Poireaux 'leeks' and *poire* 'pear' : a lesser-known diphthongization of open [ɔ] in Northern Gallo-Romance

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The published text has unfortunately been marred by various technical problems, in particular omission of space between words, which make it difficult to read. The abstracts added by the editors of the Journal are erroneous and should be replaced by the following ones.

ABSTRACT

The author of this article analyzes a common form of diphthongization that affected unstressed non-low back vowels in some dialects of Northern Gallo-Romance. Contrary to the traditional view, he argues that the diphthong of *poireau* resulted from a genuine sound change that developed in the Paris region in ways similar to, but historically independent from, the diphthongization observed in Southern Picardy and Western Normandy.

RESUMEN

El autor de este artículo analiza varios procesos de diptongación de vocales átonas en algunos dialectos del dominio de Oïl. En contra de la opinión tradicional, Morin argumenta que el diptongo de *poireau* es un ejemplo de un auténtico proceso de diptongación producido en la región de Paris y similar a otras diptongaciones del sur de Picardía y el oeste de Normandía, aunque independiente históricamente de ellas.

RÉSUMÉ

L'auteur de cet article analyse une forme de diphtongaison qui affecte les voyelles postérieures non basses de certains dialectes galloromans d'oïl en position non-accentuée. Contrairement à l'interprétation traditionnelle, il fait valoir que la diphtongue de *poireau* résulte d'un véritable changement phonétique qui s'est développé en région parisienne de la même manière que la diphtongaison observée dans le sud de la Picardie et l'ouest de la Normandie, mais de façon indépendante.

1. Introduction

The phonetic development of *poireau* 'leek' in French is not regular and betrays some form of analogical contamination or folk etymology, or so is often claimed, cf. Hatzfeld *et al.* (1890-1900, s.v. *poireau* and § 511). A likely source of contamination would be *poire* 'pear' as spelled out by Wartburg (1958):[1]

> Lt. **PŎRRUM** "lauch" lebt in der ganzen Romania weiter: rum. *por*, it. *porro* (s. Penzig 1, 18–21), logud. *porru*, obeng. *puorv*, Comelico *porvu*, frl. *puar*, kat. *porre*, sp. *puerro*, pg. *porro*. [In gallorom.] hat sich das simplex auf teile des frpr. und des occit. zurückgezogen, während im übrigen zahlreiche ablt., meist diminutiva, einige, so *-ée*, kollektiva, an die stelle des simplex getreten sind. Diese ablt. sind zum teil auch gebildet worden, um pflanzen zu bezeichnen, die dem lauch irgendwie nahe stehen. Bei diesen tritt der stamm teils als *por-,* teils als *poir-* auf, zuerst bei der ablt. auf *-eau*. Der grund dieser modifikation liegt wohl in einer beeinflussung durch fr. *poire*; ihren grund hat diese umbildung in der rundlich geschwellten form der beiden zur menschlichen nahrung bestimmten naturprodukte.[2] (Wartburg 1958, FEW 9.197b)

The influence of *poire* 'pear' in any case would have been exerted by the shape of *porrum capitatum,* i.e., one variety of the common leek obtained by specific growing techniques geared to enlarging the pseudo-stem at the root base. These techniques were known by the Romans, but one cannot ascertain that they had been preserved throughout the Middle-Ages and may have been re-introduced only later in France during the sixteenth century (Dioscórides 1553; 151, Columella 1543: 210, 1556: 486-487, Mattioli 1572: 331);[3] they were eventually given up in the eighteenth century, as appears from the encyclopedic treaties which by that time only described the cylindrical variety earlier known as *porrum sectivum*, although the techniques for *porrum capitatum* were still known through contemporaneous translations of Latin agricultural treatises (e.g., Aubert de La Chesnaye 1751: 76). No allusion, however, is ever made in such works to the pear-likeness of the shape of leeks under either form.

I will argue in this article that the [u̯ɛ, u̯a] diphthong now found in *poireau* is best analyzed as the result of an incomplete phonetic change that diphthongized the unstressed reflex of its stem *por-* < PŎRRUM in the Paris region, similar to that observed in Southern Picardy and Western Normandy.

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[1] Also found in Fouché 1958: 428.

[2] Lat. **PŎRRUM** "leek" is attested in all of Romània: Romanian *por,* It. *porro* (see Penzig 1, 18-21), Logud. *Porru,* Obeng. *puorv,* Comèlico *porvu,* Frl. *puar,* Cat. *porre,* Sp. *puerro*, Pg. *porro*. [In Gallo-Romance] the simple form survived in parts of the Francoprovençal and Occitan domains, while elsewhere it was replaced by numerous derivatives, mostly diminutives, and some collectives, such as *-ée*. Some derivatives also developed to refer to plants somewhat similar to leeks. The stems of these derivatives are either *por-* or *poir-,* originally formed with the suffix *-eau*. This modification is probably due to the influence of Fr. *poire*, resulting from the similar-looking round bulging base of these two plants widely cultivated for human consumption.

[3] Mattioli (1572: 331) mentions the unsuccessful attempts by contemporary gardeners to grow leeks having "la teste grosse comme vn oignon combien qu'anciennement tels porreaus estoient fort communs" [a head as big as an onion, although such leeks were quite common in the past].

2. The Picard connection

The editors of the *Trésor de la langue française* (Imbs 1971-1994, vol. 13) concluded that the transformation of "*porreau* en *poireau* s'est produite d'abord dans la région parisienne, prob. sous l'infl. de *poire*; mais *porreau* survit encore dans les parlers provinciaux (v. *FEW* t.9, pp.194b-195a)." [*porreau* into *poireau* first developed in the Paris region, probably under the influence of *poire* 'pear', although *porreau* is still alive in provincial usage.] There are, however, too few early written attestations of this word with the ⟨oi⟩ digraph to allow one to know precisely when and where the diphthong developed. The FEW reports two early attestations: *poiriaux* "Paris 1265", probably from the *Livre de métiers d'Étienne Boileau*[4] a manuscript in which Picard graphic and morphological features can be observed, and *poirel* "pik. ca. 1382", perhaps in the fifteenth-century ms. *Chronique de Bertrand du Guesclin*.[5] It can also be found in the later fifteenth-century ms. of *Le mesnagier de Paris* (originally written ca. 1393), where *porée* is nonetheless more frequent than both *poirée* and *poireau*.[6] Otherwise, early attestations of the ⟨oi⟩ spelling for ⌐poireau⌐ appear to be relatively late.

The modern geographical distribution of the dialectal reflexes of the stem vowel of ⌐poireau⌐[7] does not support the hypothesis that the diphthong first appeared in the Paris region. The diphthongs collected by recent dialectal surveys are mostly found in three areas, where they appear to have developed independently: (1) Western Normandy, (2) a large central area, (3) Northeast Franche-Comté. Maps 1a and 1b present data collected by the ALF and give only an approximate idea of this distribution for the region around Paris, considered then to be of little relevance to dialectal studies and covered only with a loose mesh of points. These data must be completed with those of recent surveys (ALIFO 268, ALCB 685, ALPic 262, ALN 346, 423, ALLR 102, ALFC 497).[8]

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[4]   DEAF: LMestL, ms. BN fr. 24069 (anc. Sorbonne) [traits pic. et Est fin 13ᵉs.], *porées* (p. 227), *porée* (p. 233, but transcribed as *porete* in Depping's edition of the same manuscript, cf. DEAF: LMestD), *poiraus* (p. 272), *poiriaux* (p. 272).

[5]   DEAF: ChronGuesclC, ms. Arsenal 3141 [déb. 15ᵉs.], footnote of p. 154. The non-diphthongized variant *porel* appears in ChronGuesclF, ms. Montpellier Ec. de Méd. H.250 [déb. 15ᵉs.] , v. 4691.

[6]   DEAF: MenagP, ms. BN fr. 12477 [1ᵉm. 15ᵉs.], *porée(s)* 46 occ. vs. *poirée(s)* 4 occ., *poireau(s)* 3 occ.

