

Handbook of Stemmatology

Handbook of Stemmatology



History, Methodology, Digital Approaches

Edited by
Philipp Roelli

DE GRUYTER

Publiziert mit Unterstützung des Schweizerischen Nationalfonds zur Förderung
der wissenschaftlichen Forschung

ISBN 978-3-11-067417-0
e-ISBN (PDF) 978-3-11-068438-4
e-ISBN (EPUB) 978-3-11-068439-1
<https://doi.org/10.1515/9783110684384>



This work is licensed under the Creative Commons Attribution 4.0 International Licence (CC BY 4.0).
For details go to <https://creativecommons.org/licenses/by/4.0/>

Library of Congress Control Number: 2020939075

Bibliographic information published by the Deutsche Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the Internet at <http://dnb.dnb.de>.

© 2020 Philipp Roelli, published by Walter de Gruyter GmbH, Berlin/Boston

Cover: The graphic on the cover is a stylometric plot of the contributions in this book, illustrating the vocabulary and style used by its authors. The groupings hint at the extent to which the topics in the book are shared between the authors across their respective fields. The plot was generated by the editor of the book with the R package *stylo* (cf. *The R Journal* 2016, vol. 8:1) using the distribution of the 500 most common words in the book. The resulting tree (Cosine Delta distance) was subsequently retouched with FigTree and Inkscape, thereby assigning one colour per chapter.

Typesetting: Meta Systems Publishing & Printservices GmbH, Wustermark
Printing and Binding: CPI books GmbH, Leck

www.degruyter.com

Contents

Introduction (Philipp Roelli) — 1

1 Textual traditions — 9

Elisabet Göransson (Ed.)

- 1.1 Literacy and literature since Antiquity (Gerd V. M. Haverling) — 11
- 1.2 Transmission of texts (Sinéad O’Sullivan) — 15
- 1.3 Book production and collection (Outi Merisalo) — 24
- 1.4 Textual traditions and early prints (Iolanda Ventura) — 32
- 1.5 Palaeography, codicology, and stemmatology (Peter A. Stokes) — 46

2 The genealogical method — 57

Odd Einar Haugen (Ed.)

- 2.1 Background and early developments (Gerd V. M. Haverling) — 59
- 2.2 Principles and practice (Paolo Chiesa) — 74
- 2.3 Criticism and controversy (Giovanni Palumbo) — 88
- 2.4 Neo-Lachmannism: A new synthesis? (Paolo Trovato) — 109

3 Towards the construction of a stemma — 139

Marina Buzzoni (Ed.)

- 3.1 Heuristics of witnesses (Gabriel Viehhauser) — 140
- 3.2 Indirect tradition (Caroline Macé) — 148
- 3.3 Transcription and collation (Tara Andrews) — 160
- 3.4 Data representation (Joris van Zundert) — 175

4 The stemma — 208

Tara Andrews (Ed.)

- 4.1 Definition of stemma and archetype (Philipp Roelli) — 209
- 4.2 The stemma as a computational model (Armin Hoenen) — 226
- 4.3 A typology of variation and error (Aidan Conti) — 242
- 4.4 Dealing with open textual traditions (Tuomas Heikkilä) — 254
- 4.5 The stemma as a historical tool (Caroline Macé) — 272

5 Computational methods and tools — 292

Joris van Zundert (Ed.)

- 5.1 History of computer-assisted stemmatology (Armin Hoenen) — 294
- 5.2 Terminology and methods (Sara Manafzadeh, Yannick M. Staedler) — 303
- 5.3 Computational construction of trees (Teemu Roos) — 315

- 5.4 Software tools (Armin Hoenen) — 327
- 5.5 Criticisms of digital methods (Jean-Baptiste Guillaumin) — 339

6 Editions — 357

Aidan Conti (Ed.)

- 6.1 Types of editions (Odd Einar Haugen) — 359
- 6.2 Text-critical analysis (Marina Buzzoni) — 380
- 6.3 Representing the critical text (Franz Fischer) — 405
- 6.4 Publication of digitally prepared editions (Tara Andrews) — 427

7 Philological practices — 437

Caroline Macé (Ed.)

- 7.1 The New Testament (Christian-Bernard Amphoux) — 440
- 7.2 Classical Greek (Heinz-Günther Nesselrath) — 451
- 7.3 Mediaeval Romance Philology (Frédéric Duval) — 456
- 7.4 Mediaeval German (Ralf Plate) — 466
- 7.5 Ethiopic (Alessandro Bausi) — 479
- 7.6 Hebrew (Chaim Milikowsky) — 493
- 7.7 Chinese (Christopher Nugent) — 501
- 7.8 Early modern printed texts (Iolanda Ventura) — 512
- 7.9 Genetic maps in modern philology (Dirk van Hulle) — 524

8 Evolutionary models in other disciplines — 534

Armin Hoenen (Ed.)

