

Editorial

This is my last editorial to a Neogene Newsletter.

When I started to serve as chairman of SNS seven years ago, after accepting reluctantly a nomination, I was very hesitant to undertake any initiative for various reasons: first, in the last several years my scientific activity was concentrated on marine geology, not on stratigraphy; second, in the late eighties the syndrome of "*Stratigraphy quo vadis?*" was very popular, funds for basic research were declining, especially those dedicated to classical stratigraphy, and the oil industry was less interested in stratigraphy than it used to be; third, a certain provincialism, or even parochialism, was disseminated among stratigraphers, preventing clear thinking and exacerbating correlation problems. As a consequence of this unfavourable situation, the progress was slow and the communication poor.

But in the last few years a fundamental improvement resulted from a combination of several factors. First of all the Ocean Drilling Program dedicated several legs to elucidate the Neogene history of the oceans, with transects of holes continuously cored with the most sophisticated techniques in the Indian, Pacific, and Atlantic oceans and in the Mediterranean; furthermore, drilling and coring at high latitudes provided a wealth of new proxy data to decipher the Neogene stratigraphy. In other words, we could take great advantage of a very successful project, funded with tens of millions US\$ a year, in which most of the best scientists of the world (and many of our members) are involved. The acquisition of new analytical data and the assimilation of the results are much easier and faster than in pre-ODP times. This is an important difference and a great advantage of SNS with respect to other subcommissions dealing with older time intervals, particularly those predating the history of the present oceans!

Scientific research is presently carried out with a typical integrated approach, where multiple biostratigraphies, paleomagnetic stratigraphy, isotopic stratigraphy, various kind of physical stratigraphies are often applied to the same succession, leading to a time resolution even of a few thousand years. In this respect, the importance of astrocyclostratigraphy is now recognized the world over, since it proved capable of considerably enhancing the time resolution and the correlation potential.

But the progress is not limited to the deep-sea record: indeed, the new frontier of stratigraphy is now applied also to marine sections exposed on land that were investigated in the greatest detail in the Mediterranean area, the birth-place of most Neogene chronostratigraphic units. We can say with confidence that the Neogene is now the best known part of the stratigraphic column and that provincialism, if not entirely dead, essentially belongs to the past.

Before concluding, I want to emphasize also the substantial renewal of SNS membership achieved in the last few years, also in observance of recent recommendations of ICS. In addition, an updating of the internal organization of SNS, including regional committees and working groups, seems to be necessary and will be probably accomplished in the near future.

At the end of my chairmanship, I feel as back riding a winning horse, and want to thank all the members of the subcommission for the good work we have done together, wishing to SNS and to all of you a bright future.

Maria Bianca Cita

Greetings from the new President...

First of all, let me thank the Voting Members for offering me the opportunity to serve as President of the SNS for the next four years. I welcome this opportunity and I am relying on your good will as scientists active in the Neogene to aid me in my endeavors.

Second, I wish to thank warmly Maria Bianca Cita for serving so efficiently our Subcommittee in the last seven years. She has been very successful in revitalizing our Subcommittee, and the results obtained are under the eyes of everybody and in the cover page of this Newsletters. Actually, I am a little bit concerned: following in the footsteps of Maria Bianca is a big responsibility! But I will try to do at my best in following the track she opened.

Finally, I thank Davide Castradori for having accepted to serve as secretary of the SNS. He is very efficient, active, interested in the SNS business and, I am sure, I will get a great help from him.

