

**“*Rollant ferit en une pierre bise*”:  
Of Stones, Bread, and Birches**

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Etymology is a philological sub-discipline strongly marked by eighteenth- and early nineteenth-century ideological concerns. The quest for remote but authentic, ideally unilinear national origins and descent was paralleled by the desire to provide the earliest possible evidence for free-standing proto-national vernaculars and to associate lexis, wherever possible, with ethnogenesis. In the case of French, this resulted in preferential scholarly attention to the Latin of Gaul and to the Frankish contribution to the emerging Gallo-Romance tongue, with considerably less attention to the spare and difficult evidence of a Gaulish substratum and to the regional adstratum that was the Norse language, in its Old Danish variant, brought to Neustria and the future Normandy. Lexical absorption into French since the early thirteenth-century—Latinisms, foreign terms—when studied at all, were seen to have little or nothing to do with concepts of *le peuple français*. Etymological studies also supported the nineteenth-century concern for ultimate origins, as if an identifiable and identified beginning were determinative, even predictive in a teleological way, of all dynamic developments that followed, including ideological efforts to promote a single centralized spoken and written language standard. This said, one cannot deny that etymology has retained many of its earliest attractions and numerous dictionary projects of the past century are being pursued with renewed vigor, while new projects have found an ideal launching pad in current advanced technologies.

Within the etymological venture, the importance assigned to the individual word may also depend on context, intra- and extra-textual. More to the point of this essay, the entire vocabulary of a work that for multiple reasons—many inherent in the comments above—has assumed iconic status in a national literature becomes a matter of prime philological concern, and unexplained words become cruxes to which

scholars return time and again. Such a word is the Old French color adjective *bis*, which figures only twice in *La Chanson de Roland*, but is significantly positioned in *laissez* that all students recognize or—as a consequence of formulaic diction—believe they recognize as tone-setting or essential to a decisive incident:

Halt sunt li pui e li val tenebrus,  
 Les roches bises, les destreiz merveilllus.<sup>1</sup>  
 High are the hills and the valleys dark, the rocks are *bis* and  
 the defiles terrible.

and later:

Rollant ferit en une perre bise:  
 Plus en abat que jo ne vos sai dire.  
 L'espee cruist, ne fruisset ne ne brise,  
 Cuntre le ciel amunt est resortie.<sup>2</sup>  
 Roland strikes a *bis* stone; he strikes off more than I can  
 tell. The sword grates but it does not shatter nor break; it  
 flies up again toward the heavens.

In the modern French glossary assembled by Bernard Guidot to accompany Madeleine Tyssens's translation of the authoritative edition of the *La Chanson de Roland* prepared by Cesare Segre, *bis* is glossed with 'gris, sombre', although the lexicographer gives a brief minority opinion: "[pierres] dures, pour J. Dufournet."<sup>3</sup>

While these and other early medieval examples of *bis* will be reviewed in detail below, it is illuminating to consider the word from the other end of its history, as presented in modern dictionaries of the French language. Although Hatzfeld in the *Dictionnaire générale de la langue française* defined *bis* as "d'un gris foncé," most contemporary lexical reference works echo Furetière and characterize *bis* as "d'un gris tirant sur le brun."<sup>4</sup> The ninth edition of the *Dictionnaire de l'Académie Française* favors a lighter tone ("d'un gris beige"), while *Le Trésor de la langue française* does not specify the other color that shades the

<sup>1</sup>*La Chanson de Roland*, ed. Segre, laisse LXVI, vv. 1-2 = vv. 814-15.

<sup>2</sup>Laisse CLXXII, vv. 1-4 = vv. 2338-41.

<sup>3</sup>The headword in the glossary is the inflected form *bises*, as found in the first instance in the poem, v. 815; see "Works Cited" for the Dufournet edition, where this gloss occurs on pp. 400f.

<sup>4</sup>*Dictionnaire historique de la langue française* (Robert), *Dictionnaire de la langue française* (Littré).

gray (“d’un gris foncé, grisâtre”). Moving back in time, the best known historical dictionaries of Old and Middle French offer “d’un gris brun” and only one is less specific (“gray, dark”).<sup>5</sup> In summary, it would appear that from the modern critical perspective *bis* is a discrete designation for a color or combination of colors among the darker grays, with no admixture of more vibrant tones such as red, blue, or green.