- 8.1 Phylogenetics (Heather Windram, Christopher Howe) — 537
- 8.2 Linguistics (Dieter Bachmann) — 548
- 8.3 Anthropology (Jamshid Tehrani) — 568
- 8.4 Musicology (Cristina Urchueguía) — 576

Terminology in other languages — 587

References — 597

General Index — 667

Index of Manuscripts — 683

List of authors — 685

2.2 Principles and practice

Paolo Chiesa

The genealogical method – also called, not quite appropriately, “Lachmann’s method” (see 2.3) – played a pivotal role in developing a scientific approach to textual criticism, and it still remains an essential research tool. This section provides a short rationale of the method in its logical principles and practical application; its strengths and weaknesses are briefly discussed through examples, both real and invented.

2.2.1 A definition

The genealogical method meets the need, clearly felt at the historical moment in which it was developed, to limit the subjectivity (*iudicium*) of the critical editor in choosing between the readings (i.e. “what is read”, the variants of the manuscripts) occurring in the tradition of a literary work. It attempts to replace, as far as possible, subjective criteria with objective ones. It advertises itself as a “scientific” method based on a set of predefined and encoded rules. The cultural climate in which the method developed was the eighteenth-century Enlightenment and nineteenth-century positivism; the “enemy” to overcome were the editions produced since the second half of the fifteenth century, which had generated a number of *textus recepti* (see 2.1.3) without philological value.

The genealogical method is also called “Lachmann’s method”, from the name of Karl Lachmann (1793–1851), a German classical scholar who was considered to be its creator or architect. In fact, this method was constructed over a rather long timespan (from the last decades of the eighteenth century to the early twentieth century) thanks to the contributions of many scholars, sometimes working in connection with one another, sometimes working autonomously. The predominance of Lachmann’s name mainly arises from his famous edition of Lucretius’ poem *De rerum natura*, in which he provided a spectacular reconstruction of the supposed earliest manuscript of the work, applying some principles of the method (the Lucretius transmission was discussed in 1.4.2). This demonstration and the long-standing fame of the scholar, kept alive by the academic circles of Berlin, produced an identification (largely undue) between his name and the method (see Timpanaro 1981, repr. 2004, trans. Most 2005; Fiesoli 2000, 359–461).

In the tradition of textual studies, the most consistent treatment of the genealogical method is considered to be that provided by the German scholar Paul Maas (1880–1964) in his *Textkritik* (Maas 1957, trans. Flower 1958); for a canonical description in English, see West (1973).

2.2.2 The genealogical metaphor

At the basis of the genealogical method lies the insight that a proper analysis of the tradition of a work is a powerful and indispensable tool for reconstructing the text. The tradition of a work consists of all the facts and objects that have transmitted the work through time, from its origin to us: primarily the preserved manuscripts, or even the lost manuscripts we are aware of (and secondarily the indirect tradition, i.e. quotations, extracts, paraphrases, imitations, and so on, which we do not discuss here; see instead 3.2). These objects are designated as witnesses of the work, using a judicial metaphor. In order to represent the tradition in its historical development, we can use another metaphor, representing every witness of the text as a member of a lineage. A lineage derives from a historical parent and materialises in individuals, children, grandchildren, and descendants, who in turn generate other children, grandchildren, and descendants. Similarly, the tradition of a literary work starts from a parent (the original, the text as conceived by the author) and proceeds through subsequent generations of handwritten copies that are produced by taking earlier manuscripts as models. As the development of a lineage is represented by a family tree, so too the tradition of a literary work can be represented by a similar diagram, a “family tree of manuscripts” (in Latin, *stemma codicum*), explaining historical relationships among witnesses; and the terminology of family relationships may be useful for representing relationships between manuscripts as well. Scholars say, for example, that a manuscript “descends” from another; that a manuscript is “ancestor”, or “progenitor”, or “sibling” of another; that two manuscripts are “twins”; that some manuscripts constitute a “family”; and so on. For a more theoretical view of the *stemma codicum*, see section 4.1.

2.2.3 Basic principles

The principles of the genealogical method are summarised as follows.

(i) The value of a reading depends on the value of the witness that reports it. The value of a single witness is measured in terms of its relationships of dependence or autonomy with the other witnesses.

(ii) Only when the relationships between the witnesses have been determined, can the text be reconstructed.

Thus, textual criticism based on the genealogical method clearly separates two phases of research which should be executed in succession: (i) reconstruction of the relationships between the witnesses (a step called *recensio*), and (ii) reconstruction of the text (a step called *constitutio textus*; see further 6.2).

2.2.4 What a *stemma codicum* is for

In order to illustrate how the genealogical method works, we start with a practical example. It is an (invented) case of an ancient or mediaeval work; no original manu-

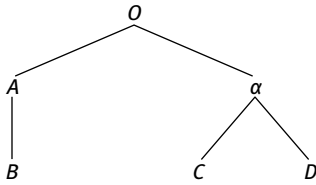


Fig. 2.2-1: Stemma (i).

script survives, but we have four later copies (witnesses *A B C D*). The relationships between the four witnesses could take many different shapes; at the beginning of the investigation, we do not know the correct one. For example, the witnesses might be related as shown in figure 2.2-1.

