants are found on five Pictish ogham inscriptions: Cunningsburgh 2 -EHTE, Cunningsburgh 3 ×TTE (ie ETTE), Gurness EITTE, Inchyra ETT-, Lunnasting ×TT∪ (Forsyth 1996: 216, 220, 328, 355, 408).[25] ETT on the third line of the Drosten Stone (St Vigeans 1) may be the same word. Although ETT on the Drosten Stone is generally regarded as a misspelling of Latin *et* 'and', it is almost inconceivable that the learned monastic community of St Vigeans would misspell such a simple Latin word in an inscription (cf Clancy 2017: 113). Are these sequences in the Newton inscription and other Pictish oghams the same word(s)? We should be cautious in assuming that these variations represent the same word(s), but as they occur in similar epigraphic contexts, it is quite possible that they are the same word(s), or at the very least, related.[26] Significantly, what this does indicate is that the inscription on the Newton Stone is, in all probability, in the same language as the Pictish oghams.

This term occupies the entire first line of the Newton Stone, and similarly it is the first word on the Cunningsburgh 2 ogham on the face of the stone, the first word on Cunningsburgh 3 and on Lunnasting. ETTE has been tentatively suggested by John Koch, presented in Forsyth (1996: 414, cf 356), to be a 'Pictish copula + pronoun construction' (*it-é*, *is-é*), which from context may mean 'this is'. Rodway (2020: 191–2), in his discussion of the Cunningsburgh 2 and Lunnasting oghams, disagrees with ETTE as a putative Pictish copula + pronoun on phonological grounds, and discusses other possibilities (including Welsh *it* + adjective constructions, and the Middle Welsh particle *yd*, *yt* among other suggestions), but does not advocate any of these proposals.[27] From context, I suspect that Koch and Forsyth's suggestion for ETTE 'this is' (or something similar such as 'here is') is correct, but at present we have not yet arrived at a linguistic explanation for ETTE on Pictish inscriptions. However, if letters 1, 4 and 5 are geometric or ornamental capitals and if there is word-division within the inscription (see above), it is perhaps significant that letters 1 and 4 on line 1 are the same. If letter 4 is a distinct word, the interpretation of line 1 might be ETT E, which if not a copula + pronoun construction, at least appears to preserve some form of syntax.

Interpreting the vowels on the Newton inscription is difficult. As discussed above, the Y letters may have the phonetic value of *i* or *e*, in which case the second line might read EURIRMIP/Q or EURERMEP/Q. This might be two words. *If* the final letter is read as a P or Q, MEP or MEQ could be a patronymic, comparable with Gaulish *mapo-*, Welsh *mab* (pl *meibion*) and Irish *mac* 'son'. Compare ogham MA/EQQ on Golspie, MEQQ on St Ninian's Isle 1, and MEQQ on the late example from Bressay (Forsyth 1996: 117–38, 299–320, 467–79).[28] More work is needed, however, to confirm this suggestion.

Letter 13 beginning on line 3 is G, letter 14 is Y, 15 is O, and 16 may be N (minuscule). The reading GYON, if Y has the value of *i* or *e*, is practically identical to a name recorded by Adomnán in the *Vita Sancti Columbae*, completed *c* 700 (Anderson & Anderson 1991). In the *Vita* (i.33), an old man named Artbranán (who was presumably a Pict, as he needed an interpreter) came to visit St Columba on the Isle of Skye. Artbranán, we are told, was the leader of the 'cohort of Geon', *Geonae primarius cohortis*. The name *Geon* has been suggested by Sharpe (1995: 294 n149) to be equated with the Pictish territorial name *Cé*, which is where the Newton Stone was located (Kilpatrick forthcoming). Dumville (1978), on the other hand, compares Adomnán's *primarius cohortis* with Welsh *penteulu* 'captain of the guard', and concludes that *Geon* is likely to be a personal name. It is also worth noting that the Irish Chronicles *c* 588 record the 'death of the grandsons of Geno', which may be the same

name. If GYON is a personal name following a patronymic, the Newton Stone may have functioned as a memorial stone. The stone was located in the vicinity of graves in a landscape characteristic of Pictish barrow cemeteries (see Part 1).

