The view from above: A history of land use in Guquka and Koloni, 1938-1996

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Introduction

This chapter explores how the two villages of Guquka and Koloni and their surrounding landscapes have changed physically over time, principally as revealed in two series of aerial photographs but also by integrating and comparing what we learn from those images with other sources of historical information. Our goal was to see how land use practices had changed in each of the three major categories of land: residential, arable and rangeland. We obtained all aerial photos for the two villages that were available from the Directorate of Surveys and Mapping in Cape Town. For Guquka, these were 1938, 1949, 1963, 1985 and 1996. Aerial photos for Koloni were for 1939, 1963, 1985, 1992, 1995 and 1996. The dates of photography were known only for some of the more recent, as follows: Guquka: 3 May, 1985, and 5 April 1996. Koloni: 6 June, 1985; 14 July, 1992, and 5 April, 1996. All these images covered at least the residential areas of their respective communities, but breadth of coverage varied greatly. The 1938/1939 photo coverages extended only short distances beyond the residential areas. Photos also varied considerably in their resolution. All photos were digitised for analysis and geo-referencing in GIS databases. We used both ESRI Arcview 3.2™ and Microimages™. Microimages Edit Professional soft-
Processes of erosion and land degradation are frequently factors that influence livelihoods in rural communities and restrict options for sustainable development. Because of the nature of the terrain and soil types in and around Guquka it was early apparent that these processes were playing a particularly significant role there. Murray (1952) and Story (1952) were among several who described severe erosion problems in the area of the Amatola Mountains and Keiskamma River watershed. Following the Tomlinson Commission Report (chapter 2), Betterment Planning was introduced and implemented from the 1940s onwards in an effort to prevent natural resource degradation in the so-called ‘native reserves’. Repairing the effects of soil erosion and preventing further loss of capability for crop production was a major focus of Betterment Planning activities. However, for Guquka in particular, the surveys done by Hill, Kaplan, Scott & Partners 1977 for the then Ciskei government indicated that erosion problems continued.

Thus, a study was initiated by Mupakati (2005) to determine the location and sources of erosion in the area with special reference to gully erosion. This special analysis for Guquka was also based primarily on the existing aerial photos and is reported below. Five sample areas, or zones, within the existing imagery were established to measure erosion. These were laid out at varying distances from the Guquka residential area in the arable fields and communal rangelands. In addition, households in Guquka and surrounding communities were surveyed to obtain information on their perceptions of the erosion and historical causes. The purpose was to look at the reciprocal relationship between land use practices and erosion phenomena. That is, land use practices influences erosion patterns, and rates and location of erosion in turn may influence land use decisions.

Guquka

The general setting and topography of Guquka have been described in chapters 3 and 4. At the most basic level, land use zones in the community are: Residential, arable allotments and communal rangelands. These three categories and their current approximate extents are shown in Table 4.1 (chapter 4). It is also important to emphasize again that the people of Guquka have always had access in varying degrees to a variety of forested and mountain areas beyond the ill-defined boundaries of their own communal rangelands. These elements of the landscape have been described briefly in chapter 4.

Because the initial 1938 aerial photo coverage (Photo 7.1) is limited mostly to the residential area and only part of the arable allotments are visible little can be said about the extent or conditions of the grazing allotments at that time.