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Photo 3: www.ksb.co.za



Photo 2: D. Wunderlich

Baselíne



Photo 4: D. Wunderlich



Photo 5: D. Wunderlich



Photo 6: D. Wunderlich

Site within its local context

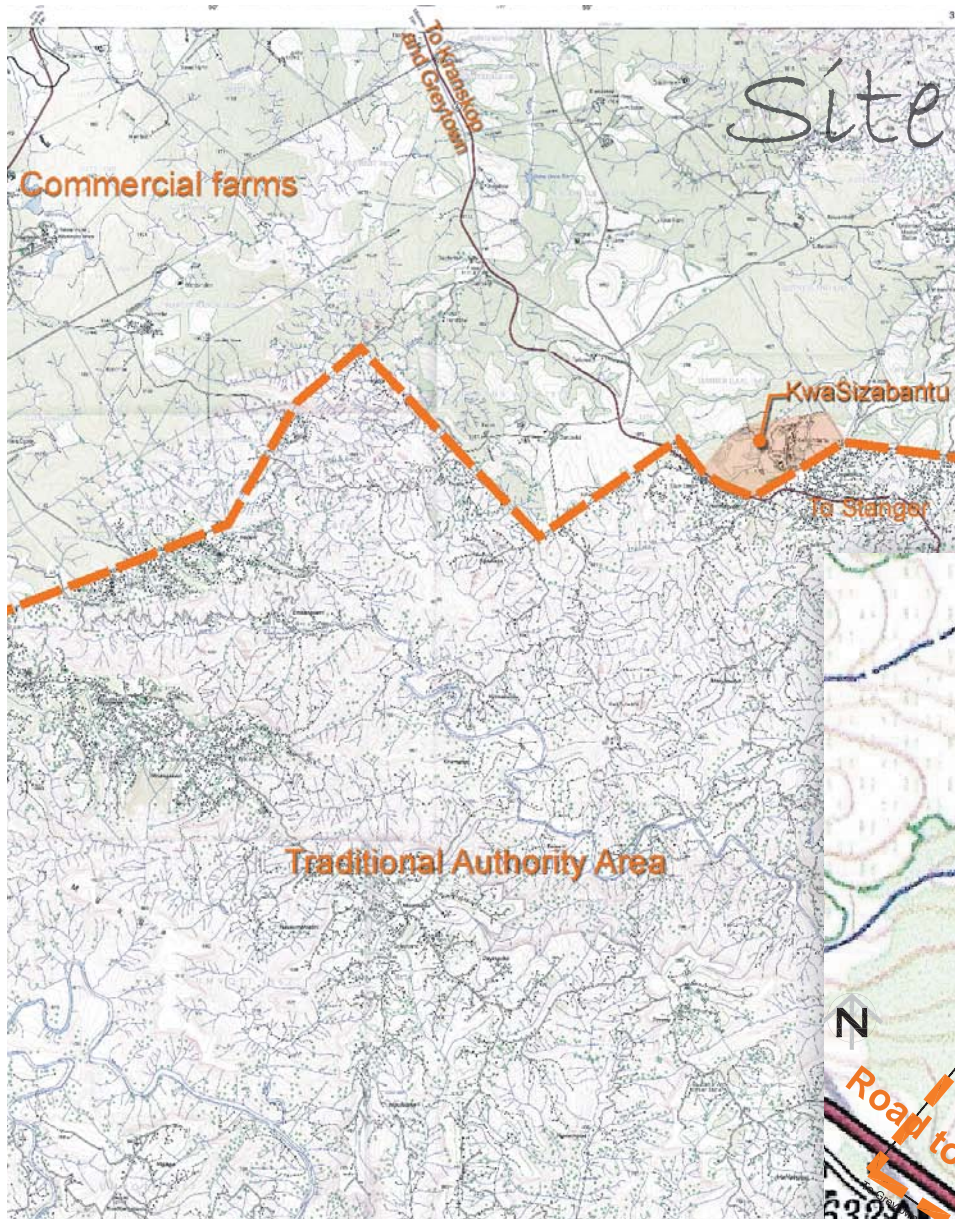
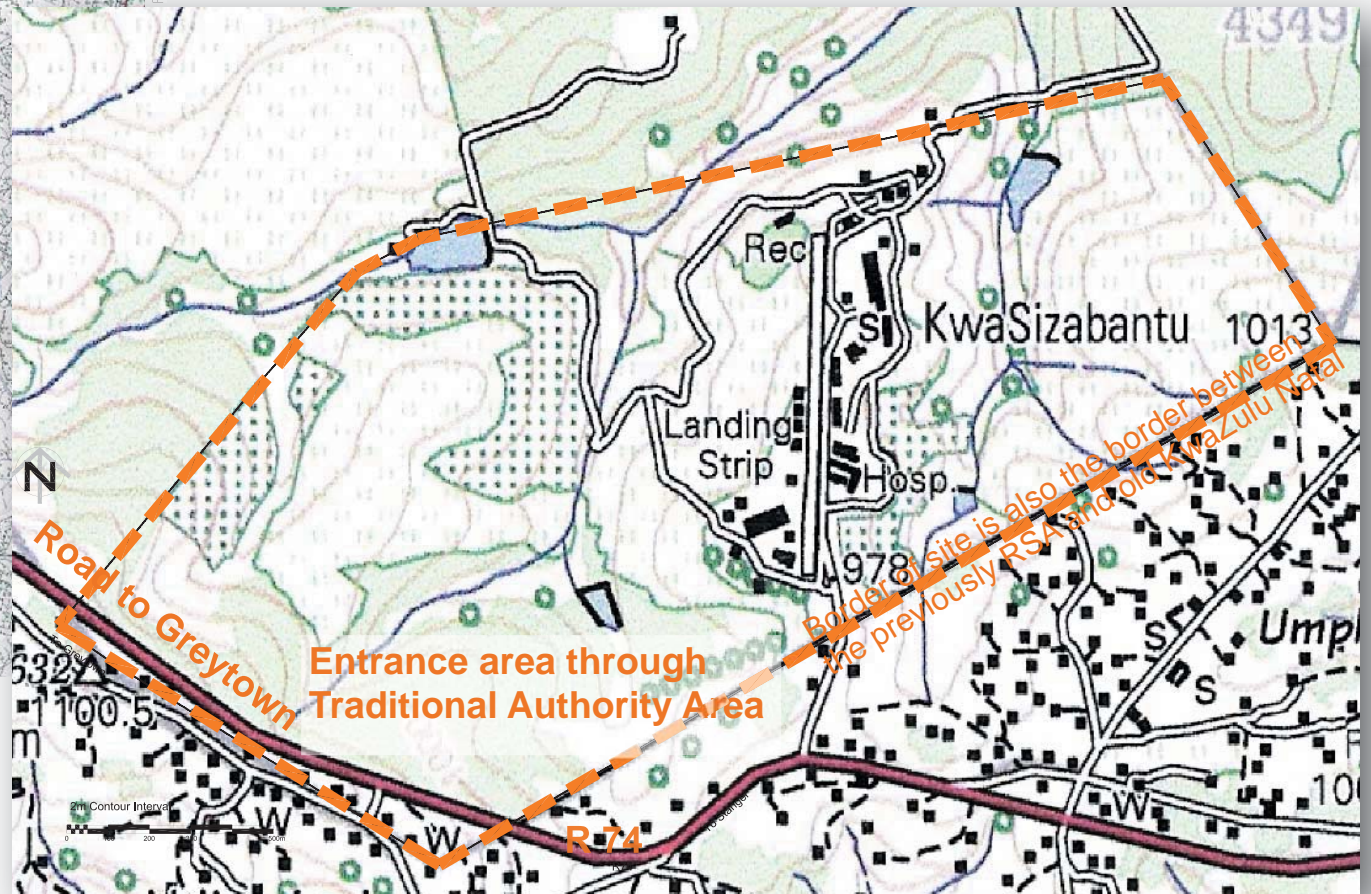


Fig 1. Government Press



The Traditional Authority Area is characterised by scattered households, high poverty rate and poor infrastructure.