At present, the beginning and the remainder of the inscription are still obscure, which is frustrating because the Newton Stone feels closer to finally being understood. For example, one potential reading of letters 27 through 29 is BILI, a Brittonic name, and the name of the father of the Pictish king, Bridei mac Beli or Bili (*c* 672–93).

One conclusion that can be made with reasonable certainty is that the discernible words in the alphabetic inscription (ETTE, GYON) and the ogham inscription (IDDARRNNN) are attested, or have close parallels, in other Pictish ogham inscriptions or in early written accounts that likely refer to Picts or places in Pictland. This indicates that the language of the inscriptions is Pictish, the now extinct language spoken by the peoples of eastern and northern Scotland in the late Iron Age and early medieval period. The current general scholarly consensus is that Pictish was a Celtic language, related to Brittonic (for detailed discussion, see Rhys 2015), but little evidence for the language survives. Apart from complicated ogham inscriptions (Forsyth 1996), the surviving evidence for the Pictish language is primarily onomastic, including regnal lists of Pictish kings (Anderson 1973) and place-names (see Taylor 2011). Thus, the Newton inscriptions are of considerable importance. The alphabetic inscription in particular may record words other than personal names, and it is hoped that further research will one day succeed in deciphering this inscription (see below).

THE DATE OF THE NEWTON STONE

It is difficult to date the Newton Stone based on the inscriptions, especially as there are no comparative examples for many of the unique letters on the alphabetic inscription. Based on the ogham, Padel (1972b: 197) dates the Newton Stone to the 7th or 8th century but notes that it could be earlier. Forsyth (1996: 440–1) likewise suggests that the linguistic forms are 'later than the bulk of Irish oghams', and agrees with Padel, but notes that 'a date in the 6th century can scarcely be ruled out'.

The letters in the alphabetic inscription lack ascenders and descenders. This is characteristic of uncial, which was current from the mid-3rd to early 7th century. The script also has several similarities with half-uncial, a semi-majuscule script, although capital R is common in half-uncial. Several of the letters, including some of the more obscure letterforms, have parallels with Roman Cursive examples from Gaul, which are dated from the 3rd to 5th centuries. Letter 13, the G, is not found in Insular half-uncial or minuscule, which began to develop in the 7th century. The epigraphic example of this type of G from Llanmadog, discussed above, is dated to the first half of the 6th century (Redknap & Lewis 2007: 358–9). These comparisons indicate that the Newton alphabetic script belongs to the Late Antique period.

The combined evidence of the ogham and alphabetic script suggests that the Newton Stone was likely carved in the 6th or early 7th century. This also corresponds with the date of the associated symbol stone (see Part 1). If there is any discrepancy in the suggested dating of the Newton Stone, however, it is more likely to be earlier rather than later.

CONCLUSION

The Newton Stone may have been a memorial stone. This is not only suggested by the inscriptions, but also its landscape context. The arrangement of the carvings on the Newton Stone demonstrates that the inscriptions, particularly the alphabetic inscription, were the focus. The placement of the mirror symbol may reflect Pictish symbol conventions, in which it is usually positioned on the lowest register. This might suggest that the inscriptions were used in place of symbols.

Close scrutiny of the ogham and alphabetic inscriptions indicates that these were pre-planned prior to being carved on the stone. The alphabetic inscription was painted before it was carved, and

the artisan(s) likely copied this from an *exemplum*. The viewer was intended to begin reading the inscriptions at the same point on the stone, which suggests that they are associated in some way, even if there are no corresponding words between them. The first name of the ogham inscription is attested elsewhere in Pictish inscriptions. The second name is considerably more complex, and it is uncertain where it ends.

