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The micropreparation of a juvenile marine turtle from the Ypresian of Belgium

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Several years ago, amateur palaeontologist Michel Girardo collected a block of clay (25x20x18cm) encasing a partially visible small turtle shell, at the Durieux brickyard of Ghlin (Mons Basin). The Clay of Ghlin is stratigraphically important because it belongs to the early Ypresian Mont-Heribu Member of the Kortrijk Clay Formation, representing one of the earliest marine, mid-neritic, depositional environments of the Ypresian in the Mons Basin.

The fossil itself is 15x9cm and consists of a full carapace with all plates in connection, half of the marginal plates, and a crushed part of the head. The preservation is very good and the bones suffered almost no displacement during or after burial. Unfortunately, after excavation and during decades of storage, the block of clay had dried and shrunk, leading to stress deformation of the fragile thin bones and to pyrite oxidation. Thin coats of Paraloid B-72 glue were applied before any work. The block was carefully reduced using chisels and hammer. The separated chunks of clay were then disaggregated in water and sieved, resulting in the recovery of shark teeth and fish bones. The preparation of the specimen was done almost exclusively under stereomicroscope. Air scribes could not be used, only small carbide needles. Well-preserved long bones from the shoulder girdle were found during the work. The clay's shrinkage permitted to separate completely the carapace from the substrate. A well-preserved plastron was in this way discovered and almost all vertebrae were found to be still attached to the vertebral plates. All this precise and slow work produced a very fine and well-preserved marine juvenile specimen, presenting a maximum of details, much more than could be guessed when the specimen was received. This will be quite helpful for the identification of this specimen and for comparison with typical Belgian Thanetian-Ypresian turtles such as *Erquelinnesia*, *Eochelone* and other Pancheloniidae.

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