

STUDIES AND DOCUMENTS

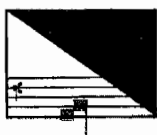
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C Y M B A L A

(BELLS IN THE MIDDLE AGES)

Edition of Texts and Introduction by

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STUDIES AND DOCUMENTS

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I

CYMBALA

JOS. SMITS VAN WAESBERGHE

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PREFACE

Bell-founding was of old veiled in a haze of mystery. Scores of legends and stories take their origin in this art, every product of which was awaited with intense excitement.

In the course of his researches the writer has come across numerous Mss bearing on the subject, some of which have been printed in his *Muziekgeschiedenis der Middeleeuwen* I. It would seem desirable to collect these documents and publish them together in a special volume.

I gratefully acknowledge the kind help received from many quarters, especially the libraries of Brussels, Cambridge (Corpus Christi College), Darmstadt, Erfurt, Leiden, London, Milan, Montecassino, Munich, Oxford (Bodl.), Paris (B. N.), Rein, Rome (B. Vat.), Salzburg, Vienna and Wolfenbüttel, for permission to photograph Mss. My special thanks are due to J. A. Bank, who has had a considerable share in the work of preparing this edition for the press.

INTRODUCTION

The musical instruments called "cymbala" go back far into antiquity. They were small concave plates of copper or bronze (Κύμβαλα, aera, vasa aerea or aenea), used in the east in connection with the temple service, and in Greece also with the theatre. After the sack of Corinth in 146 B.C. Lucius Mummius Achaicus brought such copper plates to Rome¹. In the Bible cymbala are frequently spoken of². Ecclesiastical writers of the early Christian centuries often have descriptions of cymbala, which are reproduced by later mediaeval writers on Scripture or the liturgy³.

The instrument going by the name of *cymbalum* (Eng. *cymbal*, *chime-bell*, Fr. *cymbale*, Germ. *Zimbel*, Dutch *cimbaal*, *cimbel*) has always been an instrument of percussion, though the thing signified has greatly varied in the course of time. While we use the word "cymbal" for rather large round metal plates with a hollow in

1. For Cymbalum in classical writers see *Thesaurus Linguae Latinae* IV 1588. For Clement of Alexandria's phrase in *Cohortatio ad Gentes* "et cymbalo e collo pendenti" see *MPG* VIII c. 90 ff.; cf. also *id. Paedagogus* II, IV, *ibid.* c. 411 ff.: "oris cymbalum dicit linguam, quae pulsatis labris resonat....; Arabes utuntur cymbalo". Vitruvius, *De Architectura*, lib. V, 5. Gerbert, *De Cantu*, 102, 158 ff. Du Cange, *Glossarium*, s. v. cymbala, cymbalum. Stephanus, *Thesaurus Linguae Graecae*, V App., Index c. 1314 ff. s. v. Κύμβαλον. Pitiscus, *Lex. Antiq. Rom.* I, s. v. cymbalistra, cymbalum. Smits v. W., *St. Gregoriusblad* 1932, 105 ff. Other concave or bell-shaped instruments were: signa, tintinnabula, disci; cf. H. Blümner, *Die Römischen Privataltertümer* (1911) 21.

2. 2 Reg. 6, 5; 1 Par. 13, 8; 15, 16; 15, 19; 15, 28; 16, 5; 16, 42; 25, 1; 25, 6; 2 Par. 5, 12; 5, 13; 29, 25; 1 Esdr. 3, 10; 2 Esdr. 12, 27; Judith 16, 2; Psalm. 150, 5; Isai. 18, 1; 1 Mac. 4, 54; 13, 51; 1 Cor. 13, 1.

3. Cassiodorus, *Commentarius in psalmos*, in ps. CL, 5: "Cymbala sunt ex permixtis metallis parvissimae phialae compositae, ventricula sua in lateribus habentes, quae artificiosa modulatione collisae, acutissimum sonum delectabili consonatione restituunt" (cf. *MPL* XCIII, c. 1102). Cassiodorus, *Institutiones saecularium lectionum* cap. V: "Percussionalia, ut sunt acitabula aenea et argentea, vel alia, quae metallico rigore percussa, reddunt cum suavitate tinnitum". Augustinus, *Enarrationes in Psalmos* in ps. CL, 5: "cymbala invicem se tangunt, ut sonent; ideo a quibusdam labiis nostris comparata sunt". Isidorus, *Origines* 3, 21, 11: "Cymbala et acitabula quaedam sunt, quae percussa invicem se tangunt, et faciunt sonum. Dicta autem cymbala, quia cum ballematica simul percutiuntur, ita enim Graeci dicunt cymbala ballematica". This passage was transcribed by Jerome of Moravia ed. Cserba 21. Amalarius, *De Ecclesiasticis Officiis* III, 3: "Cymbala invicem tanguntur ut sonent, ideo a quibusdam labiis nostris comparata sunt". The above passages from Augustin, Cassiodorus and Isidore are repeatedly cited in mediaeval musical treatises and in explanations of the psalms and the liturgy.