The alphabetic inscription is difficult, and although it preserves multiple unique letters, which may be Pictish innovations to represent phonemes not found in the Latin alphabet, the majority have been shown to be Latin letters. Except for three possible ligatured letters, the letters in the remainder of the inscription are set. The inscription is in an informal script, parallels for which are found on casual documents and inscriptions made by a dry-point stylus on media such as wax tablets and ceramics in Roman Cursive, uncial and half-uncial. The letterforms of the alphabetic script and the ogham suggest that the inscription is best placed in the 6th or early 7th century at the latest, though an earlier date should not be ruled out. This coincides with the period of the bilingual ogham and Latin inscriptions of western Britain. The commissioners of the Newton Stone may have been aware of this fashion and wanted to emulate it while still operating within the rules of the Pictish symbol system. But without existing Roman-capital models to act as a guide and perhaps without knowledge of the Latin language, instead they relied on the vernacular and a local script with which they were familiar.

The Newton Stone is a monument of national importance for many reasons. The alphabetic inscription is our earliest evidence for the knowledge of writing in Pictland other than ogham, and the only surviving evidence for this script yet discovered. We are very lucky that this unique monument has survived. Although the Newton Stone and its inscriptions have been controversial in the past, the objective of this new analysis was to put the Newton Stone on a solid academic foundation for future investigation. Many mysteries still revolve around the Newton Stone, and it is hoped that these can be resolved in future research, to be presented in a collaborative article.

ACKNOWLEDGEMENTS

This research would not have been possible if it were not for the help of many individuals and organisations, to whom I owe a debt of gratitude. These include the Pictish Arts Society, University of Aberdeen Special Collections, Aberdeen City & Aberdeenshire Archives, National Library of Scotland, National Records of Scotland, Trinity College Dublin, National Museum of Ireland, Centre for the Study of Ancient Documents and the British Geological Survey.

Visiting the Newton Stones was made possible by Steve Wright of Newton House. I owe him special thanks for inviting me and my husband to examine the stones in person and take photographs. I am also grateful to Adrian Maldonaldo and other members of the National Museums of Scotland for allowing me to examine the 19th-century replica.

I would especially like to thank Professor Katherine Forsyth, whose thorough and thoughtful reviews on early drafts of this work set this research on the right course. I am also very grateful to Mark Stansbury for his detailed feedback and palaeographical commentary.

Much of this research was conducted during the coronavirus pandemic when libraries were closed, and many friends and colleagues willingly helped with sources, suggestions and feedback. I would like to thank Guto Rhys (also for reading an early draft), Peter McNiven, Aengus Finnegan, Juliette Mitchell, John Borland, Hugh Levey, Thomas Owen Clancy and Pierre-Yves Lambert. Many of the insights cited in this work are the results of two Zoom discussions attended by Simon Rodway, Barry Lewis, Paul Russell, John Koch, Ben Guy, Alexander Falileyev, David Stifter, Katherine Forsyth and Guto Rhys.

And last, but certainly not the least, I am grateful to my family for their enduring help and support. I would like to thank Richard Marshall for the illustrations, as well as Jim and Sharon Kilpatrick and Andrew and Fiona Marshall. I owe a special thank you to William, for being patient while Mummy ‘was writing Pictish things’.

TABLE 4

Drawings by Richard Marshall. Letter comparison between the Newton Stone alphabetic inscription and examples of Roman Cursive writing and other early dry-point and epigraphic examples. For examples of the original letters, see the fuller supplementary table online. The entries in the column *Roman Cursive Writing* are drawn from Van Hoesen (1915). Van Hoesen's tables are: Table B Early inscriptions on lead; Table C Pompeian wax tablets; Table D Dacian wax tablets; Table 2 Papyri nos 6–14 (AD 80–140); Table 3 Papyri nos 19–29a (AD 156–247); Table 4 Papyri nos 43–62 (AD 293–396); Table 5 Papyri nos 73–80 (AD 398–491); Table 6 Papyri nos 84–112 (AD 504–639). The first- to second-century Vindolanda Tablet examples are drawn from images on http://vindolanda.csad.ox.ac.uk/. The column headed 'Ussher I glosses' show drawings of the glosses from the earliest Irish gospels book, *Codex Usserianus Primus* (Trinity College Dublin MS 55), which is dated to *c* 600 or the fifth century. Epigraphic and other inscribed comparisons are cited individually, and drawings are based on the originals. Those from *RIG* have been reproduced with the permission of Pierre-Yves Lambert. The examples from the Springmount Bog Wax Tablets (late sixth to early seventh century) are drawn from digital images of NMI S.A.1914.2. Supplementary Table 1 depicting this material in further detail is available online at https://doi.org/10.9750/PSAS.150.1322

