

D. DURICRUSTS

Field Note D4a1. Pedogenic silcretes – A. Occurrences (outcrops) – Overview



Silcrete outcrop.

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Introduction

Pedogenic silcrete has many varieties and habits. The author prefers the term occurrences over outcrops, as silcrete rocks (as other pedocretes) are not 'cropping out'. They are, as will be shown in this chapter, on top of any previous rocks, of all types. In the Study Area silcrete occurrences can be basically grouped as follows:

- a. Crust – a continuous silcrete layer on hill tops.
- b. Boulders – individual silcrete rocks of various sizes.
- c. Protrusions – rising high above their surroundings. They include silcrete castles and silicified shale castles.

Crust

The silcrete crust was formed within or on a weathering profile, on an ancient peneplain (or several erosion plains). Capped elevations are remnants of that crust. They are solid, flat and in most cases sloping to the north or northeast. They exhibit many habits and textures and vary in thickness from location to location (Figures 1 to 3).



Figure 1. Silcrete crust profile.



Figure 2. Top and bottom: silcrete crust surface.



Figure 3. Top and bottom: silcrete crust rim.

The many habits and textures of silcrete crust are described in the following Field notes.

Boulders

Pedogenic silcrete boulders were formed as individual rocks (they are not weathered pieces of the disintegrating crust). The boulders occur on hilltops and on hillslopes, have different shapes and range in size up to 3x3 m (Figures 4 and 5).



Figure 4. Top and bottom: hilltop silcrete boulders.



Figure 5. Top and bottom: hillslope silcrete boulders.

The many occurrences and habits of silcrete boulders are described in the following Field notes.

Castles

Castles are silcrete protrusions, which emerge out of hillcrests or hillslopes. Some of them are quite spectacular (Figures 6 and 7). They constitute the least abundant silcrete occurrences in the Study Area.



Figure 6. Top and bottom: hillcrest silcrete castles.



Figure 7. Top and bottom: hillslope silcrete castles.

There are many silicified shale protrusions in the Study Area (Figure 8).



Figure 8. Silicified shale castles. Top – hillcrest; bottom – hillslope.

The silcrete castles and silicified shale castles are described in the following Field Notes.