[7]   The type ⌐poireau⌐ represents all derivatives of PŎRRŬM, irrespective of its suffix: *poireau, porreau, porrée, porrette, porrion…*
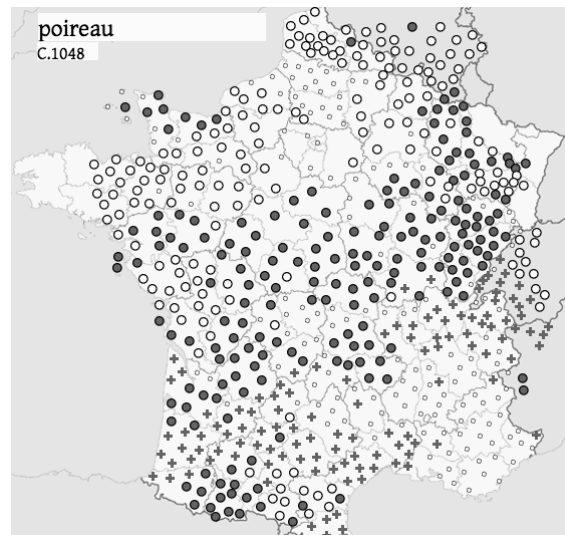
[8]   These surveys also reveal that the geminate rhotic of PŎRRŬM must have degeminated relatively early, as its reflexes are [z] or [ð] in parts of Brie, Southern Champagne and Normandy, where this is a typical development of intervocalic non-geminated -R- (cf. Bloch 1927, Spence 1957, Brasseur 2011).
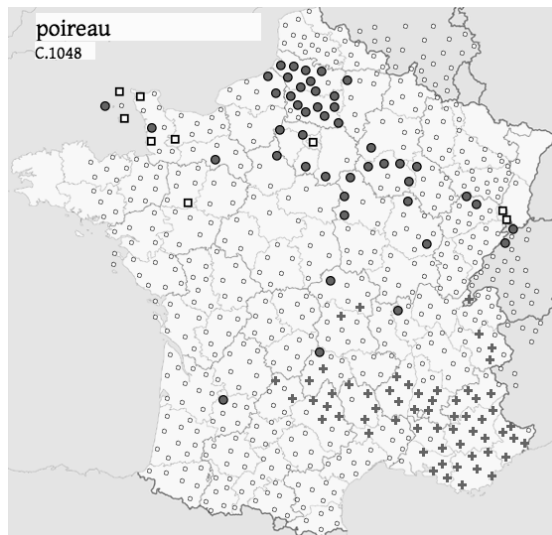
Map 1a - poireau – poir
● = u̯a/u̯e/u̯ɛ, □= u̯o
(+ = diphthongized reflexes of PŎRRŬM)

Map 1b - poreau, poureau – por, pour
● = u, ○= o/ɔ
(+ = non-diphthongized reflexes of PŎRRŬM)

In the central area, the diphthongized stem vowels are most frequent in Southern Picardy (Départements of Oise and of Somme) and significantly less in Île-de-France (defined here as including the Paris region and the Départements of Eure-et-Loir and Seine-et-Marne).[9] In all likelihood, then, the diphthongization would have begun in Picardy, where — as will be shown below — it is a regular phonetic change, albeit incomplete, that affected both stressed and unstressed [ɔ].

On the other hand, little supporting evidence can be adduced in favor of a similar general phonetic change in the Paris region. One would be tempted to assume that the Picard pronunciation was adopted in the Parisian koinè, from which it later spread to its hinterland. A similar, albeit hesitant, account is sometimes offered for the "deviant" development of a diphthong in *foin* [fu̯ɛ̃] 'hay' < FĒNŬM and *avoine* [avu̯an] 'oat' < AVĒNĂM in French *vs.* its "regular" absence in *plein* [plɛ̃] 'full' < PLĒNŬM and *veine* [vɛn] 'vein' < VĒNĂM: the deviant pronunciation of *foin* and *avoine* would have been imported into Paris together with the hay and oat they designated from Lorraine and Burgundy (cf. Bourciez 1921, 1967 §60 remarque I, Fouché 1958: 376). One might venture some support for a similar dialectal influence on *poireau* from the fame leeks from Picardy achieved as early as the thirteenth century (Le Roux de Lincy 1859: 306), with the expression *porrée d'Arras* 'Arras leek' used as a quality label much like *fromage de Brie* 'Brie cheese' or *moutarde de Dijon* 'Dijon mustard' at the same period (Prompsault 1835: 127) — assuming diphthongization to have taken place in this town of Northern Picardy where it is no longer attested. This is unlikely. There are no reasons to believe that leeks sold in Paris were imported from far away and not simply produced on its outskirts (Pitrat & Foury 2003: 81). As appears on Map 1b, the Northern Gallo-romance reflexes of the stem vowel of ⌈poireau⌉ are massively non-diphthongized: [u] in most regions, and [ɔ] or [o] in the North and often in the West. Obviously the Parisian norm [u̯ɛ], and later [u̯a],

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9   The different patterns of diphthongization within these two areas do not appear in the ALF survey reported on Map 1a because of the paucity of data in Île-de-France.

did not have much of an impact in the rest of France on the local pronunciation of this common food product, and may equally have played little role in its hinterland.

3. The Southern Picard diphthongization of [ɔ] > [u̯ɛ] before [r]

There is no doubt that the diphthongization of stressed and unstressed medieval [ɔ] before [r] — resulting in a diphthong ending with a mid front unrounded nucleus, noted here [u̯ɛ][10] — was a regular, albeit incomplete, phonetic development in Southern Picardy, in particular in the Département of Somme.

Flutre (1970a: 421, 1977: 88) observed frequent spellings ⟨oi⟩ or ⟨oe⟩ for ⟨o⟩ in parodic dialectal documents presumably written in this region between the end of the sixteenth and the beginning of the eighteenth centuries, both in stressed position: *encoire, coire* ⌜encore⌝ 'still' < °HINCAURA < °HĬNC HAC HORA or °HĬNC AD HORAM, *oir* ⌜or⌝ 'gold' < AURŬM, *Aliénoire* (proper name) ⌜Aliénor⌝, *butoire* 'bittern' ⌜butor⌝ < BŪTĔŌ + TAURŬM, and in unstressed position: *chicoirée* ⌜chicorée⌝ 'chicory' < medieval Lat. CICOREA, *coirage* 'courage' < CŎR + -ĀTĬCŬM, *coiroie* ⌜courroie⌝ 'belt' < CŎRRĬGĬAM, *capoeral* 'caporal' ⌜caporal⌝ < 16th-century borrowing form Ital. *caporale, corporale, doiré* ⌜doré⌝ 'golden' (from *oir* 'gold'), *étoiré* 'furnished' < INSTAURĀTŬM, *Loirenche* ⌜Laurent⌝ (proper name) < LAURENTĬU(S), *moerir, moirir* ⌜mourir⌝ 'to die' < MŎRĪRE, *ej noeris* 1sg of ⌜nourrir⌝ 'to nourish' < NŬTRĪRE, *oirage* ⌜orage⌝ 'wind, storm' < °AURĀTĬCŬM, *oirée* 'wind, storm' < AURA + -ĀTĂM, *oireille* ⌜oreille⌝ 'ear' < AURĬCŬLĂM, *poirée, poérée* ⌜porrée⌝ 'leek soup' < PŎRRŬM + ĀTĂM, *soernette* (18th c.) ⌜sornette⌝ 'nonsense, hogwash' (obscure etymology, diminutive of *sorne,* the latter attested in the 14th century). Additional early material can be found in Debrie's glossary (1984): *soirs*[11] (attested in 1459) ⌜(hareng) saur⌝ 'smoked herring' < Mid. Dutch *soor, soiret* (1472, 1551) ⌜sauret⌝ 'smoked herring' < Mid. Dutch *soor* + -ĬTTŬM, *soiris* (18th c.) ⌜souris⌝ 'mouse' < SŌRĪCĔM. For most of these forms, the diphthong [u̯ɛ] or [u̯e] could still be observed in Southern Picard dialects at the end of the nineteenth and during the twentieth centuries, as recorded by Jouancoux & Devauchelle (1890), who also noted *moire* ⌜maure⌝ 'Moor' < MAURŬM,[12] probably as used around Amiens; by Ledieu (1893), who added *toir* ⌜tor⌝ 'bull' < TAURŬM and *moirille* [mu̯ɛrɪl] ⌜morille⌝ 'morel' < °MAURĪCŬLĂM, der. from MAURUS, to the list; by Sütterlin (1902: 284, 299), who provided further phonetic details

[10]   It is a moot question whether this mid front unrounded nucleus was originally open-mid [ɛ], or close-mid [e]. Its later evolution shows that it tended to lower to yield [u̯æ] and [u̯a] — there is no evidence of its raising to yield [u̯i] in ⌜poireau⌝, unlike some of the reflexes of [ɔi̯] (cf. Flutre 1970b: 282) and that of the unstressed vowel of ⌜mouron⌝ 'chickenweeds' to be discussed later. For ease of presentation I use [u̯ɛ] as a cover term for [u̯ɛ] / [u̯e] (and [ɛ] for their reflexes after the loss of the initial on-glide) in discussions on phonetic changes; the same convention applies to [u̯ɔ] for [u̯ɔ] / [u̯o] (and [ɔ] for their reflexes).

[11]   A similar form is recorded in "*haren soir, ou de la nuict*" by early French lexicographers with no particular regional connotations. (The identification of «hareng saur» with «hareng de la nuit», however, is a misunderstanding, cf. Franklin 1905: 380, probably originating from Estienne 1549: 307). This form is rejected by Nicot (1573: 365) who disapprovingly noted that "Aucuns le veulent appeler *harenc soir* pource qu'on l'appelle aussi *harenc de la nuict* & le rendent en Latin, *Hanrengus nocturnus*" [Some want to call it *harenc soir,* because it is also referred to as *harenc de la nuict* 'night herring' and translate it in Latin as *Hanrengus nocturnus*].

