

for noting the occurrence of a full-tone (at the beginning of the line with a *t* = *tonus*) or a semitone (at the beginning with *s* = *semitonium*).

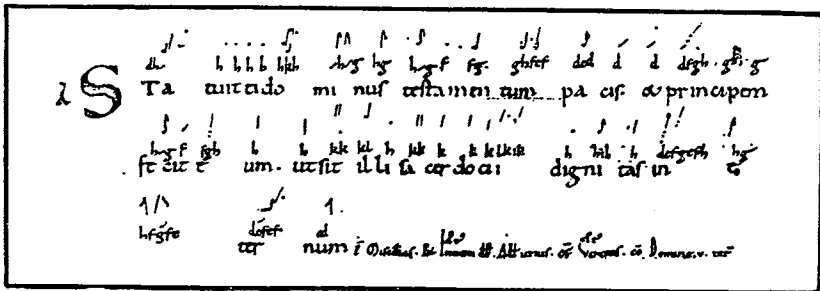
Hermann Contractus (the Lame, XIth cent.) indicated the distance of one tone from another by means of letters (*e* = *equaliter*, the same height; *t*, whole tone; *s*, semitone; *ts*, tone and semitone, a minor third; *ti*, two whole tones, a major third; *d* = *diatessaron*, a fourth; Δ = *diapente*, a fifth). Cf. p. 7.

21. A perfected system of letter-notation alongside or rather under the neumatic notation is found in the "Tonarium" of Montpellier,¹ codex H. 159 (XIth cent.) which has, from this circumstance, been termed the *codex bilinguis*. It possesses this additional peculiarity that the chants embodied in it are arranged according to modes, not for liturgical services, but probably for school use. In succession come Introits of mode 1, Communions of Mode 1, Introits of Mode 2, Communions of Mode 2 etc., then Allelujas, Graduals and Offertories of Mode 8.

We give here the letters of the Tonarium in the first line, and in the second their modern equivalent.

a b | c d e | f g h | i i | k l m | n o p =
 A B C D E F G a b b b c d e f g a¹

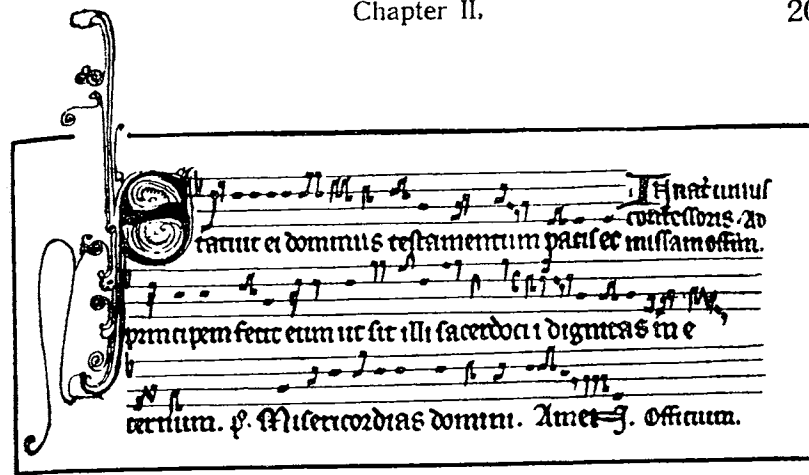
The letter *i* in italics denotes *b* flat, otherwise *b* natural, and the angular signs between the letters denote quarter tones.²



Cod. H. 159 of Montpellier (XIth cent.).
 (Reduced 1/3.)

¹ The whole Tonarium is published as Vol. VIII. of Pal. mus.

² J. Gmelchs, *die Viertelstonstufen im Messtone von Montpellier*. Eichstädt 1911 and C. O. 1911. — Rassegna 1911, 12 sqq. and 109 sqq.



Graduale Sarisburiense (XIIIth cent.).

The reader should now easily be able to understand the alphabet notation of the Introit *Statuit*; a few remarks may be added, especially regarding the neums. The almost vertical position of the strokes is noticeable in comparison with the neums in the St. Gall manuscript where they incline very much to the right.

Over: *Sta*: Podatus + Virga; over *do*: Podatus + Oriscus + Dot, the last two signs take the place of the Pressus, and the upright hook over the letter *k* denotes a doubling; over *mi*: 2 Clives; over *te*: Torculus; over *-tum*: Podatus + 2 dots, the second as frequently in French manuscripts in the case of a Climacus, with a stem, (more legible over *docu*) + Virga = Pes subbipunctis resupinus; over *e(um)*: Scandicus (to be read upwards); *si* = Bivirga; *-(docu)i* = Climacus resupinus; *e(ter)-*: Clivis + Climacus, whose two dots run into each other; over the letters is placed the same sign as over the letters of the following syllable, which the neums render by the Quilisma; over *-ter*: Dot + Quilisma + added Porrectus; over *-num*: Clivis.

It must be noted that with liquescent neums the letters are joined either above or below by a slur (*lm*, *ml*).

22. Lines. When such lines were actually first drawn cannot be strictly determined, but it must, however, have been somewhere about the year 1000. Up to this time the Graduals and Antiphonaries of our church had no lines (*regulae*).¹ Whereas Hucbald had employed only the spaces, now both spaces and lines were turned to account. Thus the distance from one line to another naturally indicated the interval of a third. It is true that at first attempts were made to place in one space two or even

¹ Gerbert, *de cantu* (St. Blasien 1774) II, 61.