

Transforming the Existing: Transportation Interchange/ Labour Market

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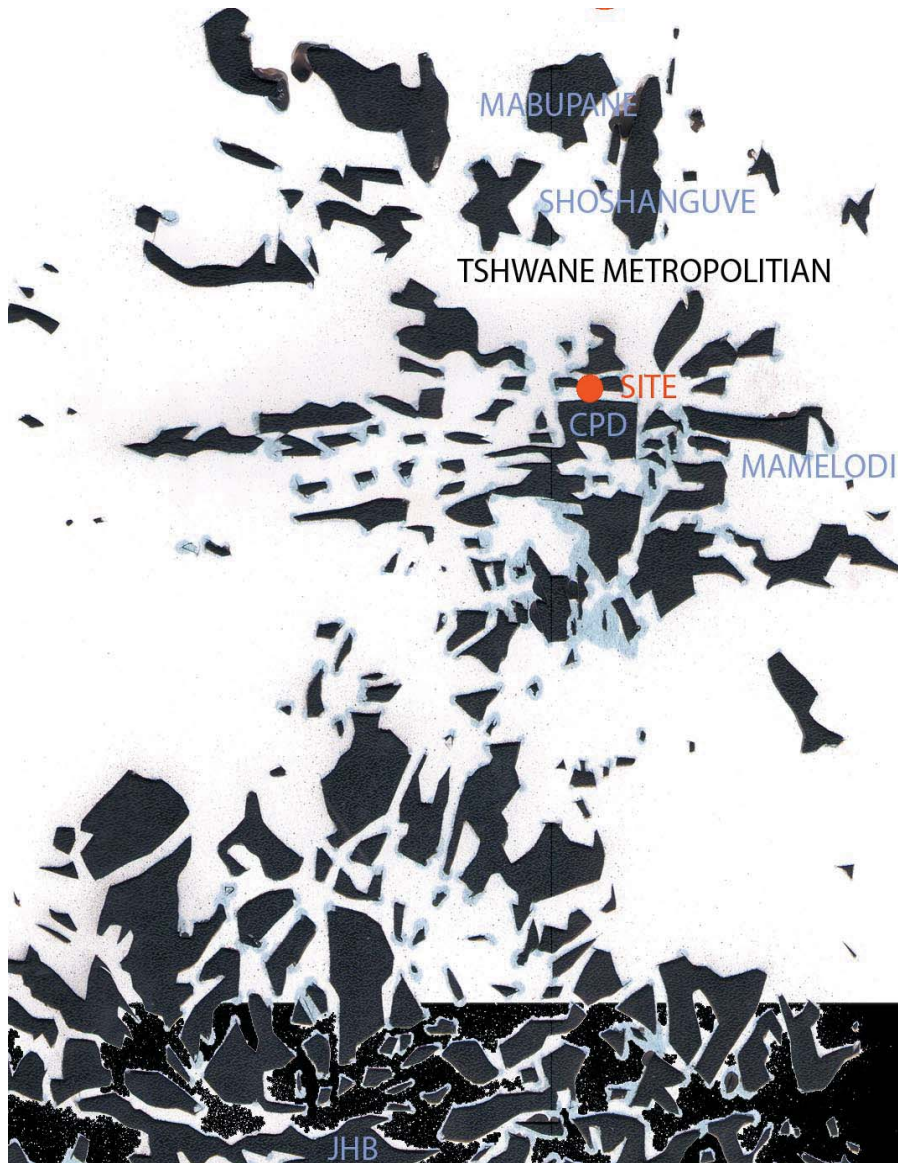
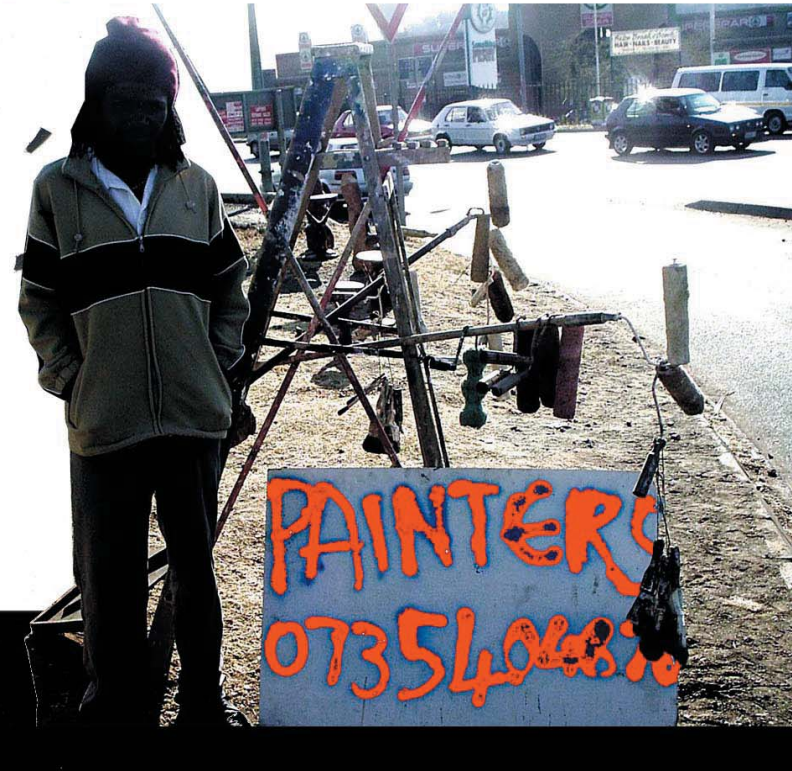