[12]   Wartburg (FEW 6:1.546b) presented Jouancoux & Devauchelle's form as a specific Picard development and assumed an analogical formation: «Wohl beeinflusst von *noir*? » [Likely influenced by *noir* 'black'?].

for *soiris* [su̯erẽ], *toir* [tu̯er]; by the ALF survey, also with further phonetic details for *toir* [tu̯er, tu̯er], *soiris* [su̯eri, su̯erẽ]; by Flutre (1955), with further phonetic details for *moirille* [mu̯erɪl]; or by Vasseur (1963), who added *fouéret* [fwere] ⌜foret⌝ 'drill' < FŎRĀRE + -ĬTTŬM and *fouéreu* [fu̯erø] ⌜forêt⌝ 'forest' < [SILVA] FŎRĔSTIS.

The data gathered by Flutre show that this diphthongization affected primarily the reflexes of Romance and Germanic [au̯] (both henceforth referred to simply as «Rom. [au̯]») — which already monophthongized to open [ɔ] by the time of the earliest medieval written documents — both in stressed and unstressed positions. Open [ɔ] is also the regular pronunciation of Lat. *o* in learned borrowings, and may well have been that of the unstressed vowel of ⌜chicorée⌝ before it diphthongized. Although ⌜(hareng) saur⌝ 'smoked herring' was in all likelihood borrowed from Mid. Dutch *soor* (FEW 17.161), its pronunciation — and that of its diminutive ⌜sauret⌝ — could have been influenced by its cognate ⌜saur⌝ 'yellow brownish', an earlier borrowing from Old Low Frankish °SAUR (FEW 17.18). It is also important to note for the record that Lat. SŌREX 'mouse', later becoming SŌRĪX (*cf.* FEW 12.120), is also attested as SAUREX (Ernout & Meillet 1959) with a diphthong [au̯], which may perhaps account for the specific development of its unstressed vowel in Picardy and Wallonia; although this hypothesis does not appear to have been entertained before.

Be as it may, the unstressed vowel of ⌜sauret⌝ and ⌜souris⌝ need not reflect, or be influenced by, an early Rom. [au̯] to become open [ɔ], as unstressed Rom. [o] often became [ɔ] before [r] in Picard and other Oïl dialects. The evolution of unstressed Romance [o] is a lesser known chapter of the history of Northern Gallo-Romance, where — unlike that of many other Romance languages — a distinction between [o] and [ɔ] developed early in unstressed position as the result of the monophthongization of Rom. [au̯], which can be illustrated by the derivatives *orée* [ɔˈreə] 'wind, storm' < AUR- + -ĀTĂM vs. *orée* [oˈreə] 'bank, riverside' < ŌR- + -ĀTĂM (attested since the Middle French and Old French periods, respectively).[13]

This new phonological availability made it possible for unstressed Rom. [o] to become [ɔ] under various conditions, in particular as the result of morphological regularization. Thus the unstressed vowel of OFr. *clochier* 'bell tower, steeple' became [ɔ] on the model of *cloche* [ˈklɔtʃə] (or [ˈklɔʃə]) 'bell' < CLŎCCĂM, replacing an earlier phonetically regular [o] (assuming *clochier* was not simply derived from *cloche* at a later period, when open-mid [ɔ] was already allowed in unstressed position). Unstressed close-mid [o] was also more or less frequently lowered before liquids and yod (cf. Pope 1952: 188 §499) under conditions that may vary in different regions; a change that was particularly frequent before rhotics in Picardy according to Flutre (1977: 48-49). In some Eastern and Western Gallo-Romance varieties, Rom. [o] also lowered under a larger array of conditions, probably parallel to that of stressed Rom. [o] in closed syllables, which may equally lower in these dialects.[14]

Eventually (un-lowered) close-mid [o] was raised to [u], in both stressed and unstressed positions, while [ɔ] usually reflexes as [ɔ] or [o] in modern dialects

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[13] For a widely divergent view, cf. Fouché (1969: 427-428, 436-435), who postulated an early merging of [ɔ] < Rom. [au̯] with Rom. [o] in unstressed position during the eleventh century, later becoming [u], with more or less haphazard regression to [ɔ] or [o], due to morphological analogy, learned influences, hypercorrection, etc.

[14] This specific evolution of Rom. [o] in Eastern Gallo-Romance (Walloon, Lorrain, and Francoprovençal), as in [bɔtɛi̯, bɔtai̯...] ⌜bouteille⌝ 'bottle' < BŬTĬCŬLĂM or [gɔt] ⌜goutte⌝ 'drop' < GŬTTĂM, is relatively well-understood, but less so in Romance Brittany and Poitou-Charente (cf. Chauveau 1989: 161-168, Dottin & Langouët 1901: LXXXI).

(occasionally also, in a relatively small number of dialects, as [u] after being lengthened, as in [uzi̯e] ⌜osier⌝ 'wicker' < °AUSERĬŬM/AUSERĬĂM or [puti̯o] ⌜poteau⌝ 'post' < PŎST- + -ĔLLŬM). As can be seen on Map 1b, the stem vowel of ⌜poireau⌝ was eventually raised to [u] (noted with black circles) in most southern Oïl dialects, except those of Poitou-Charente. In most northern dialects, except those of Western Normandy, it reflexes as [ɔ] or [o] (white circles on Map 1b) or as a diphthong (as noted on Map 1a).

This evidence points unequivocally to a historical phonetic change responsible for the diphthongization of [ɔ] before [r] in Southern Picardy. Yet Flutre felt it necessary to entertain the idea that for *poireau* — and for *poireau* only — the result also obtained through analogy: « Le mot a.p. *porel* a été altéré en *poirel* d'une part sous l'influence de *poire,* mais aussi par le fait qu'un *i* se développait normalement entre *o* et *r.* » [OPic. *porel* turned into *poirel,* under the influence of *poire* on the one hand, but also as a result of a regular epenthesis of *i* between *o* and *r* on the other] (Flutre 1970: 421, restated in 1977: 88).

Flutre apparently assumed the change to have developed during the Middle-Ages: « dès le picard du moyen âge » (1970: 421), arguing that « *o* devant *r* était très souvent devenu *oi* en picard ancien: *encoire* encore, *toir* taureau, *oir* or, etc.» (1977: 88) [*o* before *r* often became *oi* in Old Picard: *encoire* 'still', *toir* 'bull', *oir* 'gold', etc.] and that «*moirir* pour *mourir, soiris* pour *souris*» were Old Picard forms (1977: 60), without supporting reference, however. The FEW only documents *oir* 'gold' in a late fifteenth-century Walloon ms. and *doéré* in Picardy even later (FEW 25.1020a, 1026a); there are only late attestations for *moirir* 'to die' (FEW 6:3.131b) and *toir* 'bull' (FEW 13:1.130a). The only early forms are *encoire* (and its variants *encoir, encoires, aucoires…*), in the thirteenth century,[15] and *soeris* in the fourteenth.[16] There are, however, widely divergent interpretations of the digraph ⟨oi⟩ in such forms: Wartburg (1948, in FEW 4.480a, note 46) and Flutre (1970b: 276) assumed it originally represented a diphthong [ɔi̯], Wahlgren (1925: 311-330) a diphthong [u̯ɛ], whereas Fouché (1969: 242), Régnier (1961: 259-260), Wüest (1979: 208) saw it as an inverse spelling for [ɔ]. The first interpretation must certainly be ruled out as will be obvious in the discussion below. On the other hand, it is quite possible that ⟨oi⟩ may have represented either the diphthong [u̯ɛ] or the vowel [ɔ] in early Picard documents.

The digraph ⟨oi⟩ first emerged in the Northern Gallo-Romance scripta to represent the medieval diphthongs [ɔi̯] and [oi̯] from various sources: (1) Rom. [au̯] + yod, as in *noise* 'noise, brawl, disturbance' < NAUSĔĂM, (2) learned Latin *o* + yod, as in *gloire* 'glory' < GLŌRĬĂM, (3) [ei̯] < Rom. [eː], as in *mois* 'month' < MĒ(N)SĔM) or [e] + yod, as in *toit* 'roof' < TĒCTŬM, and (4) [oi̯] < Rom. [o]+yod, as in *noix* 'nut' < NŬCĔM (cf. Suchier 1893, 1906: 95). Eventually these diphthongs merged and became [u̯ɛ] in many dialects.

At that stage, scribes from regions where [ɔi̯] and [oi̯] became [u̯ɛ] appear to have occasionally used the digraph ⟨oi⟩ to note the diphthong [u̯ɛ] from other sources, as in

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[15]   Wartburg (FEW 4.473) wrote «12th —16th century» for the period during which *encoire* would be documented; the reference to the twelfth century is probably the date of the original text rather than that of the manuscript from which the text is known.

