

Converting Bischoff Dating Clauses: A Proposed Set of Rules

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Note that in this document, we address dating clauses for *all* items listed in Bischoff's *Katalog*. This includes the main entries (e.g. 123), those with letters because they are *CLA* items (e.g. 123a), as well as those that have no numbers because they were deemed to be later (\otimes). For the last, these are to be encoded based on the preceding numbered item, plus *x*, then its place in order after the item. For example, the first \otimes after 123 would be 123x1, and if it is immediately followed by a second and a third, they would be 123x2, 123x3.

1 Establishing Fundamental Concepts

All conversions are based on the core principles that make up most of the entries in Bischoff's *Katalog*¹. Each century (*Jahrhundert*) is defined as a standard 100-year interval, the first century being 1–100, and so on, following the formula²: $NJh. \rightarrow (N - 1) \times 100 + 1 \text{ to } N \times 100$. When Bischoff refers to an overlapping century range such as *IX./X. Jh.*, it is depicted as having a 20-year

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[†]Here is a link to our website, where you can find the entries of Bischoff's *Katalog*: <https://sapientia.uqam.ca/fr/projets/l-histoire-medievale-intellectuelle>.

¹The *Katalog* is made of 4 volumes. The first three volumes contain all the entries (vol. 1: 1–2038; vol. 2: 2039–3884; vol. 3: 3884x1–7656).

²Date ranges are always joined by a dash, as in the *Katalog* (see *bis* in section 3.3).

overlap on either side. This represents the transitional periods between centuries by considering one-fifth of a century for each, and it corresponds well with what has been done by The Earlier Latin Manuscripts Project for Lowe’s *Codices Latini Antiquiores*³.

Examples:

VIII. Jh. = 701–800	IX. Jh. = 801–900	X. Jh. = 901–1000
VIII./IX. Jh. = 781–820	IX./X. Jh. = 881–920	X./XI. Jh. = 981–1020

1.1 Chronological markers

Anfang (beginning) and *Ende* (end) represent about the first and last 20 years of the century⁴. In the same way, *Mitte* (Middle) covers 20 years around the mid-century point (841–860) as 15 years (836–865) would redundantly overlap with the second third (834–866), and 5 years (846–855) would feel too short to be further described by adverbs or adjectives⁵. Furthermore, *vor der Mitte* (before the middle) and *nach der Mitte* (after the middle), which are barely by Bischoff, should cover the twenty years before the middle (821–840) and the following twenty years (861–880)⁶. Therefore, *Anfang*, *vor der Mitte*, *Mitte*, *nach der Mitte*, and *Ende* each correspond to one-fifth of the century in our interpretation of Bischoff⁷.

Examples: IX. Jh., ...

<i>Anfang</i>	<i>vor der Mitte</i>	<i>Mitte</i>	<i>nach der Mitte</i>	<i>Ende</i>
801–820	821–840	841–860	861–880	881–900

³Here is a link to their website: <https://elmss.nuigalway.ie/about>.

⁴“IX. Jh., *Anfang* (795–816)” (no. 4134) indicates that 795–816 is unusual for *Anfang*. It is clear that the year 795 does not belong to the ninth century. However, the year 816 raises questions since 815 would be the expected year, suggesting that Bischoff might have believed the initial *Anfang* extended until 820. This is the only case in which we find an entry using *Anfang/Ende* with a numeric date.

⁵Some remarks are necessary to justify further: the entries “IX. Jh., *Mitte* (*nach* 841)” (no. 6558), “IX. Jh., *Mitte* (*ab ca.* 842)” (no. 6122), and “IX. Jh., *Mitte* (843–851)” (no. 876 & 1442) confirm that 841 is the earliest potential date for *Mitte*. The latest potential date can be found in: “IX. Jh., *ca. Mitte* (*noch vor* 856?)” (no. 3126), and “IX. Jh., *Mitte* (*möglicherweise ca.* 860)” (no. 6648). Consequently, it is clear that Bischoff viewed *Mitte* as encompassing the period from 841 to 860.