Since *pain bis*—historically an inferior quality of bread with a substantial component of milled bran—is the only phrase in which the adjective *bis* has survived into modern French, one might wonder to what extent modern perceptions have dictated our understanding of a medieval color term. This cavil for the moment aside, what exactly might otherwise have been the nature of the mixture of the two constituent colors? A full fusion, a base color with lighter and/or darker streaks, or even—and here we move from chromatism to pattern—a base color with flecks, even though we speakers of modern English would not consider an unqualified *speckled* or *dotted* to be a color.

In addition to the instances in *La Chanson de Roland*, *bis* is quite fully attested in medieval French literature. Nearly thirty examples are cited in various dictionaries and in secondary studies of the word. These uses fall into four large, relatively discrete categories, again seen from our vantage point. They are, in decreasing order of the number of recorded examples: 1) natural or dressed stone, or artifacts in metal; 2) dyed cloth; 3) inferior bread (*pain bis*) and, seemingly by an extension of the white/dark contrast exemplified in white and wholewheat bread, 4) human complexion and hair coloring. There is also a figurative usage, of the good/ill kind. Examples from the first three of these categories, selected for their specificity, now follow.

In Chrétien de Troyes’s *Yvain* the hero is brought a roebuck by the lion he has befriended and sets about flaying it:

Lors le comance a escorchier;  
le cuir li fant desus la coste,  
de la longe un lardé li oste;  
et tret le feu d’un chaillot bis,

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<sup>5</sup>*Altfranzösisches Wörterbuch* (Tobler-Lommatzsch), *Dictionnaire de l’ancien français* (Greimas), *Dictionnaire de l’ancienne langue française* (Godefroy), *Old French-English Dictionary*.

si l'a de busche sesche espris.<sup>6</sup>  
 Then he begins to flay it; he splits the hide over the ribs  
 and cuts out a steak from the flank. He strikes a spark from  
 a *bis* stone and the dry brush caught fire.

Grace Frank very plausibly identifies the *chailot bis* as flint, since the material is capable of generating a spark when struck with a sword.<sup>7</sup> The range of colors of flint—dark gray, smoky brown, or black (pale gray in the case of chert)—and the presence of impurities that may give a mottled effect accord well with the chromatism ascribed to *bis*. This scene also invites a reconsideration of the comparable event, very differently motivated, in *La Chanson de Roland*. The account of the hero's effort to destroy his sword before it can fall into enemy hands comprises *laissez* 168-173. In the fashion characteristic of the *chanson de geste*, key events are either repeated or are retold from a slightly different perspective, with a different emotional coloring, in successive *laissez*. First we learn that Roland climbs a low hill, crowned with two trees: "Quatre perruns i ad, de marbre faiz" ("There were four great stones, of marble," v. 2268). In the next *laisse*, a further detail: "Quatre perruns i ad luisant de marbre" ("There were four great stones, shining with marble," v. 2272; the term suggest the stones were roughly dressed). Then follows a scene with an enemy and a thwarted attempt to make off with Roland's sword Durendal. The Saracen is killed by a blow with the Olifant, which destroys the horn. To prevent any possible further attempt to purloin the sword, Roland strikes ten blows on "une perre brune" ("on a brown stone"), one of the four we assume, noting that the color term assures the assonance in the verse. Neither stone nor sword is damaged. In the next *laisse*, "Rollant ferit el perrun de Sardanie" ("Roland strikes the great stone of sardonyx," v. 2312). If the stone is understood as sardonyx, its color can hardly be described as brown, and again metrical concerns are at least partially responsible for the choice of the verse-ending word. The brightness of the sword is then implicitly contrasted with the darker stone. The third panel of this triptych in the following *laisse* begins with "Rollant ferit en une perre bise" ("Roland strikes a *bis* stone," v. 2338). Now the stone is broken

<sup>6</sup>*Yvain*, ed. Roques, vv. 3454-58. As Yvain is alone, he does not butcher the entire animal, but only cuts out a flank steak. On medieval French hunting treatises that detail the complete operation, see Sayers, "Breaking the Deer."

<sup>7</sup>Frank, "Pierre bise."

but the sword unharmed. A further apostrophe of the weapon addresses the relics it contains, as an earlier one had reviewed its conquests. Thus, Roland may be seen to have struck three of the four stones on the hilltop, in the tried and true story-telling manner of two unsuccessful attempts followed by a successful third, although in this case the result is only the chipping of the stone. From the foregoing it is evident that the four rocks are narrative alloforms, albeit perhaps of different mineral composition and color, and, chosen for metrical and affective purposes, can assist little in the exact definition of *bis*, although we do have mentions of both marble and dark color.