[16]   The form *soeris* is reported in Coussemaker's edition (DEAF: AdHaleC) of *Li partures Adam* (p. 135) as a variant found in the ms. BN fr. 1109 [pic. 1310]. Wartburg (FEW 12.110b) also mentioned *seriz* in the *Ysopet de Lyon* (DEAF: YsLyonF, a late thirteenth-century francomtois ms.) and *sueriz* (Metz 1247); the latter reference seems to be that of the Lorrain ms. of *L'image du monde de maître* by Gossouin (or Gautier) de Metz, written ca 1247 (cf. DEAF: ImMondePrP), where only *souriz* can be found (pp. 115, 117), however.

boin, boine [bu̯ɛn, bu̯ɛnə] ⌐bon, bonne⌐ 'good' < BŎNŬM, -ĂM, and *encoire* ⌐encore⌐ < °HINCAURA according to Wahlgren (1925: 315-316). Although he did not mention it explicitly, the Swedish scholar must have assumed different dates for the diphthongization of Romance [ɔ] in BŎNŬM > *buen* [bu̯ɛn], later spelled *boen* and *boin* by some scribes,[17] and that of [ɔ] resulting from the monophthongization of [au̯] in °HINCAURA, which he must have considered to be a later diphthongization, specific to some northern and eastern varieties of Gallo-Romance.[18]

Wartburg (FEW 4.480a, note 46) contested Wahlgren's analysis of *encoire,* in ways that are not completely clear, however:

> Es handelt sich hier um das im afr. so häufige, nachgeschlagene *i.* Dass es nicht blosse schreibweise ist, wie Wahlgren meint, sondern lautliche realität besitzt, geht ans den modernen pik. formen mit *-we-* hervor, und auch die formen der nördlichen Pikardie, mit *o,* können darauf beruhen, da dort *-oi- > -o-* wird.[19]

Wartburg's term "blosse schreibweise" echoes that of Wahlgren "pure graphie", by which the latter, however, did not mean to say that the scribes' notation was without phonetic content; on the contrary: he definitely assumed that the switch from the spelling *encore* to *encoire* in Picardy reflects the phonetic likeness of the vowel they wrote ⟨oi⟩ in *encoire* to that taken by the sound earlier written ⟨oi⟩ in the same region; he would definitely have concurred with Wartburg that the medieval vowel so represented may well the ancestor of [u̯ɛ] later observed in some modern Picard dialects. On the other hand, Wartburg claimed — in contradiction with Wahlgren — that in its early stages the ⟨i⟩ of *encoire* noted some kind of off-glide [i̯], as appears in his concise statement on the evolution of *-oi-*. His argument seems to be that, as the medieval spelling *encoire* was used both in Northern and Southern Picardy, where the stressed vowel respectively became [ɔ] and [u̯ɛ], as observed in modern dialects, this could only mean that medieval ⟨oi⟩ noted the diphthong [ɔi̯] in both regions, from which [ɔ] and [u̯ɛ] could be derived, [ɔ] in the north after losing its off-glide and [u̯ɛ] in the South as in most Gallo-Romance dialects. This argument crucially rests on the assumed regular loss of [i̯] after [ɔ] in

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[17]   Current textbooks explanations for the modern forms *bon* [bɔ̃] and *bonne* [bɔn], without traces of the early diphthongization, is that they reflect their unstressed prenominal variant, where diphthongization either did not develop or later regressed; thus the unstressed variant *bon,* as found in *bon pere* 'good father', would have later replaced the phonetically regular phrase-final *buen* as in *il est buen* 'he is good'. They assume that the regular phrase-final reflexes were preserved longer — sometimes until recently — in Normandy, Picardy, Lorraine and Franche-Comté, where the diphthong could still be heard in some rural dialects at the beginning of the twentieth century (Pope 1952: 216 § 599, 285 § 720; Fouché 1969: 354, 371).

[18]   Wahlgren assumed that [au̯] monophthongized as close-mid [o] and, consequently, that [o] and [ɔ] may both have turned into [u̯ɛ]. He summarized his ideas on the extension of the digraph ⟨oi⟩ as follow: «dans les cas dont il s'agit […] *oi* représente le son *oe* venant […] de ǫ, ọ diphtongué», i.e.: «in the case examined here […] ⟨oi⟩ notes the sound [u̯ɛ] resulting from the diphthongization of [ɔ] or [o]» (Wahlgren 1925: 326). Wahlgren takes the modern Southern Picard forms with the diphthong [u̯ɛ] noted by Ledieu (1893) — which he quotes from Hrkal's analysis (1910: 137-138) — and later by Sütterlin (1902) as *prima facie* evidence for the existence of general phonetic processes responsible for the diphthongization of [ɔ] and [o] before [r], possibly at work at different periods during the development of Gallo-Romance dialects.

[19]   This [spelling] involves the notorious OFr. trailing *i*. That it is not a mere graphic sign as Wahlgren claimed, but a notation for a genuine phonetic reality, is revealed by the modern Picard forms in *-we-*, as well as the forms in *o* from Northern Picardy, where *-oi- > -o-*.

Northern Picardy (as has been earlier argued by Meyer-Lübke 1890: 94 §73, on insufficient ground, however).[20]

A look at Map 2 (from ALF 458) shows the almost total absence of diphthongs in the modern Picard forms of ⌜encore⌝ in Northern Picardy,[21] in consonance with Wartburg's statement. However, as appears on Map 3 (from ALF 147), diphthongs are equally absent in the modern Picard forms of ⌜bon⌝ in Northern Picardy, for which one would also have to assume that medieval ⟨oi⟩ in *boin, boine* noted a diphthong [ɔi̯] later reduced to [ɔ] if one were following the same line of reasoning — or dismiss the parallelism as accidental.[22]
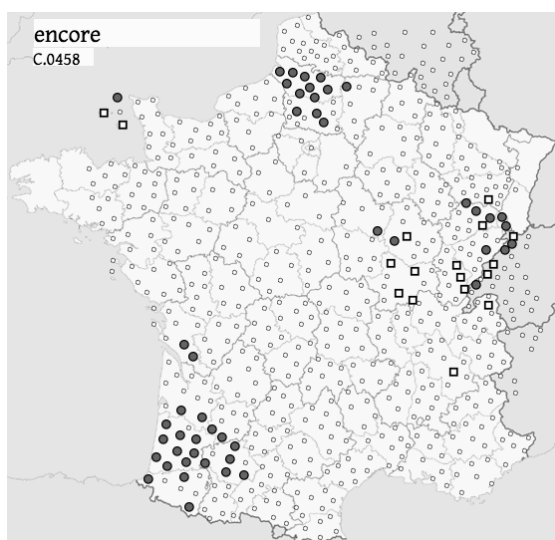
Map 2 - *encore*
● = u̯ɛ/u̯e, □ = u̯ɔ/u̯o
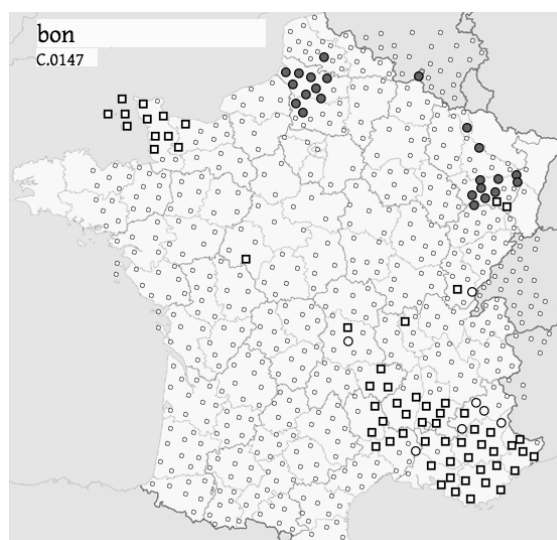
Map 3 – bon bonne
● = u̯ɛ/u̯e, □ = u̯ɔ/u̯o, ○ = u̯u

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20 The early reduction of [ɔi̯] to [ɔ] in Picard dialects has also been invoked to account for the medieval alternations *-oire ~ -ore* or *-oile ~ -ole* in learned words such as *memoire ~ memore* 'memory' or *oile ~ ole* 'oil' (cf. Flutre 1970b: 284). These alternations should definitely be dismissed as evidence for a genuine sound change [ɔi̯] > [ɔ] in Picard dialects, as this putative change usually did not affect hereditary words such as *poire* 'pear' < PĒRĂM, *soile* 'rye' < SĒCĂLĚM, or [mutwel, muswal] 'weasel' < MŬSTĒLĂM (and are only found in some rare cases that appear to be late developments as discussed below). The medieval alternant forms are more likely distinct outcomes from a common source [-ɔri̯ə] and [-ɔli̯ə], whose existence is recorded in the alternate spellings *-orie* and *-olie* sometimes used for the same endings. Later on, the glide [i̯] switched position with a preceding consonant through metathesis to yield *-oire* and *-oile* in central dialects, unless it was deleted as it frequently did in Picard dialects. A genuine reduction of [ɔi̯] to [ɔ] (eventually becoming [o]) was actually observed during the sixteenth century in some Picard dialects. This later reduction, however, seldom affected [ɔi̯] in former paroxytones — and thus could not account for the putative switch of *encoire* to *encore* postulated by Wartburg. It probably occurred after the loss of word-final consonants and hence is now mostly observed in word-final position, as in *doigt* [do] 'finger' or *mois* [mo] 'month'. Furthermore, this later reduction of [ɔi̯] to [ɔ] is limited to a specific domain in Northern Picardy extending southward into an eastern strip of the Département of Somme (cf. Flutre 1970b, map 1, p. 279 and discussion 284-285), and thus would not account for the much wider area where *encore* is observed in Northern Picardy.
21 ALPic (map 655) recent survey was able to record the variant [ku̯ɛr] in Ecques (pt 10, Dépt. of Pas-de-Calais) and in Blaringhem (pt 11, Dépt. of Nord) in the Northwest of the Picard domain, close to the historical linguistic border with Flemish.
22 Further research will also have to take into account the equally parallel evolution of ⌜loin⌝ 'far' < LŬNGĒ, which typically reflexes as [lu̯ɛ̃] in Southern Picardy and [lõ] in Northern Picardy, except for a transitional zone in the Département of Pas-de-Calais, with [lu̯ɛ̃], [lu̯ãɛ̃] and [lu̯õɛ̃].