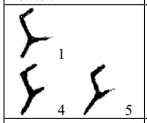
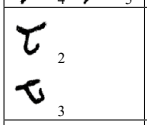
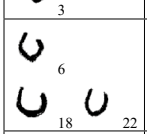
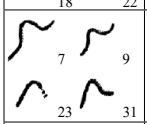
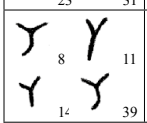
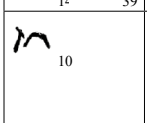
Newton	*Romve Writing*	*Vindolanda Tablets and Old Roman Cursive examples*	*Ussher I glosses*	*Epigraphic and other inscribed comparisons*	*Springmount Bog Wax Tablets*	*Possible letters*
 1 4 5	 Letter F, table 6 (cols 13–15) (p172 Naples, Biblioteca Nazionale. 544–51 AD)	 Latin *Et*, Vind 128	 Letter F, fol 86r	 Letter F, Whitefield (cf Canmore SC488167)	 Letter f, fol 3, col 2, line 9	E F
 2 3	 Letter T, Table 4 (12)	 Letter *e* ligature with *c* ligature with *t* (in *praefecto*), Vind 177	 Letter T, for 86r	 Letter T, St Vigeans no. 1 (cf Canmore SC1051207)	 Letter T, fol 3, col 2, line 3	T
 6 18 22	 Letter u, Table 3 (9)	 Letter u, Vind 149	 Letter o, fol 86r	 Letter u, St vigeans no. 1 (cf Canmore SC1051207)	 Letter o, fol 3v, col 2, line 1	u o
 7 9 23 31	 Letter r, Table 4 (3) Letter r, Table 4 (4)	 Letter r, Vind 378	 Letter r, fol 86r	 Letter r, Henfynyw Wales (cf Nash-Williams 108)	 Letter r	r
 8 11 14 39	 Letter e, Table 3 (29) Letter Y, Table 3 (2)	 Letter *e* (in *dare*), P 6101 Berliner Papyrusdatenbank (2nd–3rd century AD)	 Letter Y, fol 129r	 Letter Y in the name *Tyranus*, RIB 6 London lead curse tablet 43–410 AD		e Y
 10	 Letter M, Table C (49)  Letter M, Table 3 (11)	 Letter M, Vind 135	 Letter M, fol 138v	 Letter M, RIG II-2 fig 196, Rom *L-103 3rd–4th century; Poitiers *L-110 5th century	 Letter M, fol 3, col 2, line 4	M