⁶We found *vor der Mitte* twice, and *nach der Mitte* 8 times. This does not leave many clues to understand his interpretation. However, two entries spill the beans. First, “IX. Jh., *wohl bald nach der Mitte* (*vor* 859)” (no. 5429) indicates a period shortly after the middle of the century (*bald nach der Mitte*), yet prior to 859 (*vor* 859). As *nach der Mitte* is modified by *bald*, it implies the dating should be construed as 856–859 (5 years after the middle as a date (i.e. 850), up to 859 as specified in the parentheses). Secondly, “IX Jh., *vor oder um Mitte*” (no. 351) suggests that *vor der Mitte* and *um der Mitte* are not equivalent. Since *um* is used the most with a precise date (e.g. *um* 810 = 810±5 = 806–815), *Mitte* is used here again as a date for 850. Thus, the dating clause indicates the period from 841 to 855. (See section 4.2 to see how adverbs and adjectives can modify a dating clause.)

⁷Although we have divided the century into five parts, it seems that Bischoff’s reasoning was not limited to this framework, notably because *Anfang* (500+), *Ende* (200+), and *Mitte* (700+) are much more frequent than *vor der Mitte* and *nach der Mitte* (together 10 times). This is likely because *vor der Mitte* (841–860) and *nach der Mitte* (861–880) are redundant with overlapping datings, like IX. Jh., 2./3. Viertel (841–860).

2 Fractioning the Centuries

Bischoff often breaks down centuries into halves (*Hälfte*), thirds (*Drittel*), or quarters (*Viertel*). Each of these segments represents a fraction of the century that can be easily divided. A century comprises two halves of 50 years each, three thirds – with the last third having an extra year to avoid decimal values (33/33/34 years) – and four quarters of 25 years each. Furthermore, while Bischoff did not use fifths, the previously mentioned chronological markers are regarded in that manner (see section 1.1).

Examples:

<i>IX. Jh., 1. Hälfte</i> = 801–850	<i>IX. Jh., 1. Drittel</i> = 801–833	<i>IX. Jh., 1. Viertel</i> = 801–825
<i>IX. Jh., 2. Hälfte</i> = 851–900	<i>IX. Jh., 2. Drittel</i> = 834–866	<i>IX. Jh., 2. Viertel</i> = 826–850
—	<i>IX. Jh., 3. Drittel</i> = 867–900	<i>IX. Jh., 3. Viertel</i> = 851–875
—	—	<i>IX. Jh., 4. Viertel</i> = 876–900

2.1 Overlapping fractions

When two fractions meet at a specific date, they are easy to interpret as meaning “at the turn of” following the same principle as the overlapping centuries. In this case, however, we recommend dividing 20 years equally on both sides (that is, the date of the turn ± 10 years). However, this does not work when fractions are of uneven length because there is no neat “turn” between them. This concerns exclusively *Mitte* overlapping for 10 years with either *Hälfte* or *Viertel*⁸. Such dating clauses are absent in the first and second volumes, while in the third volume, 178 entries include these uneven overlapping fractions⁹. This raises questions about continuity in the way dating clauses have been recorded, especially considering that the first volume appeared in 1998 and the third in 2014. Leaving those aside for the moment, we suggest treating these fractions as instances of *oder*, that is, starting from the earliest date and ending with the latest (see section 3.2)¹⁰.

⁸The following frequencies do not take in account the use of parentheses or centuries within the dating clause, but only if these fractions were used in conjunction. It is noteworthy that Bischoff never combined in this way *Drittel* with *Hälfte* or *Viertel*. *Ende* and *Anfang* are found only twice (in that exact order at no. 259 & 5175) throughout the *Katalog*. Because they are of the same length, they should be treated as overlapping fractions, that is as the turn of the century.

Dating clause	Example date range with <i>IX. Jh.</i>	Frequency
1. Hälfte/Mitte	801–860	6
2. Viertel/Mitte	826–860	89
Mitte/3. Viertel	841–875	78
Mitte/2. Hälfte	841–900	5

⁹An exception exists in the second volume, where we find “*IX. Jh., ca. 2. Viertel/Mitte*” (no. 2865).

¹⁰This is also consistent with the fact that *oder* was replaced by a slash between two numeric dates.

