

EDITORIAL

Partly by D. Rio and D. Castradori (SNS Chairman and Secretary for 1996-2000)...

Dear Reader,

four very eventful years have passed since we were elected as SNS Chairman and Secretary. We are now stepping down and leaving the helm to Jan Willem and Frits to whom we wish a smooth and successful navigation. Before leaving, we would like to summarize the most important achievements of SNS during our mandate and then let Jan Willem and Frits present future possible scenarios.

1997

The first matter we faced at the beginning of our mandate (October 1996) was the formal submission to ICS of the recommendation of SNS for the acceptance of the voted base of the **Piacenzian Stage**. We were notified of the positive vote of the ICS Full Commission and ratification of IUGS in January 1997. The next step was the preparation of two papers for the official publication of the **Gelasian** (ratified in August 1996) and **Piacenzian GSSPs** on the official journal of IUGS (*Episodes*). The papers were submitted to the journal late in 1997. To have a clear picture of the opinions and preferences of our members concerning those boundaries of the Neogene that lacked a formal status, we launched a questionnaire in February 1997 with specific questions on each chronostratigraphic boundary. The results of the questionnaire, together with the outcome of a workshop held in Erice during the "Neogene Mediterranean Paleoenography Conference", have led our action in the following years, particularly for what concerns the decisions on the basal Zanclean (and Pliocene) boundary (see below).

1998

Two proposals for the base of the **Zanclean Stage** (and of the Pliocene Series) and for the base of the **Messinian Stage** were prepared, during the first months of 1998, by two different groups of scientists. The two proposals are integrally reported in Neogene Newsletter 5. The two proposals were jointly sent to all voting members of our Subcommittee at the beginning of July. Both proposals received 29 votes out of 31 voting members (i.e. 93%). The proposed Zanclean (and Pliocene) GSSP received 22 positive and 3 negative votes, with 4 abstentions. The proposal for the Messinian GSSP was approved by 24 members, with only one negative vote and 4 abstentions. The two proposals were then forwarded to the ICS Secretary General (November 1998) for organizing the subsequent ballot within ICS. We should now enter a very painful matter, that made us waste a lot of time and money, but that has now come to an end, i.e. the querelle on the Pliocene-Pleistocene boundary. Following suggestions by an IUGS ad-hoc committee (see Neog. Newsl. 4), a joint postal ballot within the INQUA Commission on Stratigraphy (acting as IUGS Subcommittee on Quaternary Stratigraphy) and our Subcommittee was organized to vote on the proposal of lowering the **Pliocene/Pleistocene boundary** from its position (in the Vrica section) to a position coinciding with the GSSP of the Gelasian Stage, i.e. at approximately 2.6 Ma. The ballot was carried out in Autumn 1998. We skip here all the details of those frantic and painful days (see Neogene Newsletter 5 and 6). In the next paragraph we will summarize the outcome of that ballot.

1999

The postal ballot within ICS on the proposed base of the Zanclean Stage (and Pliocene Series) took place early in 1999 and resulted in the approval of the proposed GSSP (75% of positive votes). The Messinian proposal underwent some minor adjustments by the authors that caused a little delay in its submission to ICS (March 1999). The subsequent postal ballot led to the acceptance of the proposal by a 94% majority of ICS members. Ratification of both GSSPs by IUGS was postponed until the next meeting of the IUGS Executive Committee. Notwithstanding attempts made by the SQS Chairman (Prof. Partridge) to cancel the vote on the Pliocene/Pleistocene boundary (see Neogene Newsletter for Partridge's motivations and our replies) and put it off for "several years" (sic), the postal ballot within SNS and SQS was carried out regularly and the proposal definitely rejected. You are referred to the document by the ICS Board reported in Neogene Newsletter 6 for details on the rather complex counting of the votes and its final outcome. We sincerely hoped that the official postal ballot within the two Subcommissions, where the relevant arguments of both sides were presented in an exhaustive and clear manner, would have put an end to all the controversies on the matter. We even asked repeatedly the ICS Chairman (Prof. Remane) to publish the outcome of the ballot and to publicize it as much as possible, without much of a result. The draft of a paper that we prepared and submitted to Prof. Remane for consideration is reported in the present Newsletter. We will further address the issue of the present state of acceptance and use of the Pliocene/Pleistocene GSSP in the Vrica section in the report on the SEQs meeting in Bari (September 2000) (see the present Newsletter). All these matters having been settled, we turned to face the formidable task of elaborating an **up-to-date Miocene Time Scale**. This obviously requires a multidisciplinary approach, including magnetostratigraphy, biostratigraphy, isotopic stratigraphy and others, all of them framed in the astronomical time scale which is coming to existence in these days. Needless to say, an absolutely necessary outcome of this effort should be the selection of appropriate boundary-stratotypes for the remaining Miocene Stages. Therefore, we set up an ad-hoc Working Group (WG) within our Subcommission under the leadership of Prof. Shackleton (see further on). Since the XXXIst IGC was approaching, SNS faced a **substantial renewal** for what concerns both the Board (Chairperson and Vice-Chairperson) and the membership. The process was quite painful, since we were forced to exclude some very active and interested scientists from the voting members, and very long, since we tried to do it through subsequent steps to insure the highest level of democratic participation and understanding. The results of the process are reported in the next paragraph.