CYMBALA

The text of **Em IIIb**, written in the margin of the page, is corrupt and incoherent. As far as anything can be made of it, the following sequence of tones seems to be meant: G S F E D C B A = b b-flat a G F E D C. **Mc** describes in clumsy Latin that with the help of loam and wax a series of 16 bells can be made, beginning with the largest. One can also start with the smallest and gradually increase both height and diameter by $\frac{1}{2}$ uncia ($\frac{1}{2}$ inch?) at a time. The pitch can also be modified by altering the alloy while leaving the size of the bells unchanged. The quantity of tin and lead is gradually increased and that of copper decreased, which has the effect of lowering the pitch. The process may be reversed by starting from the lowest tone. Since these statements do not concern us here they may be left undiscussed.

One more point should be noted. During a protracted study of over 300 Mss. containing tracts on the theory of music the writer has come across no Ms of French or Italian authorship in which these measurements of cymbala occur. All the treatises on the "mensura cymbalorum, nolarum" were written in Alemannic or Lorraine territory. There is, indeed, one such measurement in Paris Bibl. Nat. Nouv. Acq. 229 I, but this Ms originated in Southern Germany (St. Gall?), as the Ms Roma Vat. lat. 3123 did in Lorraine, while the Ms Milano Ambr. M. 17 sup., which might be claimed by France, was written at Laon, which is near the Lorraine border. A similar conclusion is suggested by the treatises on the measurements of organ-pipes, but few of which originated outside the sphere of influence of Alemannic territory⁴⁵.

Hence it is safe to conclude that those tracts on measurements of bells and organ-pipes are the scholarly work of some abbey or chapter in Germany⁴⁶. At the same time it should be observed that this conclusion only covers the theoretical directions concerning measurements and production of pipes and bells, not the musical use nor the actual work of building organs or casting bells. Though factual data are not very numerous, they are sufficient to warrant

45. Measurements of organ-pipes are found in the following French and Italian Mss: Par. Bibl. Nat. lat. 10509 (12th cent.), originating from Saint Wandrille; Par. Bibl. Nat. lat. 229 (from Germany, see above); Roma Vat. Reg. 1661, fol. 34 r 40 r (12th cent.) should be compared with Roma Vat. lat. 4539 fol. 85 r (15th cent.) and Montpellier H 491, fol. 79 v 81 r. Roma Vat. lat. 3101 (anno 1077) fol. 72 v was written at Ilminster near Freising.

46. In any case it strikes one that it is always South-German names that are mentioned in connection with the tracts on organ-pipes (cf. K. G. Fellerer, "Die Mensura fistularum", *Kirchenmusikalisches Jahrbuch* XXX (1935) Regensburg 1936, 36-51. The name Gerlandus of Besançon, printed in Gerbert (*Scriptores* II 277) over the "mensura nolarum" is historically very uncertain.

Quartum sesquiertium primi.
 Quintum sesquioctavum quarti.
 Sextum sesquioctavum quinti.
 Septimum sesquiertium quarti.

Titulus De cymbalorum ponderibus.

Lectio non invenitur in: München Clm 14272 S. Emmeran X/XI s. fol. 181 v
 Paris B. N. 7212 XII fol. 50 v Paris B. N. 7211 XI fol. 71 v *neque apud* W. Mühlmann, *Die Alia musica*, Leipzig 1914

Series tonorum opinor descendit [a G F E D C B] Ponderus cymbalorum accrescit

XVIII

Darmstadt 1988 Abbey of S. Jacobus Liége c. 1100 fol. 177 r (Fragmenta Aribonis) (= **D 2b**)
 Wien Nat. Bibl. 787 Abbey Baumgartenberg O. Cist. near Perg Austria XII 2/2 fol. 59 v (= **Cpv IIIb**)
 Wolfenbüttel Gud. lat. 334 S. Udalricus et S. Afra Augsburg XI/XII fol. 104 r (= **W Ib**)

1 Dimidium G sibi iungas deque his tribus C conficias. 2 De C quartam dimoveas et ex tribus residuis F constituas. 3 Eidem F medietatem suam addas, et his tribus B perficias. 4 A quo quartam sui segreges, ac ex aliis tribus E conformes. 5 Cui dimidium superaddas, et A proponas. 6 Cuius quartam abicias, et de tribus D facias. 7 Cuius quartam tollas, de quo residuo synemenon habeas.

Tituli desunt

2 et ex tribus residuis F constituas *om* **Cpv IIIb** 3 vel idem **W Ib** suam
om **Cpv IIIb** 4 segreges, ac ex aliis tribus E conformes. Cui dimidium super-
om **W Ib** 5 Cuius **Cpv IIIb** 6 adicias **Cpv IIIb** 7 auferas **Cpv IIIb**
W Ib deque **Cpv IIIb**

G S F E D C B A = b b-flat a G F E D C *Ponderus cymbalorum accrescit*

XIX

Cambridge Trin. College 944 (R. 15.22) XII fol. 131 r v (= **Ca**)
 Oxford Bodl. Rawl. C 270 Lorraine XII fol. 12 r v (= **Ox Ia**)
 Wolfenbüttel 4. II. Aug. 4to (cat. 2942) Hildesheim XI/XII fol. 102 v
 103 r (**W II**)
 Oxford St. John's College 188 XIII ex. fol. 88 v 89 r (= **Ox III**)

1 Quicumque vult facere cimbala recte sonantia ad cantandum, ad unumquodque debet ceram dividere cum pondere, et a superioribus incipiat, ut descendendo possit pervenire ad graviora. 2 Unumquodque autem