TABLE 4
Continued

Newton	*Romve Writing*	*Vindolanda Tablets and Old Roman Cursive examples*	*Ussher I glosses*	*Epigraphic and other inscribed comparisons*	*Springmount Bog Wax Tablets*	*Possible letters*
12	Letter p, Table C (17)	Letter p, Vind 473	Abbreviation for Latin *per*, fol. 129r	Letter p, *RIG* II-2 fig 198b (41)	Letter q, *RIG* II-2 fig 196 *L-110 5th century (Pictones)	p? q?
13	Table 3 (7) Letter G Table B Letter G	Letter G, Vind 378		Letter G, Gaulish curse tablet, *RIG* II-2 fig 195 (II) Letter G, Llanmadog (cf Nash-Williams 215)		G
15 17 19 36 38	Letter O, Table 6 (1)	Letter O, Vind 328	Letter O, fol 147v	Letter O, St Vigeans no. 1 (cf Canmore SC1051207)	Letter O	O
16 35	Letter N, Table C Letter n, Table 6	Letter n, Vind 164	Letter n, fol 86r	Letter N (majuscule and minuscule), *RIG* II-2 fig 196, Rom *L-103 3rd–4th century; Poitiers *L-110 5th century	Letter n, fol 3 col 2, line 3	n h?
20	Letter C, Table 5 (C)	Letter C, Vind 176	Letter C, fol 129r	Letter C, Whitefield (cf Canmore SC488167)	Letters *Co*, fol 3, col 2, line 3	C T?
21		Letter d (in *des*) as a Greek theta (possibly correction), Vind 648. See RIB s.v. Tab.Vind.648	fol 36v	Letter ~~d~~, *RIG* II-2 fig 192 La Graufesenque Letter Q, *RIG* II-2 fig 192 La Graufesenque		O? ~~d~~? or Q? (cf Gaulish Latin cursive)
25 40 43	Letter s, Table 6 (15)	Letter s, Vind 280	Letter p, fol 86r Letter s, fol 146v	Letter s, Gelli-gaer (cf Nash-Williams 270)	Letter s, fol 3, col 2, line 2	s p? (see above), or possibly a vowel (a?)
24	Letter x, Table 6 (25)	*EX*, Vind 256	xps, fol. 127r	Llangaffo (cf Nash-Williams 35)	Letters *IX*, fol 3, col 2, line 3	uncertain
26						uncertain
27	Letter d, Table 5 (5) Letter L, Table 5 (14)	Letter b, Vind 260	Letter L, fol 138v Letter b, fol 138v	Letter d, *RIG* II-2 fig 198c (65) Letter b, *RIG* II-2 fig 196, Rom *L-103 3rd–4th century; Poitiers *L-110 5th century	Letter b, fol 3, col 2, line 5	b d l
27a 29 34	Letter I, Table 5 (2)	Letter i, Vind 128	Letter i, fol 86r	Letter I, Whitefield (cf Canmore SC488167)	Letter l, fol 3, col 2, line 7	I
28	Letter S, Table 6 (48) Letter l, Table 6 (51)	Letter S, Vind 168	sps, fol 103r	Letter S, Llannor, Pempris Farm (cf Macalister 1945)	Letter l, fol 3, col 2, line 7	S l?

TABLE 4
Continued

Newton	*Romve Writing*	*Vindolanda Tablets and Old Roman Cursive examples*	*Ussher I glosses*	*Epigraphic and other inscribed comparisons*	*Springmount Bog Wax Tablets*	*Possible letters*
 30 cf 16	 Letter H, Table 2 (9)  Letter N, Table 2 (28)  Letter H, Table 3 (12)	 Letter H, Vind 176  Letter N, Oxyrhynchus 668, British Library (3rd–4th century)	 Letter N, fol 88r	 Letter N, *RIG* II-2 fig 198a (35.6)  Letter N (majuscule and minuscule), *RIG* II-2 fig 196, Rom *L-103 3rd–4th century; Poitiers *L-110 5th century	 Letter N, fol 3, col 2, line 2	*n* (miniscule) N (majuscule)? H?
 32  33 cf 28	 Letter Q, Table 6 (1–2)  Letter Q, Table 5 (5)	Letters SS, Vind 391	 Letter g, fol 147r	 Letter g, Gelli-gaer (cf Nash-Williams 270)		Q S *g* (miniscule)
 37	 Letter N, Table 3 (30)  Letter K, Table 5 (3)	Letter K, Vind 808 (RIB Tab)	 symbol of a backwards 4, fol 38v	Letter S (*RIG* II-2 fig 196, Rom *L-103 3rd–4th century		uncertain possibly the same as 6, 18, 22
 41	 Letter V/U, Table 3 (25)  Letter V/U, Table 5 (5)	Letter V, Vind 391 Letter V, Vind 141	 Letter V/U, fol 147r  Letter V/U, fol 131v	 Letter U, St Vigeans no. 1 (cf Canmore SC1051207)  Ligatured NT *RIG* II-2 fig 196, Rom *L-103 3rd–4th century	 Letter V, fol 3, col 2, line 7	U/V? or possibly a letter ligatured to T?
 42	 Letter T, Table 3 (15)	Letters TT, Vind 391	 Letter T, fol 86r	 Letter T, Whitefield (cf Canmore SC488167)		T?