This is a *stemma codicum*, that is, a graphical representation of the relationships between the witnesses. In this stemma, we conventionally indicate the lost original with *O*, the surviving witnesses with Roman letters, and the lost witnesses whose existence has apparently been confirmed by research with Greek letters. In this stemma, the original, *O*, generated two copies, one still existent (*A*) and one lost (α); *A* generated another copy, still surviving (*B*); α generated two other copies, still surviving as well (*C* and *D*). Every stemma indicates derivation (in our case, of *B* from *A*), closeness (of *C* and *D*, descending from the same lost witness), and independence (e.g. of *A* from α). Every stemma is a diachronic schema, representing a historical sequence from the oldest object (the original, the starting point, the “parent”) to the latest outcomes.

If scholars know that the relations between the witnesses are those outlined above, their work in reconstructing the original text becomes considerably easier and, above all, firmer. Since the goal is to rebuild *O*, *B* is useless as a witness, because it derives from *A*: we should consider every reading reported by *B* but not shared by *A* as an innovation produced in the transition from *A* to *B*; such a reading is therefore “false” in terms of the goal of reconstructing the original. However, even a reading reported by *C* alone against the pair *A D* can be supposed to be “false”: it was obviously generated in the transition from α to *C*, while the reading of α was the same of *A*, as demonstrated by its presence in *D*. The same holds for the readings reported by *D* alone. In this way, using the stemma, many variants found in the tradition are “automatically” or “mechanically” discarded: those reported by *D* alone, those reported by *C* alone, and all those reported by *B* (this witness may be excluded a priori from further consideration). When the reading of *A* coincides with the reading of α , it corresponds to the reading of the original, *O*. The only cases in which doubts still persist, and in which editors have to make a choice, are when the reading of *A* is opposed to the reading of α , that is, the common reading of *C D* – presumably, a small part of the total variants in the tradition; since the task was to reduce the editor’s subjective choice, we gain a major advantage.

The relationship between the four witnesses, and their stemma, might be different, of course. Figure 2.2-2 offers another possibility.

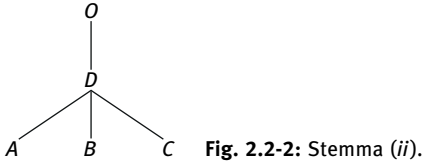


Fig. 2.2-2: Stemma (ii).

In this case, the reconstruction of the original, *O*, can proceed on the basis of a single witness (*D*), for the other three derive from the latter. This means a strong simplification in the work of any critical editor, and a stronger degree of certainty. Such certainty lies in the power to securely label as “false” each and every individual reading of the three manuscripts *A B C* (an operation scholars call *eliminatio lectionum singularium*). Actually, the single readings of *D* are not all necessarily “true” (i.e. corresponding to the original): in the transition from *O* to *D*, innovations may have been produced, which the editor needs to identify and eliminate. Nevertheless, the value of *D* as a witness is undoubtedly greater than the value of any of the other manuscripts.

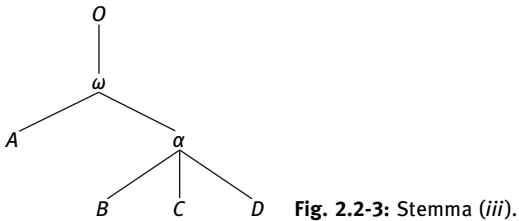


Fig. 2.2-3: Stemma (iii).

In this case (fig. 2.2-3), the tradition departs from a lost manuscript, ω , which contains some innovations compared to the original; in philological terms, such a manuscript is called an archetype (see 4.1.5). As a first step, the critical editor must recover the readings of ω . That can be done with certainty when *A* and α coincide, but requires a choice when they diverge. Once the readings of ω have been reconstructed, there is no guarantee that these readings correspond to the original, *O*: as with manuscript *D* in the previous case, some innovations might have been produced in the transition from *O* to ω , and they have to be detected and eliminated.

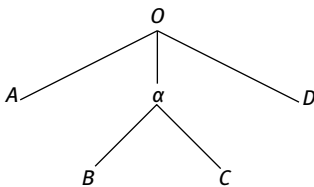


Fig. 2.2-4: Stemma (iv).

In this case (fig. 2.2-4), the tradition splits into three branches. Three witnesses, each independent of one another, are involved in the reconstruction of *O*: the surviving manuscripts *A D*, and the lost witness α , which can be reconstructed from *B C*. Here, we are able to reconstruct *O* – in principle, and with exceptions – mechanically: the agreement of two of the three witnesses *A* α *D* against the third, corresponds to the reading of *O*.