Analysis

The analysis is about the production of site knowledge (Kahn 1995: 199) to determine the possibilities and constraints of the project, not only for future development, but also for the sustainable existence or establishment of natural systems. It relates to the existing development within its social, natural and economic context, and explores what it must become.

Climate:

Temperature:

Due to its altitude and distance from coast, the seasonal and diurnal temperature shows frequent fluctuations:

1. The average daily maximum in January is 27°C, in July 19°C, and extremes of 30°C to 40°C that can be reached during the summer; and
2. The average daily minimum in January is 15°C, 3°C in July, and extremes of 3°C to -10°C during summer and winter.

Wind:

Winds are mainly southerly and northerly to north-westerly, the latter often very strong, especially in August (Schulze 1982: 319).

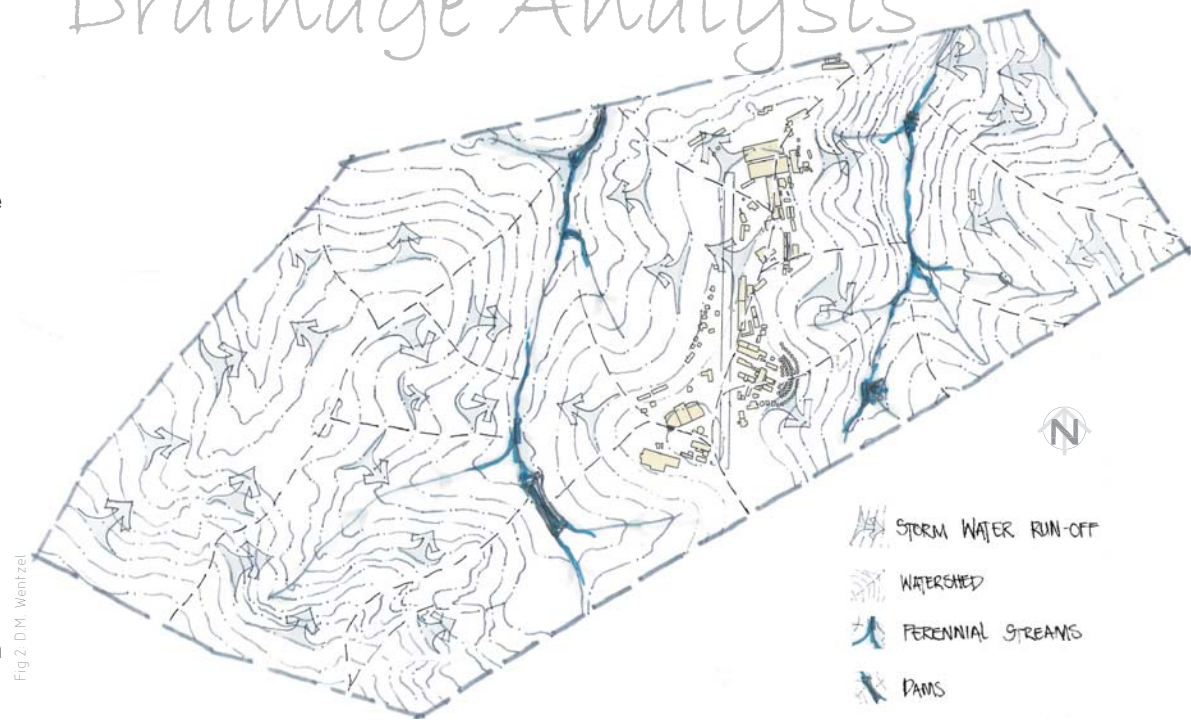
Rainfall:

Rainfall ranges between 900-1200mm per year and occurs mostly in summer from November to March. The rainfall is largely of the thunderstorm type, sometimes of great intensity, with anything between sixty to ninety thunderstorms experienced per annum (Schulze 1982: 319).

Hail occurs relatively frequently and there can be quite severe storms, causing a large amount of damage to structures such as hothouses. The high humidity and rainfall results in the corrosion of metals and rotting of wood. Water is easily accessible for animals and plants, but is also ideal for fungi, viruses and other pathogens. Care must be taken with storm water to

keep the surfaces as dry as possible and to reduce the erosive impact of storm-water runoff.

Drainage Analysis



Mist: a regular sight for the local people.



Storm water is a great problem, causing severe degrading of the roads.



During one of the hail storms.



Hail damage to the tunnels.



A thunderstorm.



Some of the results of poor drainage from the roads.



Some of the results of poor drainage from the roads.

Photo 14: D.M Wentzel



Alien vegetation invaded all of the existing natural areas of the site; above left: wattles; above right: the well known buck wheat invader.

Photo 15: D.M Wentzel



Vegetation

Kwasizabantu falls within the "Short Mist Belt Grassland" biome, with grass species such as *Themeda triandra*, *Nonocymbium cerasiiforme*, *Eragrostis racemosa* etc. Large areas of this Grassland biome have been disturbed by intensive agriculture.

The area is poorly conserved (only 2.37%) and large areas have been invaded by exotics such as Black Wattle (*Acacia meamsii*) and Silver Wattle (*Acacia dealbata*).

According to the GIS maps of Enpat, Kwasizabantu falls in the KZN Sandstone Inland Sourveld.



Fig 3: Enpat



Photo 16: D.M Wentzel

Alien species growing in valley.



