

## The Dunnottar Conglomerates

Dunnottar Castle is built upon cliffs of Conglomerate or "puddingstone". These rocks are sedimentary rocks laid down by large braided rivers which were energetic enough to transport some large stones (clasts) from their original source. They were eventually deposited by the river on large braid bars, along with finer sand material, at about 410 million years ago.

With the passage of time, these deposits became buried and consolidated into the rock we see today. There are a great variety of clasts in the conglomerate from many sources e.g. fold mountains, volcanoes, and even deep ocean rocks which have emerged during continental collision. All of these clasts are older, some dating back to 600 million years or so.



It can be seen that the conglomerates are no longer horizontally lying, as they would have been at time of deposition. Now they are almost vertically lying, because they have been folded as part of the Strathmore Syncline, a giant U-shaped fold running SW from the Kincardine Coast along Strathmore. The Dunnottar rocks form part of one steep side of this syncline. This folding took place about 390 million years ago.