The fact of the matter is, as emphasized by Wahlgren, that no one has ever presented arguments as to why an off-glide [i̯] should ever develop after [ɔ] before a non-palatal consonant such as [r]; Flutre, who also adopted the epenthetic analysis, is no exception.[23] Furthermore, a phonetic evolution from [u̯ɛ] to [ɔ] is quite conceivable, as actually shown by Flutre himself, who found evidence for the intermediate steps [ɔi̯] > [u̯ɛ] > [u̯a] > [u̯ɔ] > [ɔ] > [o] in different Picard dialects (Flutre 1970a: 454, 1970b: 283, 1977: 89-91).[24] One can thus side with Wahlgren and claim that the diphthong [u̯ɛ] in Southern Picardy that reflects early [ɔ] in words such as ⌜encore⌝, ⌜tor⌝, ⌜maure⌝, ⌜morille⌝, ⌜souris⌝, ⌜mourir⌝, etc. results from a plain diphthongization of [ɔ] going through the stages [ɔ] > [u̯ɔ] > [u̯ɛ] as frequently observed in Romance languages. The question remains whether it began as early during the Middle Ages as the medieval spellings *encoire* and *soeris* would suggest.

Régnier (1961: 259) assumed that ⟨oi⟩ in *encoire* must have been a regional inverse spelling for [ɔ] during the Middle Ages, which eventually spread as a conventional orthography for that word during the Middle French period, when it could be observed in documents written far away from Picardy. For this author, the diphthong [u̯ɛ] now observed in Southern Picardy simply reflect a new diphthongization, unrelated to the medieval orthographical conventions that concurred to the adoption of the digraph ⟨oi⟩ in the spelling of this word.

This hypothesis, however, leaves unaccounted for two specific developments. One is the evolution of the unstressed vowel of ⌜souris⌝, poorly represented in early documents. The ALF documents its pronunciation as [syri], [sʏri] in Northern Picardy, [sɛri], [seri], [sœri], [søri] and only occasionally [su̯ɛri] or [su̯eri] in Southern Picardy. All of these results are regular developments from unstressed medieval [u̯ɛ] in these regions, as in ⌜choisir⌝, albeit with partly different distributions (cf. ALPic 552). It is possible that the unstressed [ɔ] of ⌜souris⌝ diphthongized early as [u̯ɛ] in both Northern and Southern Picardy and eventually turned into a monophthong, either mid front unrounded [ɛ, e] or a front rounded [œ, ø, ʏ, y] in ways similar to that of ⌜mouron⌝ 'chickenweed' (to be examined later).

The second is the convergence between the reflexes of Rom. [ɔ] in ⌜bon, bonne⌝ and [au̯] in ⌜encore⌝, as appears on Maps 2 and 3. Can it be assumed that ⟨oi⟩ in early medieval Picard *encoire* noted a diphthong [u̯e] later displaced by [ɔ], just it may have been the case for *boin, boine* ⌜bon, bonne⌝, at least in Northern Picardy.[25]

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[23] This author's views on the subject are not altogether clear (cf. Flutre 1977b: 276, where they are articulated in most details). He seems to assume that the medieval digraph ⟨oi⟩ was a reverse spelling for [ɔ] before ⟨r⟩ in *encoire* and ⟨s⟩ in words such as *roisti* 'roasted', which disappeared by the end of the Middle-Ages before ⟨s⟩ but was retained before ⟨r⟩, presumably meaning that by then it was no longer a reverse spelling — without any indication on how an off-glide [i̯] — or any other pronunciation at the source of modern [u̯ɛ] — could have developed.

[24] This author, nonetheless, did not rule out a direct reduction of [ɔi̯] to [ɔ], and called for further analyses of early documents to help resolve the issue (Flutre 1977: 91).

[25] The graphic and phonetic evolution of ⌜bon, bonne⌝ in Picardy is definitely puzzling. Dees' atlas (1980, maps 120 and 121), registers 34% occurrences of this lexeme with the spelling ⟨oi, oe, ue⟩ in the thirteenth-century charters written in a geographical sector comprised of the Département of Somme and le Département of Pas-de-Calais. This sector straddles Northern and Southern Picardy and gives a wrong impression of the medieval state of affairs. A recount of the statistics for the charters that can be specifically located to one or the other of these Departments show that the spelling ⟨oi, oe, ue⟩ is quite frequent in the Département of Pas-de-Calais (62%, similar to that observed in the Département of Nord and Belgian Hainaut) and relatively low for the Département of Somme (6,5%, similar to that observed in the Département of Oise). The spelling *boin* and *boine* may, however, have generalized later in Southern Picardy. In his analysis of charters written in Ponthieu (Southern Picardy) between 1254 and 1333, Raynaud (1876: 62) noted that ⌜bon, bonne⌝ was consistently written *bon, bone* up to the end of the thirteenth century and equally consistently *boin, boine* afterwards.

Summarizing the evidence and discussions presented for Picardy, the evolution of [ɔ] to [ɥɛ] before [r] in both stressed and unstressed positions in Southern Picardy is the result of an incomplete sound change whose effect is clearly observable in seventeenth-century documents, but that most likely began before. There must have been an earlier Picard diphthongization of [ɔ] before [r], whose evidence is debatable as it apparently regressed considerably, except perhaps in ⌐encore¬ < °ʜɪɴᴄᴀᴜʀᴀ, and most certainly in ⌐souris¬ < sᴏ̄ʀ̆ɪᴄĕᴍ. The Southern Picard forms for ⌐poireau¬ unequivocally indicate that they have been the object of the most recent of these changes. An important unsolved issue, however, is why the early Picard diphthongization postulated here left so few traces and, if it was once more general, why it regressed.

The digraph ⟨oi⟩ in the early forms *poiraus* and *poiriaux* found in the thirteenth-century Parisian ms. of the *Livre de métiers d'Étienne Boileau* is unlikely to reflect a spelling or a pronunciation borrowed from Picard dialects. An early Picard diphthong in ⌐poireau¬ at this period would be contemporaneous with that of ⌐souris¬ and likewise survive at the end of the nineteenth century or later as mid-front unrounded [ɛ, e] or front rounded [œ, ø, ʏ, y] in various parts of Picardy, not only as [ɥɛ] in Southern Picardy.

4. The Western Norman diphthongization of [u] to [uə̯ / ɥɔ]

The stem vowel of ⌐poireau¬ also diphthongized in Western Normandy. Map 1b presents the distribution of the diphthongized forms as they were recorded in the ALF (map 1048); the more recent ALN survey (maps 346 and 423) shows that the diphthongization extended to a slightly larger domain, including the whole of the Channel Islands, most of the Département of Manche, and the Bessin region (western part of the Département of Calvados). In this domain, the stem vowel of ⌐poireau¬ often reflexes as a falling diphthong of the type [uə̯] or a rising diphthong of the type [ɥo][26] and, less frequently, [ɥɛ]; not infrequently also, it reflexes as a monophthong [u] (as appears on Map 1b), the regular phonetic development of unstressed medieval [o] noted earlier. These results contrast sharply with those obtained in the neighboring dialects of Brittany, Maine, and the rest of Normandy, where this vowel did not diphthongize and was recorded as [ɔ] or [o]. This solid area of non-diphthongizing dialects thus completely isolates Western Normandy from Île-de-France and Southern Picardy, their closest diphthongization-prone neighbors. There can be little doubt that diphthongization in Western Normandy developed independently from that in these two regions.

It will also come as no surprise that the diphthong in the stem vowel of ⌐poireau¬ obtained without any support from ⌐poire¬ < ᴘɪ̄ʀ̆ᴀᴍ in Western Normandy, where it was pronounced [pɛ], [pɛr], [pɛi̯], [per], etc., as expected in a region where EOFr [ei̯] < Rom. [e:] did not become [ɔi̯].

The diphthongization of the stem vowel of ⌐poireau¬ resulted from a regular phonetic change described in many earlier works on Western Norman (Jorey 1881: 15-16, 1884: xx; Romdahl 1881: 12; Fleury 1886: 38-42; Eggert 1889: 381; Guerlin de Guer

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[26]   Both [uə̯] and [ɥo] are taken here as prototypes for various phonetic realizations to be discussed below.