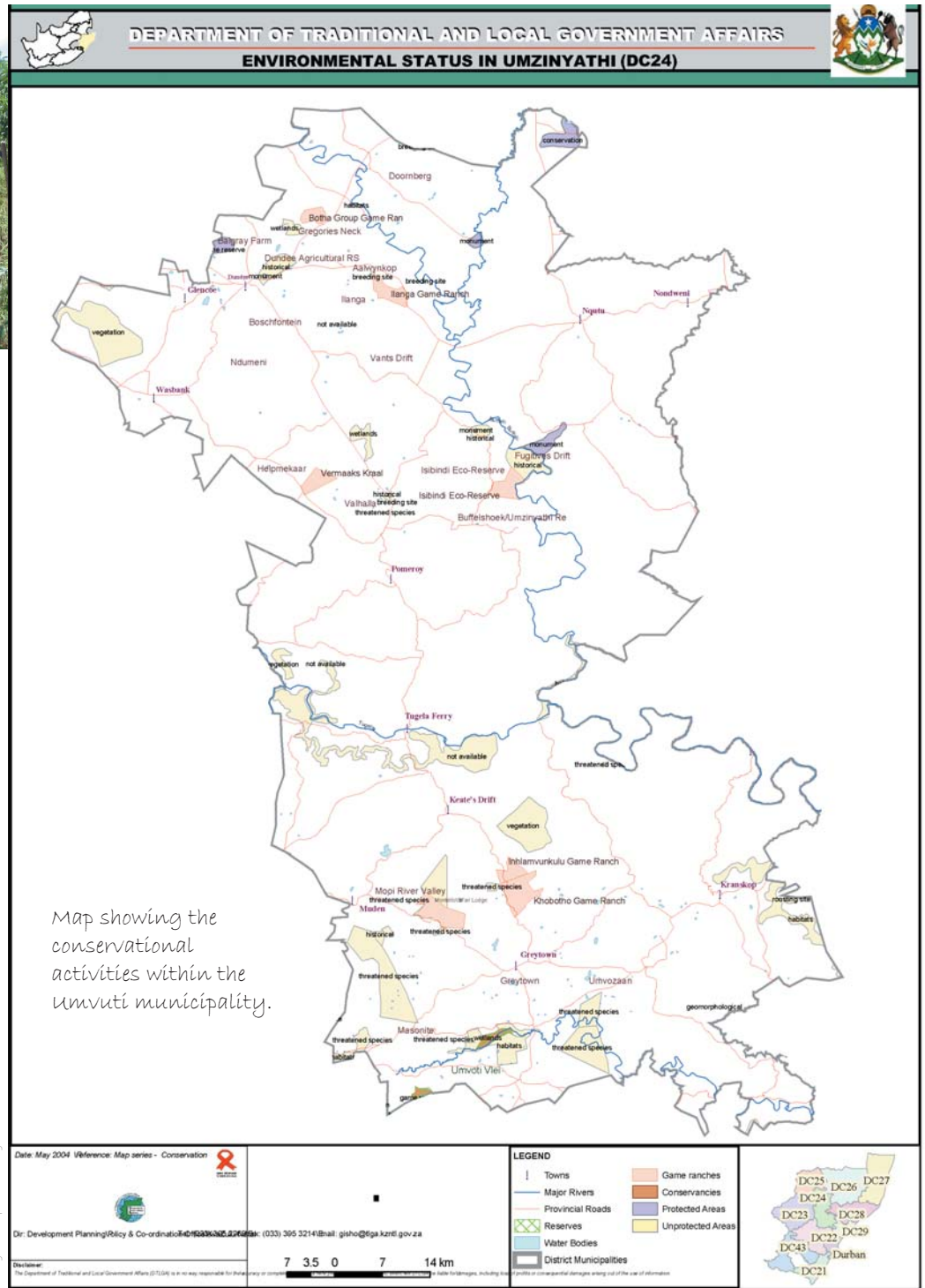
Photo 17: D.M Wentzel

Bramble bush growing in the valleys of the site, close to perennial streams.



Photo 18: D.M Wentzel

More bramble bush.



Map showing the conservational activities within the Umvoti municipality.

Fig 4: depplan.kznrti.gov.za

Vegetation Zones



One of the many beautiful tree ferns that grow in the valleys around the

Photo 19: D.M. Wentzel



Grassl
AGRICU

Geology and Soil

Geology

Soils are characterised by yellow or red apedal sub-soils, whereas top soils tend to be high in organic matter and free-draining. The high rainfall results in the soils being dystrophic.



Photo 23: D. Wunderlich

Photos of earth works during the construction of residential houses on the site.

Photo 20: D.M Wentzel



Sample of the top layer of soil of the



Photo 21: D. Wunderlich

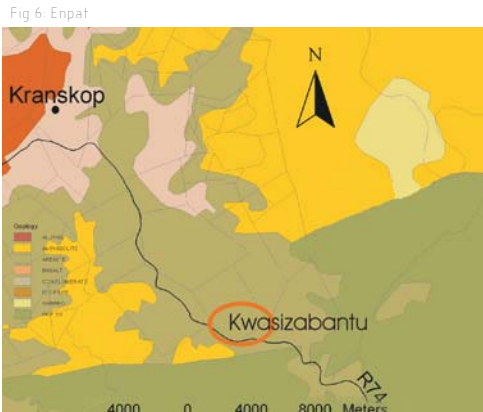
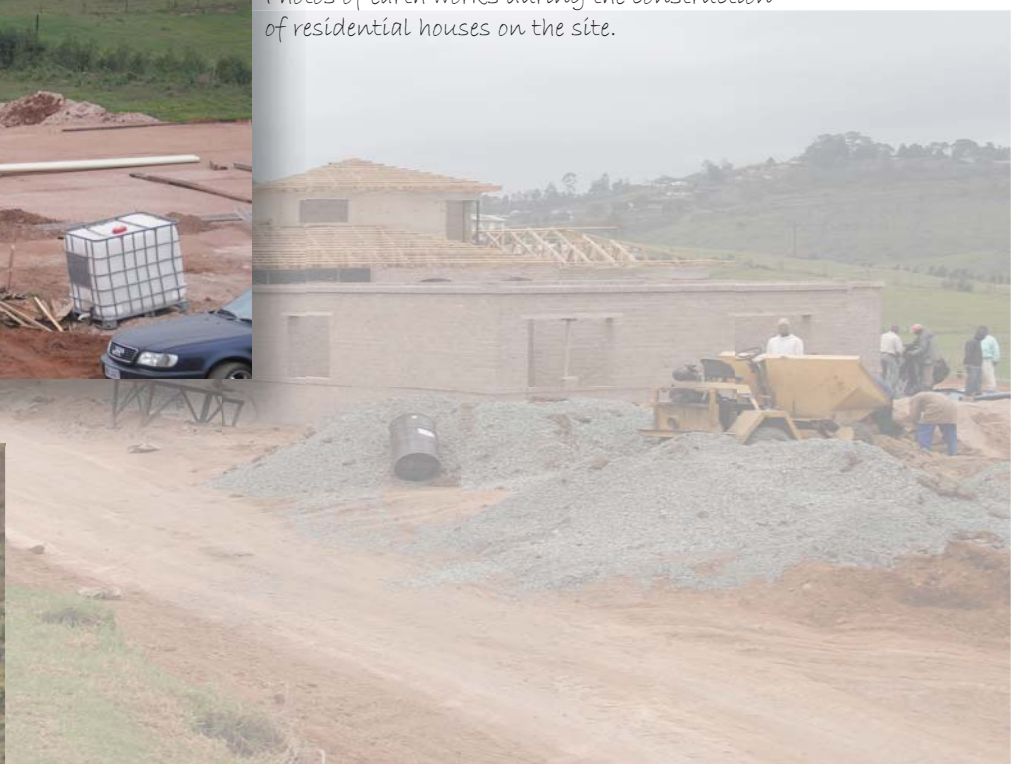


Fig 6: Enpat



Photo 22: D. Wunderlich

Kwasizabantu has its own earthwork machinery.



Slope Analysis

The site is characterised by steep slopes. Although this limits the options of available functions to specific areas, spaces with beautiful views and specific natural characters can be used to enhance the identity of the place. Development can occur mostly on the crest of the middle and western hills of the three hills that lie north to south, relatively parallel to each other on the site. These three hills are embraced and separated by perennial streams that flow north-east. Closer to the streams the slope inclination increases to the point that no development (relative to the cost of construction) can take place.



Fig 6. D.M. Wentzel



Historical development Analysis

The farm Kwazabantu, was bought approximately in 1970 by a group of people, whose aim was to help the people of KwaZulu Natal who were in physical and mental need. They bought the farm for very little, from an Indian man, who decided to sell his piece of the inheritance of the farm, Jammerdaal, due to family conflict. A small building, the only

building on the farm, was converted to the service hall. As the number of visitors increased logarithmically more buildings were erected. The visitors who received spiritual, mental or even physical help changed from receivers of help to givers of help and became part of the team on Kwazabantu. Because of the location of the site, they were forced to provide their own

infrastructural and physical needs. Today they are proactive in job creation and community upliftment, with projects such as Tabitha school for adults, as well as pre-primary, primary, secondary and tertiary education, water bottling, sweet pepper production, avocado exportation and a diary factory (to name a few).

