

Preface

The Austrian Stratigraphic Chart 2004 (ASC 2004) is a compilation of selected lithostratigraphic units most frequently in use in Austrian geological literature and on geologic maps. In the course of the compilation of the chart it became evident that most of these units were invalid and inadequately described and documented. These shortcomings and lack in knowledge forced the various working groups to start a description of the units depicted in the ASC 2004.

For the Paleozoic a national working group under guidance of Bernhard Hubmann was established immediately after publication of the ASC 2004 aiming at describing the units depicted in the ASC 2004. One of the members of this working group, Thomas J. Suttner, opted, however, for the Carnic Alps not only for describing but also for re-evaluating and formalizing the units. Since the Carnic Alps extend along the Austrian/Italian border it was clear that such a working group cannot only be an Austrian concern but it has to be carried out as a joint endeavor between Austrian and Italian geoscientists. As a result, a very active joint working group was established guided by Carlo Corradini on the Italian side and Thomas J. Suttner as Austrian partner. The national/international groups started working in parallel into two directions: (1) describing the lithostratigraphic units depicted in the ASC 2004 and (2) evaluating, re-describing and properly defining them or even introducing additional units. The first part was finished in 2013 and 2014, respectively, with the publication of "The lithostratigraphic units of the Austrian Stratigraphic Chart 2004 (sedimentary successions) – Vol. I: The Paleozoic Era(them)" in *Abhandlungen der Geologischen Bundesanstalt* (vol. 66, 2014). The second part is documented in the current volume of the *Abhandlungen der Geologischen Bundesanstalt* (vol. 69, 2015).

To perform the description and emendation of the lithostratigraphic units several joint meetings have been held in Udine organized by colleagues from the local museum but also several joint field trips have been undertaken. This underpins that this work was not just a bureaucratic exercise but it was a serious scientific research which was only possible due to the shared expertise of experienced scientists supported by new field and laboratory data. The current publication, however, provides only the very basic information for defining the 36 formations of the Pre-Variscan sequence of the Carnic Alps. The general organization of the descriptions follows the scheme used for the description of the units of the ASC 2004 (*Abhandlungen der Geologischen Bundesanstalt*, 66, 2014). In the current volume all subtopics are very briefly documented and also the lithologic descriptions are very condensed. Even for the description of the type sections mostly literature data are provided. The authors intend to publish all the formations in a much greater detail in forthcoming publications.

The 36 formations have been defined after long scientific but also "political" discussions and the result represents a (bi-national) compromise what is very important for the acceptance of these units, both in Austria and Italy. One of the most difficult tasks was to find agreement on the formal names of the units, because different names were in use for the Italian and the Austrian part of the Carnic Alps. In some cases, however, the compromise, independent of national perspectives, resulted in names which do not properly follow the rules of the stratigraphic guides, e.g., Cardiola Formation, Alticola Formation. The inclusion of fossil names in lithostratigraphic units has to be avoided to properly separate litho- and biostratigraphic systems. The arguments of the authors that the fossil names have a long tradition for these rock units are not very convincing! The final decision of validating these unit names has to be made by the national stratigraphic commissions and by the acceptance within the scientific community.

Irrespective of some criticism, the current volume is a big step forward in defining lithostratigraphic units of the Southern Alps and provides an up-to-date lithostratigraphic framework acting as base for all forthcoming studies as well as being of great practical value, e.g., for geological mapping. On behalf of the stratigraphic community I would like to thank the Austro-Italian work group leaders and all actively involved members of the group for finishing this benchmark work.

Werner E. Piller

Chair of the Austrian Commission on Stratigraphy