By now, the first principle of the stemmatic method is clear: the value of a reading depends on the value of the witness that reports it; this value is measured by that witness's relationships of dependence or autonomy with the other witnesses, and is represented by a *stemma codicum*. For example, in stemma (i), the value of a *B*-reading is zero (*B* is designated as a *codex descriptus*, that is, derived from another surviving manuscript); the value of an *A*-reading is very high, and equal to an α -reading; the value of a reading of *C* alone or of *D* alone is low, but if the same reading is present in both *C* and *D*, it reports a reading of α , whose value is equal to that of an *A*-reading.

Therefore, a genealogical representation of the relationships between witnesses provides a powerful guide for textual reconstruction. The subjectivity of the textual critic is strongly limited and replaced by mathematical criteria, apparently more “scientific” and “objective”. The cases in which scholars are supposed to choose (by making recourse to their own *iudicium*) which variant to adopt, among all those attested in the tradition, are drastically reduced. If the stemma takes shape as (i) or (iii), the unclear cases are only those in which *A* is opposed to α . If the stemma takes shape as (ii), there is no doubt in choosing between the variants, because the *D*-reading is always the best (if its reading has to be changed, the scholar will do so without taking into account the variants of the other manuscripts, but on the basis of different arguments instead). If the stemma takes the shape of (iv), everything is resolved by applying a majority principle, except in the case (which will be rather rare) that each of the three witnesses *A* α *D* exhibits a different reading.

Among the advantages of the stemma is that it prevents the use of specious and in fact scientifically fallacious criteria, such as the following.

(i) A reading supported by the majority of manuscripts is not preferable for this reason alone. In the case of stemma (iii), when a common reading of the three manuscripts *B C D* is opposed to a reading of *A* alone, the theoretical probability of either of the two readings being original is equal. This is because *B C D* together represent the lost progenitor α , and this lost witness (and only this lost witness) is on the same level as *A*. The fact that *B C D* are three witnesses and *A* is a single witness does not confer priority on the former variant.

(ii) The reading attested in older manuscripts is not preferable for this reason alone. The stemmata above do not take into account the date of the witnesses. It is indeed true that an older manuscript is more likely to be “better” than a more recent one, because the greater the chronological gap, the longer the chain of copying (using manuscripts we are no longer able to see) is likely to be, and the longer the

chain of copying, the more likely a modification of the text. This is, however, a mere statistical projection, not evidence at all. For example, in stemma (iii), the very valuable manuscript *A* might well be a recent copy of ω , while manuscripts *B C D* might even be earlier copies; what confers value on a witness is not so much its age, as its independence.

2.2.5 How to devise a *stemma codicum*

As can be seen, the usefulness of the *stemma codicum* for textual reconstruction is obvious. But how do we devise it? How can we know which of the theoretical configurations we have described above (and the many other possible ones) is historically correct?

The first phase of the genealogical method (*recensio*) deals with producing the *stemma codicum*. For this task, scholars use the method of indicative (or significative) errors (or, according to the German expression, *Leitfehler*, “leading errors”). This procedure was fully described in the second half of the nineteenth century by French scholars, albeit drawing on ideas and principles already introduced before (Reeve 1998, 450; Fiesoli 2000, 393). The method of indicative errors uses as its grouping criterion the innovations produced in the historical evolution of the text, that is, the divergences with respect to its original form. In current philological language, such innovations are often referred to as “mistakes” or “errors”, in contrast to an original form considered to be “correct”, regardless of whether these “mistakes” are involuntary errors (actually wrong) or intentional changes (which would hardly qualify as mistakes). The principle is that the “error”, by creating a deviation from the original form, indisputably reveals a connection among the witnesses that report it; this does not happen for the “correct” reading. If several witnesses share the same mistake, they are supposed (with certain exceptions) to be connected: the “error” is supposed to have been generated in only one copy and transmitted to every descendant of this copy. The “correct” or original reading, on the contrary, is irrelevant for detecting relationships: many copyists may have accurately transcribed what their models reported, each independently of one another, and the fact that all their copies report the “correct” reading does not prove any connection. Turning back to the genealogical metaphor underlying the stemmatic method, we find here the principle – eugenic, in a way – of the “purity” of the lineage: it was “pure” in the parent, and progressively degenerated and polluted in the descendants. Every deviation is a hereditary taint, transmitted by the first carriers to their own children, and so on to all their descendants; by detecting the taint and its carriers, we can isolate a specific branch of the lineage.

The method of indicative errors is therefore the tool for drawing the stemma, but it is not an easy tool to use. Not every mistake is in fact an indicative error: the latter must fulfil certain requirements, that is, uniqueness and irreversibility. A mis-

take that is very easily committed (e.g. missing a name within a list of similar names) is not entitled to be evidence of relationship. Several copyists might have made this specific error independently of one another, so it is not a unique error (in philological terminology, *monogenetic*), and does not prove the existence of a single ancestor for all the manuscripts reporting it. Equally, a mistake that is very easy to correct (e.g. a manifest grammatical oversight) is not an indicative error: one or more copyists might have corrected it, and if we grouped a family of witnesses on the basis of this error, we would risk excluding indiscriminately some witnesses that are actually part of the family. This fact explains why scholars have devoted many studies to the analysis of errors, their typological classification, their genesis, and the possibility of correction by mediaeval copyists (for a summary and bibliography, see Trovato 2017, 52–58).

