

AT THE HEART OF THE BOULONNAIS: A JOURNEY THROUGH TIME AND GEOLOGY

Welcome to the Chalk hills of the Mimoyecques Fortress in Landrethun-le-Nord!

This sign is installed on land owned by the Carrière de la Vallée Heureuse (CVH) company, which has been extracting Marquise limestone since 1842. Specializing in the production of materials for construction, public works, and industry, CVH currently covers more than 200 hectares.

The landscape of the Boulonnais stretches out before you. It is characterised by a striking contrast between the foreground and the distant planes. Our viewpoint is situated on the **cuesta*** of the Boulonnais, which rests on a subsoil made up of **chalk***, a source of land suitable for cereal crops visible in the foreground.

Southern cuesta of the Boulonnais

Bocage du Boulonnais

Cereal farming

Deposits of sterile extraction materials

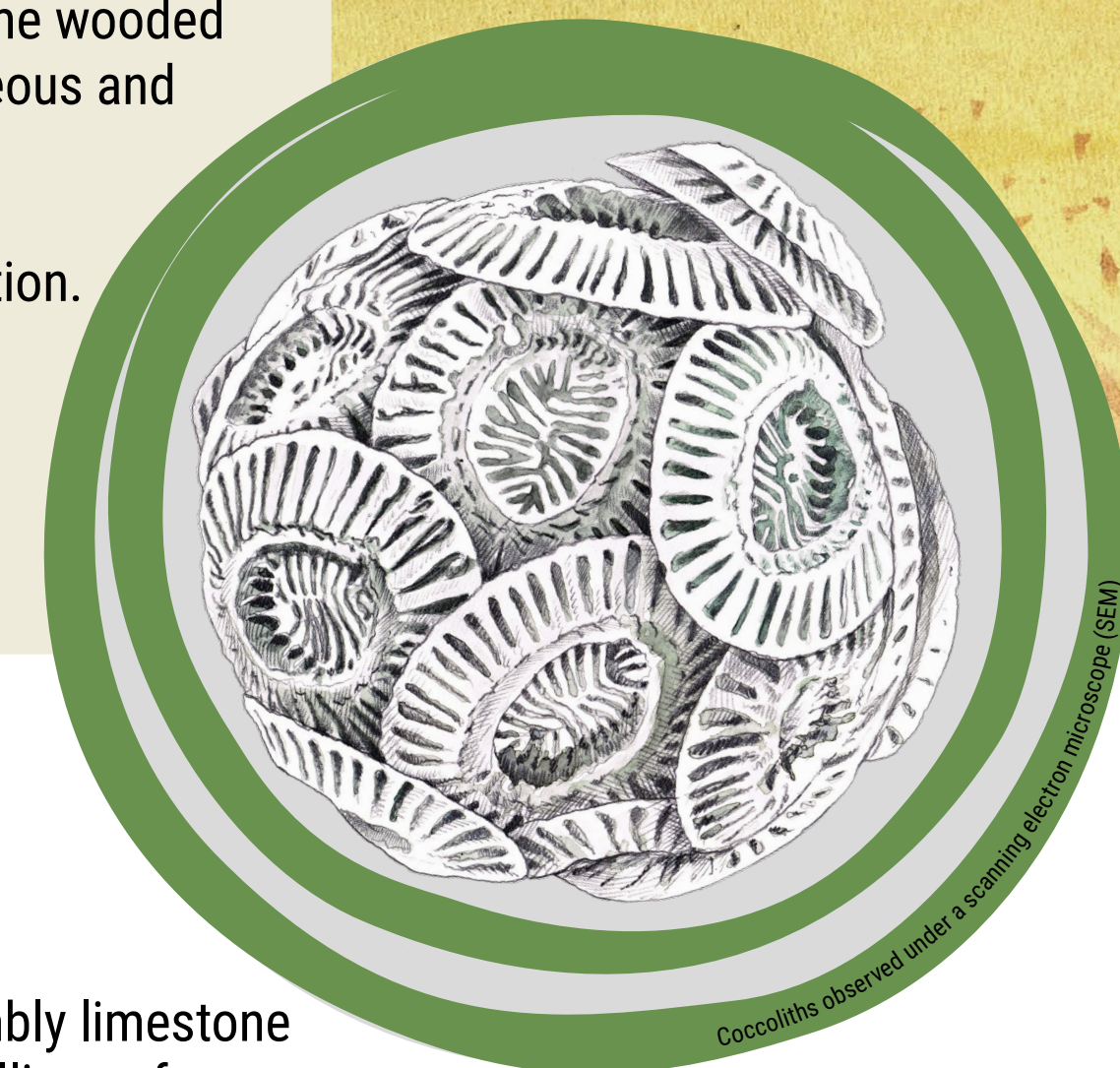
Mont Lambert

Deposits of sterile extraction materials

In the mid-ground, a bocage landscape emerges. Against a greener backdrop, hedgerows delineate pastures for livestock and some wooded areas. This landscape is situated on impermeable terrain (composed of clays, limestones, and sandstones) from the Lower Cretaceous and Jurassic periods, which retains moisture and has allowed for the establishment of numerous villages.

In the distance, limestone is extracted from quarries in the Marquise quarry basin, along with deposits of residue from rock extraction. "Marbles," much older rocks dating from the Devonian and Carboniferous periods, are also mined here. These outcrop in the heart of the Boulonnais boutonhole.

On the horizon, the chalky cuesta* marks the eastern and southern boundaries of the Boulonnais **buttonhole***.



