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### Nicole Oresme and the Medieval Geometry of Qualities and Motions: a treatise on the uniformity and difformity of intensities known as Tractatus de configurationibus qualitatium et motuum (title page, prefatory matter)

Marshall Claggett

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NICOLE ORESME  
*and the Medieval Geometry of  
Qualities and Motions*

A TREATISE  
ON THE UNIFORMITY AND DIFFORMITY OF  
INTENSITIES KNOWN AS  
*Tractatus de configurationibus  
qualitatum et motuum*

EDITED WITH  
AN INTRODUCTION, ENGLISH TRANSLATION,  
AND COMMENTARY BY  
MARSHALL CLAGETT

MADISON, MILWAUKEE, AND LONDON

THE UNIVERSITY OF WISCONSIN PRESS

1968

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*To*  
*my students in the seminar*  
*in the history of medieval science*  
*at the*  
*University of Wisconsin*  
*(1947-1964)*  
*in which Nicole Oresme was a*  
*constant attendant*

## Preface

This, the twelfth volume in *The University of Wisconsin Publications in Medieval Science*, is the third devoted to the scientific works of Nicole Oresme. It is the first printed edition of a remarkable effort by Oresme to devise a system to represent geometrically intensities of qualities and velocities of motions and thereby to interpret the internal structure of matter and to explain phenomena. It will supersede, I trust, the partial edition of Wieleitner, which included less than half of the text and was based primarily on one manuscript, as well as the Russian translation of Zoubov, which also provided somewhat less than half of the work. I have attempted to give a critical text based on all fourteen extant manuscripts. The textual procedures and the abbreviations used for variant readings are those followed in my *Archimedes in the Middle Ages*, Volume One, pages xv-xvii, and in the other volumes of the Series. A brief list of abbreviations follows this Preface. I have given in the Introduction a complete description of Oresme's configuration doctrine together with a history of its origins and fate to the time of Galileo. In the Appendixes certain other documents describing the configuration doctrine have been edited with English translations and notes. My English translations of the main text and supplementary documents are purposely literal, although I hope not too infelicitous. It is true that I have felt compelled to use certain "medievalisms" in my English to preserve the distinctions present in the Latin texts. Thus the word *diformis* is always translated "diform" since it is a technical term indicating a variation of intensity or velocity that is properly distinguished from the ordinary term *deformis*, which would be correctly rendered by "deformed."

Needless to say, I am indebted to the early efforts of Pierre Duhem, who first analyzed the text, and of H. Wieleitner, who first published a part of it. The recent studies of V. P. Zoubov and Lynn Thorndike were also of help, while the many penetrating studies of Oresme's thought and the text of the *De configurationibus* by my friend Dr. Anneliese Maier have been indispensable. I must single out for particular thanks those scholars who read the typescript of my work and offered suggestions for its improvement: Professors Edward Grant, Indiana University; J. R. Strayer, Princeton University; and Curtis Wilson, University of California at San Diego. It will be apparent from my Commentary that I have also benefited from the advice of Professor Gwyn McPeck of the University of Wisconsin in interpreting the musical sections of Oresme's work. At the same time, I must thank

Dr. Dana Durand for turning over all of his Oresme materials to me many years ago when he left the academic scene.

I should also express my appreciation to the many European libraries which provided me access to their collections and films of the manuscripts of the *De configurationibus*, to the Institute for Research in the Humanities at the University of Wisconsin, where I first began this volume as a Research Professor, and to the Institute for Advanced Study, my present academic home, where I completed it. To the latter Institute I owe the increased debt of a grant in support of publication. Further thanks are due to the National Science Foundation for a grant for the year 1962–63 which permitted me to return to the European libraries. The Herculean assistance provided by Mr. Tony Gagliano, Mr. Bert Hansen, and Mr. James Otte in the preparation of the indexes and the reading of proof deserves the reader's thanks as well as my own. Finally, I would be less than gracious—indeed seriously remiss—were I not to acknowledge the expert secretarial help afforded by Mrs. Loretta Freiling, Mrs. Gail Eager, Mrs. Georgea von Lutcken, and Miss Ann Zavacky.

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*March 1, 1967*

### Symbols, Abbreviations, and Latin Terms Used in the Text and Variant Readings

<i>add.</i>	= addidit	<i>lib.</i>	= liber
<i>corr.</i>	= correxi, correxit	<i>MS</i>	= codex manuscriptus
<i>del.</i>	= delevi, delevit	<i>mg. hab.</i>	= in margine habet
<i>ed.</i>	= edidit, editio, editor	<i>om.</i>	= omisit, omiserunt, omisi
<i>hab.</i>	= habet	<i>scr. et del.</i>	= scripsit et delevit
<i>inser.</i>	= inseruit	<i>supra scr.</i>	= supra scripsit
<i>iter.</i>	= iteravit	<i>tr.</i>	= transposuit, transtulit
<i>lac.</i>	= lacuna		

Parentheses, ( ), have been used in the Latin text and the variant readings to enclose an editorial comment or sign and/or an alternate reading. Square brackets, [ ], have been employed to enclose additions to the text made either by me as editor or by some scribe for the purpose of clarification. Angle brackets, < >, have been used to enclose additions I have made to the text because I was reasonably certain they were present in the original text though omitted in the extant manuscripts. An italic exclamation point (!) has throughout been used as equivalent for *sic*, and an italic question mark (?) draws attention to a doubtful reading.

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