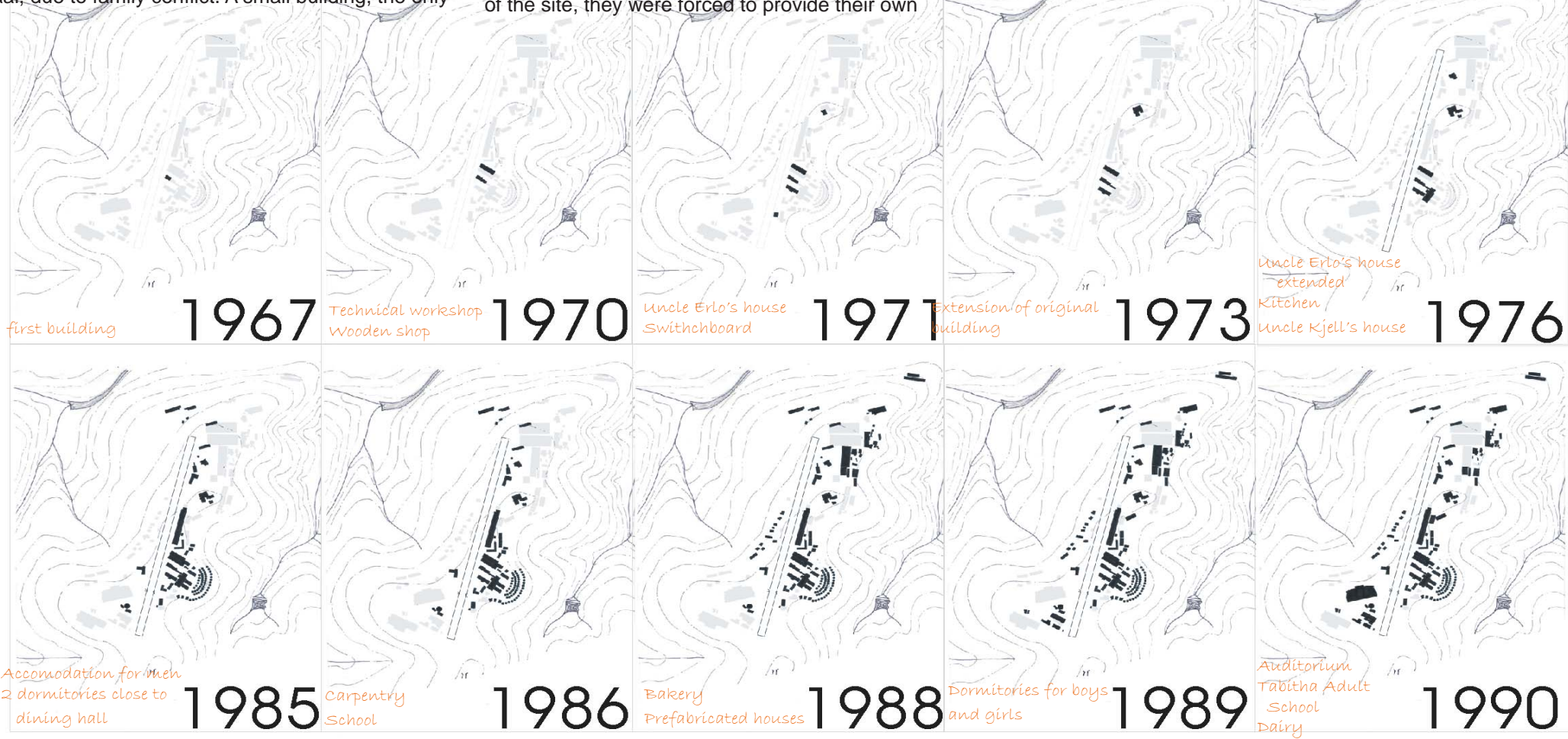


Fig 8 DM Wentzel

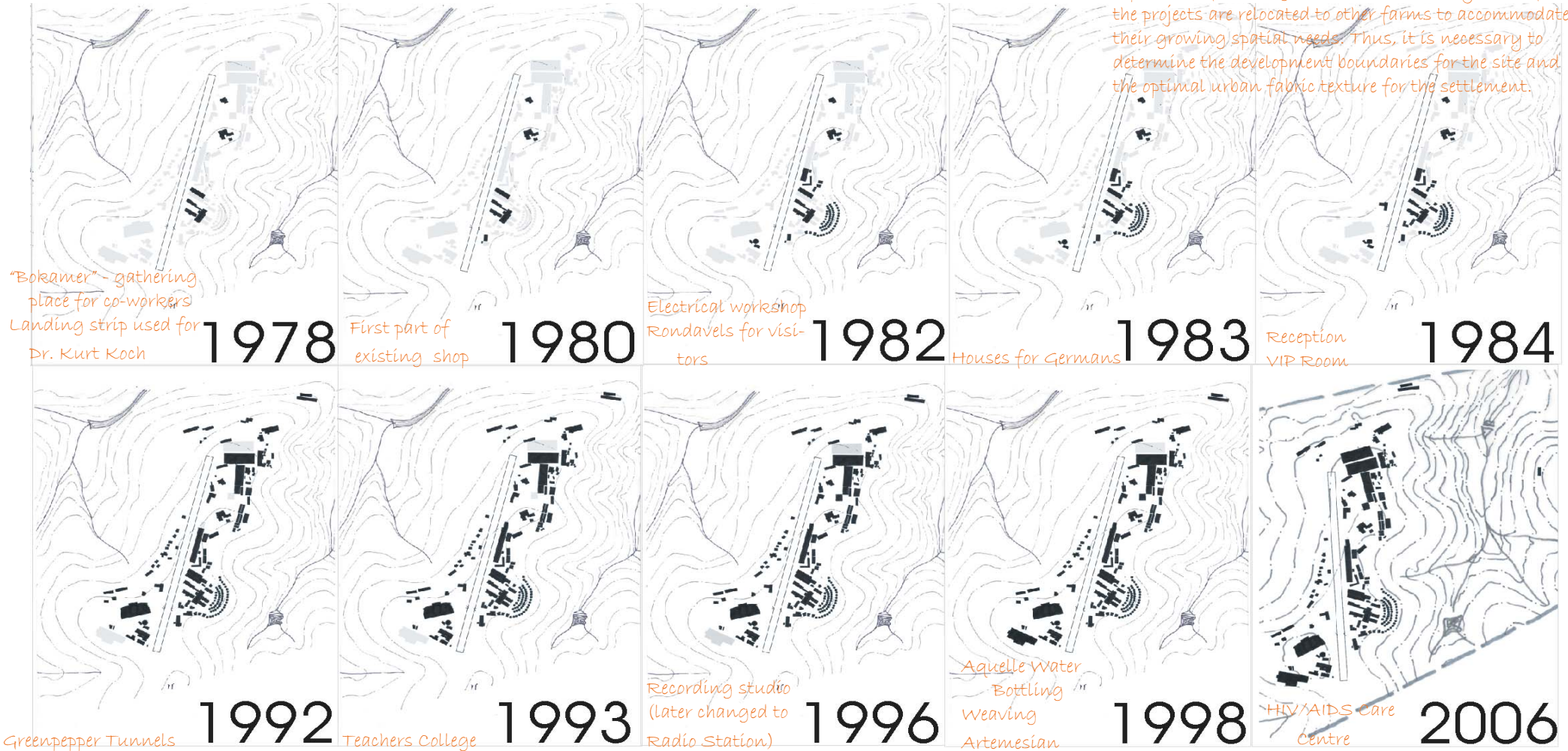
Development rhythm



The buildings were developed mostly on the eastern side of the crest of the hill. Buildings were erected as initiatives as needs arose. No specific planning was done, although there were reasons for the placement and form of the different buildings. Later on, gaps were filled as small projects

arose or as individuals needed accommodation. Thus you will sometimes find projects such as the pasta factory being located just behind the technical workshop, or the pre-primary school building competing for space with the sweet pepper tunnels.

According to the diagram at the bottom of the page, it seems that there is a slight decrease in the rate of development on the mission station. This may be due to the spatial shortages for large-scale structures, or the expansion of existing structures. Currently some of the projects are relocated to other farms to accommodate their growing spatial needs. Thus, it is necessary to determine the development boundaries for the site and the optimal urban fabric texture for the settlement.



Movement analysis

Entrance to site and movement between different ventures or buildings is very difficult for the uninformed visitor. Open spaces are undeveloped and serve merely as the void between the buildings. Defined walkways and a public park are some of the open spaces needed for the creation and establishment of the character of the settlement.