Examples drawn from a single author, if not a single manuscript, will further illustrate the flexible use of *bis*. In Marie de France's *lai Guigemar* the hero's lady is imprisoned by her jealous elderly husband in a “tur de marbre bis” (“a tower of *bis* marble”).<sup>8</sup> The luxury material is appropriate to romance and marble suggests a base color with admixtures. *Bis* may also be thought to have an affective value of permanence and implacability in this carceral context. Elsewhere in the *lais* the impression is less grim: in *Lanval* “un grant perrun de marbre bis” (“a great stone of *bis* marble”) is employed in a courtyard to assist riders in mounting their horses (v. 634), while in *Laüstic* the lovers are separated only by “un haut mur de pierre bise” (“a high wall of *bis* stone,” v. 38), which proves little obstacle. Marie also uses the color word in reference to fine fabrics. In *Lanval* the hero encounter two maidens “vestues ... richement ... en deus bliauz de purple bis” (“richly dressed in two purple-*bis* tunics,” vv. 57-59) and a “manteus ... de purple bis” (“purple-*bis* cloak”) occurs later in the poem (v. 71). The phrase “purple bis” is a literary commonplace and we are invited to think of the “imperial purple” that was obtained from shellfish (called in Greek *porphura*) found in the eastern Mediterranean. But in the French version of the *Ancrene Riwe* a Franciscan friar is called “frere bis” on the basis of his brown habit, so that we cannot state that *bis* was used exclusively of fine fabric or only in conjunction with the color word *purple*.<sup>9</sup> Yet this reference from close to the real world, as distinct from that of epic and romance, should confirm our understanding of *bis* as brown or dark.

French *bis* was assumed as a color word into medieval

<sup>8</sup>*Guigemar*, in *Lais*, ed. Rychner, v. 659.

<sup>9</sup>*The French Text of the Ancrene Riwe*, 263, l. 22.

Latin, variously *bisus*, *bissus*, *bisius*, and was used of both cloth and bread.<sup>10</sup> A French cartulary from 1110-1129 lists rations as “unum panem, altera vice de albo, altera de biso,” that is, one loaf of white bread with the bran removed, and one of whole wheat.<sup>11</sup> Perhaps both Latin *bissus* and French *bis* determined the emergence of *bis* (vars. *bice*, *byse*, *bize*) as a color word in Middle English.<sup>12</sup> The editors of *Dictionary of Middle English* judge that the English examples point to a dark, gray, possibly blue-gray tone, since the word is often found in conjunction with azure (*azour*, *asure*). Although relatively late, a quotation from Lydgate allows some lexical triangulation: “Ther is a difference of colours in peynture, On table or wal ... Tween gold & gold, atween bis & asure: Al is nat gold that shyneth briht, parde.”<sup>13</sup> But the form *byse* is also used of a kind of brownish fur used for trimming gowns, illustrative perhaps of a semantic and chromatic narrowing in the sphere of animal pelts. Examples range from 1280 to 1513.<sup>14</sup>

With the initial classification and these examples in mind, we may now review the best known of earlier advanced etymologies for *bis*, some six in number. None, it should be stated, has won general acceptance. *Bis* has been derived from a Germanic \**grīsi* ‘gray,’ but this clearly calls for a great deal of special phonological pleading. Another Germanic candidate is \**bīsi* with a hypothetical meaning ‘gray, sombre, cloud-covered,’ all conditions that might accompany a north-east wind, called \**bisa* in Frankish, yielding the wind word *bise* in French. *Bis* has also been derived from a putative Late Latin \**bysseus*, based on Latin *byssus* ‘cotton cloth’ and ultimately Greek βύσσος. Late Latin \**bombyceus*, *bombycius* ‘of silk, of the color of silk’ has similarly been proposed in an evolution that would feature

<sup>10</sup>See *Dictionary of Medieval Latin from British Sources* and *Mediae Latinitatis Lexicon Minus*. It is worth noting that while *panis bissus* is a medieval linguistic formation, inferior bread was of course known in classical Antiquity. The term for poor bread distributed through the Roman emperor’s largesse was *panis gradilis*.

<sup>11</sup>Cited in *Mediae Latinitatis Lexicon Minus*, s.v. *bisus*. This reflects the French opposition *blanc/bis* and these are often used in reference to bread rations, for example, in the years books of the English kings, Edward II and III; See *Anglo-Norman Dictionary*, s.v. *bis*.

<sup>12</sup>See *Middle English Dictionary*, s.v. *bis*.

<sup>13</sup>The quotation is from about 1439, *Lydgate’s Fall of Princes*, 4.2943.