Chalk *

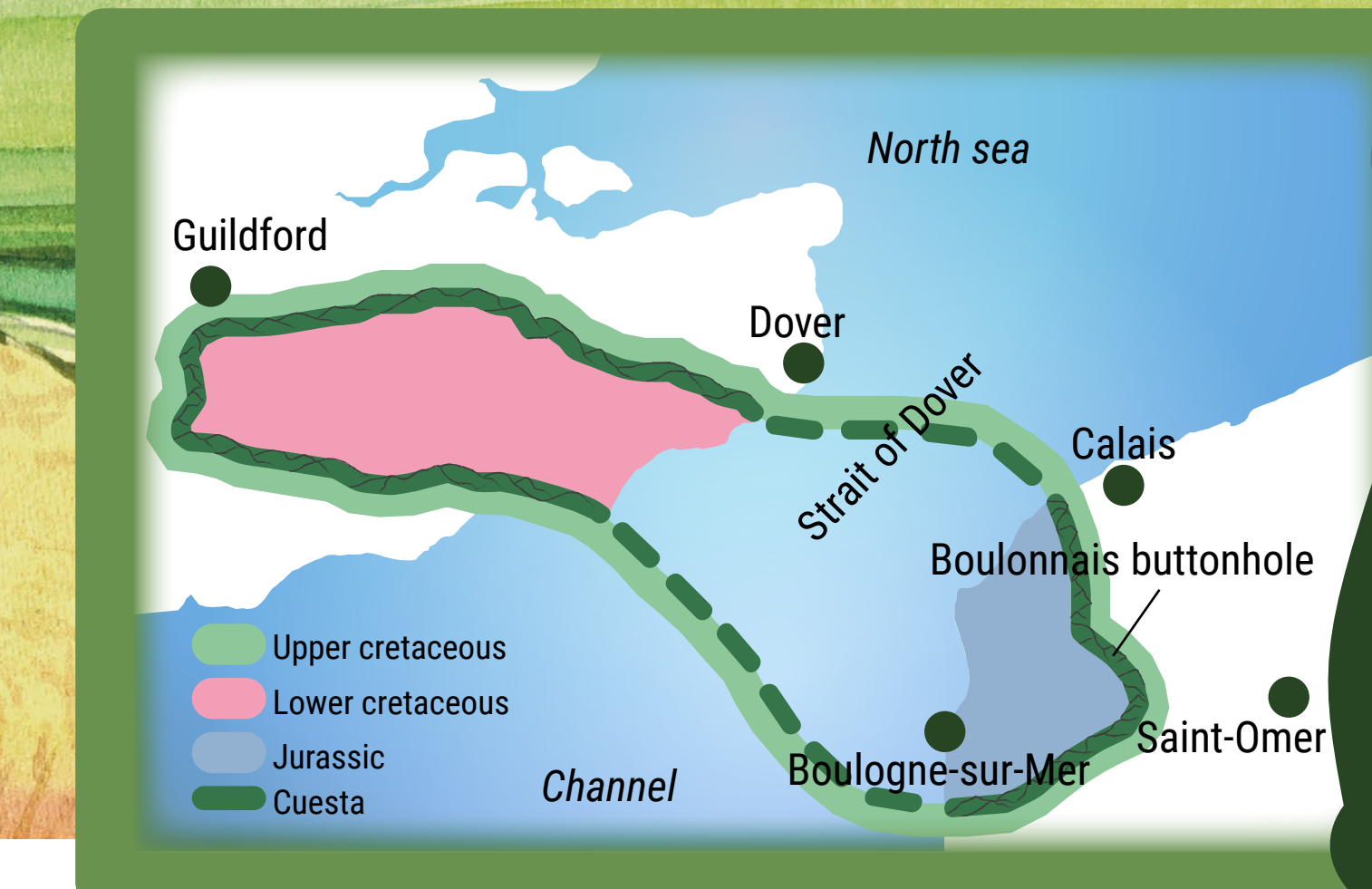
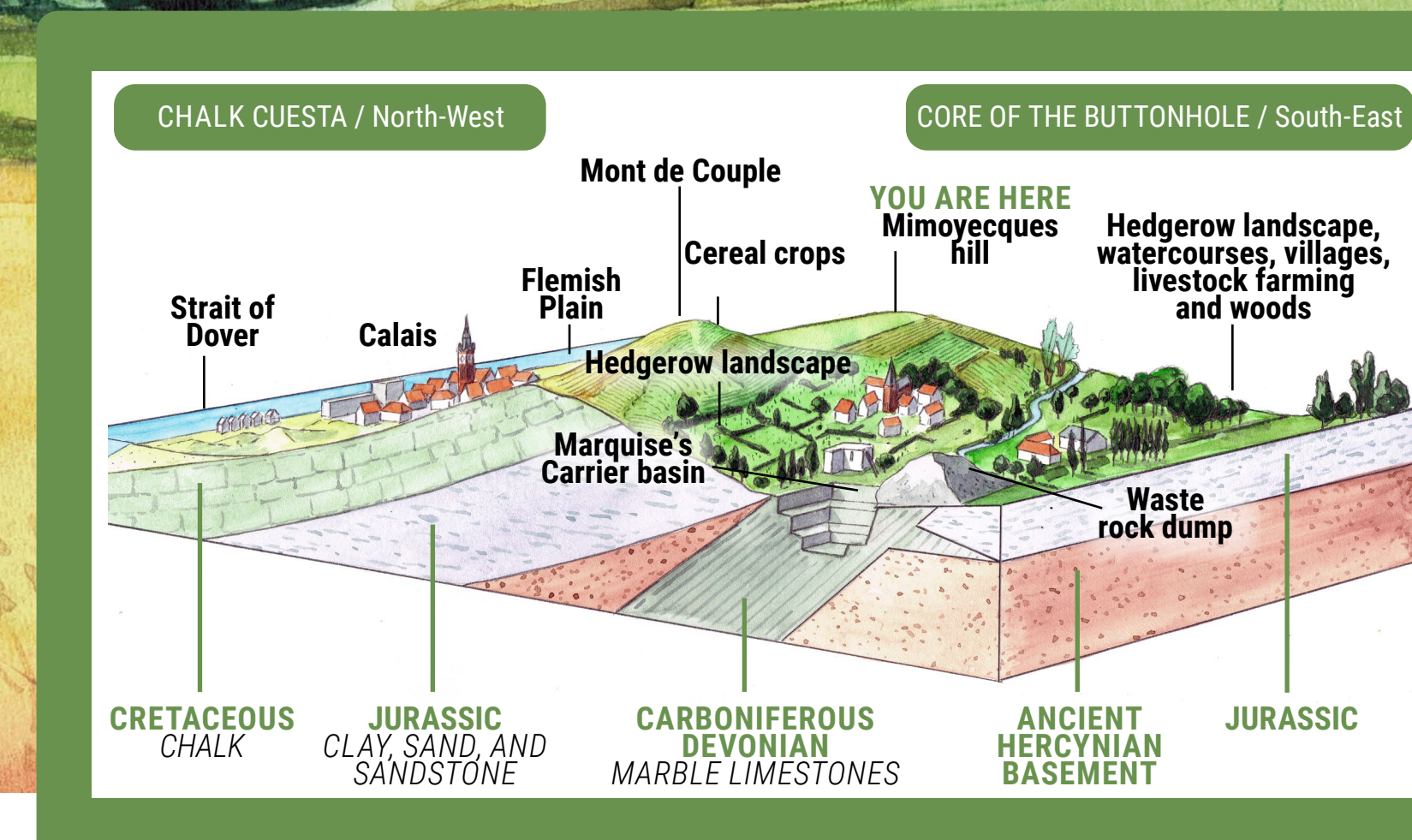
Is a white, porous (permeable), relatively soft, and crumbly limestone rock. It is primarily formed by the accumulation, over millions of years, of shell fragments from microscopic plankton called coccoliths on the seabed. Chalk also contains numerous fossils, including ammonites, sea urchins, brachiopods, molluscs, and more.