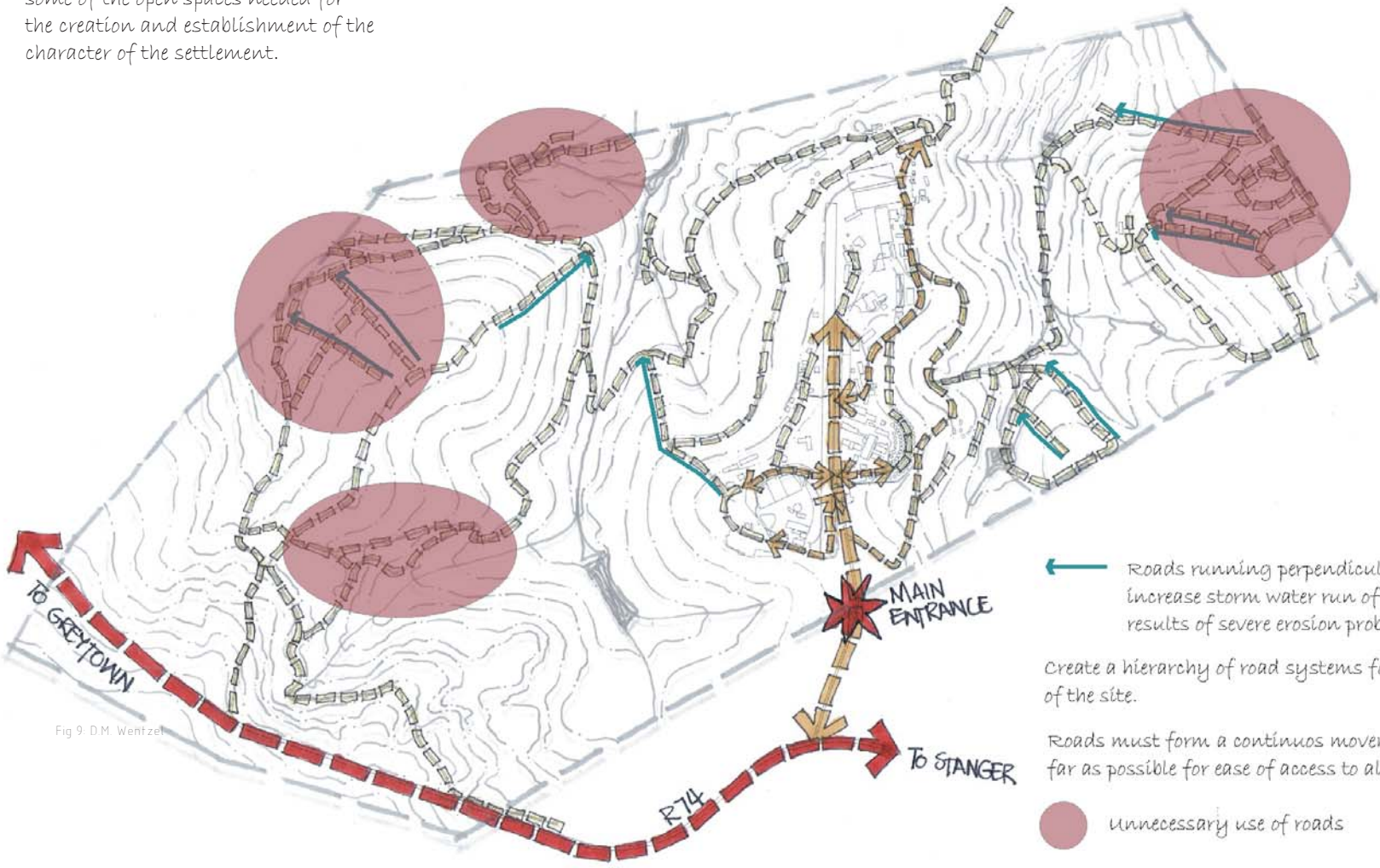


Fig 9. D.M. Wentzel

← Roads running perpendicular to the contours increase storm water run off velocity, with the results of severe erosion problems

Create a hierarchy of road systems for the legibility of the site.

Roads must form a continuous movement network as far as possible for ease of access to all functions

● unnecessary use of roads

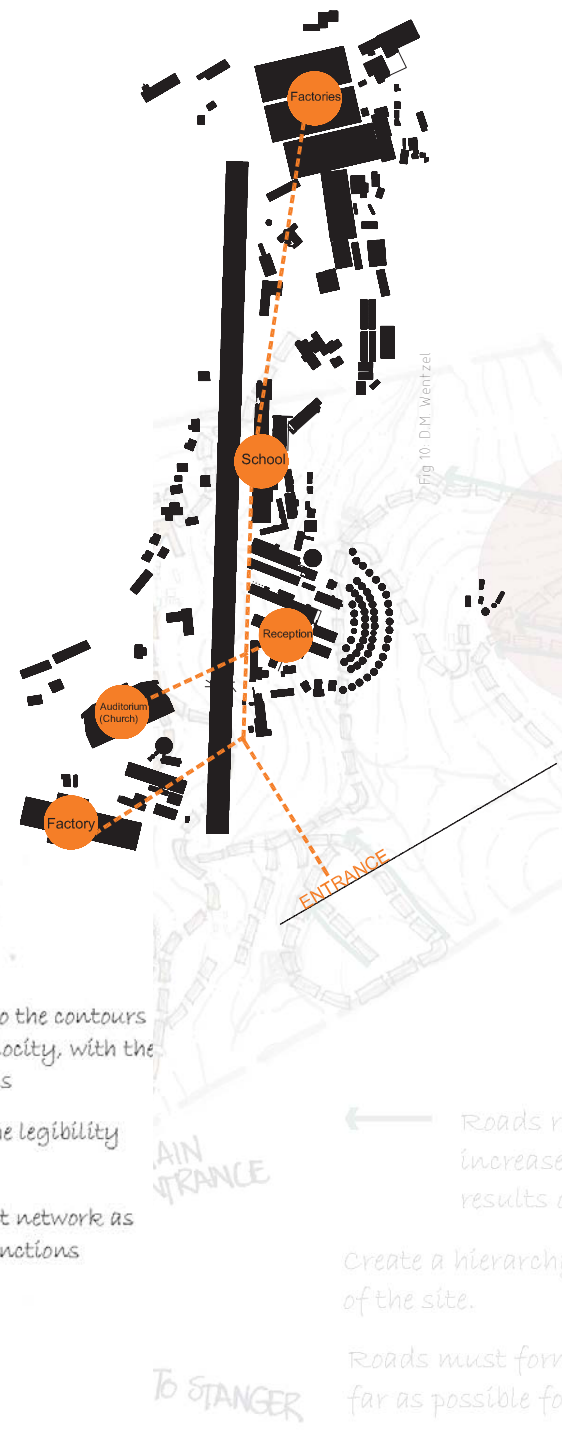


Fig 10. D.M. Wentzel

← Roads running perpendicular to the contours increase storm water run off velocity, with the results of severe erosion problems

Create a hierarchy of road systems for the legibility of the site.

Roads must form a continuous movement network as far as possible for ease of access to all functions

● unnecessary use of roads

Waste analysis



The Existing sewerage system of the mission station



The wetland

Waste produce due to the cleaning of tanks or fruit that does not conform to the grading criteria for exporting are given either to the kitchen or poultry department.