2.2.6 A real example

A non-invented example, which we choose here for its simplicity, is the *Apocolocyntosis*, the satire Seneca composed in contempt for the Roman Emperor Claudius, who had just died (AD 54). The work is preserved in three main manuscripts, written between the ninth and the twelfth centuries: St. Gallen, Stiftsbibliothek, Cod. Sang. 569 (*S*); London, British Library, Add. 11983 (*L*); and Valenciennes, Bibliothèque municipale, 411 (*V*; reference editions: Roncali 1990; Eden 1984; studies on the transmission: Russo 1942; Eden 1979). We begin by observing that *S*, the oldest manuscript of the three, has its own errors and therefore may not be ancestor of the other two. At the end of the *Apocolocyntosis*, for example, a court of gods condemns Claudius to play dice with a pierced box (*fritillus*). Seneca represents the scene with these verses: “Nam quotiens missurus erat resonante fritillo / utraque subducto fugiebat tessera fundo” [Every time he wanted to throw the two dice out of the resonant box, they both went out because of the missing bottom]. In *S*, the words “missurus erat resonante” are written in the form “missurus fratrae sonante”, which does not make sense; the two manuscripts *V L* report the correct form, which they could not have done if they depended on *S*. Manuscript *V*, in turn, has its own errors, and may not be the ancestor of *L*; and obviously, *L*, which is the most recent, cannot be the ancestor of either of the other two. There is therefore no direct dependency between the three manuscripts.

The most interesting fact, however, is that the manuscripts *V L* are linked to each other by a genealogical relationship. The evidence is that they share some mistakes. In chapter 10, for example, Emperor Augustus – one of the characters who, in Seneca’s story, is judging Claudius – is indignant about the many murders instigated by the recently deceased sovereign: “Sed quid ego de tot ac talibus viris dicam?” [What should I say of these murdered men, so many and so illustrious?], he says. Thus *S*; but in *V L*, instead of “ac talibus” we read a senseless “actibus”.

This is obviously a reading or writing mistake. The fact that this mistake is the same in the two manuscripts proves that it took place in a previous manuscript, from which it was transmitted to these two; they are therefore genealogically connected. In chapter 9, Seneca makes the god Janus (another character) say: “Magna res erat deum fieri: iam Fabam mimum fecisti” [Once upon a time, becoming god was an important thing; now you have reduced it to the faba-mime]. In Seneca’s Rome, *Faba mimum* – a theatre performance of the worst quality – was an idiomatic expression used to indicate something despicable, or of no importance. This jargon is supposed to have been incomprehensible to mediaeval copyists, and was hence subject to corruption. So, each of the three manuscripts reads, instead of “Fabam”, a more trivial, and certainly erroneous, “famam” or “fama” [fame], a mistake made in a previous manuscript, that is, in a common ancestor of the three. In the same passage, the manuscripts *V L* share the variant “nimium” [a lot] instead of “mimum”. In this case, an uncommon word, *mimum*, has been replaced by a very common but not quite meaningful one in the context; the error was very easy to make, and the copyists of *V L* may both have made it independently. It is not a unique or monogenetic error, and – on its own – it would not prove any relationship between them.

Using the method of indicative errors, we deduce two conclusions from this evidence: (i) all three manuscripts derive from a common lost ancestor (ω), where “fama(m)” was written instead of “Fabam”; and (ii) manuscripts *V L* belong to the same family, derived from an ancestor α , where “actibus” was written instead of “ac talibus” (and perhaps “nimium” instead of “mimum”, but this case alone would be inconclusive). The *stemma codicum* of the *Apocolocyntosis* is therefore the one shown in figure 2.2-5.

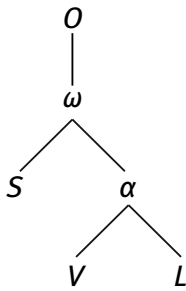


Fig. 2.2-5: Stemma (v).

This *stemma codicum* has several consequences for reconstructing the text:

- (i) readings occurring in *V* alone are supposed to be non-original;
- (ii) readings occurring in *L* alone are supposed to be non-original;
- (iii) readings occurring in *S* alone might be original, because they have the same value as those occurring in *V L* together (i.e. those occurring in α);
- (iv) when the reading of *V* is the same as *L*, it corresponds to the reading of their lost ancestor α , and might be original;

- (v) when the reading of *V* is different from *L*, and one of the two corresponds to the reading of *S*, the common reading of *S L* or *S V* reports the reading of α ;
- (vi) when the reading of *S* is the same as that of α , it corresponds to the reading of their lost ancestor ω ;
- (vii) when the reading of *V* is different from *L*, and neither of them corresponds to *S*, the reading of α is uncertain, and the critical editor will have to reconstruct it using other arguments; and
- (viii) when the reading of *S* is different from α , the critical editor has to make a choice (*selectio*) on a different basis in order to recover the reading of ω .