Furthermore, it is worth noting that Bischoff’s dating clauses position manuscripts within a coherent set of paleographical features. *1./2. Viertel* and *vor der Mitte* make implied contrasts to their counterparts (*Viertel* vs. the other *Viertels*, *vor der Mitte* vs. *Mitte*). Translating these into date ranges often leads to a loss of this contrast. For example, *2./3. Viertel*, *1./2. Hälfte* and *Mitte* cover the same period (841–860), but they are actually expressed as nuanced contrasts in Bischoff’s *Katalog*. Consequently, this explains why he did not use *1./2. Hälfte*, because it does not contrast with anything.

Overlapping fractions	Date range	Occurrences
<i>IX. Jh., 1./2. Viertel</i> ¹¹	= 816–835	464
<i>IX. Jh., 2./3. Viertel</i>	= 841–860	6
<i>IX. Jh., 3./4. Viertel</i> ¹²	= 866–885	122
<i>IX. Jh., 1./2. Drittel</i>	= 824–843	59
<i>IX. Jh., 2./3. Drittel</i>	= 857–876	45
<i>IX. Jh., 1./2. Hälfte</i>	= 841–860	0

3 Combining Fractions with Conjunctions

Bischoff often used conjunctions to combine multiple segments.

3.1 Und

Bischoff appears to have used datings with “*und*” (and sometimes “;”) to identify manuscripts containing at least two distinguishable chronological layers¹³.

Examples:

<i>IX. Jh., 3. Drittel und 4. Drittel</i> = 851–875 (primary) and 876–900 (secondary)
<i>IX. Jh. 2. Drittel und IX./X. Jh.</i> = 826–850 (primary) and 886–915 (secondary)

3.2 Oder

Bischoff also used the conjunction “*oder*” (and very rarely “/” with fractions, more frequently with numbers) to indicate that a manuscript could have been produced in either part identified.

¹¹The earliest date works here: “*IX. Jh., 1./2. Viertel (post A.D. 818/819?)*” (no. 5064).

¹²Both dating clauses work correctly here: “*IX. Jh., 3./4. Viertel (nach 872)*” (no. 6349), and “*IX. Jh., 3./4. Viertel (ab 877)*” (no. 6642).

¹³For example, no. 698 (Brussels, BR 495–505) is dated as “*wohl Nordostfrankreich, IX. Jh. 3. Drittel und IX./X. Jh.*”, the main part being “*IX. Jh. 3. Drittel*” (866–900) while the commentary concerns only the ff. 208v–212r, that is, the *tituli canonum* made “*wohl ca. s. IX./X. hinzugefügt*” As such, our practice in these cases will be that the first date will be assigned as a *primary* date range, and the second date will be the *secondary* date range. Each date will be assigned its own certainty level, if needed (see Section 4.1).

When this conjunction is used, it seems best to merge the two sections into a larger one without distinguishing them. To mark uncertainty, he preferred a variety of different markers (see 4.1).

Examples:

<i>IX. Jh. 2. oder 3. Drittel</i> = 834–900 (834–866 or 867–900)
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3.3 *Bis*

This indicates something like “date A, extending to (or verging on) date B” (and “–” with numbers)¹⁴, and means that the manuscript exhibits multiple hands, or other characteristics, from these periods, without distinguishing chronological layers¹⁵.

Examples:

<i>IX. Jh., 2. bis 3. Viertel</i> = 826–875 [<i>from 826 to 875</i>]
<i>IX. Jh., 3. bis 4. Viertel</i> = 851–900 [<i>from 851 to 900</i>]
<i>IX. Jh., 1. bis 2. Drittel</i> = 801–865 [<i>from 801 to 865</i>]

In sum, these three conjunctions become hard to distinguish from each other when they are transformed into a numerical range, because they result in the merging of a relatively wide range.

4 Describing fractions with Adverbs and Adjectives

4.1 Uncertainty

A dating clause with any certainty marker is considered uncertain as opposed to certain. We categorized the markers into high- or low-certitude groups. The high certainty markers are “*wahrscheinlich(er)*” and “*wohl*”. The low certainty markers are “*möglich(erweise)*”, “*vielleicht*” and the question mark “(?)”. If multiple uncertainty tokens appear inside the same dating clause, the lowest affects the overall certainty level. If there are primary and secondary datings, each can have its own certainty marker. For example, “*wahrscheinlicher*” is used (3 times) by Bischoff to indicate an alternative dating, that is secondary, but more certain¹⁶. Bischoff frequently added a more precise, but less certain, date range in parentheses, along with a certainty marker (often

¹⁴For a rare use of a dash equivalent to *bis*, see no. 429: “IX. Jh., ca. 2.–4. Viertel”.

