



Figure 13.2 Igneous intrusions

1. Name the intrusions marked A, D, E, F and G in Figure 13.2.
2. Name the landform features marked B and C in Figure 13.2.
3. Name the homoclinal ridges marked H and I.
4. What evidence is there in Figure 13.2 to suggest that sandstone is more resistant to erosion than shale?
5. Would it be correct to say that the igneous intrusions occurred after the sedimentary rocks were formed? Give a reason for your answer.
6. What influence would this landscape have on the settlements and farming in the area?

Check your answers against those given by your teacher, making corrections where necessary.

Characteristics and processes associated with the development of granite domes and tors

Granite, when exposed on the surface of the Earth, forms two distinctive types of landform features, namely granite domes and tors.

Granite domes

Granite domes exposed on the surface of the Earth are usually round and smooth. They are also light in colour. Granite domes are the exposed parts of a much larger and deeper lying batholith. Figure 13.2 shows the extent of the batholith that forms Paarl Mountain and extends as far as Cape Town and Stellenbosch.

When batholiths intrude into the crust they start to cool down. As the granite batholith cools it contracts and results in orthogonal cracks developing (see Photograph 13.5 and 13.6). As the overlying layers of rocks are removed by weathering and erosion the pressure exerted on the batholith becomes less. This results in the crystal layers of the batholith expanding over time. Expansion joints develop where