Following these procedures, we are able to determine the text of ω ; but this does not yet correspond to the original, for ω is an archetype, a copy we have above defined as depending on the original but also already affected by innovations or mistakes (as we have seen in the misinterpretation of “Fabam”). This lost manuscript is the highest point in the stemma we are able to reach by examining the surviving witnesses. In the passages where there is certainty, or at least a well-founded suspicion, that the text of the archetype does not correspond to the original, we can attempt to reconstruct the original by conjecture – an operation called *emendatio*, “correction”. If it is not possible to do so – because the text of the archetype is too corrupt and resists any conjecturing – the critical editor will renounce the task of emendation; the failure of the attempt is usually indicated by inserting a cross (*obelus* or *crux*, †) in the passage. In the case of the *Apocolocyntosis*, for example, the story apparently lacks continuity between chapters 7 and 8 (as numbered in modern editions): a large part of the text seems to be missing, and the damage was already in the archetype, since the omission is in all the manuscripts of the work. We may have an approximate idea of the missing content, but we can never completely recover the text: therefore, we are forced to resign ourselves to the *crux*.

2.2.7 The limits of the genealogical method

The genealogical method apparently operates on a high scientific level, based as it is on logical rules and standardised procedures. A *stemma codicum* itself is a geometric diagram, built on mathematical principles, as a visual confirmation of the objectivity of the results. In addition to this, a stemma is a figure very effective in communication: scholars have, in its manuscript tradition, a clear and immediate view of the historical development of the literary work they are studying. Like any schema, however, this effectiveness of representation pays a price for simplification. The need to compress the tradition, as far as possible, into such a schema forces the critical editor to face and uniquely resolve every puzzling or problematic node – those nodes that in a discursive and non-schematic presentation might have been

discussed in detail. “A stemma of the tradition must have historically existed” – a young philologist is likely to think – “and my task is to recreate it at any cost.”

As we have said, the stemma figure is borrowed from the language of family descent, as are the metaphors indicating relationships in it. Historically, this borrowing took place from the very beginning of the method, in a fully conscious manner, as shown by the adoption of the key word, *stemma*, “family tree”, which provided the name for the whole discipline. Yet: to what extent do the mechanisms of family descent really correspond to the mechanisms of textual transmission? How widely is the genealogical model legitimately applicable to a manuscript tradition?

The emergence of the genealogical model must be framed in the ideological climate of the time that first expressed it: an aristocratic world where the eugenic concept of “purity” of the lineage was significant. Therefore, in stemmatic descriptions, the “purity” of the text is often a key word: the editor’s objective is to reconstruct the “pure” original text, eliminating the “impurities” that have progressively accumulated in it over the course of history. Such “impurities” that “pollute” the text are those produced in its historical evolution: changes made by the copyists – either mistakes or voluntary amendments – or material damage to manuscripts. Therefore, the genealogical model implies a degenerative process: the history of a family is the history of a progressive, inevitable, and regrettable departure from the “purity” of race. Applying this pattern to the tradition of the text, subsequent copies always involve a deplorable departure from the original “purity”; those who threaten and corrupt such “purity”, the enemy to be fought, are the individual copyists. This eugenic vision, born in connection with the sole purpose of reconstructing the original text, classifies all copyists as ignorant vandals, and prevents the scholar from fully understanding the nature of what they did. In actual fact, the innovations introduced by the copyists are not always the effects of mistakes: they are often attempts to improve a text they considered – rightly or wrongly – incorrect, or to make it suitable for a different audience, that is, their contemporaries. In this fashion, the copyists engaged in the same tasks that face a scholar or critical editor nowadays, though they did so less consciously and with a less sophisticated method. In this view, textual transmission is not only a degenerative history, but may also be a history of recovering and attention.

There is more. There are, in fact, significant and crucial differences between the historical transmission of texts and the principles of family descent, though they have clear similarities in general patterns. The most important element of differentiation is the fact that, while in a family genealogy a child inevitably has only one mother, in the transmission of the texts nothing prevents a “child” from having more than one “mother”. Outside the metaphor, a copyist might make his copy using more than one manuscript of the same work as models; in this case, his copy is treated as having more than one “mother”. Such an event – always theoretically possible in the transmission of a text, albeit more or less probable depending on the nature of the work, the circles in which it was read, the uses it had – is one of

the main obstacles to an “absolute” application of the stemmatic method (*strenge Stemmatic*, to use an expression of Maas). This case is called horizontal transmission (because convergent lines can appear in the stemma, unlike a family tree, which contains only divergent lines); using the eugenic paradigm, scholars speak of contamination (see 4.4 below) because the “purity” of the transmission model is spoiled here by the introduction of an external and non-relevant element. Figure 2.2-6 exemplifies the *stemma* of a contaminated tradition.