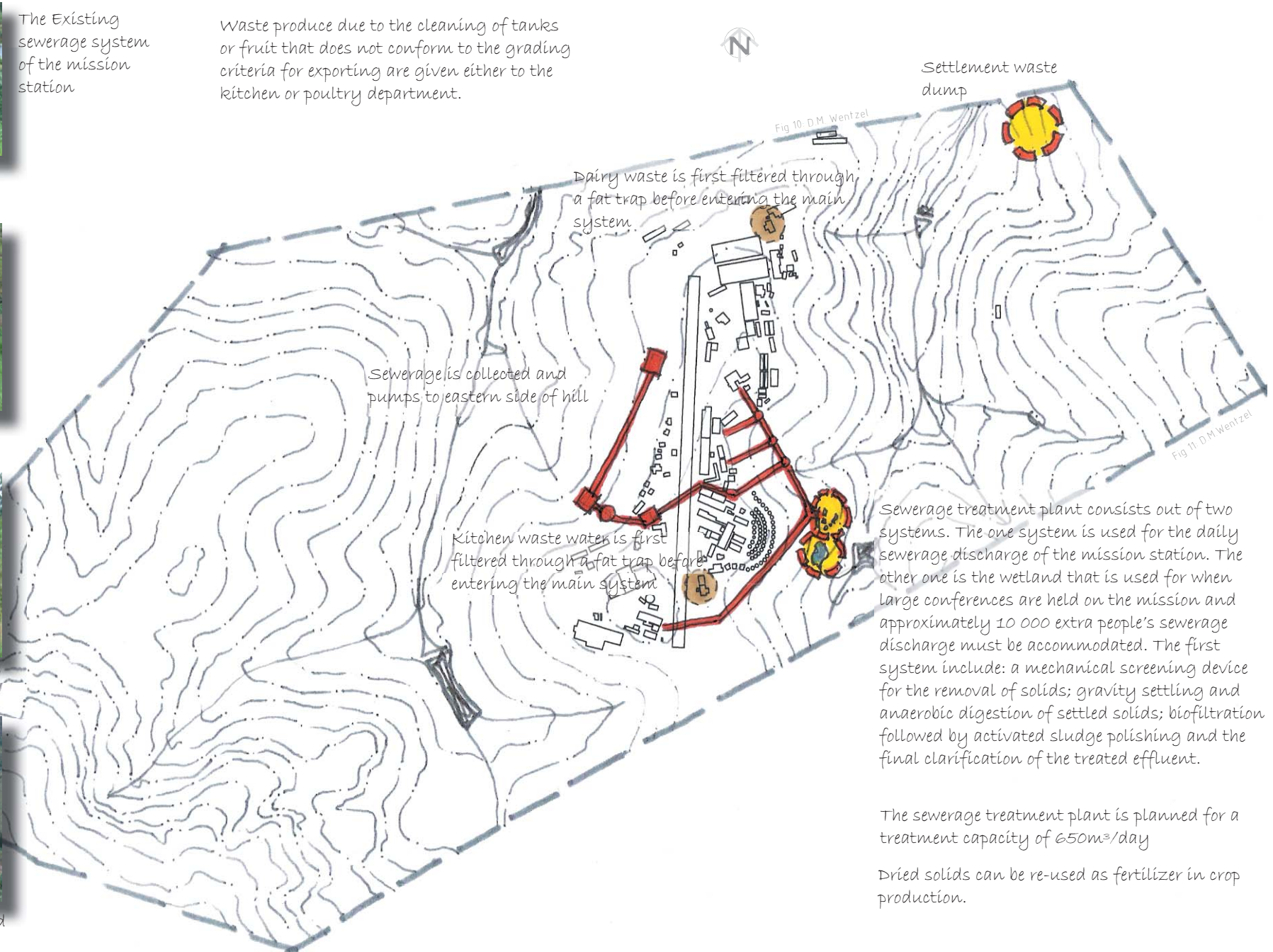


Photo 24: D.M. Wentzel

Photo 25: D.M. Wentzel

Photo 26: D.M. Wentzel

Photo 27: D.M. Wentzel

Land use analysis

According to Ghian du Toit, agricultural specialist at the University of Pretoria, the agricultural practices at the mission station is economically sustainable through the production of a variety of crops and produces. Huss avocado and Artemesian plants are wisely chosen cultivars for the specific climate. In earlier times, the planting of wattle trees were encouraged, but due to the fact that it is an invasive species the wattles should ideally be removed.

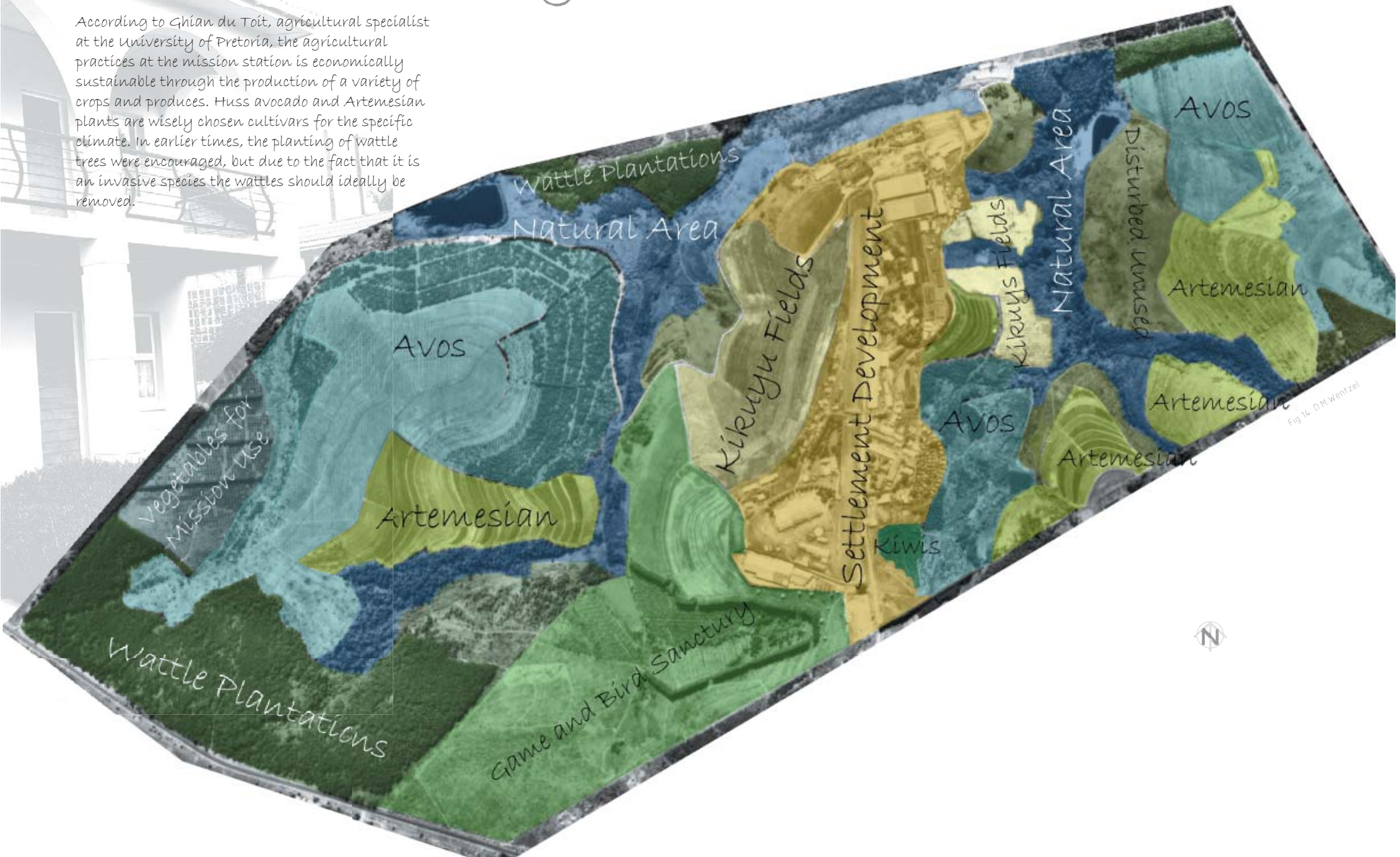


Fig 14. DM Wentzel

The mission station

The administrative organisation of Kwasizabantu is non-profit and non-governmental, while the farm is not very close to any other industries and the people must, therefore, be self-supportive in all aspects, as far as possible. Methods of development and creation of jobs for now and future generations is of utmost importance for the success of this community. Infrastructure is as for a small town. The re-evaluation of the activities, and the buildings and their functions, is crucial, as well as the careful planning of future development.



Photo 28: D. Wunderlich



Open day at the primary school for the parents to come and see.

Photo 29: D. Wunderlich



Assembly for the primary school in the Auditorium.

Photo 30: D. Wunderlich



School athletics

Photo 31: D.M Wentzel



In the Teachers' College library.

Photo 32: D.M Wentzel



Pasta made on the station.

Photo 33: D.M Wentzel



Weaving room.