1901: 89-90; Birette 1927:30-31; Lepelley 1974: 25-27; Brasseur 1978: 62-63; Spence 1985: 159-160; Liddicoat 1994: 52-56, 123) and variously interpreted as the diphthongization in both stressed and unstressed positions of medieval close [o] (as in Guerlin de Guer 1901:89)[27] or its later high back reflex [u], depending on when diphthongization is assumed to have taken place; for the sake of the discussion, I will admit that the diphthongization occurred relatively late, when (non-lowered) medieval [o] had already risen to [u].

As a rule, this diphthongization did not affect the reflexes of medieval [ɔ] < Rom. stressed [ɔ] in closed syllables, as in [pɔrt] ⌜porte⌝ < PŎRTĂM, [ko:t] ~ [kɔ:t][28] < CŎSTĂM.[29] Rom. [au̯], however, mat have merged with medieval [o] in the Channel Islands and ultimately diphthongized under the same conditions, as in Jersey [u̯ɔðɛl] ⌜oreille⌝ 'ear' < AURĬCŬLĂM. In the continental dialects, on the other hand, it almost always joined in with medieval [ɔ] and did not undergo diphthongization, cf. [mɔril, mɔrij] 'morille' or [ɔrɛl, ɔrɛj] ⌜oreille⌝ (ALN 419, 1124).[30]

The modern reflexes of the resulting diphthongs are of two main types: a falling diphthong [u̯ə̯] and a rising diphthong [u̯o]. The modern distribution probably did not stabilize before the end of the sixteenth century. This is most clear for the Channel Islands where the permanent settlement of the island of Sark began in 1565, when its new lord Hélier moved in with a colony of 39 tenants from the Jersey parish of Saint-Ouen.

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[27]   Meyer-Lübke (1880: 137, § 143) — and following suit Duraffour (1932: 80-81) —wrongly assumed that in order to diphthongize, close [o] had to lower to [ɔ] in Western Normandy.

[28]   Medieval open [ɔ], after lengthening, eventually became close-mid [o:] in Standard French, but may have retained its primitive aperture for a while. The ALF frequently noted as open [ɔ:] the vowels of *ôte* (map 956) and *grosse* (map 659) in Île-de-France and Normandy (but cf. Chauveau 1989:195n5, who contests the reliability of the investigator's notation in related cases). This vowel is weakly diphthongized in Val-de-Saire as [ɔ̂o] or [ɔ̂o:] according to Lepelley (1974:24-25) and Birette (1927:30). In Jersey, it is described as « [IPA] *ou* … similar in quality to standard Engl. *ou* » (Spence 1960: 22), that is to say [əu̯] (cf. Jones 1960: 101-104, Gimson & Cruttenden 2000: 134-136). Liddicoat distinguished [kɒu̯t] *côte* 'rib' and *cotte* 'coat' from [kɔt] 'pigsty' in his early work (1994: 394), but blurred that distinction in his later revision (2001: 4, 50), as a consequence of which, the three preceding examples are now transcribed as «kot», where «o» indicates «a simple vowel which ranges in realisation form [ɔ] to [ɒ] and may also be diphthongised as [ɒu] word finally».

[29]   Fleury (1886: 38) listed three apparent exceptions, all of them learned words: *áoumóue̯gne* [au̯mu̯ə̯ɲ] ⌜aumône⌝ 'alms' < ĔLĔĒMŎSỸNĂM, *(j')avóue̯rte* [avu̯ə̯rt] ⌜avorte⌝ '(I) abort' < and *Pentecóue̯te* [-ku̯ə̯t] ⌜Pentecôte⌝ < PENTECŎSTE (also ALN 1307). *Pentecôte,* however, may not be relevant. Its stressed vowel already raised to [o] in some dialects of Old French — later becoming [u] — where this word could rhyme with *(il) coste* ⌜(il) coûte⌝ '(it) costs' and *(il) joste* ⌜(il) joute⌝ '(he) fights' and was retained as [u], in alternance with [o], in the standard language until the middle of the seventeenth century (cf. Thurot 1881: 247). The ALF also occasionally recorded exceptional diphthongs of the [u̯ə] type for *corde* (map 325), *horloge* [-lu̯oʒ] (map 699), and *ils portent* (map 1064) in one or several of the Channel Islands and, less frequently, on the continent in La Ferrière-Harang (pt 367, Calvados). A similar diphthongization was recorded for *cordonnier* (map 326), *écorcher* (map 443), *forger* (map 595), *forgeron* (596), *porter* (map 1063). Such diphthongs have not been reported in later surveys, except for *horloge.* These vowels may have exceptionally raised to [u]; one cannot exclude either that the Western-Norman diphthongization sometimes extended to open [ɔ] and later regressed. It may not be an accident that this development was mostly noted in the Channel Islands, where diphthongization extended to the reflexes of Rom. [au̯].

[30]   A diphthong is nonetheless observed in [mu̯ə̯rõ, mu̯orõ] ⌜mouron⌝ 'salamander' (ALF 632) < MAUR- + -ŌNĔM (cf. FEW 6.549b) — to be distinguished from ⌜mouron⌝ 'chickenweed'. The results [u̯ɛ], and rarely [œ, ø], for Rom. [au̯] in ⌜taureau⌝ < TAUR- + -ĔLLŬM are sometimes observed in continental dialects (ALN 795, pts 4, 5, 39).

Nowadays the falling diphthong dominates in Sark,[31] as in [suə̯ʁi] 'mouse', and the rising one in Saint-Ouen, with [su̯oði] for the same word. One may assume that this word was pronounced [su̅ʊ̃ɾi] with a fluctuating diphthong and a weak rhotic [ɾ] in Saint-Ouen in the sixteenth century.[32] This was also probably the case at the same period in the eastern and northern parts of the Département of Manche, where both types of diphthongs often alternate under conditions more of less specific to each local dialect. On the other hand, the stabilization of the primitive diphthong may have begun earlier in Bessin, where the falling diphthong has been recorded only exceptionally.

Most observers find it difficult to describe the falling diphthong (cf. Joret 1884: xx). Rolland (1900: 35) noted «*oûë* (*ë* s'entend à peine)», i.e. [uə̯]. Fleury (1886: 16) noted it as [u] followed an off-glide of varying quality, taking on the value of the preceding nucleus at its beginning and progressively turning into a central schwa, a description not unlike that given by Lepelley (1975: 25, 40) a century later who transcribed it as [u̯uᵘə̯], differing from Fleury's description only by the presence of an additional on-glide [u̯]. This on-glide must have been very slight if at all, and is not noted in the ALN, where the various realizations of the falling diphthong are mostly transcribed [uo̯] and less frequently [uœ̯] or [uə̯]. The falling diphthong is variously realized as [u̯o], [u̯u], [u̯ʊ], [u̯ɔ], [u̯ɑ], [u̯a] (subsumed here under the type [u̯o]) and relatively rarely as [u̯ɛ] or [u̯e] with a mid-front unrounded nucleus (subsumed under the type [u̯ɛ]), in strong contrast with their distribution in Southern Picardy where the opposite holds true.

The Western-Norman diphthongization appears to result from two distinct processes: a context-free spontaneous diphthongization of long [uː], and a conditioned diphthongization of short [u] before the palatal consonants [ʎ, ɲ, ʃ, ʒ/dʒ] and the rhotic [ɾ].

Vocalic length in Norman appears to have developed along the same line as in central dialects of French (cf. Morin 2006: 135, 2009: 475-476). Noteworthy is the general short [u] reflex of [ou̯] (< [ol] before consonant), as in [kutr] ⌜coutre⌝ 'coulter of plough' < CŬLTRŬM (ALN 49) or [kutyr] ⌜culture⌝ 'cultivated land' < CŬLTŪRĂM, vs. the regular diphthongized reflex of the same vowel when its was lengthened after the loss of a preconsonantal *s*, as in [ku̯ə̯tyr, ku̯ɔtyr] ⌜couture⌝ 'seam, sewing' < CŌ(N)S(Ŭ)TŪRĂM). Another specific development is the irregular preservation in some words of the aperture of medieval mid-high [o] after lengthening, such as [kroːt] ⌜croûte⌝ 'crust' < CRŬSTĂM (ALN 1169), *vs.* its regular development — allowing for its diphthongization — in [ku̯ə̯dr, ku̯ɔdr] ⌜coudre⌝ 'to sow' < OFr. *cosdre* < CŌ(N)S(Ŭ)ĔRĔ.

Other examples of the diphthongization of long vowels are observed in words such as [ku̯ə̯, ku̯o] ⌜queue⌝ 'tail' < CŌDĂM (ALN 415, 864), [gu̯ə̯, gu̯o] ⌜goût⌝ 'taste' < GŬSTŬM (ALN 283), [-u̯ə̯, -u̯o] ⌜-eur⌝ (agentive suffix) < -ATŎRĔM as in [kaʃu̯ə̯, kaʃu̯o] '(cattle) leader' (ALN 782) , [kuːə̯r, ku̯o:r] ⌜courre⌝ 'to run' < CŬRRĔRĔ (Spence 1960, ALN 1202),

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[31]   Liddicoat (2001:4) takes it that the basic form in Sark is [uo̯] «accented on the first element», but that in «rapid speech it may be reduced to [u] or it may be stressed on the final element [u̯o]». Liddicoat's work should be used with extreme caution (cf. Morin 1996).

