

## The 150th anniversary of the Maastrichtian Stage - a celebratory conference: Introduction

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### The 'système maestrichtien'

It was André Hubert Dumont (1809-1857) (Fig. 1) who, while mapping at the St Pietersberg south of Maastricht in the summer of 1849, noted that the higher portion of the yellowish-white friable limestones exposed there represented something unique. So unique that he coined a name for it (Dumont, 1849), his '*système maestrichtien*', with a fossil hash level at its base, replete with faecal pellets. These pellets have since been described and formally named by Van Amerom (1971) as *Coprulus maestrichtensis*, and Dumont's 'système' has been shown to correspond in part with our current concept of the Maastrichtian Stage, the youngest slice of Cretaceous time.

Dumont's contemporaries readily accepted his views on local stratigraphy and adopted the term '*système maestrichtien*' straightaway and used it throughout their own, often profusely illustrated, accounts of latest Cretaceous macrofossils. It is not surprising that a lot has happened to Dumont's 'système' since its introduction; however, this is not the place to go into detail. Suffice it to say that we now know that the name-bearing rock unit at the St Pietersberg, the type locality, represents but the youngest portion of Maastrichtian time. Both the lower and upper boundaries of this stage have since been defined elsewhere in the world (see Odin, 2001), and the 'type Maastrichtian' has been demonstrated to be rather atypical in comparison with coeval rocks at other localities. 'Atypical' in the sense that both the sedimentology and palaeon-

tology differ markedly. This explains why, at times, we are left with more questions than answers.

In recent years, much progress has been booked in unravelling flint genesis and rhythmicity, Milankovitch cyclicality, hardground development and in documenting faunal and floral diversity. Projects underway include a refined sequence-stratigraphic interpretation of the type Maastrichtian and strontium isotope analyses of coleoid cephalopods from this sequence.



Fig. 1. André Hubert Dumont (after Boulvain, 1993).

The deepest pit at the ENCI-Maastricht bv quarry now exposes the Vijlen Member, and outcrops of both Beutenaken and Zeven Wegen members (all Gulpen Formation) may become available in the (near) future. It is to be expected that the strata in this pit hold the key to a better understanding of the type Maastrichtian and its lower boundary in this area. How many biozones are missing, if any? And: how far does the Beutenaken Member here extend into the Upper Campanian, and how do belemnite faunas at the ENCI-Maastricht bv quarry compare with occurrences elsewhere (e.g., the standard Upper Cretaceous white chalk facies in northern Germany). In short, lots of opportunities begging for a multidisciplinary approach.

To add to this feeling of excitement at the beginning of 1999 was the fact that we realised that that same year witnessed the 150th anniversary of the Maastrichtian Stage. To celebrate this, the Natuurhistorisch Museum Maastricht designed a thematic exhibit, '*Dinosaurs, ammonites & asteroids - Life and death in the Maastrichtian*', and hosted a scientific meeting at the Bonbonnière theatre in the city centre of Maastricht, followed by a field trip to the ENCI-Maastricht bv quarry to discuss Dumont's legacy. The exhibit travelled widely, starting at Maastricht, then on to Trenton (New Jersey), Hunedoara (Romania), Muscat (Sultanate of Oman) and finally Kazimierz Dolny (Poland), between July 1999 and September 2001.

### The present issue

The three-day scientific meeting, attended by some 70 colleagues from Belgium, England, Denmark, Germany, Spain, France, Switzerland, Romania, Poland, Russia, United States and the Netherlands, covered a range of topics. Subjects ranged from dinosaurs in the Mongolian desert to the occurrence of ovicells in a certain species of bryozoan.

The present volume assembles a number of the papers presented at the meeting, combined with a few others. Again, subjects covered vary widely and reflect, we think, the unabated interest in the stratigraphy and palaeontology of the Maastrichtian Stage, both in the type area and beyond.

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mont present during the scientific meeting at the Bonbonnière theatre and at the Natuurhistorisch Museum Maastricht; P.J. Felder transported it from Liège to Maastricht, and back of course.

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