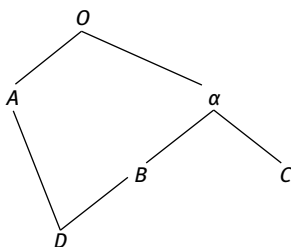


Fig. 2.2-6: Stemma (vi).

This stemma represents a situation where the copyist of *D* acquired his text from two different models, *A* and *B*. In this case, the critical editor detects contradictory evidence: witness *D* shares some errors with *A*, but not all the errors of *A*; witness *D* shares some errors with *B*, but not all the errors of *B*; witness *D* also shares other errors with both *B* and *C*, but not all the errors shared by *B* and *C*; witness *B* shares some errors with both *D* and *C*, but shares other errors only with *D* and other errors only with *C*; witness *A* shares some errors with *D*, but not all the errors of *D*; witness *C* shares some errors with both *B* and *D*, but other errors only with *B*. Another difficulty is the fact that, if the copyist of *D* was a clever scribe and was interested in the text he was copying (as is likely, since he is so careful that he uses more than one model for his work), he might have corrected the errors he found in his models: where *A* was wrong, the copyist of *D* would have written the reading of *B*; where *B* was wrong, he would have written the reading of *A*. As an ultimate consequence, witness *D* might be free of apparent errors, and it might seem to us the best of all the four; from the stemmatic point of view, however, it is the worst, but the derived nature of its text is no longer apparent to us because every indicative error – that is, the tool that would allow us to detect it – has disappeared. Faced in practice with a situation such as that in stemma (vi), therefore, the editor might be tempted to draw a stemma such as the one in figure 2.2-7.

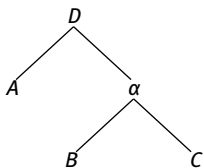


Fig. 2.2-7: Stemma (vii).

The problem is that, in principle, any tradition might be contaminated, and we have no way of knowing in advance whether it actually is. Therefore, contamination was traditionally considered an a priori obstacle to the application of the stemmatic method, an obstacle so strong that it was supposed to undermine its credibility. Maas considered contamination a disastrous circumstance and an insoluble problem; his sentence “Gegen die Kontamination ist kein Kraut gewachsen” (Maas 1957, 30) [No specific has yet been discovered against contamination] (trans. Flower 1958, 48; other renditions include “no medicinal herb has yet been grown”, “there is no remedy”) is one of the most famous aphorisms in the history of philology. Again: “im Bereich einer Kontamination versagt die strenge Stemmantik” [where contamination exists the science of stemmatics in the strict sense breaks down] (Maas 1957, 30; trans. Flower 1958, 49). In fact, the recourse by a copyist to more than one model is a historical possibility; as such, it has to be analysed without considering it problematic or disastrous, and it has to be faced using the proper tools of textual criticism. Simply put, such a circumstance is incompatible with the genealogical reference model if applied “absolutely”; but it becomes compatible if the genealogical pattern is used, more correctly, as a metaphor for the mechanisms of textual transmission, without expecting a total coincidence (for a discussion of contamination, with a deeper analysis and some “remedies”, see Avale 1961, 159–178; Segre 1961; Vårvaro 2010; 4.4 below).

A second element of differentiation between a family tree and the real development of a manuscript tradition is the fact that the former implies uniqueness at the root, which is not necessarily the case for the latter. A family tree starts with a unique parent; a *stemma codicum* also departs from a unique original, and this unique original is the goal of reconstruction. When, therefore, in the tradition two variants differ, the scholar assumes that one of the two is “true” (i.e. corresponding to the original) and the other is “false” (i.e. not corresponding to the original); they might actually both be “false” (if each of them is the result of an independent innovation), but can never both be “true”, because the original is unique. In historical reality, however, many works originally have more than one version, often made by the author himself over time. We are familiar with such cases from modern literatures, where the richness of documentation makes them readily demonstrable; nevertheless, similar events existed, without doubt in great number, even in ancient and mediaeval literatures. When this case pertains, the dichotomy between “false” readings and “true” readings fails: both of the opposing readings attested might be “true”, and their duplicity might be explained by the succession of several editorial stages. Scholars, however, conditioned by the binary process imposed by the genealogical model, tend to classify every variant as “true” and “false”; thus, they first (in the *recensio*) draw the stemma on the basis of the readings categorised as certainly “false”, and then eliminate (in the *constitutio textus*) the others categorised as likely “false”. But, in the presence of authorial variants, such categorising is undue, because the tradition is not at all unique, and all readings might be “true”.

