

from its nummulitic or central portions to its Upper or Limburg beds was clearly made out.

LIMBURG STRATA IN BELGIUM.

(*Rupelian and Tongrian Systems of Dumont.*)

The best type which we as yet possess of the Upper Eocene, as defined in the foregoing observations, consists of the beds formerly known to collectors as those of Kleyn Spawen. These can be best studied in the environs of the village so named, which is situated about seven miles west of Maestricht, and in the old province of Limburg in Belgium. In that region, about 200 species of testacea, marine and freshwater, have been obtained, with many foraminifera and remains of fish.

The following table will show the position of the Limburg beds.

MIOCENE.

A. Bolderberg beds, see p. 178, seen near Hasselt.

UPPER EOCENE.

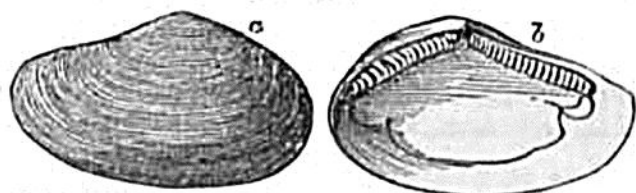
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|--------------------------------------------------------------------------------|-------------------------------------------------|
| B. 1. Nucula Loam of Kleyn Spawen, same age as clay of Rupelmonde and Boom. | } Upper Limburg beds.—Rupelian of Dumont. |
| B. 2. Fluvio-marine beds of Bergh, Lothen, and other places near Kleyn Spawen. | |
| B. 3. Green sand of Bergh, Neerepen, &c., near Kleyn Spawen: Marine. | } Lower Limburg Beds.—Lower Tongrian of Dumont. |
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MIDDLE EOCENE.

C. Lacken and Brussels beds, with nummulites, &c.: Louvain and Brussels.

The uppermost of the three subdivisions (B. 1) into which the Limburg series is separated in the above table, contains at Kleyn Spawen many of the same fossils as the clay of Rupelmonde and Boom, ten miles south of Antwerp, and sixty miles N. W. of Kleyn Spawen. About forty species of shells have been collected from the tile-clay worked on the banks of the Scheldt at the villages above mentioned. At Rupelmonde, this clay attains a thickness of about 100 feet, and much resembles in mineral character the "London Clay," containing like it septaria or concretions of argillaceous limestone traversed by cracks in the interior. The shells have been described by MM. Nyst and De Koninck. Among them *Leda* (or *Nucula*) *Deshayesi*ana (see fig. 167) is by far the most abun-

Fig. 167.



*Leda Deshayesi*ana. Nyst. Syn. *Nucula Deshayesi*ana.