

Already there are some excellent manuals on Philosophy of nature with whose theoretical approach I am substantially in agreement; some of them having been written by well-known masters. For a long time, therefore, I considered it pointless or even presumptuous writing another one myself. And yet, in the end, I resolved, almost in surrender, to attempt the undertaking.

This is not so much and not only to further update the language or to introduce reflections related to the development of current knowledge and urgency, but for a need in the same type of “manual”, which by its kind requires a multiplication over time, by different hands. The manual, in fact, is intrinsically linked to the teaching activity. And it is within the practice of teaching that the responsibility of writing one becomes fundamental and inescapable. The manual is, in fact, a “humble” genre of book, a book of service, which serves – and must serve, that is, be useful – to students. The more the text is consonant with the teaching, the more fruitful it will be to read it and study it.

In addition to that, philosophy is always an essential kind of knowledge for which everyone who studies it is personally involved. He/She puts him/herself into the vitality of a tradition, assuming personal responsibility. It cannot be delegated to another person, and it is necessary to take one’s position even if, the position in itself is not an original one. In the continuous dialogue of one who is searching, at a certain point, one needs to pronounce oneself.

In this manual are converged many years of study, research, reflection, but above all, actual teaching to real students. The demands of unity, being systematic and clarity therefore prevail.

The volume is structured in five parts according to the themes dealt with, which in turn have been divided into chapters. Each chapter deals with a principal topic and the paragraphs develop the fundamental notions, outlining a brief historical background and a more elaborate argumentation. The footnotes are limited to the essentials. In addition, each part suggests some *Excursus*, dedicated to scientific questions, often in the borderline, nevertheless indispensable to the enrichment of the philosophical reflection on nature.

The first part of the final bibliography presents a review of manuals and of systematic works dedicated to the philosophy of nature in the contemporary epoch; the second part contains the texts cited in the book: the sources (classics, modern, contemporary), essays, the documents of the Church, literature texts. In its totality, this second part of the bibliography constitutes recommended readings.

The title I have chosen for this Prologue is *In rerum natura*, because St. Thomas Aquinas uses this expression to indicate order – *intensive* and *extensive* – of real things as distinguished from the being in the mind. The task being proposed here is to think of that which really exists in the nature of things.

It is my pleasure and duty to thank some people, among many who have accompanied me in the process of elaborating and writing of this book; the first among all else being my husband Rodolfo Papa and our children Benedetta, Lorenzo Maria and Maria Chiara. Also, my parents, together with my sister and her family who had once again accepted for several months the significant increase of external disorder, something I needed in order to produce mental order.

Thanks also to Francesca Rivetti Barbo', who, many years ago taught me to think of the being in time, and who concluded her earthly existence just while this book was being written.

I sincerely thank as well the whole Pontifical Urbaniana University, in the person of the Rector, Prof. Cataldo Zuccaro, and the publishers of Urbaniana University Press, in the person of the Director, Prof. Leonardo Sileo; particularly the colleagues in the Faculty of Philosophy with whom we live in a serene and passionate atmosphere of research and teaching, and with great acknowledgment, the Deans of these recent years: prof. Aldo Vendemiati and prof. Guido Mazzotta.

I also thank my friend Prof. Mauro Mantovani, who with great kindness read a version of this text when it was still incomplete.

With special gratitude, I also turn towards Mario Reale (a physicist in elementary particles) and to Francesco Maria Russo (a theoretical physicist), long time companions during high school days, who had the patience to re-read the *Excursus* of a scientific character.

A final acknowledgment to my students, past, present, and future, (because I have written this book for them), and among these, (one in the name of all), Br. Nico Reale, O.S.J., who a few years ago, drafted a partial transcript of my lectures of the course on the philosophy of nature: those notes constituted the beginning of this manual.

Rome, 14th September 2010
Exaltation of the Cross

In this second edition of the manual, the structure and content are unchanged except for a few cases, including the addition of four *Excursus* and a general update of the bibliography. In these years I have confirmed the pedagogical utility of the manual, especially for the students of the Pontifical Urbaniana University, both at the Faculty of Philosophy in Rome and the affiliated Institutes in Africa and Asia. As I express the awareness of the need for more correction and improvement of the text, I renew my gratitude to the current Rector, Prof. P. Alberto Trevisiol I.M.C., and to the students who have and who will have the goodwill to study these pages.

Rome, 8th September 2016
Nativity of Mary

The English translation contains the text of the second edition, and in addition, a new *Excursus* dedicated to *Holism*.

On this occasion, I would like to extend my thanks to the Urbaniana University Press, in the persons of the Director (and current Rector) Prof. Leonardo Sileo and his collaborator Dr. Sandro Scalabrin, and to the translator Prof. Stephen Okello I.M.C.

I would like to add a special thanks to Prof. Giuseppe Iuliano S.X., Director of the Office of Affiliated Institutes of the Pontifical Urbaniana University, who promoted this translation, and to my colleague Prof. Johnson Ozioko who has completely reviewed and checked the entire text.

Finally, I would like to extend a warm greeting to all the teachers and students of the Affiliated Institutes to whom this translation is dedicated.

Rome, 29th June 2020
Sts. Peter and Paul, Apostles