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## The Graue Phyllite in the Goldsteintal (Rheinisches Schiefergebirge, Germany) – Do the new finds confirm their age?

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At the classic locality in the idyllic Goldsteintal (“Golden Stone Valley”) near Wiesbaden in the Taunus Hills of the southern Rheinisches Schiefergebirge and at other localities nearby, the Kellerskopf Formation (= Graue Phyllite or „Grey Phyllites“ in former works) crops out yielding a small fauna consisting of corals, brachiopods, trilobites, crinoidal remains, bryozoans, and bivalves (STRUVE 1973). Due to strong tectonic deformation and even gentle metamorphosis of this succession during the Variscan orogeny, most of the fossils are poorly preserved. Accordingly, the age of this stratum has been controversial for a long time; it has been dated either as late Silurian (DAHMER 1946) or earliest Devonian (FUCHS 1929, SHIRLEY 1962, STRUVE 1973). New finds confirm the identification of the brachiopod *Dayia shirleyi* ALVAREZ & RACHEBOEUF, 1986, allowing a correlation with the lowermost Noulette Formation of Artois (France), the Köbbinghausen Formation of the Ebbe Anticline (N Rheinisches Schiefergebirge, Germany) and the lower Muno Formation of the Ardennes (cp. GODEFROID 1995, GODEFROID & CRAVATTE 1999). As for these strata, a late Silurian (Pridolian) age is suggested for the faunas of the Kellerskopf Formation, as the genus *Dayia* has never been observed to cross the Silurian/Devonian boundary. The presence of *Quadrifarius dumontianus* (DE KONINCK, 1876) and *Shaleria rigida* (DE KONINCK, 1876) support this assignment, whereas the presence of *Platyorthis* would rather plead for an Early Devonian age. The two taxa mentioned first allow a correlation with the Weismes Formation (= Grès de Gdumont) of the Hautes Fagnes and the Silberg Formation of the Müsen Horst (N Rheinisches Schiefergebirge). The finds in the Goldsteintal fit well in a scenario of a vast “*dumontianus* Shelf” (CARLS 2001) during Pridolian time, representing the first transgression after the Caledonian orogeny in the Rheinisches Schiefergebirge and marking the onset of the Variscan cycle.

### References

- ALVAREZ, F. & RACHEBOEUF, P.R. (1986): Sous-famille Dayiinae Waagen 1883. – In: RACHEBOEUF, P.R. (ed.): Le Groupe de Liévin. Pridoli-Lochkovien de L'Artois (N. France). – Sédimentologie – Paléontologie – Stratigraphie. – Biostratigraphie du Paléozoïque, 3: 128-131.
- CARLS, P. (2001): Kritik der Plattenkinematik um das Rhenohercynikum bis zum frühen Devon. – Braunschweiger geowissenschaftliche Arbeiten, 24: 27-108.
- DAHMER, G. (1946): Gotlandium mit *Dayia navicula* im Taunus. Seine Beziehungen zu den Köbbinghäuser (*Dayia*-) Schichten des Ebbe- und Remscheider Sattels und zu den Schichten von Weismes. – Senckenbergiana, 27: 76-84.
- FUCHS, A. (1929): Die unteren Gedinneschichten der Gegend von Wiesbaden. – Jahrbuch des Nassauischen Vereins für Naturkunde, 80 (2): 74-86.
- GODEFROID, J. (1995): *Dayia shirleyi* ALVAREZ & RACHEBOEUF, 1986, un brachiopode silurien dans les “Schistes de Mondrepuis” à Muno (sud de la Belgique). – Bulletin de l'Institut Royal des Sciences Naturelles de Belgique: Sciences de la Terre, 65: 269-272.
- GODEFROID, J. & CRAVATTE, T. (1999): Les brachiopodes et la limite Silurien/Dévonien à Muno (sud de la Belgique). – Bulletin de l'Institut Royal des Sciences Naturelles de Belgique: Sciences de la Terre, 69: 5-26.
- DE KONINCK, L. (1876): Notice sur quelques fossiles recueillis par G. Dewalque dans le système Gédinnien de A. Dumont. – Annales de la Société géologique de Belgique, 3: 25-52.

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SHIRLEY, J. (1962): Review of the correlation of the supposed Silurian strata of Artois, Westphalia, the Taunus and Polish Podolia. – *In*: ERBEN, H.K. (ed.): Symposium Silur/Devon-Grenze 1960: 234-242.

STRUVE, W. (1973): Die ältesten Taunus-Fossilien. – *Natur und Museum*, 103: 349-359.