2.2.8 The value of the genealogical method

As noted, the genealogical method originated from the need to base reconstruction on scientific and objective criteria, reducing as far as possible the subjectivity of the editors. In its golden age – namely in the second half of nineteenth century – this method was considered to be almost infallible due to the power ensured by the apparent rigour of the process. It was then restricted and even discredited, both because of its difficult application in certain circumstances (as we described above: contaminated traditions, traditions with authorial variants) and, above all, because of its nature as a reconstructive method, only capable of producing a text that is merely hypothetical. Maas's *Textkritik*, which, as we have said, is a systematic exposition of the subject, a kind of late manifesto, also met the need to dismantle criticism and to reiterate the validity of the method.

From a balanced perspective, the “scientific” aim of the method seems to have been achieved, and it does not seem to be greatly affected by the aforementioned limits. The genealogical method provided some key concepts for the analysis of the transmission of texts. Moreover, the method elaborated some principles and tools which have value in themselves and are applicable to a significant number of textual traditions, fully or in part. Indeed, the method has endowed textual studies with an essential diachronic perspective. It could not completely eliminate the editor's *iudicium* – nor was this possible – in choosing the variants; but it has provided editors with an indispensable guide in exercising their *iudicium*. Discovering some limits of the genealogical method and discussing them has produced greater self-awareness, and has given scholars a more mature and refined method. The objective limits we have recalled do not undermine the general validity of the system.

What is clear today is that the genealogical model, in its entirety, can be applied to specific textual traditions. Considered as a metaphor, however, the model does correctly explain many mechanisms and unravel many situations. The genealogical mechanism is the proposition of a basic principle which has an intrinsic and absolute value and corresponds to real phenomena, though it is rarely (or perhaps never) accomplished in a complete way. It describes the *in vitro* trend of textual transmission: the basic mechanism, the one that governs the process in an ideal situation. Real situations are obviously much more complex, but they can be interpreted only in the light of the idealised situation, the one where no accidental elements appear. If I am allowed to call into question a further pattern, the “absolute” stemmatic method “in a strict sense”, (Maas's *strenge Textkritik*), might be likened to “uniform motion in a straight line”, the rules of which constitute a basic lesson in kinematics: this kind of motion does not exist in nature (as movement is always influenced by other forces, such as friction or gravitation), but knowledge of the “ideal” law makes it possible to clarify every similar real motion.

The scarcity of stemmata in the introductions to today's editions of classical texts may seem surprising: this is generally due to the tradition of these works being

too complex and having a much too irregular trend, far from a standard genealogical model, to be fully represented by a stemma. Yet the scholars who created these editions have almost always used the stemmatic method for analysing the tradition and for determining some important points in a text's history: for example, for the elimination of some *codices descripti* or for the identification of some families of witnesses. Going back to the example of the *Apocolocyntosis*, the stemmata we see in the current critical editions (Eden 1984, 25; Roncali 1990, x) actually reproduce the relationships between the three ancient manuscripts we quoted: the later tradition, consisting of about forty humanistic manuscripts, strongly interpolated and often contaminated, is not provided in detail and only partially appears in the stemmatic representation. The genealogical method served to disentangle some knots, and in this case the decisive knots; in the face of a more complex reality, it could not solve everything.

It is becoming rarer and rarer for today's editors – especially the editors of mediæval texts, for which the scholarship is more recent and which have therefore benefited from a more refined genealogical method – to present vertical trees that only contain diverging branches, as is expected in a strictly genealogical pattern. Confirmed cases of horizontal transmission are becoming more and more frequent, not least because they are no longer excoriated as unmanageable anomalies; multi-root trees are also becoming more frequent. These representations continue to be called *stemmata*, following the traditional terminology, but are less and less similar to heraldic genealogies and are increasingly distant from Maas's *strenge Stemmantik*. Nevertheless, genealogical principles remain the only effective tool to work with.

Other metaphors and other patterns have been adopted over time: the judicial metaphor, which we have already mentioned (where the critical editor is a magistrate in search of a textual "truth", questioning the various "witnesses", ascertaining the credibility of the individuals, and exercising "judgement" in any doubtful cases); the medical metaphor (where the critical editor is supposed to "cure" a text afflicted by minor or serious degenerative diseases, investigating their causes and attempting to reduce their effects); or the chemical metaphor (where existing manuscripts are compared to streams emerging from an underground river whose original nature has to be discovered by removing impurities absorbed by the water on its journey; Maas 1957, 14–15, trans. Flower 1958, 20; Froger 1968, 268–271; Montanari 2003, 236–240). Other interpretative diagrams have also been proposed, linked to set theory (Froger 1968, 139–216) and, more recently, to cladistics (see 8.1.1.1) and rhizomorphic representation (Greetham 1996, 99–126; Sargent 2013, 247–251).

No one, however, has so far had the power to overthrow the genealogical model and stemmatic representation – and indeed, each enriches in its own way the descriptive spectrum of textual transmission – perhaps because genealogy is basically the machine language of textual transmission, the matrix which lies as a cornerstone of the real facts, and of our ability to understand them.