



## Gregorian Reform of the Calendar



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Contents and Preface by Fr Coyne

**Preface** – Although this book is published as a Commemoration of the 400th Anniversary of the Gregorian Reform of the Calendar, its nature is not simply commemorative but it is intended to serve as a stimulus to further reflection, scholarly or otherwise, upon the calendar. With hardly, I believe, an exception we all experience that strange phenomenon of the almost inverse proportionality between the importance of many common factors in our lives and the degree of attention that we give to them. Among such factors is the role of the calendar in our daily activities. How many of us give any attention to how and why the calendar is structured the way it is? Could it be structured otherwise, perhaps even better? Yet the calendar forms the basis for the rhythm of our various daily activities. We take holiday weekends, have blue Mondays, envy those who work bankers' hours and experience a host of other phenomena, all of which we take for granted. Do we reflect, for instance, that the duration of the hour and the length of the week have no basis in natural astronomical phenomena, even though both are of very long usage? The week, in fact, is the only calendar period which has survived all calendar reforms without interruption. On the other hand the three "natural" periods are the day, the month and the year, arising from the relative motions of the earth, moon and sun; the incommensurability of these periods is the fundamental reason for the long and continuing history of calendar reform, a part of which is recorded in this book. The Prelude (Chapter I), as a matter of fact, is intended to introduce us to those fundamental parameters with which the construction of any calendar must reckon and, in so doing, it makes us aware of such marvels as the fact that with modern caesium clocks we now have a measurer which is much more constant than the period being measured, namely, the rotation period of the earth. Much of history is an interplay of various institutions: social, economic, religious, political, etc. Nevertheless, the true nature of many significant historical events is due to the interplay of individual characters staging their activities against the background of the institutions. While the emphasis of Chapter II of our book is upon the institutions and, for obvious historical reasons, principally upon the Churches, Chapter IV presents selected principal characters involved in the Gregorian reform of the calendar: Christoph Clavius, Aloisius Lilius and Ignazio Danti. The rhythms of human life are dependent upon the rhythms of the universe. While this book is replete throughout with references to astronomical phenomena, Chapter III addresses explicitly several of the more important astronomical aspects of the calendar reform. The Gregorian reform took place during the time when the long-standing geocentric models of the solar system were being increasingly challenged. While the practical urgencies of the reform did not require taking sides in what we might summarily call the Ptolemaic-Copernican controversy, Chapter III does indicate some interesting aspects of the interplay between contested astronomical models and the calendar reform. One can hardly refrain from recalling that within a short thirty years or so after the Gregorian reform (Galileo was first summoned before Cardinal Bellarmine in 1616) the Church was, for reasons far removed from calendar reform, beginning to take sides, and as it turns out the mistaken side, in the Ptolemaic-Copernican controversy. The focal point of our book is, of course, the discussion of the reform decree itself, given in Chapter V, where the role of institutions and individuals, highlighted in Chapters II and IV, are brought together with a harmonious treatment which deals explicitly, among other questions, with the deliberations of the reform commission and the contents and authority of the reform itself. The many factors involved in the reception of the new calendar, not least of which is the dynamic sociology which still goes on today among the various Churches and civil institutions, is treated in Chapter VI. No human task, least of all one which responds to human conventions susceptible to the wear and tear of time, is ever

finished. In the Postlude (Chapter VII ) a resume of more recent attempts at calendar reform and, in particular, a very interesting proposal for a universal calendar are presented. We have, indeed, in preparing this book been "fortunate", as John Paul II stated in his address to the conference, "to be able to pursue research in that area where we seek to blend the rhythm of human life in society with fundamental rhythms of the universe in which we live". It is hoped that this book may provide a wider participation in that good fortune. If I may be allowed to make one last, pedestrian perhaps, remark: in reading this book regular reference to the Glossary of Technical Terms at the end may prove most useful.

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