2000

The GSSPs of the Zanclean Stage (and Pliocene Series) and of the Messinian Stage were ratified by IUGS in January 2000, after subsequent approval by SNS and ICS. Two separate papers on these achievements have been submitted to Episodes immediately after the ratification. They were published in September 2000 (Episodes vol. 23, n. 3). The process of renewing the Board and the membership of SNS (see previous paragraph), while reducing it to 20 voting members as prescribed by ICS rules, came to an end in Spring 2000. The new Chairman is W.J. Zachariasse (University of Utrecht, The Netherlands), the Vice-Chairman is D. Castradori (ENI/Agip, San Donato M., Italy) and the Secretary is F.J. Hilgen (University of Utrecht, The Netherlands). The new Board, with the renewed Subcommission, took over in August, in the occasion of the 31st IGC. The working group on the Miocene time-scale, set up in 1999, is having difficulties in becoming active, due to the very tight working schedules of the people involved. We believe it a major goal of the new Board to revitalize this WG and to face the task of elaborating an up-to-date Miocene Time Scale. But let us leave the stage to Jan willem and Frits and here directly from them what is the future program of SNS.

...and partly by W.J. Zachariasse and F. Hilgen (SNS Chairman and Secretary for 2000-2004)

The main objective of ICS subcommissions is to define GSSPs for the more than 100 Phanerozoic stage boundaries. At this point the SNS has been very successful over the past four years: no less than three GSSPs have been ratified by the IUGS. Also at other points the term of Domenico Rio and Davide Castradori was a success. For example, we witnessed the dramatic and final settlement of the long-standing controversy with the SQS who wanted to lower the Pliocene/Pleistocene boundary. The well-thought-out SNS memorandum prepared and published by Domenico and Davide (plus John van Couvering) has certainly contributed to the rejection of the SQS proposal. A smaller but more interesting controversy erupted about the question whether or not to decouple stage from series boundaries in response to a postal ballot on the GSSP proposal for the Zanclean Stage. The debate was short but intense and instructive because it obliged us to rethink the philosophy of chronostratigraphy and the architecture of the GCS. Debates like this one play an important role in maintaining the right balance between renewal and conservation of stratigraphic principles and procedures. By now it is accepted that the base of the Zanclean Stage and that of the Pliocene Series are defined by one and the same GSSP located at Eraclea Minoa on Sicily. The position of the SNS bureau on this matter was clear: no decoupling. The same viewpoint is held by the present bureau. Finally, the bureau completed the difficult task to reduce the size of the SNS to meet present ICS statutes. The above paragraph clearly illustrates how much work has been done over the past four years and it is therefore that we wish to thank Domenico and Davide for the time and efforts they have put into running the SNS bureau over the past four years. Although much has been achieved, there are still some nuts to be cracked. The first one concerns the definition of GSSPs for the four remaining Neogene stages that lack a GSSP. The term of our mandate will probably be too short to fully achieve this objective, but definition of GSSPs for the Tortonian and Serravallian should be feasible. Some promising candidate sections are located in Italy and already under study by Italian and Dutch stratigraphers. These sections are promising in the sense that they are cyclically-bedded, which should allow us to calibrate these sections to astronomical target curves. The advantage of this astronomical dating technique is that it will provide precise and accurate numerical ages for these GSSPs and that it will facilitate direct first-order calibration of these GSSPs to a future standard Miocene time scale. The construction of such a standard Miocene time scale - based on calibrating magnetic reversals, bioevents, stable isotope events, and GSSPs to astronomical target curves via cyclostratigraphy - is another tough nut waiting to be cracked. The general lack of middle to lower Miocene sections in the Mediterranean and in the open ocean containing both a high-quality Milankovitch cyclicity and a good magnetic signal is one of the main reasons that such a time scale is still a long way off. With the publishing of Neogene Newsletter 7 Domenico and Davide say good-bye as chairman and secretary of the SNS. During their term five Newsletters have been published (the first two ones were issued under the leadership of M.B. Cita, who correctly anticipated the important role of a Newsletter in revitalizing the SNS in 1994). The officers of the new bureau - Willem J. Zachariasse (chairman), Davide Castradori (vice-chairman), and Frederik J. Hilgen (secretary) - hold the opinion that the time is ripe to open a SNS website to optimize future communication amongst the SNS members. So, Neogene Newsletter 7 may be the last hard-copy newsletter to be distributed to you.