

U. SHORES

Field Note U8c4. Arniston shores – Geomorphological features - Karst pipes



Karst pipes near Arniston.

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The formation of karst pipes was discussed in Chapter E. Karst pipes occur within the Waenhuiskrans Formations, and present on all Arniston Shores. The pipes start to form as small potholes on the top of the calcrete layer, which encrusts the formation (Figure 1).



Figure 1. Top and bottom – the initial stage of karst pipes – little dissolution potholes (on Arniston South Shore).

The dissolved material is harder than the surrounding calcrete. When the latter is eroded, the pipe tops protrude the calcrete crust (Figures 2 and 3).



Figure 2. Top and bottom – the tops of the pipes protrude the calcrete layer (on Arniston East Shore).



Figure 3. Pipe tops, protruding partly eroded (top) and wholly eroded (bottom) calcrete layer, on Arniston North Shore.

Where the calcrete layer is broken, hollow pipes are exposed (Figures 4 and 5).



Figure 4. Exposed broken pipes. Top – on the South Shore; bottom – on the North Shore.



Figure 5. Top and bottom - exposed pipes on the North Shore.

Where the Waenhuiskrans rocks were less resistant to weathering, the pipes can be seen below the calcrete layer (Figure 6).



Figure 6. Karst pipes below a calcrete layer (on the North Shore). The yellow box in the top photo indicates the view shown in the bottom photo.

Stalactites

Karst stalactites form at the bottom of the calcrete layer can be seen along the cliffs (Figure 7).



Figure 7. Top and bottom – calcrete ‘stalactites’ at the bottom of the calcrete layer along the Arniston cliffs.