Photo 34: D. Wunderlich



A play performed by the school children in the Auditorium.

Photo 35: D. Wunderlich



The team responsible for the production of educational videos eg. for HIV/AIDS.

Photo 36: D. Wunderlich



In the recording studio of the radio station, Radio Kwezi.

Photo 37: D. Wunderlich



Residential development on the western slope of the settlement, done by the local people.

Photo 38: D. Wunderlich



Photo 39: D.M Wentzel



A coal boiler for water heating for part of the settlement.

Photo 40: D. Wunderlich



Zebras for the game and bird sanctuary at the western side of the settlement.

Photo 41: D. Wunderlich



Flower nursery for the use of the station.

Current Activities

Photo 42: D.M. Wentzel



Photo 43: D.M. Wentzel



Photo 44: D.M. Wentzel



M. Wentzel



Photo 46: D.M. Wentzel



Photo 47: D.M. Wentzel



Hothouses for the production of green, red- and yellow peppers that are sold to Woolworths, to provide in AIDS orphans' (in the Traditional Authorities Areas) needs with a power meal.

Avocados exported for Halls, to England.

Artemesian, a plant imported from China by an German doctor, have many medicinal qualities. The plants are dried and processed into a herbal tea and malaria pills;

The mission has its own nursery for flowers, trees or any other plant that grows in Natal.

Photo 48: D. Wunderlich



Photo 49: D. Wunderlich



Photo 50: Unknown



Photo 51: Unknown



Photo 52: Unknown



Photo 53: Unknown



The newly erected coffee shop provides many delicacies from Italian pastas to Germany pastries.

The bakery produces bread and pastries for the mission station, the shop and for the surrounding community.

The shop at the entrance of the mission station sells the produce made on the station, as well as products for everyday use.

Photo 54: D.M. Wentzel



Photo 55: D.M. Wentzel



Photo 56: D.M. Wentzel



Photo 57: D.M. Wentzel



Photo 58: D.M. Wentzel



Photo 59: D.M. Wentzel



aQuelle is a very fast growing water-bottling factory, and provides bottled water to many areas even outside South Africa.

Bowlé, the dairy factory, produces juices, as well as yoghurt and maas (a Zulu delicacy).

The sawmill, that processes the wood from the plantations on site as well as from farms in the area.

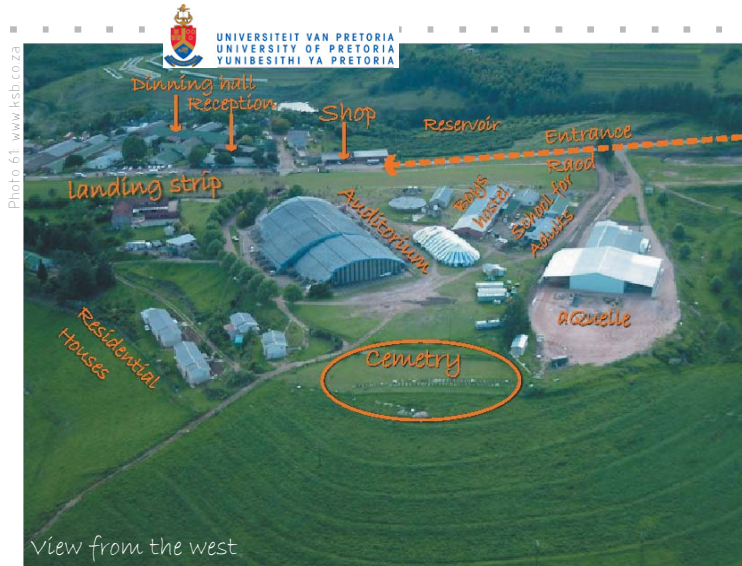
Technical workshop for local repairs and maintenance of equipment.

The carpentry, where all kinds of wooden furniture and trusses are made.

Visual Analysis



View from the north



Auditorium: used for services, school hall or anything that requires a hall.



View from the north: An earlier view of the mission station, before the big tunnels were built at the northern part of the settlement.



View from the eastern side with the rondavels very prominent on the eastern slope.

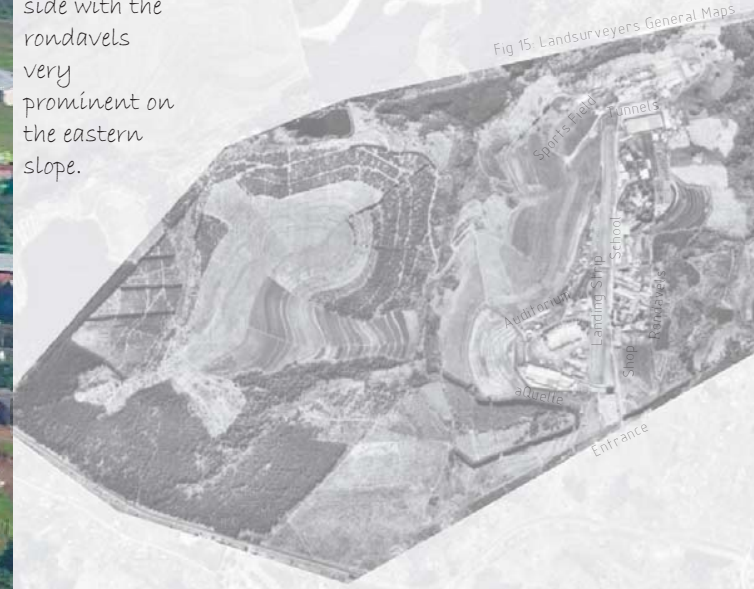


Fig 15. Landsurveyers General Maps

Photo 60 www.ksb.co.za

Photo 61 www.ksb.co.za

Photo 62 www.ksb.co.za

Photo 59 D.M.Wentzel

Photo 63 www.ksb.co.za



Tourists in the main road.

Photo 64: D. Wunderlich



Photo 65: D. Wunderlich

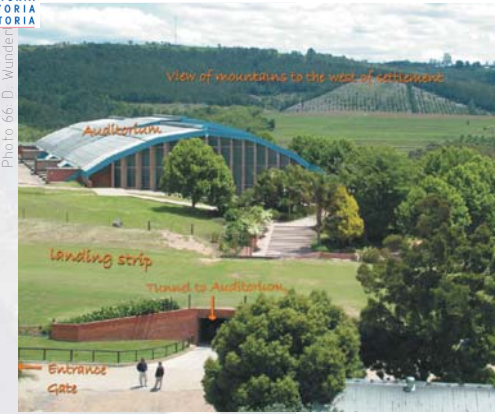


Photo 66: D. Wunderlich



Photo 67: D. Wunderlich



Photo 68: D.M. Wentzel



Photo 69: D.M. Wentzel

The entrance area needs to welcome the visitor and to create an expectation of the mission, as well as to present a point of reference from which the visitor can orientate him-/herself on the first visit.



Photo 70: D.M. Wentzel

Photo 71: D.M. Wentzel



Through the spatial aspect of the landing strip the settlement is visually linked, but spatially separated. The views to the north and south, and some to the west and the east are wonderful assets to any design.

Photo 72: D.M. Wentzel



The size of the open space is ideal for the design of a public gathering space.

Photo 73: D.M. Wentzel



The landing strip is an open space where many things happen, being at times a soccerfield to an area where chickens scratch for bits and pieces.

Photo 74: Unknown



Photo 75: D.Wunderlich



Fig 16: Landsurveyers Generla Maps



Photo 76: D.Wunderlich



The main road that connects the inner part of the settlement runs parallel to the landing strip.

Photo 77: D.Wunderlich



It is also the place for the visitor to park for the first time, as well as the place to say farewell.

Photo 78: D. Wunderlich



Photo 79: D.M. Wentzel



The reception building (above) is very difficult to find for the uninformed visitor.



Photo 83: D.M. Wentzel



This photo of the area between the rondavels shows the need for parking areas, and the erosion problems due to storm water run-off.