<sup>14</sup>*Oxford English Dictionary*, s.v. *byse*. OFr. knew a *bisse*, *bisce*, *biche* ‘female deer,’ ultimately derived from Latin *bestia*, and this occurs in Middle English as *bisse* but is unlikely to have produced the term for fur.

aphaeresis, here the loss of *bom-*. Each of the foregoing has been faulted for the phonological development which it implies and for the failure to satisfactorily explain the Italian reflex *bigio*, with many of the same meanings as French *bis*.<sup>15</sup> In general it may be stated that semantics have little informed the early etymological discussion. But, as is well known, origin is no sure guide to later meaning.

More recently, Louis H. Gray proposed a derivation from “Indo-European *\*bise-* (reduced-full grade < *\*b<sub>h</sub>isé*, base *\*beise*), seen, with extension in *-tl-I*, *-tl-o*, in Latin *bīlis* ‘bile’ (from its yellowish-brown color), Welsh *bustl*, Old Cornish *bistel*, Breton *bestl* ‘gall’.”<sup>16</sup> He does not specify whether the term derives from Vulgar or Learned Latin, is a loan from a Celtic language, or is descended from a Gaulish reflex of the IE root. The principal objection to this etymology is that *\*bistlV-* cannot be reconciled with *\*bis-*, let alone with *\*bise-*. A second objection is that it is difficult to accept that “bile-colored” could ever have been used in a positive context; consider *merde-d’oie* as a description of a girl’s party dress. The most economical etymology for *bis* is Latin *bis* in the sense of ‘two times,’ extended to reference a two-toned hue or bicolored object.<sup>17</sup> Other examples of temporal sequence being transferred to spatial distribution would be welcome.

In the mid-1940s, at the same time as Gray offered his etymological explanation, Grace Frank and Anna Granville Hatcher, without consideration of the origin of *bis* or its wider application, debated whether its principal connotation in phrases such as *pierre bise* lay in hardness or in color. Today, we might more pointedly speak of affective valence. Perhaps the most useful information communicated in their three brief notes was on the high incidence in northern France of “flint—the black, grey or brown form of hydrated silica ... or the grey granites of Normandy and elsewhere in which fragments of schist give the stone a dark color and of which Mont-Saint-

<sup>15</sup>See the overview, with bibliographical references, of this earlier research in *Dictionnaire historique de la langue française*, s.v. *bis*.

<sup>16</sup>Gray, “Six Romance Etymologies,” at 157.

<sup>17</sup>Attributed to P. Guiraud by *Dictionnaire historique de la langue française* without further specifics. Paul-Emile Guiraud seems the most likely candidate to have proposed this solution. As for the current perspective on the word *bis*, see the entry in the recently published *Grand dictionnaire étymologique*: “origine inconnue; sans doute pre-latine.”

Michel is a memorable example.”<sup>18</sup>

Generally speaking, there are no fixed criteria for what is accepted as a convincing etymological explanation but at a minimum we would wish for plausibility in terms of known phonological developments, some proof of cultures in contact in the event of a loan or calque from a foreign language, some evidence that the subsequent semantic evolution can *grosso modo* be reconciled with the meaning(s) ascribed to the root word (in this instance both hardness and color), and so on.<sup>19</sup> Although French *bis* allows for dozens of formal reconstructions, the candidate I will advance as the etymon with all such criteria in mind is the Indo-European root Pokorny (480) identifies as *\*g<sup>h</sup>et-* with the basic meaning ‘resin’ (cf. Mann, *s.v. guetu* ‘resin, gum’). In the Celtic languages a term that we may streamline as *\*betua*, initially ‘resin,’ came to replace an earlier word for the ‘birch,’ otherwise designated, as in English *birch* and German *Birke*, by a descendant of IE *\*bhérǵh-*. Cognates of *\*betua* are Sanskrit *játu* ‘gum,’ Armenian *kiv*, Russian *živica* ‘resin,’ Germanic *\*k<sup>w</sup>edu-*, whence Old English *cwidu* ‘resin,’ Old High German *cuti*, Mod. Germ. *Kitt* ‘glue, putty,’ Icelandic *kvoða*, Swedish *kåda* ‘resin.’ Reflexes in the Celtic languages are Gaulish *betua* (loaned into Latin as *beta* and glossed ‘birch’; forms with *bett-* and *bit-* are also found) and *betulla* ‘birch’ (whence French *bouleau* ‘birch’), Gallo-Latin *bitumen* ‘bitumen, pitch,’ Old Irish *beithe* ‘birch,’ Welsh *bedw*, Cornish *bedhow*, Old Breton *bedu*, Breton *bezo* ‘birches.’ Farther afield in Romance we find Provençal and Catalan *bez*, Spanish *biezo* ‘birch.’<sup>20</sup>

<sup>18</sup>Frank, “Pierre bise,” with response from Hatcher, “‘Pierre bise’ Again,” and rejoinder in Frank, “Pierre bise: ... A Reply.” In a number of respects *pierre bise* would seem to share the features of porphyry, the rare, purple, extremely hard stone, in Antiquity and the Middle Ages largely of Egyptian origin, but porphyry had its own discrete name in OFr.: *porphyre*. See *Porphyre: Les secrets*.

