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## SITE ANALYSIS

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BOLT'S FARM



Fig 1.1  
*Eucomis autumnalis*



Fig 1.4  
*Gladeolus permeabilis*



Fig 1.2  
*Eucomis autumnalis*



Fig 1.5  
*Brachystelma barberiae*



Fig 1.3  
*Hibiscus microcarpus*



Fig 1.6  
*Hermannia depressa*



▲  
FIGURE 4.1  
USEFUL FLORA OF BOLT'S FARM  
(Author, 2016)

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## BOLT'S FARM

### SITE ANALYSIS

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The site is analysed as a series of networks, seeking out the boundaries and their overlaps in order to identify the uniqueness of place in the Cradle area. The site is analysed within the context of Bolt's Farm, taking into account the historical, economic, and social layers of the landscape. The bio-diverse and thriving habitats found on site are mapped, together with the existing activities, and threats to the landscape. These maps are then overlaid in order to identify the areas on site with the highest energy, thus seeking out the areas on site with the most potential to connect with and build upon.

#### 4.1 HABITATS

Bolt's Farm and surrounding areas is home to a number of interesting plant species, including a large variety of orchids and bulbous geophytes. Together with these beautiful plants species, a large variety of useful plant species are found on site (Annexure C), and are collected by the local communities, as either edible or medicinal plants. These plant species include the *Brachystelma barberiae*, commonly known as the Platvoetaasblom (Krige 2016). The roots of this plant is known to be eaten when food is in short supply, and is used by traditional healers to treat headache, stomach ache and colds in children.

The flora of the site not only attracts human users, but also attracts many animal and insect species. Other than creating a biodiverse habitat for the surface dwelling and growing fauna and flora, the landscape also hosts a unique and hidden habitat found in the caves and openings of the karst system.

These habitats, both on the surface and hidden in the landscape, were mapped through desktop studies, as well as observation, through a site visit, as indicated in green (Fig. 4.3).

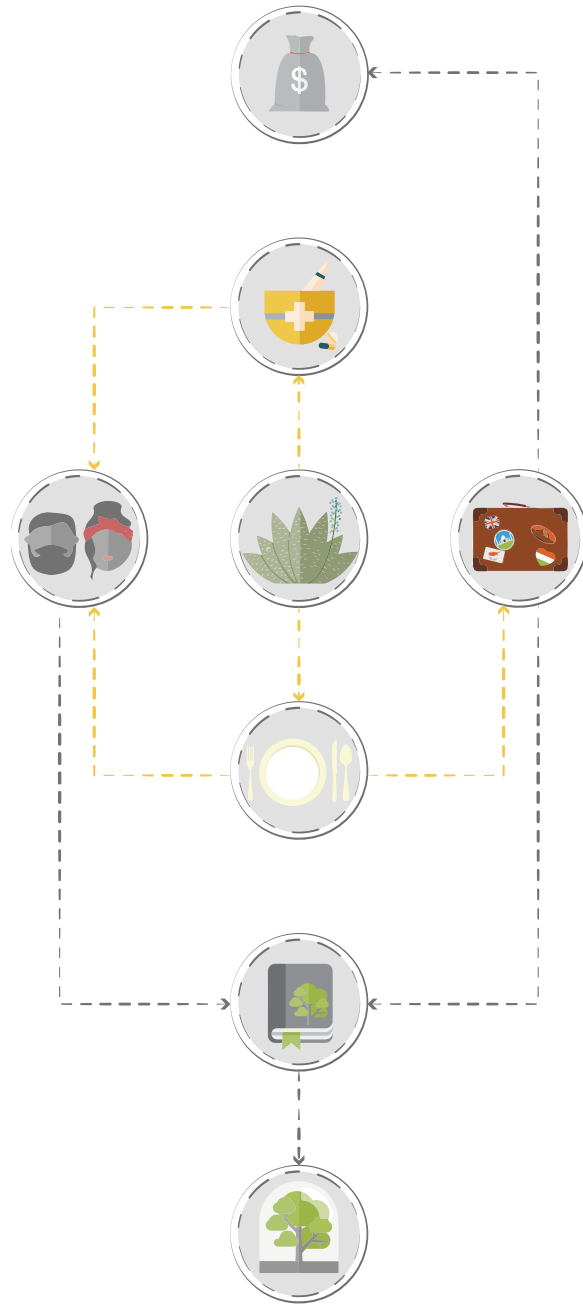
#### 4.2 ACTIVITIES

At first glance, Bolt's Farm seems almost sedentary. Bolt's Farm, however, brings together a multitude of activities, each drawn from a different layer of the landscape. Bolt's Farm is most well-known for the fossiliferous discoveries located across the site, with a few active digs, located to the South of the site, continuing to this day. Other research and educational activities include geological research, with student training located in the Quarry, hydrological research along the Riet Spruit edge, and zoological research focused on the Chiroptera species.

Other activities on and around Bolt's Farm include dairy and cut flower farming, foraging for building materials and edible plants, and informal dwellings (Fig 4.5).

#### 4.3 HYDROLOGICAL VULNERABILITY

The Hydrological Vulnerability of the site is determined through large scale research by Kai Witthüser (2016), together with on-site evaluation and speculation by the South African Karst Working Group (2010). The hydrological vulnerability of the site determines the areas on site which is fragile for development, as well as the areas on site needing protection (Fig 4.7).



▲  
FIGURE 4.2  
USES OF FLORA OF BOLT'S FARM  
(Author, 2016)



▲ FIGURE 4.3  
HABITATS  
(Author , 2016)



▲  
FIGURE 4.4  
STERKFONTein DIARY  
(Author, 2016)



▲ FIGURE 4.5  
ACTIVITIES  
(Author , 2016)



▲  
FIGURE 4.6  
CAVE OPENINGS IN THE QUARRY WALL  
(Author, 2016)





▲ FIGURE 4.7  
HYDROLOGICAL VULNERABILITY  
(Author , 2016)



▲  
FIGURE 4.8  
SUCCULENTS IN QUARRY  
(Author, 2016)



▲ FIGURE 4.9  
ENERGY  
(Author , 2016)