Cuesta *

(Spanish for 'slope') is where layers of rock tilt gently upward, creating a natural ridge. Here, this ridge stands above older rock layers that form the heart of the Boulonnais boutonnière.

Buttonhole *

Is like a bowl carved by erosion in the middle of a dome-shaped fold in the Earth's crust. As erosion digs deeper, it reveals ancient rock layers that were hidden below. Around its edges, you'll typically find a cuesta just like we see here in the Boulonnais.

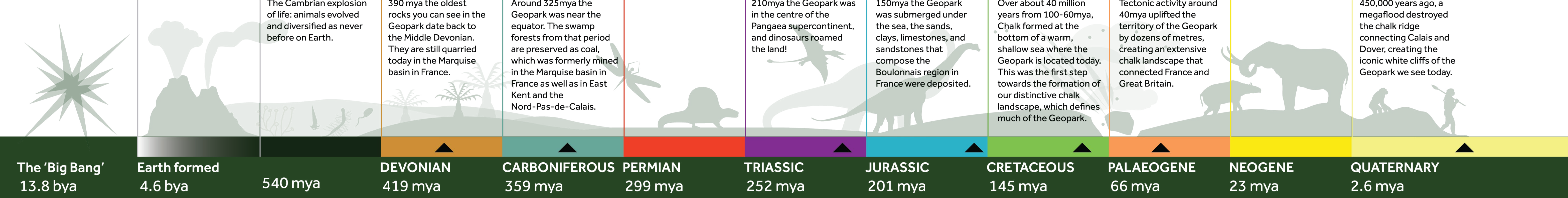


The Boulonnais: a region shaped by its geology !

The Boulonnais region perfectly illustrates the connection between the geology of the subsoil, landforms, landscapes, biodiversity, land use planning, and human activities. Three types of subsoil can be distinguished:

- **Chalky subsoil (Upper Cretaceous)**
= A landscape mainly composed of cereal crops, dry valleys with clustered villages (originally built around deep wells).
- **Subsoil composed of clays, sands, and sandstones, wetter and more or less impermeable (Lower Cretaceous and Jurassic)**
= A landscape featuring hedgerows, livestock pastures, wooded areas, waterways, and scattered farms.
- **Subsoil composed of very ancient marble-like limestone (Carboniferous)**
= Quarrying activities in the Marquise stone extraction basin.

This is a Cross-Channel Geopark Geosite



The Chalk hills of the Mimoyecques Fortress, along with the fortress itself, form a remarkable geological site. This location is designated as a «geosite» within the Cross-Channel Geopark Transmanche, an initiative led by the Caps et Marais d'Opale Regional Nature Park (France) and the Kent Downs National Landscape (England), aiming to promote and gain UNESCO recognition for the region's geological heritage.



To visit or learn more about the Mimoyecques fortress : www.mimoyecques.fr

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