<sup>19</sup>I am grateful to editorial readers of the journal for helpful criticism of the philological argument that follows.

<sup>20</sup>For the Gaulish forms, see the recent *Atlas Linguae Gallicae* (Billy) and *Dictionnaire de la langue gauloise* (Delamarre). As the Celtic forms are of particular interest, it should be noted that Old Irish also loaned *bitamain* from Latin; tar is used in caulking the Ark as described in the *Saltair na Rann* (“The Metrical Psalter,” v. 2446). In the entry for *bis* in *Lexique étymologique de l’irlandais ancien* the editors uncharacteristically misunderstand a word from the passage “caistéoil 7 paillivin ... do purpvir et bis, d’or et d’airget” in the Middle Irish adaptation of *Visio Tnugdali* (*La Vision de Tondale*, 114) as “manteau de pourpre” (B53). But the context is a para-military camp not personal clothing and the Latin antecedent of *paillivin* is not *pallium* ‘cloak,’

The European white birch is characterized by resin glands on the twiglets: Pliny knew that Latin *bitumen* came from Gaulish (“bitumen ex ea [betulla] Galli excoquunt”) and, more importantly, this suggests that birch tar and pitch were extensively used in pre-Roman and Roman Gaul and may even have been a trade commodity.<sup>21</sup> This at a time when the export of mineral pitch from the tar pits of the Middle East was not sufficiently developed to meet European needs, not least for the caulking of ships’ hulls and treatment of rope making up the standing and running rigging. Here it is worth noting that Italian *calafatare* ‘to caulk,’ whence French *calfater*, is of Arabic origin. The Muslim presence in Sicily could have offered one point of entry but maritime lexis is notorious for the prompt and profitable loan of technical vocabulary and its antecedent realia over great distances.<sup>22</sup> The western European use of birch tar and pitch has deep historical roots and perhaps the most immediately telling example is the Iceman’s axe, whose stone head was secured to the haft with birch tar.<sup>23</sup> Birch tar was also chewed in prehistoric times, whether as a precursor to chewing gum, for purposes of dental hygiene (in teething, tooth cleaning, and gum prophylaxis; birch is natural source of xylitol), or, a notion I have not seen advanced elsewhere, as an appetite suppressant when food was in short supply. Other possibly relevant links of the birch to human diet are explored below.

In the following I propose a dual derivation from the birch, as both botanical entity and lexeme, that may 1) illuminate the emergence of *bis* as a color word, initially for stone and metal, and 2) reconcile the associated chromatism

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etc. but *papilio* ‘butterfly’ hence ‘tent, pavilion,’ here seen in metathesized form in Irish. The Latin text is worth citing at this point as is, with reference to the discussion below, the beginning of a rather fulsome Middle English rendering: “Tundalus ... vidit quasi castrum et papiliones plurimas purpura et bisso auro et argento et seri”: “Tundale lokede & syz a place Full of bryzte paulyones shynnande, So fayre wer neuer seyn in non lande, Well koured wyth purpull & bysse” (*The Vision of Tundale*, 144). Old Irish *bí* ‘pitch’ and Scots Gaelic *bíth* ‘resin, gum, birdlime’ are derived from a different root, IE \**ǵʰi̯u-* (Pokorny, 482); see Rudolf Thurneysen, “*bi* ‘Pech’.”

<sup>21</sup>Pliny the Elder, *Natural History*, Bk. 16, Ch. 30.

<sup>22</sup>See the somewhat fuller discussion of pitch for nautical purposes in Sayers, “Dante’s Venetian Shipyard Scene (*Inf.* 21).”