NOTES

1 For comparison with slate writing from Inchmarnock, see Forsyth & Tedeschi (2008).

2 I am very grateful to Barry Lewis, Katherine Forsyth, David Stifter, Paul Russell and Alexander Falileyev, who in the course of discussion, provided many of the observations noted in this paragraph. Barry Lewis made the suggestion that the damage at the top of the stone is why lines 1 and 2 of the alphabetic inscription were not closer to the ogham: the carvers avoided this section. Katherine Forsyth confirmed that the viewer is to begin reading the inscriptions at the same place on the monument, which is why the ogham is read from the top.

3 I was unable to examine the carving technique of the mirror symbol when I last visited the Newton Stone on 6 September 2019, as it was covered in moss and lichen.

4 Cf also the Abdie Churchyard, or Lindores Stone (Canmore ID 30019), which has a mirror carved on the adjacent face to the triple-disc and cross-bar symbol and the crescent and v-rod on the front face.

5 Jackson (1955: 140) suggests the p on the Auchenblae cross-slab may represent the word *ipe* found on the Drosten Stone (St Vigeans no. 1) (see Geddes 2017, vol 2: 224), which Jackson (1955: 140) proposed from context may mean 'and' or 'son of'. Clancy (2017: 108–13), in his detailed analysis of the St Vigeans no. 1 inscription, demonstrates that this theory is very uncertain. We should therefore be cautious in assuming that the P of PIDARNOIN stands for *ip*(*e*). See also G Charles-Edwards (2017: 117–18) for the letterforms of the Auchenblae slab.

6 *Annals of Ulster c* 668; see also *Annals of Tigernach c* 669, and *Chronicon Scotorum c* 669. This *obit* is one of the many early

entries that likely originates from an *Iona Chronicle* (Bannerman 1968), and the absence of patronymics suggests that *Itarnan* and *Corindu* were probably clerics (Forsyth 1996: 490). The *Itarnan* who died in *c* 669 may be identified with the Pictish Saint Etharnon or Ethernan, whose cult sites are found in Fife (Kilrenny, Aithernie near Scoonie, and the Isle of May), Forfar, Madderty in Perthshire, and Rathen in Buchan. Only the Scoonie stone may be tentatively linked to the saint, but these inscriptions do provide evidence for the widespread use of the name in Pictland.

7 The Latin name is recorded on five Roman objects in Britain. The masculine name *Aeternus* is found on a slab from York (*RIB* 648; *CIL* 236), a ring from Colchester (*CIL* 1297) and a vessel from London (*CIL* 1336, no. 23). Cf the Late Roman name *Æternalis* (Martindale 1971, vol 2: 18). The feminine name *A*[*etern*]*ae*, a deity-name, is probably recorded on a dedication slab in Old Carlisle (*RIB* 886, *CIL* 336).

8 See also Sims-Williams (2003: 98, §27 and 358–9 for dating) and inscriptions 414/217, 430/306 and 389/97.

9 I am grateful to Katherine Forsyth for mentioning this possibility.

10 VORRENN has been compared with UORRAN in Allen & Anderson's (1903, vol 2: 24, fig 20) reading of the Burrian Stone (Padel 1972a: 131–2); however, Forsyth (1996: 200) suggests the Burrian reading is i(..)IRRANN and does not accept the comparison.

11 Forsyth (1996: 436) also suggests that this name may be the Pictish cognate of Welsh *Guoren* recorded in the *Lives of Welsh Saints* and in a charter (*c* 860) of the *Book of Llandaf* relating to Llanfocha; however, the editors of these texts imply the spelling is a mistake for Gurvan, which suggests a different etymology. See Evans (1893: 75); Baring-Gould & Fisher (1911: 156 sv S. Guorvan); Davies (1979: 94, no. 74 (5)) amends this name to *Gurou*; see also Coe (2001: 513).