¹⁵For example, see no. 393, 2620 or 4660.

¹⁶The order in which the dating clauses are found should not be altered because they often concern different parts of the entry.

Dating clause	Number	Primary	Secondary
<i>IX./X. Jh. (?), wahrscheinlicher X. Jh., 1. Hälfte</i>	224	881–920 [low]	901–950 [high]
<i>(IX. Jh., Ende, oder wahrscheinlicher) X. Jh., 1. Hälfte</i>	2026	881–900 [certain]	901–950 [high]
<i>IX./X. Jh. oder wahrscheinlicher X. Jh., 1. Hälfte</i>	2564	881–920 [certain]	901–950 [high]

a question mark)¹⁷. In cases where it would be desirable not to consider these much uncertain dates, it is necessary to provide a way to exclude high- or low-certainty markers, or both.

4.2 Approximation

Some adverbs mildly influence the internal relationship of the dating limits. Bischoff used the approximation marker *circa* more than 2000 times. We suggest extending the period by 5 years on either side. Thus, “IX. Jh. ca. 2. Viertel” becomes 821–855.

In comparison, Bischoff rarely used other approximation markers¹⁸. While some markers are found only once, they can either extend or restrict the period by 5 years on one or both sides. For instance, *noch*, *gegen* and *etwa* restrict a period while *circa* expands it. They do not seem to have a reserved usage, except *um*, that Bischoff used to estimate a specific date¹⁹. When very rare approximation markers are used, their interpretation must be concordant with their place and function in the dating clause²⁰. As a general rule of thumb, such markers should not add or remove more than 5 years on either side.

5 Handling Parentheses and Brackets

Bischoff’s *Katalog* occasionally presents dates within parentheses or brackets. When the complete dating clause is enclosed by parentheses, it signals that the date is sourced from another of Bischoff’s published works, which should then be referenced (such as from *Ma. Studien*). Parentheses within the dating clause suggest clarifications or uncertainties, as we have suggested in section 4.1. Brackets denote that the date originates from an initial phase of the *Katalog*. In both instances, the details they encompass are supplementary to the main dating clause found outside brackets or parentheses.

¹⁷To cite only a few examples in which the parentheses represent a less certain date range: “IX. Jh., 3. Viertel (859-871?)” (no. 1438), “IX./X. Jh. (X. Jh., Anfang?)” (no. 153, 253 & 266), “IX./X. Jh. (IX. Jh., Ende?)” (no. 604), “874-892 (879?)” (no. 2804), “IX. Jh., 3. (oder 4.) Viertel (?)” (no. 4412), “IX. Jh., ca. 2. Viertel (oder später?)” (no. 5349).

¹⁸Here are the most frequent:

Approximation marker	Frequency
<i>ca.</i>	2108
<i>um</i>	57
<i>etwa</i>	29
<i>gegen</i>	13
<i>danach</i>	11
<i>noch</i>	11

¹⁹For instance, “*um oder nach 850*” (no. 336), “*um 850*” (no. 1656), yet “IX. Jh., vor oder um Mitte” (no. 351).

²⁰Bischoff seems to have used “*frühes*” and “*ausgehendes*” once as near synonyms of “*Anfang*” and “*Ende*” in some rare cases: “IX./X. Jh. oder frühes X. Jh.” (no. 2478), “*frühes IX. Jh.; ausgehendes IX. Jh. oder frühes X. Jh.*” (no. 4489). He also used “*jünger*” three times (no. 5413, 5451 and 5495x1) and “*älter*” once in no. 2310a: *Ravenna, s. VIII; CLA XII.1608 [...] vielleicht älter, ca. s. VIII.*

6 Illustrating with a timeline: IX. *Jahrhundert*

The lower section of this diagram depicts the four main division layers (halves, thirds, fourths, fifths). When no date is given, Bischoff might have found these hypothetical points in time to be useful reference points. The upper section illustrates the convergence of these points with one another. Please be aware that overlapping thirds or fourths have not been included to keep things readable.