<sup>23</sup>See Aveling. The terms tar and pitch are often used interchangeably but in this discussion we may usefully distinguish among resin (the natural product), tar (resin processed for human use), and pitch, a thick, viscous substance obtained by the forced evaporation of the water content of wood tar.

with the coloring characteristic of whole wheat bread (*pain bis*). I contend that OFr. *bis* derives from the Gaulish substratum of Gallo-Romance, like many other botanical as well as topographical terms with deep local roots, more precisely in *betua/bitua* compounded with a Celtic derivation of the IE root *\*pei-*, *pi-* ‘to be fat’ (Pokorny, 793-94), whence *\*pi-k* ‘pitch’; cf. Latin *pix*, *picis* ‘pitch, tar’ (> OHG *peh* ‘pitch’), OCS *picŭlŭ*. IE initial *p-* was lost in Celtic and we begin with a Gallo-Roman compound *\*bitu-icem*. At the Gallo-Romance stage the intervocalic occlusive *-t-* was lost along with the following vowel, e.g., Lat. *partitu* > Fr. *parti*. Intervocalic *-c-* developed as /z/, often written *-s* when final; cf. Latin *vervecem* > *\*berbice* > *brebis* ‘ewe.’ Thus, *\*bitu-icem* > *bi-i-z* > *bis*. Eventually the final sibilant was also lost in many cases, although *-s* or *-x* may have been retained in the spelling.<sup>24</sup> Such a putative term, with the proposed meaning ‘birch tar,’ would have had a different geographical distribution than *bitumen* and/or may have represented a different stage in the reduction by heat of birch resin to pitch and tar.<sup>25</sup>

The natural color of a clump of resin as collected from birches is a striated grayish yellow-green, which darkens to brown and black with further treatment. Wood tar is a byproduct of the heating or partial burning of wood to make charcoal and is appreciably darker in tone than the original wood. Birch tar, dark in tone and hard in texture when fully dried, meets the criteria as a source for French *bis* as a color term and, on occasion, as a term denoting hardness, even unyieldingness, since stability of condition was an objective in the use of tar and pitch. Equally plausible in purely linguistic terms is a derivation from Gaulish *betua/bitua*. But then why did the nominal form in Gallo-Romance meaning ‘(birch) tar’ disappear, leaving only the adjective *bis*? I suggest that the answer lies in the displacement of birch resin as a source for tar and pitch by—despite its etymology—what we would call bituminous or mineral tar. Thus OFr. *pois* ‘pitch’ is the regular

<sup>24</sup>On these regular developments, see Bourciez, *Précis de phonétique française*.

<sup>25</sup>Pliny’s discussion of the birch is followed by a brief mention of the may and a reference to the rape of the Sabine women. It is then possible that his reference to the Gauls and birch tar may refer to practices and linguistic usage in cis-alpine Gaul. Billy’s linguistic atlas of trans-Alpine Gaul shows a eastern distribution for the word he represents as *\*beio* ‘résine’; *\*betulla* is more widely represented but the greatest concentration is in central and north-eastern Gaul.

derivation of Latin *pix*, *picis* (seen above) and finds early use in French literature in Marie de France’s *L’Espurgatoire seint Patriz*, where it is one of the conventional means of torturing the damned (v. 1098). *Bis* is also used of the smokey air of Hell in an anonymous Anglo-Norman *Purgatoire de saint Patrice*, suggesting that for this author the word may have retained an association with heat and pitch.<sup>26</sup>

As a further example of possible lexical displacement and innovation, Old French also knew the word *brai* in the meaning ‘pitch.’ This is conventionally derived from a verb *brayer*, and this in turn from Old Norse *bráð* ‘pitch,’ ostensibly via Normandy. Does the introduction of the Norse word imply a new source for pitch in another tree species such as pine or spruce (and here, leaping ahead some centuries, we may recall that, like its fossilized form, amber, pine resin and tar, *pix burgundica*, was later a major export from the Baltic area—spruce gum from Chaucer’s *Pruce* = Prussia)? French *brai* is reputed to have been loaned into Spanish as *brea* and is represented far afield in the La Brea tar pits near Los Angeles, which are of course deposits of bituminous tar, not tree resin.

Consideration of the technological displacement of birch tar and perhaps even earlier loss of original signification in the Gaulish-derived word *bis* will assist in addressing Italian *bigio*. The earliest attestation of *bigio* is in the *Fatti di Cesare*, an adaptation from about 1300 of the thirteenth-century French compilation, *Li Fet des Romains*, based in turn on the works of Sallust and Lucan. Key terms are italicized in the following excerpts. Of the severe winter weather met by Caesar in Spain during the Civil War, Lucan wrote:

Pigro bruma gelu siccisque *aquilonibus* haerens  
 aethere constricto pluuias in nube tenebat,  
 Vrebant montana niues camposque iacentes  
 non duraturae conspecto sole pruinae,  
 atque omnis proprior mergenti sole pruinae.<sup>27</sup>

Winter, congealed with numbing frost and dry *North winds*,  
 had bound the upper air and penned the rain in the  
 clouds. The mountains were nipped by snow, and the low-  
 lying plains by hoar frost that would vanish at the first sight  
 of the sun.

