

Eskers

Eisclair Riada, running from Kilmainham in Dublin to Clonmacnoise in Westmeath

Eskers are **long, narrow winding ridges** of alternately sorted material comprised of **boulders and clay** found in **lowland** areas. They are formed by **fluvio-glacial deposition**. Eskers formed when **tunnels** developed under an advancing ice sheet. This tunnel probably arose in response to the presence of an obstacle to the advancing ice which then burrowed the tunnel under the ice sheet. As there was air in the tunnel, melting occurred and vast volumes of melt water flowed in the tunnel. Boulders, rocks and clay buried in the ice gradually melted through it, or were washed out with melt water and entered the tunnel. This material was then washed out of the tunnel by the flowing **meltwater**. Overtime, the huge quantities of material choked the exit of the tunnel. Meltwater built up in the tunnel but did not flow. This caused **deposition**. During summer, thicker layer of material were deposited whereas in winter, thinner layers were deposited. As the glacier retreated towards the end of the ice age, a winding ridge of material about 10 metres high was revealed. This is an esker. The word esker is derived from the Irish word 'eiscar'.