With a 4-year term before me, I offer some opening thoughts about the activity I want to pursue. I am reluctant to make grand programmes with the risk of little or no achievements. I like better to have few limited goals and reach them. I firmly believe that the main task of our Subcommittee is to arrive to a standard Chronostratigraphic Scale for the Neogene, that means to propose the GSSPs of the Neogene chronostratigraphic units to the ICS. It is very bad that, notwithstanding the incredible wealth of knowledge we have achieved in the last 15-20 years on the Neogene stratigraphy, standard Neogene chronostratigraphic units reported in all Geologic Time Scales are little or not used in practical work and, when they are, it is often in a contradictory way. In the last two years, important achievements have been obtained with the approval by the ICS of the GSSPs of the Oligocene-Miocene boundary and the Gelasian and the approval by the SNS of the Piacenzian. But still a lot of work remains to be done: we have currently contrasting proposals made by members of the SNS on the definition of the Miocene-Pliocene boundary and none of the Miocene stages and subdivisions is formally defined. Looking at the most recent literature, it seems to me that time is ripe for proposing in a short time (let's say end 1997 or beginning 1998) GSSPs for the Zanclean (Miocene-Pliocene boundary) and the Messinian. We know a lot about these two boundaries and we need to overcome controversies to arrive to formal proposals. I believe that reaching unanimity is impossible, but decisions have to be taken. A *not-so-good* boundary definition is much better than no definition. It will be my care to promote discussion and cooperation from the groups which are actively working in late Tortonian to Zanclean time interval in order to arrive to proposals for the definition of these two boundaries. To this end, it has been decided at the SNS business meeting in Beijing to have a workshop dedicated to the Miocene-Pliocene boundary in Sicily next September in occasion of the *Neogene Mediterranean Paleooceanography* conference. I hope that for that meeting the Dutch

group and the Bologna group will bring proposals for the Messinian GSSP as well. Let me say here that I share the opinion expressed by Nick Shackleton in Beijing that Neogene GSSPs should be defined in sections suitable for astrocyclostratigraphy. When properly established, cycles are better correlation tools than biohorizons and polarity magnetic reversals.

The problems associated with the subdivision of the Miocene below the Messinian are much greater and become more and more difficult as we go back in time. An important updating of the state of the art in Miocene chronostratigraphy is expected from the volume on *Miocene Integrated Stratigraphy* edited by Montanari, Odin and Coccioni that should be in press in this moment. But most probably formal definitions of the lower and middle Miocene stages will not be possible in a short time. Too many problems need to be solved in the Miocene chronology before reasonable definitions can be proposed. Nevertheless, we need to start. Probably, the best way is to establish a working group on the Miocene Time Scale similar to that created few years ago on the Pliocene, led by Bill Berggren, that has been so successful. I will appreciate to know your opinion about this proposal.

In summary this is my proposed short-term agenda:

- submittal to the ICS of the proposal of the Piacenzian GSSP (end 1996);
- workshop on the Miocene-Pliocene boundary and Messinian GSSPs in Erice (Sicily) in september 1997 and proposals of the relative GSSP in 1998;
- start discussion and (?) establish a dedicated WG on the pre-Messinian Miocene chronostratigraphy.

Domenico Rio

...and from the new Secretary

Since most of you probably do not know me, not even by name, I would like to briefly introduce myself. My name is Davide Castradori; I was born, thirty years ago, in Milano where I graduated in Geology in 1989 (main subject: nanofossils of the English Albian Gault Clay) and obtained a Ph.D. in 1993 (biostratigraphy and paleoceanography of Eastern Mediterranean deep-sea cores, coordinated by M.B. Cita).

Starting from April 1993, I am employed at the paleontological laboratories of Agip (the Italian oil company) where I study nanofossils of the entire Cretaceous to Recent time interval, from wells

and outcrops all over the world. The Neogene (and Quaternary) is the time interval I more often deal with and which more deeply interests me. Since the very beginning of my career in the oil industry, I realized how dishomogeneities in stratigraphic nomenclature and usage, particularly concerning chronostratigraphy, hamper easy communication among different geoscientists of different countries and culture. Surprisingly enough, one may experience the same difficulties even when talking with a stratigrapher of his own company!

I truly believe that the construction of a standard chronostratigraphic scale is of momentous importance to avoid misunderstandings in our everyday work and improve the quality of multidisciplinary studies in all fields of Earth sciences. That is why in the last few years I tried to help Maria Bianca Cita in her untiring "defence" of our upper boundary, i.e. the GSSP of the Quaternary (Vrica section), and that is why I now accept with pleasure the kind offer of Domenico Rio to serve as Secretary of SNS for the last term of the millenium.

I will sincerely try to be an active secretary, one that can help at best Domenico and SNS to make those important steps that still separate us from a complete standard chronostratigraphic scale of the Neogene. I am confident that your kind cooperation and advice will greatly facilitate my duty. Thank you in advance.

Davide Castradori