[32]   The distinction between the two primitive dental rhotics [ɾ] (flap) and [r] (trill) was eventually neutralized in Sark, and their common reflex became the velar fricative [ʁ], a change that could be relatively recent according to Liddicoat's observations (1994: 445, note 9). In Saint-Ouen, the flap became [ð]. On the continent, the flap sometimes became a voiceless uvular [χ] or disappeared completely; in most cases, however, it merged with the reflex of trilled [r] (cf. Brasseur 1978: 280-284, 2011).

[su̯ɔːtʃɛ̃] ⌐soutien⌐ 'support' < OFr *sostien* derived form *sostenir* < °sŭstĕnīrĕ (Spence 1960), [ku̯oːzɛ̃] ⌐cousin⌐ 'cousin' < °cō(n)sīnŭm (Spence 1960, ALN 1328).

Although the necessary precisions on vocalic length are often missing in many published work on Norman dialects, the evidence suggests that the diphthongized reflexes of long [uː] are «heavy» diphthongs, *i.e.* with a long nucleus. Spence's (1985: 159-160) phonological analysis, for instance, shows that long [uː] regularly became [u̯ɔː] with a long nucleus in Jersey, allowing for a phonological contrast with the light diphthongs [u̯ɔ] < Rom. [o]+yod.[33] The long nucleus of [ku̯ɔːt] ⌐(il) coûte⌐ 'it costs' and [ku̯ɔːte] ⌐coûter⌐ 'to cost' < cō(n)stārĕ can thus be contrasted with the short one of [ku̯ɔt] ⌐couette⌐ '(kind of) mattress' < OFr. *coite* < cŭlcĭtăm and its derivative [ku̯ɔti] ⌐coutil⌐ < OFr *coitil* 'quilt, ticking (for mattress cover)'. The ALN attests the existence of a similar contrast for the falling diphthong in Sark: [kuːo̯r] ⌐courre⌐ 'to run' (ALN 1202) *vs.* [muo̯r] ⌐mûre⌐ 'blackberry' < OFr. *moure* < mōrăm (ALN 147).

Unlike its long counterpart, short [u] only diphthongized in specific contexts. One is the set of palatals consonants [ʎ, ɲ, ʃ, ʒ/dʒ], a context often assumed to be conducive to diphthongization in Romance (but *cf.* Sánchez Miret 1998: 212-237), as in [buə̯ji, bu̯oːji] ⌐bouillir⌐ 'to boil' < bŭllīrĕ (Spence 1960, ALN 1033), [duə̯ʎe, duə̯je, du̯oʎe, du̯oje] ⌐douillet⌐ 'soft, sensitive to small pain' < dŭctīl-+-ĭttŭm (ALN 1165), [uə̯ɲõ, u̯oɲõ] ⌐oignon⌐ 'onion' < °ŭnĭōnĕm (Spence 1960, ALN 346), [du̯ɔʃ] ⌐douce⌐ 'soft (fem.)' < dŭlcĕm +-ăm (Spence 1960), [puə̯ʃẽ, pu̯oʃẽ] ⌐poussin⌐ 'chick' < pŭllĭcīnŭm (Spence 1960, ALN 699), [ruə̯ʒ, ruə̯dʒ, ru̯oʒ] ⌐rouge⌐ 'red' < rŭbĭŭm (ALN 1396).

Short [u] diphthongized before rhotics in three different contexts: (1) before a now deleted word-final rhotic, in words such as [fuə̯, fu̯o, fu̯u] ⌐four⌐ 'furnace' < fŭrnŭm (ALN 1042), or still retained, as in [kuə̯r, ku̯or] ⌐cour⌐ 'yard' < cŏhortĕm (ALN 28); (2) before a pre-consonantal rhotic as in [fuə̯rk, fu̯ɔrk, fu̯uo̯rk] ⌐fourche⌐ 'fork' < fŭrcăm (ALN 200), [kuə̯rtẽ, ku̯ɔrti] ⌐courtil⌐ 'garden' < °cŏhortīlĕm (ALN 314); and finally (3) before an intervocalic rhotic, eventually deleted in some dialects, as in [suə̯ri, su̯ori] ⌐souris⌐ 'mouse' < sōrīcĕm (ALN 624), [muə̯y, mu̯ɔry] ⌐morue⌐ 'cod' < OFr. *morue* (ALN 606) or [labu̯ore] ⌐labourer⌐ 'to plough, to cultivate' < learned lăbōrārĕ (ALN 57). Diphthongization may thus affect both long [uː] and short [u], as these vowels were long before the reflexes of medieval [r] (< intervocalic -rr-) and short before those of medieval [ɾ] (< intervocalic -r-).[34] The original length is preserved in Jersey, as observed by Spence, *e.g.,* [mu̯ɔðɾ] ⌐mourir⌐ 'to die' < OFr. [moɾiɾ] *vs.* [nu̯ɔːri] ⌐nourrir⌐ 'to nourrish' < OFr. [noriɾ]. No such difference is noted however before the reflexes of [ʎ], where the diphthong is almost always noted long, whether length is etymological, as in [tu̯ɔːji] ⌐touiller⌐ 'to dirty' < OFr. *toeillier, tooillier* < tŭdĭcŭlārĕ, or not, as in [bu̯ɔːji] ⌐bouillir⌐ 'to boil' < bŭllīrĕ. On the other hand, the same author noted a short nucleus before [ɲ] as in [ivru̯ɔɲ] ⌐ivrogne⌐ 'drunkard' < °ēbrĭōnĭăm or [u̯ɔɲõ] ⌐oignon⌐ 'onion' < ŭnĭōnĕm.

It should be emphasized that all of the contexts that favor diphthongization are not equally distributed over Western Normandy. For instance, diphthongization is relatively

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[33] This development of Rom. [o]+yod is relatively infrequent. The short reflexes of Rom. [o]+yod may also be [u̯ɛ] as in [mu̯ɛsõ] ~ [mu̯osõ] 'sparrow' < °mŭscĭōnĕm, while their long counterparts are normally [ue:] or [uei̯], as in [bu̯eːt, bu̯ei̯t] ⌐boîte⌐ 'box' < bŭxĭdăm.

[34] Remembering that medieval [ɾ] may disappear completely, become [ð] or [χ], or merge with the regional reflex of medieval [r].

rare in the Channel-Islands dialects before preconsonantal [r] (Liddicoat 1994: 55, but *cf.* Sark [fu̯ʊrkɪ:] 'forked', ALN 340) and in word-final position (Spence 1985: 159-160, Liddicoat 1994: 56, but *cf.* Sark [ku̯ɔ d rɒt] ⌈queue-de-rat⌉ 'horsetail (genus *equistum*)' ALN 415). Some of the gaps may be relatively recent, *cf.* Le Maistre (1966: 520) who recalled the obsolete pronunciation [tu̯ɔrt] *tourte* '(kind of) bread loaf' used by one member of his family in the years 1930 in Jersey.

A better understanding of the diphthongization of [u] in Western Normandy would certainly benefit from further examination of the evolution of other diphthongs in this area, in particular the reflexes of Rom. [o]+yod, which on few occasions merged with those of [u] (cf. note 31). Of special interest also are the forms [bũɐ̃, bũ̯ɐ, bu̯õ] taken by ⌈bon⌉ < BŎNŬM and [bu̯ɔn, bu̯ɔn, bu̯ɛn] by ⌈bonne⌉ < BŎNĂM (ALN 232, 1021, 1290) which merged with the reflexes of, but cannot have been produced by, the diphthongization of [u] and [u:], as its vowel did not lengthen. Lepelley (1974: 7) logically assumed that they are the reflexes of EOFr *ue* < *uo* < Rom. [ɔ], which did not regress to *o* as they did in most French dialects (cf. note 16). Dees' (1980, maps 120 and 121) analysis of thirteenth-century charters shows that Normandy is one of the few regions in Northern France where the specific spellings ⟨boen, buen, boene, buene⟩ for ⌈bon, bonne⌉ were found (but, unlike what is observed in Picardy, not the spellings ⟨boin, boine…⟩),[35] implying that if the medieval diphthong signaled by the spelling ⟨ue⟩ was of the type [u̯e], it must have later regressed to [u̯ɔ, u̯ɔ] or [ũ̯ɔ, u̯õ] as it appears in most points of the ALF and ALN surveys.

5. Concluding: a last piece of evidence: *mouron*

Southern-Picard and Western-Norman diphthongizations developed independently of one another and only by accident had a similar effect on such words as ⌈poireau⌉, ⌈courage⌉ and ⌈mouron⌉ 'chickweed'. Southern-Picard diphthongization primarily affected open-mid [ɔ] < Rom. [au̯] before rhotics and, occasionally, lowered reflexes of unstressed Rom. close-mid [o] in the same context. Western-Norman diphthongization on the other hand affected the reflexes of close-mid Rom. [o], probably after they had raised to [u], under a wider range of conditions: before rhotics as in Southern Picardy, but also before a palatal consonant and, when they were lengthened, irrespective of context. Both diphthongizations affected vowels in stressed and unstressed positions. The unstressed medieval [o] in ⌈poireau⌉, ⌈souris⌉ and ⌈mouron⌉ was able to diphthongize in both regions because it lowered in Southern Picardy and not in Western Normandy, thus falling into the specific domains of application of diphthongization in each of these regions.