12 It is difficult to determine if *Forand* was an earlier form of *Forann*. The name shows assimilation of *nd* > *nn* (see Thurneysen 1946: 93, §151); however, hypercorrect spelling of /nn/ as *nd* continued into the Middle Irish period. The assimilation of *nd* > *nn* also occurred in the Brittonic languages (Jackson 1953: 509–13, §112; Sims-Williams 2003: 74–8, sv /nd/). Evidence for the Pictish language is so scarce, it is difficult to determine if the NN on the Newton Stone shows a similar process of assimilation, or if the NN may simply be due to the frequency of doubling of consonants in ogham (see McManus 1991: 124–6, §6.30 (d)).

13 Note, however, that in British Latin inscriptions the -I genitive (Latin and British) was sometimes added to British names post-apocope due to orthographic conservatism (Sims-Williams 2003: 109).

14 Cf also discussion of lenition in Jackson (1955: 163), who compares the spellings *Uuradech* (for **Uuradec*) and *Uuredeg*.

15 Derilei has been convincingly identified (see Clancy 2004) as the mother of the Pictish king, Nechtan (706–24, and again from 728–9). For references to Pictish women in medieval Irish literature, see Chadwick (1955).

16 This was agreed in discussion with Barry Lewis, Katherine Forsyth, Paul Russell, John Koch, Guto Rhys, Ben Guy, David Stifter and Alexander Falileyev.

17 This was the general consensus in discussion with those named in n16 above.

18 Compare, for example, the interchange of *i* and *e* in the Pictish territorial name *Circin* and *Gerginn* (Evans 2013).

19 This observation was made by Ben Guy.

20 I am grateful to Katherine Forsyth and Mark Stansbury for these observations.

21 I am grateful to David Stifter for this suggestion.

22 This was suggested by David Stifter.

23 I am grateful to Mark Stansbury for this observation and discussion of set versus cursive scripts.

24 https://www.bbc.com/news/uk-scotland-north-east-orkney-shetland-52660032. Accessed 18 wMay 2021.

25 I am grateful to Simon Rodway and Katherine Forsyth for pointing out the comparisons with the first line of the Newton inscription.

26 Compare, for example, the ogham variations of the name *Necht* or *Nechtan* on Ackergill, Formaston and Lunnasting (Forsyth 1996: 11–22, 261–87, 402–19).

27 Rodway's (2020: 191) first objection to the theory that ETTE might be a Pictish copula + pronoun construction is a comparison of the use of Old Irish *it-é*, which he notes would not be used with an 'adjectival predicate' (see Thurneysen 1946: 492, quoted in Rodway 2020: 191), but this presupposes that CONMORs in the Cunningsburgh 2 inscription is an adjective rather than a proper noun. If it is a name, which remains a possibility (Forsyth 1996: 217), then such a construction would be acceptable.

28 See Rodway (2020: 183–4, §2.10) for discussion of the unsatisfactory variation between A and E in Pictish oghams with MAQQ and MEQQ.

ABBREVIATIONS

CIL: *Corpus Inscriptionum Latinarum*, vol VII: *Inscriptiones Britanniae Latinae*. Ed. A Hübner. 1873. Berlin: George Reimer.

CLA: *Codices Latini Antiquiores* database: https://elmss.nuigalway.ie/.

RIB: *The Roman Inscriptions of Britain*, 4 vols. Ed. R G Collingwood, R P Wright & R S O Tomlin. 1955. Oxford: Clarendon Press. Available online at: https://romaninscriptionsofbritain.org/.

RIG: *Recueil des Inscriptions Gauloises*, 4 vols. Ed. P M Duval, M Lejeune, G Pinault, J-B Colbert de Beaulieu, B Fischer & P-Y Lambert. 1985–2002. Paris: Éditions du CNRS.

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