

II. STRATIGRAPHIC LOCATION OF THE PROPOSED BOUNDARY STRATOTYPE

by P. SARTENAER

In accordance with my suggestion (see Introduction) to substitute an unequivocal set of lithostratigraphic units for the terms "F2a", "F2b", "zone des monstres", etc., it was decided to hold a field meeting on June 28th 1983. The following took part: BULTYNCK, P., COEN-AUBERT, M., GODEFROID, J., MOURAVIEFF, N., SARTENAER, P. and TSIEN, H.H.

As a result of this field trip, it was agreed to adopt the following lithostratigraphic units:

	Unnamed Formation	Frasnes
La Prée Member	Nismes Formation	Group
Sourd d'Ave Member		
Pont d'Avignon Member		
Fort Hulobiet Member	Fromelennes Formation	Givet Group

FRASNES Group

The name is derived from the village of Frasnes (topographic sheet 1:25,000 Chimay-Couvin). The Frasnes Group proposed by P. SARTENAER (1974a, p. 7), comprises a lower, chiefly shaly formation, the Nismes Formation, defined subsequently herein; and an unnamed half limy (including reef lenses and mud mounts), half shaly upper formation. The group's thickness varies between 400 and 650 metres, and it corresponds closely to the "assise de Frasnes" of E. MAILLIEUX (1922a, pp. 16-18; 1922b, p. 19, pl. I), apart from minor discrepancies in the respective lower and upper boundaries.

NISMES Formation

The name is derived from the town of Nismes (topographic sheet 1:25,000 Olloy-sur-Viroin-Treignes). As here proposed, the Nismes Formation includes three new members, which from base upwards, are the Pont d'Avignon, Sourd d'Ave, and La Prée Members. Apart the few limestone beds at the base, it is an essentially shaly formation with subordinate nodules, limestone lenses, and limestone beds in its lower part. The thickness of the formation varies between 27.5 and 44.5 metres. It corresponds to the unit "Fr2a" (later "F2a") plus the unit "Fr2b" (later "F2b"), both introduced by E. MAILLIEUX (1910, p. 230).

PONT D'AVIGNON Member

The name derives from the bridge (Pont d'Avignon) over the resurgence of the Eau Noire River in the town of Nismes (topographic sheet 1:25,000 Olloy-sur-Viroin-Treignes, see aerial photograph). The here-proposed Pont d'Avignon Member

outcrops, at its type locality in the suggested auxiliary stratotype, with a thickness of 1.15 metres. This section has previously been described by P. BULTYNCK and M. COEN (1982, fig. 2), P. BULTYNCK and L. JACOBS (1982, figs. 2, 3). Elsewhere, the thickness varies between 0.3 and 2.6 metres. This thin unit is composed of thick greyish, organoclastic, "terrasseux", stratified limestone beds with somewhat nodular to subnodular aspect. This definition permits ready identification of the member's lower and upper boundaries. The Pont d'Avignon Member corresponds to the lower part of the unit "Fr2a" (later "F2a") introduced by E. MAILLIEUX (1910, p. 230).

SOURD D'AVE Member

The name is derived from the Sourd d'Ave location on the Ave brook (topographic sheet 1:25,000 Ponderôme-Wellin, see aerial photograph). The here-proposed Sourd d'Ave Member outcrops with a thickness of 9.3 metres in the Sourd d'Ave type section on the southwestern side of the Dinant - Neufchâteau road, near the village of Wellin. Previous descriptions of the section have been provided by M. COEN and M. COEN-AUBERT (1971, p. 14, pl. I), P. BULTYNCK (1974, p. 6, fig. 3), and P. BULTYNCK and L. JACOBS (1982, figs. 4-6). In other sections, the thickness varies between 7 and 12 metres. The unit is composed of greenish shales with abundant nodules and some thin limestone lenses in its lower part and few nodules and some thick limestone beds in its upper part. The Sourd d'Ave Member succeeds the last thick organoclastic stratified limestone bed of the underlying Pont d'Avignon Member, and ends with the last conspicuous limestone bed. It corresponds to the upper part of the unit "Fr2a" (later "F2a") and the lower part of the unit "Fr2b" (later "F2b"), both introduced by E. MAILLIEUX (1910, p. 230).

LA PRÉE Member

The name is derived from the La Prée portion of the Eau Blanche River flowing through the village of Boussu-en-Fagne (topographic sheet 1:25,000 Chimay-Couvin). The type locality of this member is in the classical "chemin de l'Ermitage" section located in this village, where the here-proposed La Prée Member attains a thickness of 25 metres; on the occasion of the SDS visit on August 31st 1974, I arranged for a trench to be dug along this path. In other sections, the thickness varies between 20 and 30 metres. The La Prée Member is composed essentially of greenish, sometimes brownish, shales with a few nodules and very rare, thin limestone lenses. It begins above the last conspicuous limestone bed of the underlying Sourd d'Ave Member, and ends before the first thick limestone member of the overlying unit. The La Prée Member corresponds closely, with the exception of the lower part, to the term "Fr2b" (later "F2b") introduced by E. MAILLIEUX (1910, p. 230).

GIVET Group

The name is derived from the town of Givet (topographic sheet 1:50,000 Givet). The Givet Group, proposed by P. SARTENAER and M. ERRERA in M. ERRERA, B. MAMET and P. SARTENAER (1972, p. 22, explanation of fig. 2, p. 34), is divided into three formations, which, from base to top, are the Trois-Fontaines, Mont d'Hairs and Fromelennes Formations. The thickness of this essentially carbonate group is 432.2 metres at Givet. With the exception of its uppermost part, it corresponds to the *Calcaire de Givet* of J.J. d'OMALIUS d'HALLOY (1828, p. 162).

FROMLENNES Formation

The 111 metres-thick Fromelennes Formation, proposed by P. SARTENAER and M. ERRERA in M. ERRERA, B. MAMET and P. SARTENAER (1972, p. 22, explanation of fig. 2, pp. 34-35), corresponds to the "assise de Fromelennes" as defined by E. MAILLIEUX (1922a, pp. 15-16 ; 1922b, p. 19, Pl. I). Fromelennes is a French village near the town of Givet (topographic sheet 1:50,000 Givet).

FORT HULOBIET Member

The name is derived from an old fortification, Fort Hulobiet, located on "Le Roc", a butte in the town of Givet (topographic sheet 1:50,000 Givet), and has been proposed in an unpublished Ph. D. dissertation (1976) by M. ERRERA. It constitutes the uppermost of three members of the Fromelennes Formation, and is 24.5 metres thick in its type section. In other sections, it fluctuates around 30 metres. The Fort Hulobiet Member is composed of thin granular limestones at the base passing upwards into silty argillaceous or nodular limestones, and with laminated argillaceous limestones increasing towards the top ; a few massive beds occur in the upper part. This unit corresponds roughly to the term "Fr1b" (later "F1c"), introduced by E. MAILLIEUX (1910, p. 230).