<sup>26</sup>*Le Purgatoire de saint Patrice*, ed. Vising, v. 363, and appended note.

<sup>27</sup>Lucan, *The Civil War*, Bk. 4, vv. 48-55.

This passage is freely adapted into *Li Fet des Romains* as follows:

Il estoit janviers quant Cesar vint iluec atote sa gent. Les nois qui estoient negiees es halpes des pors et del mont de Calpe furent dures et engelees, et les iaues englaciees por le froit yver qui ot esté et por *bise* qui ot assez venté sanz pluie.<sup>28</sup>

It was January when Caesar came there with all his forces. The snow that had fallen on the high pastures of the passes and of Mount Calpe was hard and icy, and the streams were frozen over because of the past cold winter and because of the *bise* that had blown a great deal without rain.<sup>29</sup>

The *bise* seen here is the wind word, derived from Frankish, reviewed above. The Italian adaptation of the French text reads: “Lo tempo era di genaio; nevicato era forte, *bigio* ventava, la notte era oscura, le nieve de l’alpi si strussero ...” (“It was January weather; it had snowed heavily, the *bigio* blew, the night was dark, the snow on the mountain pastures was melting”).<sup>30</sup> The French author is aware that terms for winds are culture- and language specific and somewhat later fudges his translation with an authorial comment interjected into a speech by Caesar: “Aquilo est un vanz que l’en claime *bise*; li autre dient que ce n’est pas *bise* droitement, mes uns venz qui li veit en coste si pres que tot semble un” (“Aquilo is a wind that they call *bise*; others say that is is not exactly the *bise*, but is a wind that comes from so close by it that it seems one and the same,” 462, ll. 21-24). And in the *Fatti*: “Altri dice che Aquilone non è Bigio drittamente; anzi ene uno vento che li nasce di costa” (“Other says that Aquilone is not exactly the Bigio but is a wind that rises just beside it,” Ch. IX, 163). Thus Lucan’s *Aquilo*, the North Wind, has become French *bise* and Italian *bigio*. This seems to anticipate by some six hundred years the etymology in which Gamillscheg and others would derive French *bis* from a Germanic *bîsi* ‘north wind.’ The true case, however, is that

<sup>28</sup>*Li Fet des Romains*, 423, ll. 18-22.

<sup>29</sup>Lucan had used the Latin name for Gibraltar, *Calpe*, as a metonym for all Spain but the adaptor thought a specific mountain was meant.

<sup>30</sup>*Fatti di Cesare*, Ch. 2, p. 134; the adaptor seems to have unintentionally skipped a passage and continues at this point with the effects of a thaw which occurred later in February.

Italian *bigio* is the reflex of a widespread term in the dialects of north-western Italy, eastern France, and the Germanic- and Romance-speaking alpine region for a wind from the north or north-east. This *bigio*, like French *bise*, may well be, as Pfister suggests, of pre-Latin origin, perhaps reflexes of an IE *\*bhīs* ‘to tremble, shudder.’<sup>31</sup> The next attestations of *bigio* are in two early fourteenth-century references to clothing and oblige us to recognize two homonymic forms, a wind word and a color word.<sup>32</sup> Then Dante, in Canto 26 of *Purgatorio*, puts in the mouth of the poet Guido Guinizelli, whom he recognizes as his literary inspiration:

... ‘Tu lasci tal vestigio,  
per quel ch’i’ odo, in me, e tanto chiaro,  
che Letè nol pub torre ne far bigio.’<sup>33</sup>  
‘Thou leavest such a trace and so clear in me by that which  
I hear thee tell as Lethe cannot destroy or dim.’<sup>34</sup>

The implicit contrast between *chiaro* and *bigio* and the fact that the latter could enter into a figurative expression *fare bigio* ‘to obscure’ bespeaks its solid place in the Italian vocabulary of the time. As the associations of Lethe, the river of forgetfulness, are positive in the *Commedia* (see *Purgatorio*, Canto 31), Dante is unlikely to be engaging in wordplay that would draw on *bigio* ‘north wind,’ although it is the case that tempestuous winds do meet the pilgrim when he encounters the first infernal river, the Acheron (*Inferno*, Canto 3).