They share many features with the diphthongization of [ɛ] and [ɔ] so frequently observed in Romance languages, with noticeable differences that may help understand the intrinsic mechanisms involved in these sound changes. Their most striking common feature is the very nature of the resulting diphthong: either rising [u̯ɔ, u̯ɛ] or centering [u̯ɐ] with frequent alternation between these two modes, as in Western Normandy. On the

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[35]   Of the charters of Dees' corpus which could be located to specific Départements in Normandy, only those of the Département of Manche were found with ⌈bon, bonne⌉, for a total of 13 charters, 38 % of which with the spelling ⟨boen, buen, boene, buene⟩. The early charters reported by Goebl (1970: 273) either could not be localized precisely (vPtAr 11.11.1286, 26.9.1289), or were excluded as later copies (Gue 1270/2, Hiémois Sept 1278).

other hand, their development in unstressed position and before rhotics is not so commonly observed. Diphthongized reflexes of [ɔ] and [ɛ] in unstressed position are nonetheless not unknown in Gallo-Romance, but relatively rare and often considered to be the product of the analogical extension of diphthongs that regularly developed under stress (cf. Sánchez Miret 1998: 138) — which does not seem to be always warranted, as can be observed in Walloon, where diphthongs sometimes developed without analogical models, e.g., *ie* in *sierment* < *serment* < *sairement* 'oath', *siermon* < *sermon* 'sermon' (Jodogne 1939), [i̯e] in [pi̯etri] ⌈perdrix⌉ 'partridge' < PĔRDĪCĔM (ALF 292) and [u̯ɛ] in [u̯ɛzir, u̯ɛzi] ⌈osière, osier⌉ 'wicker' < AUSERIA (ALF 955, ALW6 85). Their small number is not surprising, as Rom. [ɔ] and [ɛ] were originally restricted to stressed position and only later generalized to other positions, in particular after the monophthongization of [au̯] to [ɔ].

The Western Norman diphthongization of long [uː] in both stressed and unstressed positions is no cause for surprise, as length has long been recognized as a factor that favors diphthongization and simply confirms that concomitant stress is not a necessary ingredient. Western Norman diphthongization may also throw some new light on palatalization as a specific conditioning factor. Sánchez Miret (1998: 212-237) presents a series of converging arguments showing that palatalization *per se* need not be involved in what Romanists usually call "conditioned diphthongization" (i.e., conditioned by a following palatal consonant). At face value, however, Western Norman diphthongization does not seem to be amenable to alternative explanations similar to those proposed by this author, and should be further scrutinized. There is no indication that some form of lengthening is involved in the development of the diphthong [u̯ɔ] before the palatal consonants [ʃ, ʒ, ɲ] nor before rhotics. In particular, the diphthongization of short [u] and long [uː] before rhotics preserved earlier length differences, albeit in different contexts: short [u] before weak [ɾ] and long [uː] before strong [r], that can still be observed in Jersey after [ɾ] became [ð], as in [mu̯ɔði] ⌈mourir⌉ *vs.* [nu̯ɔːri] ⌈nourrir⌉.

Whatever were the specific modalities that allowed these diphthongs to develop in Southern Picardy and Western Normandy, there is no doubt that they are the product of a sound change. I surmised earlier that the diphthongized stem vowel of ⌈poireau⌉ in Île-de-France must be similarly analyzed as the product of a local sound change and not a simple borrowing from Southern Picard. The case in favor of a sound change would be more compelling if one could find at least another unambiguous instance of the same change: ⌈mouron⌉ 'chickweed' may well be one such piece of evidence.

The etymology of this word is difficult to ascertain and its proposed etymons are relatively controversial (cf. FEW 16.570b-571b; Wartburg eventually assumed that it was a derivative of an early borrowing from a Germanic language, possibly *muer* in Middle Dutch);[36] its earliest attestation is *moruns* (with inflectional *-s)*, in a twelve-century glossary, and otherwise *moron* and *mouron* in documents written during the fourteenth century and later, from which one may assume that its unstressed vowel was either close-mid [o] or open-mid [ɔ]. The ALF survey for ⌈mouron⌉ (map 884) unfortunately did not

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[36] On the other hand, the author of an early medieval Latin-English glossary (known by a copy found in Brussels Royal Library ms. 539, and executed during the tenth century according to Gheyn 1901: 86, or the eleventh, according to Wright & Wülcker 1884: 303) came out with a pseudo-Latin form *muronis* to gloss 'chickenmeat (= chickweed)', perhaps a learned form in use among clerics and felt to be of Romance origin. The editor of a trilingual glossary (known by a thirteenth-century Anglo-Norman ms. BL Harl. 978, cf. DEAF: GlPlantHarlW) provided a genuine Latin entry *intiba* for the name of the same plant, corresponding to Fr. *muruns* — now recognized as a French form — and Engl. *chicnemete* (cf. Wright & Wülcker 1884: 558).

cover the northern half of the Oïl domain, except for a few points, mostly in Northern Picardy. The gaps can be partly completed with ALN (map 404) for Normandy, ALIFO (map 301) and ALCB (map 803) for Île-de-France; for Picardy, one must rely on monographic studies, as this word was not included in the ALPic questionnaire.

The most frequent reflexes for the unstressed vowel of ⌐mouron⌐ in the Oïl dialects are, as expected [ɔ, o] and [u], whose distribution, however, diverges from that obtained for ⌐poireau⌐ in the Western domain — which should certainly deserve some explanation. Diphthongized reflexes for the unstressed vowel of ⌐mouron⌐, mostly of the type [u̯ə] and [u̯ɔ, u̯o] are observed in Western Normandy in an area coextensive with the corresponding diphthongs of ⌐poireau⌐. Diphthongized reflexes of the type [u̯ɛ, u̯a] are observed in an area covering all of Île-de-France and extending south into the Départements of Loiret (Orléanais) and Loir-et-Cher (Blaisois), often in alternation with [ɔ, o] and normative [u].

Evidence for the pronunciation [mu̯ɛrɔn] in Paris during the nineteenth century is attested by the work of purists who began to stigmatize it in the wake of Blondin (1823: 58) and by Kastner's (1857: 91) musical transcriptions of the cries (chants) of six Parisian chickweed streetsellers, four of which with a diphthong.

Surprisingly, the diphthongization of medieval [ɔ], so frequently observed in Southern Picardy does not appear to have affected the unstressed vowel of ⌐mouron⌐. The compilation of monographic studies on Picard dialects shows that it mostly survives as a mid or high front rounded vowel [œ, ø, ʏ, y] in both Southern and Northern Picardy, much like the initial vowel of ⌐souris⌐ discussed early, and less frequently as a mid-back vowel [ɔ, o] (mostly in Northern Picardy) — whereas diphthongization is marginally observed, yielding [u̯i] in two points of the Département of Somme (Gorenflos and Vaquerie, cf. Debrie 1985) and [u̯ɛ] in Belgian Hainaut.[37] This excludes Picardy as a source for the diphthong [u̯ɛ, u̯a] found in this particular word in Île-de-France, thus further supporting the thesis of an autonomous diphthongization of unstressed [ɔ] before [r] in this region.

References

ALCB	= Bourcelot (1966-2002)
ALF	= Gilliéron & Edmont (1902-1910)
ALFC	= Dondaine & Lucien (1972-1991)
ALIFO	= Simoni-Aurembou (1973-1978)
ALLR	= Lanher, Litaize & Richard (1979-1988)
ALN	= Brasseur (1980-2011)
ALPic	= Carton & Lebègue (1989-1997)
ALW6	= Boutier, Counet & Lechanteur (2006)
DEAF	= Möhren (1974-)
FEW	= Wartburg (1922-2002)

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[37] The complete list is as follows. For **Northern Picardy**, *Département du Nord*: [o̞] in Hécart (1834), ALF (pt 271), Cochet (1933) and Barbier (1980) – *Belgian Hainaut*: [u̯o] in ALF (pt 293), [ɔ] in Vindal (1995) – *Pas-de-Calais*: [ø] in Haigneré (1903), ALF (pts 276, 284, 285, 286, 287, 288) and Dufetel (1987), [œ] in Rolland (1900: 34; 2 pts not in ALF), [ʏ] in ALF (pts 283, 299), [y] in Rolland (1900: 35) and Haigneré (1903), [e] in ALF (pt 296). For **Southern Picardy**, *Somme*: [o̞] in Flutre (1955), [ø̞] in Carton (1971) and Debrie (1975, 1979; 3 pts), [u̯i] in Debrie (1985; 2 pts), [u] in Vasseur (1963), Seurvat (1968) and Debrie (1983) – *Oise*: [ø̞] in Rolland (1900: 34) and Lambert (1960) – Aisne [ø̞] in Debrie (1987; 2 pts).

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