Photo 84: D.M. Wentzel



Again, the beautiful view from the landing strip.

Fig 17: Landsurveyer's General Maps



Photo 81: D.M. Wentzel



Photo 82: D.M. Wentzel



There are always tourists all over the place...

Some of the spaces between the buildings are neglected and need to be used as the connector of the buildings to establish or enhance the character and identity of the mission.

Photo 86: D.M. Wentzel



Social and economic context:

KwaZulu Natal

KwaZulu Natal is known for its political and taxi violence, and also faction fighting and criminal activities due to the poverty of the province. Added to these factors are high transport costs, leading to bus-boycotts; the role of town councilors in black local authorities, school unrest and boycotts; the rise of vigilante groups and several other factors (Paton 2003). The unofficial war between the Inkatha Freedom Party and the ANC has, since democratic elections have been held (in April 1994 till the year 2000), claimed two-thousand lives (Taylor 2002: 473). According to Taylor, the legal system fails to meet the people's right to live in a safe and secure environment, through the lack of successful prosecutions of the initiators of the political violence (499). The taxi violence poses another serious threat to the stability of this province and is visible to every tourist as he/she drives on the road from Greytown to Stanger where a burnt-out taxi-minibus stands next to the road. Many of the residents of the mission station have had personal experience of violence while travelling between the station and neighboring areas.

Photo 87 D Wunderlich



Existing guidelines and proposed developments according to the Integrated Development Plan for the uMvoti Municipality (2003/2004)

Social situation

Kwasizabantu falls within the uMvoti Municipality, which is one of four local municipalities within the greater Umzinyathi District. To understand the social and economic structure of the uMvoti Municipality, we need to differentiate between the urban areas and the rural settlements, where Kwasizabantu is situated on the periphery of both of these areas. According to the Integrated Development Plan (IDP) of the uMvoti Municipality, the majority of the population lives in rural areas or what is known as the Traditional Authority (referred to as TA) areas. The TA is a poverty-stricken area where people live in scattered traditional houses, known as imizi. Of the people in the uMvoti Municipality, 43% have no-income (IDP 2003/2004: 7), and a large portion of those who do have an income receive it through social grants and remittance (IDP 2003/2004: 6).

Only 18% of the people are employed (IDP 2003/2004: 24).

In the TA areas the situation can sometimes deteriorate to the point where up to fifty people can be dependant on one person with a salary or income (IDP 2003/2004: 12). Job opportunities are also very low, due to the small amount of economic activities in these areas, and 60% of inhabitants are functionally illiterate, which has a significant impact on employability (IDP 2003/2004: 11). The agricultural and tourism sector seem to offer some promises of reprieve, but need to be developed first.

Infrastructure is relatively well developed in and around the primary urban areas of Greytown and Kranskop. In the TA areas the roads and road signage are in a very poor condition, 62% of people are dependent on

springs, wells, boreholes and streams for water (IDP 2003/2004: 23), 30% of people have no access to sanitation facilities (IDP 2003/2004: 23), and 72% of people are dependent on gas, paraffin or candles for light (IDP 2003/2004: 21).

With only 45% of the population falling into the economically active group (according to age classifications, (IDP 2003/2004: 9) and 46% at school-going age (IDP 2003/2004: 9), the population depends severely on social and economic support. This dependency is intensified by the fact that the majority of the population is female (IDP 2003/2004: 10), due to the fact that the males leave the area to seek employment in the cities. This in turn results in increased HIV/AIDS infections. Many children are orphaned at a very young age due to the HIV/AIDS crisis.

Rural residents must take responsibility for their own sewage disposal, which causes the spread of waterborne diseases such as cholera, especially in the hot summer months (IDP 2003/2004: 20).

Spatial reality (IDP 2003/2004: 14)

Two routes, the R33 and R74, serve as access and main travel routes in the uMvoti Municipality, where the R33 connects Msinga and Dundee in the north with Pietermaritzburg in the south, and the R74 connects Greytown to Kranskop, Stanger and Mooirivier.

According to the IDP review of the uMvoti Municipality, the spatial pattern is formed by history, natural features and infrastructure (IDP 2003/2004: 15):

1. History: traditional areas formed along rivers while commercial farms were developed on the high rainfall plateau;
2. Natural features: topography, type of soils and the rainfall patterns determined which areas were developed; and
3. Infrastructure: No hierarchical ordering of the space economy is present, as Greytown and Kranskop dominate the area.

Main strategic development aims according to priority (IDP 2003/2004: 30):

1. Social: addressing poverty alleviation, quality of life and empowerment:
 - a. Poverty alleviation;
 - b. Removal of gender inequality;
 - c. Provision of basic services;
 - d. Improving safety and security of citizens; and
 - e. Improving health levels of citizens.
2. Stimulation of local economic development;
3. Physical and social integration of the Umvuti society;
4. Institutional capacity building;
5. Improvement of revenue-based financial management;
6. Promotion and maintenance of a sustainable environment;
7. Addressing the HIV/AIDS pandemic;
8. Development of social and economic infrastructure;
9. Land reform through the economic and sustainable utilisation of land;
10. Development of the tourism sector; and
11. Growth and diversification of the agricultural sector.

Spatial Development Framework (SDF)

The SDF of the Umvuti Municipality focuses on the development of a corridor system with service centers that give meaning to the corridors. Primary investment will go into the rural settlements. The environmental management of the municipality is based on the economic potential of assets such as heritage areas, eco-tourism sites, agricultural land and the Mooi River Irrigation Scheme.

Kwasizabantu lies on one of the two "Primary Development Corridors" (IDP 2003/2004: 57), the linkage road between Greytown and Stanger, which is the R74. This corridor must facilitate in the delivery

of services for the rural population and serve as a tourist access route to the historical Zulu battlefields. Furthermore, Kwasizabantu can be a "Tertiary Development Corridor" (IDP 2003/2004: 58) that serves as a linkage between settlements through the provision of public facilities.

The Land Use Management Framework (LUMF), Environmental Management Framework (EMF), Public Open Space Framework (POSF), Active Open Space System (AOSS) and the Core Mixed Use Framework (CMUF) are only clarified in terms of their aim:

- LUMF is about the identification, protection and reservation of land which has agricultural value and which should be optimally utilised in accordance with national legislation and provincial policy guidelines related to sustainable development, agricultural production and natural resources (IDP 2003/2004: 60).
- EMF: the conservation and protection of ecosystem services and natural areas that is essential to the sustainable development of cities, towns and settlements, which includes natural disaster management systems (IDP 2003/2004: 61).
- POSF and AOSS are concerned with the provision of land for passive and active recreational activities that also provide in the needs of people with physical or mental impairments and attract visitors and tourists (IDP 2003/2004: 62).
- CMUF is about the development and management of land for the provision of the primary activity focus or foci of urban areas in terms of commercial, trade, office administration, cultural, residential and low impact industrial activities and developments (IDP 2003/2004: 64).

Conclusion:

The IDP of the Umvuti reveals the bleak picture of economical and social situation of the area. Education of young and old, the availability of jobs and the provision of services for basic physical needs are of utmost importance. Kwasizabantu is promoting this vision of development through the many educational, health and work opportunities that are found on the site which are, as previously mentioned, situated on the primary corridor development area of the Umvuti municipality.

Summary of problems to be addressed

Kwasizabantu is situated, as previously mentioned, between Greytown and Stanger, on the R74. This area is characterised by a lack of infrastructure, poverty and political violence, and only 2,37% of this small biome is conserved, thus:

1. Areas to be conserved must be established and be recovered to present the character of the Short Mist belt Grassland biome;
2. Infrastructure such as roads, open spaces, waste- and drainage systems must be planned to form an interconnected network for the sustainable future of the site within its context;
3. Settlement fabric must be clarified and designed to resemble the identity of the community, ensure the multi-use of spaces and places and improve the legibility of the settlement; and
4. Public open spaces are needed for the gathering, relaxing and socialising of the community. These spaces must be designed to create or enhance the identity of the specific function.