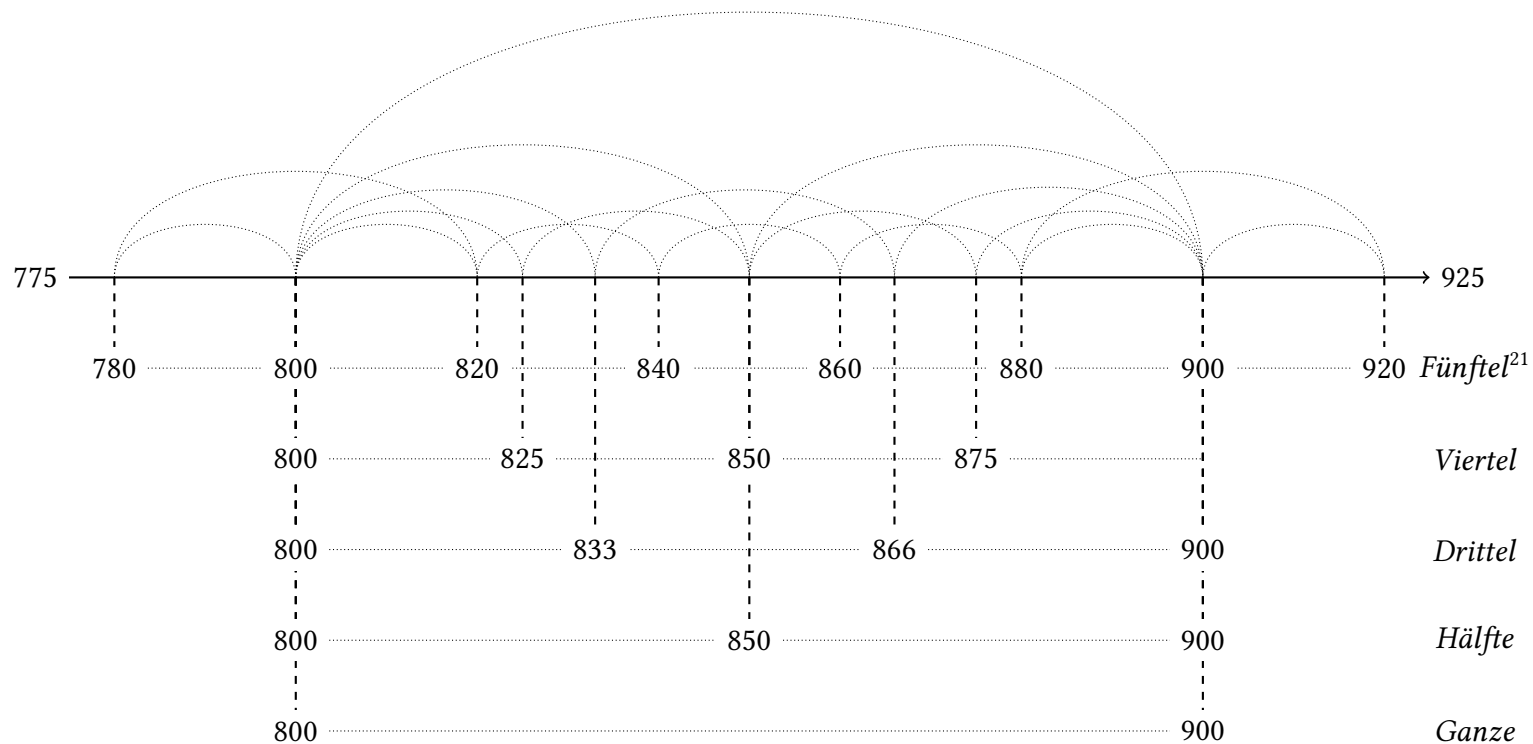


Fig. 6.1 Halves, thirds, fourths and fifths in Bischoff's *Katalog*

²¹*Fünftels* are not found in the *Katalog*, but *Anfang*, *vor der Mitte*, *Mitte*, *nach der Mitte* and *Ende* are each equivalent to one-fifth of the century in our interpretation, thus being the *Fünftels* that Bischoff did not use.