The most recent thorough examination of Italian *bigio* is by Pfister (*Lessico etimologico italiano*). Less a definition than a semantic classification based on folk typology, he calls *bigio* “colore indeciso, non puro” and, in the approach characteristic of the *LEI*, associates the term with a cluster of roots, *\*beč-/\*beǵ-; \*bač-/\*baǵ-; \*bič-/\*biǵ-*, which constitute “voci che suscitano ripugnanza e disprezzo” (5.759). And here we then find such uses of *bigio* as in reference to cloth and bread (*pane bigio*), but not the association with stone and metal characteristic of medieval French. Other etymologists have derived *bigio* from medieval Latin *bisus*, which, I have suggested, may be a back-

<sup>31</sup>*Lessico etimologico italiano*, ed. Max Pfister, Vol. 6, cols 79-83, s.v. *\*bisja/bissja*.

<sup>32</sup>*Statuto dello Spedale di Santa Maria di Siena*, p. 53, l. 12; Francesco di Barberino, *Reggimento e costumi di donna*, p. 81.

<sup>33</sup>Dante, *Purgatorio*, Canto 26, vv. 106-08.

<sup>34</sup>*Purgatory*, in *The Divine Comedy*, trans. Sinclair.

formation from French *bis*. One development that would account for the situation in Italian would be to see the wind name *bigio* as a native term and its extension from the meaning north wind to the color gray to have been guided by a perceived association between the French wind and color words, *bise* and *bis*. Fuller study of Italian *bigio*, now in the context of the lexis assembled by Pfister, is called for.

To move toward a conclusion, from the review of instances of Old French *bis* used of natural and dressed stone, and of metal artifacts, we have seen that there is no unequivocal evidence for a single color, or a specific color in combination with gray. Some blend of colors with a marbling, striated, or stippled effect is most plausible. The imprecision that attends *bis* may be the result of a semantic hollowing-out of the word, as its connection to birch resin, tar, and pitch was lost over time, the result of technological and trade advances (new sources, chemical and mercantile, of sealing and bonding agents) and, in more purely linguistic terms, of the status of this Gaulish-derived isolate in the Old French vocabulary. This imprecision is matched, perhaps even exceeded, by that in the world of fine textiles. When used of cloth, the qualitative sense of *bis* may have been enhanced by the currency of Latin *byssus*, fine linen or the like. We observe ather greater clarity in the phrase *pain bis*, since the color of wholewheat bread is a near constant. With *pain bis*, I return in closing to other domestic uses of the birch.

In a number of European cultures, birch sawdust or ground birch bark was used until quite recent times as a nutritional supplement, generally as a flour extender in making bread or porridge.<sup>35</sup> Birch-bread continues to be touted as a tourist attraction in the Alps.<sup>36</sup> This would always have been “poor man’s food,” and was never a culinary delicacy (as

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<sup>35</sup>Other early flour extenders in bread-making include chick peas, attested since Roman times. Note that French *boulangier* ‘baker’ has no connection with the birch or its sawdust, nor does the French term *pain bouleau/boulot*, referring rather to a bread shape (< *boule*). In the latter case, without subscribing to notions of atavistic collective memory, it is of interest to see how what must have started as an oral term co-opted two “available” orthographies, for ‘birch’ and (pop.) ‘work.’

<sup>36</sup>See the information about baking activities available in Bürchen (a name that references the birch) and Rund um Visp in the Oberwallis (Upper Valais) of Switzerland; <http://www.matterhornstate.com/en/Valais-AlpWellVS-RegProdVS-40599.html>, accessed in February, 2006. The relatively high sugar content of birch sap also permits the preparation of birch wine, beer, and candy.

personal experience of Swedish *björkbröd* attests). It is possible that the very first meaning of *pain bis* was a bread baked of cereal flour (perhaps spelt, barley, rye or oats more often than wheat in the economic conditions here imagined) with a birch sawdust extender, and not only of flour with retained bran. This may have been a Gaulish cooking practice. Note, in passing, that French *seigle* ‘rye’ derives from a Gaulish word, a further link between the linguistic sub-stratum of French and bread baking. The subsequent semantic evolution would then have been bread of cereal flour and birch sawdust > bread of inferior quality > wheaten bread of inferior quality due to the retention of milled bran—but perhaps still not requiring Roland’s Durendal to slice it.<sup>37</sup>

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<sup>37</sup>Some derivations of *bis* that survived the medieval period are *biset* as a name for the slate-gray wood dove; *bisaille* for the grain mixture going into *pain bis*; *biser* as a verb used of the darkening of grain; and *bisonne*, a heavy gray cloth used for lining.

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