

# STUDIEN ZUR TRADITION IN DER MUSIK

Kurt von Fischer zum 60. Geburtstag

Herausgegeben von Hans Heinrich Eggebrecht und Max Lütolf

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MUSIKVERLAG EMIL KATZBICHLER MÜNCHEN

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## FIGURA AND REGULA

### NOTATION AND THEORY IN THE TRADITION OF MUSICA MENSURABILIS<sup>\*)</sup>

#### 1. The tradition and the system

The *musica mensurabilis* which developed during the 13th century appears as the formation of a 'système de signes'<sup>1)</sup> used to communicate the relative length of duration of sounds; as Johannes de Grocheo observes, it is not very different from other human systems of communication, such as the alphabet for language and figures for mathematics:

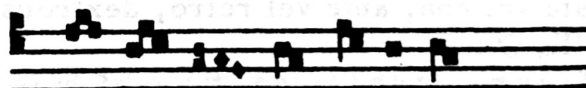
„Et quemadmodum grammaticus ex paucis litteris earum coniunctione et situatione potest dictionem quamlibet designare et artificialiter numerans ex paucis figuris earum praepositione et postpositione numerum quemlibet infinitum designare, ita musicus ex tribus figuris cantum quemlibet mensuratum" (ed. Rohloff, 55)

In this case the 'signe' comes about from the union of two elements: the written note as 'signifiant' and the measured sound as 'signifié'<sup>2)</sup>. This concept is fixed with absolute precision of terms in Johannes de Muris' definition:

„Figura autem signum est, res musicalis est signatum" (GS III, 297 b)

In the notation of *musica plana* used until then, the only 'signifié' to be communicated was the relative highness of the sounds; therefore the only 'signifiant' element was that making such communication possible, that is, the position of the notes with respect to the stave:

(Liber usualis, p.1456)



The advent of *musica mensurabilis* implies the need to communicate, by means of notation, a further 'signifié', that is, the duration of the sounds; hence the necessity of adding a further 'signifiant' element, that is, the form of the notes allowing such communication to be made:

(Ms. Bamberg, f.52v)



<sup>\*)</sup> The inverted commas in the text indicate the terms with which research is carried out; the spaced words in the quotations indicate the terms on which research is carried out.

Therefore the system of notation of *musica mensurabilis* is created by means of the positioning of new 'signes' to the traditional system; this was also observed by Jacobus:

*proprietates?*  
„hujusmodi figuris musica mensurabilis diversas apponit nominationes, significationes et proprietates" (CS II, 405a)

## 2. The nature of the written tradition

In the prehistory of the system, perhaps this was a purely mental operation: „solo intellectu operabantur dicendo: intelligo istam longam, intelligo istam brevem" as Anonymus 4 (ed. Reckow, 49/50) expresses it, and the distinction of forms was therefore only imagined: „figurabant mente" as Johannes de Muris observes (GS III, 294b). However, very shortly afterwards differentiation in the writing of the different musical durations was institutionalized, as the Franconian definition makes clear:

„Discantus est aliquorum diversorum cantuum consonantia, in qua illi cantus per voces longas, breves vel semibreves proportionaliter adaequantur, et in scripto per debitas figuras proportionari ad invicem designantur" (ed. Cserba, 232)

The *voces*, that is, the sounds, are of different lengths: *longas, breves vel semibreves*, and they are represented by means of the figure, that is, by means of notes of different forms. In fact, an essential characteristic for the proper functioning of any 'système de signes' is that the elements of which it consists should be different from each other<sup>3</sup>). Johannes de Muris analyses the figure simplices of *musica mensurabilis* as a series of binary 'oppositions' on the basis of the differences in form:

„Figurarum alia equilatria alia inequilatria, alia rectangula alia obtusangula, alia caudata, alia incaudata, sursum vel deorsum, punctata vel non, ante vel retro, dextrorsum vel sinistrorsum" (GS III, 303b)

Regarding the figure ligate too, the system is articulated in one series, mainly binary, of 'oppositions' for formal differences, as appears in Franco's exposition:

„Ligaturarum alia ascendens, alia descendens... alia cum proprietate, alia sine, alia cum opposita proprietate. Et hoc a parte principii ligaturae. A parte autem finis alia cum perfectione, alia sine. Et nota, differentias istas essentielles esse" (ed. Cserba, 240)

A series of differences in the 'signifiés' corresponds to this series of differences in the 'signifiants' owing to the duplicity of the 'signe', as Franco again points out accurately:

„sciendum est, quod sicut per has differentias ligatura una differt ab alia formaliter, ita et in valore" (ed. Cserba, 242)

Therefore, *musica mensurabilis* appears as a 'système de signes' in which the diversity of form of the notes is correlated to the diversity of duration of the sounds<sup>4</sup>). Regarding the way in which this correlation between graphic 'signifiant' and sound 'signifié' is established, Johannes de Muris states the following in his definition of the note:

„Notula musicalis est figura quadrilatera soni numerati tempore mensurati ad placitum significativa" (GS III, 294b)

The principle of the 'arbitraire du signe'<sup>5)</sup> is clearly affirmed here: that is, there is no natural reason why a sound of a certain duration should correspond to a certain graphic representation, and vice versa, why a certain graphic representation should correspond to a sound of a certain duration. However, Jacobus, commenting on de Muris' above-mentioned definition, notes acutely:

„Quod autem dicitur ad placitum significativa, verum est ante impositionem et in ipsa impositione, non post" (CS II, 405a)

By this he meant to point out that the arbitrariness subsists only before and at the precise moment during which the link between the two elements is carried out, not after. To establish that a certain figura indicates a certain measure of the sonus is ad placitum, but once this has been established, the dependence of the 'signifié' on the 'signifiant' is no longer ad placitum but compulsory in reference to, and with respect to, the system. This, moreover, is exact only from a 'synchronique' point of view, that is, considering the functioning of the system as it is fixed in a determined historical moment; the situation from a 'diachronique' point of view can be quite different, that is, considering the evolution of the system through successive historical moments<sup>6)</sup>. Jacobus again was able to observe, introducing not only the concept but also the term of tradition of the figure, that:

„figura notarum omnium tam longarum quam brevium antiquitus a Franchone tradita nunc eadem manet" (CS II, 415a)

but that, however, the moderni linked different 'signifiés' to these unchanged 'signifiants'. He realized in fact the existence of the displacement of the relationship between the 'signifiant' and the 'signifié' to which the 'systèmes de signes' were submitted in the course of time<sup>7)</sup>. Written tradition, the transmission of the figure, therefore would not be sufficient by itself to assure the communications of the sounds.

### 3. The function of theoretical tradition

The texts of treatises on musica mensurabilis present the same duplicity encountered in the 'signe' of notation. They in fact contain a series of propositions corresponding to the 'signifiants' which thereby carry into effect the verbalisation of the figure: they are the phrases in which the name is given and the notes are described, like this one of Franco's:

„Longa...Cujus figuratio quadrangularis est caudam habens in parte dextra descendentem" (ed. Cserba, 234)

They also contain another series of propositions which show all the possible 'signifiés' in the system: they are the phrases in which there is an explanation of how the duration of the sound is correlated to the figure, as in the following one of Franco's again:

„Si autem longam longa sequatur, tunc prima longa sub uno accentu tribus temporibus mensuratur" (ed. Cserba, 235)

The propositions of this second type are usually called regule and their connection with the figure is clear in such formulations as:

„Tractatus de diversis figuris per quas diversimode discantatur per aliquas regulas" (CS III, 118)

In its entirety, then, the treatise is a repertory in which, collocated in a verbal form, we can find all the 'signifiants' of which the system is composed and the indication of all the 'signifiés' which are correlated to them in the system. In the ambit of *musica mensurabilis*, the theoretical text functions therefore as a 'code' with regard to the 'message', that is notation<sup>8</sup>). On one hand, the *regule* allow the notator to have an exact rendering of the duration of the sounds in figure; the treatise, like that of Franco's, is in fact destined:

„propter...omnium notatorum ipsius mensurabilis musicae perfectissimam instructionem" (ed. Cserba, 230)

On the other hand, reference must be made to the *regule* in order to know exactly the duration of the sounds from the version in figure; in fact, the treatise - as the anonymous author says here - offers:

„quasdam regulas speciales ad sciendum cujuslibet notule valorem, prout continentur in actibus modernis cantus mensurati" (CS III, 181b)

Thus, the use of notation in the musical 'message' depends necessarily on a musical treatise as 'code'; this is the phenomenon which Johannes de Grocheo describes exactly as:

„Plurimi tamen modernorum Parisiis utuntur figuris prout in arte magistri Franconis sumuntur" (ed. Rohloff, 56)

*Musica mensurabilis* therefore shows as its essential characteristic the presence of a tradition of theoretical texts parallel to the written tradition of notation. Considering the functional relationship which exists between the two traditions, every modification which is made to notation in the course of time (both as regards the addition of new 'signes' and the displacement of the relationship between 'signifiant' and 'signifié') implies a contextual modification of the theory. In this way Anonymus 4 is correct when, introducing not only the concept but also the term of tradition of the *regule*, he observes:

„[Franco primus et Franco de Colonia] inceperant in suis libris aliter pro parte notare. Qua de causa alias regulas proprias suis libris appropriatas tradiderunt" (ed. Reckow, 46)

#### 4. The tradition of the system

As every other 'système de signes', *musica mensurabilis* as well implies at all times both a stable system and an evolution, and it is also a present institution and a product of the past at one and the same moment<sup>9</sup>). Due to this, *musica mensurabilis* may appear as an organization of the figure which is inherited from its predecessors:

„Antecessores nostri musice mensurabilis inventores, figuras artis sub quibusdam protractionibus se ipsas representantibus distributas prout sibi placuit nec irrationabiliter sub quadam modorum serie statuerunt, indeque artem conficientes approbabilem relinquerunt ad introductionem et commodum posterorum" (Anonymous, ed. Sowa, 1)

and the theoretical text which contains both the forms and the values of the notes stably fixed in propositions is the most efficient means of handing down



this system from one generation to another, as Jacobus observes:

„notularum vel figurarum simplicium huius artis nominationes, significationes, figurationes quas antiqui nobis reliquerunt, qui nos in hac arte in hijs at alijs fundaverunt, et hec, ut firmiora essent vel durabiliora, in tractatibus suis dimiserunt." (CS II, 407b)

The two fundamental attitudes of medieval thought are articulated within this inherited system. On one hand we find the desire to develop what has been received, to do something more than what mere tradition demands, as can be seen from the following passage by Marchetus de Padua:

„antiqui non curaverunt tradere ulterius divisionem temporis nisi in tres semibreves...moderni autem ipsas tres partes temporis in ultimiores partes diviserunt formando sex, novem et duodecim semibreves" (Pomerium, ed. Vecchi, 57/58)

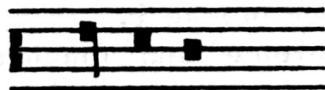
On the other hand, we find respect for tradition, the desire to preserve what has been received, as can be seen from the following affirmation by Prosdocimus de Beldemandis:

„dignum et iustum est predecessoribus nostris qui nobis viam huius scientie tradiderunt habere grates ipsosque salvare in quantum nobis est possibile" (Expositiones, ed. Gallo, 140)

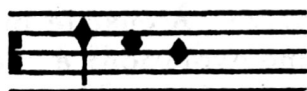
Both these tendencies are tempered in the general principle that rules the evolution of *musica mensurabilis* as it does all other 'système de signes': the 'analogie' which is at the same time a principle of renewal and of preservation<sup>10</sup>). Thus, seeing that the system of *musica mensurabilis* was formed initially of the relationships existing between the two 'signes' *longa* and *brevis*, during later amplifications of the system, the relationships existing between the new 'signes' were arranged in 'analogie' to the initial model, as Anonymus III points out:

„Sciendum est quod sicut in veteri arte est, ita in nova...Ita sicut se habet brevis ad longam, ita semibrevis ad brevem, et minima ad semibreven" (ed. Gilles, 85)

The role of the 'analogie' in the evolution of the system appears particularly clearly in the following passage by Marchetus de Padua, in which the derivation is punctually carried out both on the plane of 'signifiants': *figura caudata in deorsum, incaudata, incaudata*, and on the plane of the 'signifiés': *tria tempora, unum, duo*:



„istae sunt tres notae, quarum prima longa est et duae sequentes sunt breves. Ista tres notae continent sex tempora brevia, puta sic quod prima perfecta est continens tria tempora, prima brevis unum, secunda duo: et sic sunt sex. Recte enim sic est in semibrevis. Ponamus igitur tres semibreves, quarum prima caudetur in deorsum, ut hic:



Istae tres necessario continent sex tempora semibrevia, ratione dicta de longa et de duabus brevibus" (Pomerium, ed. Vecchi, 110/111)

These analogical procedures do something new according to the old model,

add something which is, however, coherent to the structures of the system as it was and as it will be handed down.

## NOTES

- 1) The existence of „une science qui étudie la vie des signes au sein de la vie sociale" and denominated „sémiologie", of which linguistics forms a part, was postulated by F.de SAUSSURE, Cours de linguistique générale, publié par Ch.Bally et A.Sechehaye avec la collaboration de A.Riedlinger, Paris 1916, p.33-36. Important contributions have been made since then by linguists who were variously inspired by saussurian teaching, cfr. E.BUYSSENS, Les langages et les discours. Essai de linguistique fonctionnelle dans le cadre de la sémiologie, Bruxelles 1943; L.HJELMSLEV, Essais linguistiques, Copenhagen 1959, = Travaux du Cercle linguistique de Copenhague XII; R.JAKOBSON, Essais de linguistique générale, Paris 1963; A.MARTINET, Eléments de linguistique générale, Paris 1960. The methods used in linguistics have also been adopted by other sciences, cfr. Cl.LEVI-STRAUSS, Anthropologie structurale, Paris 1958. Various attempts at theoretical systemization and practical application of „sémiologie" have been made on these bases, cfr. L.J.PRIETO, Messages et signaux, Paris 1966; La sémiologie, in: Le langage, publié sous la direction de A.Martinet, Paris 1968, = Encyclopédie de la Pléiade XXV, p.93-144; R.BARTHES, Éléments de sémiologie, Paris 1964; Système de la mode, Paris 1967; G.MOUNIN, Introduction à la sémiologie, Paris 1970; P.GUIRAUD, La sémiologie, Paris 1971.
- 2) On the „signe" as a union of „signifiant" and „signifié", see F.de SAUSSURE, op. cit., p.99f., and all the other authors quoted in the previous note.
- 3) „Dans la langue il n'y a que des différences", see F. de SAUSSURE, op. cit., p.172f. The preference, already saussurian, for the binary classifications, is particularly accentuated in R.JAKOBSON, op. cit., also in relationship to the binary procedures of the information theory.
- 4) F. de SAUSSURE, op. cit., p.166: „Un système linguistique est une série de différences des sons combinées avec une série de différences d'idées."
- 5) The principle is formulated by F. de Saussure, op. cit., p.102; however, see also all the other authors quoted in note 1.
- 6) The distinction between „synchronie" and „diachronie" is formulated by F. de SAUSSURE, op. cit., p.120.
- 7) F. de SAUSSURE, op. cit., p.111: „déplacement du rapport entre le signifié et le signifiant".
- 8) The terms introduced by F. de SAUSSURE, op. cit., p.23f., are respectively „langue" and „parole"; however, see A.MARTINET, op. cit. and L.J.PRIETO, op. cit.
- 9) F. de SAUSSURE, op. cit., p.24: „À chaque instant il [le langage] implique à la fois un système établi et une évolution; à chaque moment, il est une institution actuelle et un produit du passé."
- 10) F. de SAUSSURE, op. cit., p.232: „analogie principe des créations de la langue"; p.241: „analogie principe de rénovation et de conservation".