Fig 2: Tshwane's satellites of development in relation to Johannesburg. A local informal labourer's advertisement.



Introduction

Prologue

Cultural perceptions are of particular interest when conveyed in images. It is also interesting to observe the reactions of people, to not only cultural iconography but also to images made by the creative artists. If one explores these issues in the urban context of Tshwane (where the cultural identity could be argued to be isolated) interesting situations occur when isolated groups are confronted with social interplay amongst different cultures.

It is also important to note the way in which Tshwane is fragmented (fig 2) into 'pockets' of isolated developments and how people's perceptions of their society within these 'pockets' distort and vary in relation to that of societies outside (these 'pockets'). The city is remembered through experiences in its inhabitants' minds. People move in specific circles, each with its own varying perspectives and perceptions. Looking at a map of Tshwane, one finds varying degrees of isolation due to historical and geographical factors. The area around the Moot¹ therefore is an obvious location of interest, because of the physical and psychological isolation of its inhabitants.

¹ The word "moot" translate to "dale" or "Valley; Low area more or less enclosed by hills..."

Problem Statement

The transformational problem:

The northern part of the city is disconnected and these fragments of development degenerate due to a lack of infrastructure (fig 2).

The labour problem:

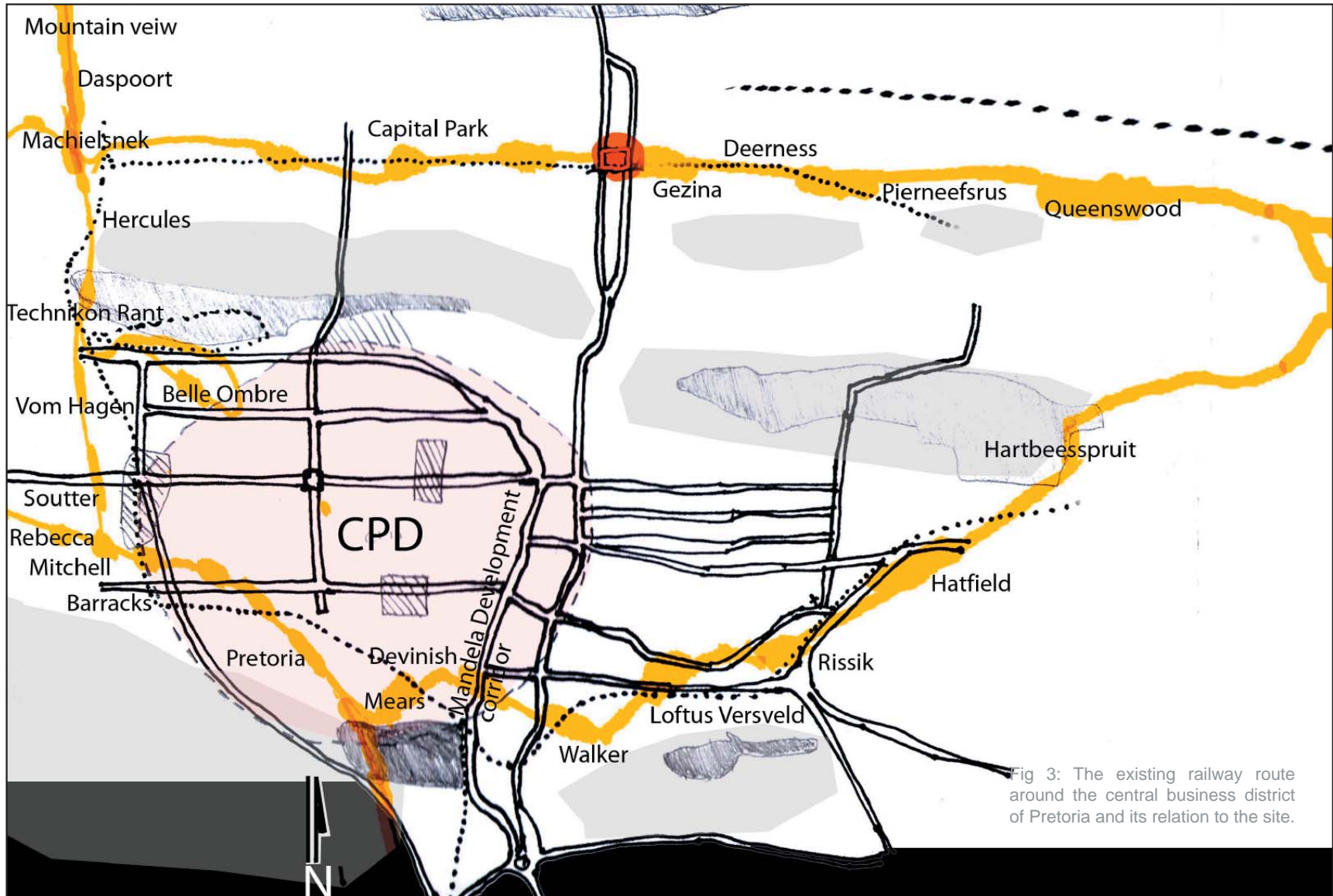
The context and spine of Voortrekker Street supports numerous light industries and in direct contrast to these are the many guilds, craftsmen and labourers waiting outside hardware and building warehouses in search of employment (fig 3).

Sub-problems:

In order for the proposed Gautrain link to function properly, secondary transport systems will be needed to support it. A secondary ring rail system is needed so that train commuters can reach the Gautrain departure points. A ring track already exists, but the necessary stations and routes are not fully operational (fig 3). The existing Metro rail needs to be upgraded together with the prominent stations and the link with other public transportation systems needs to be strengthened.

Improved vehicular and pedestrian access is needed for the existing Gezina station, in order for it to function at optimal level.

The workforce using the station needs basic facilities, which is currently not provided, as well as an affordable and efficient platform to market their services. The station also does not operate as a northern entry point into the city in spite of its ideal location (fig 3).



Statement of intent

The aim of this project is an attempt to alleviate both problems and the complications of their subsequent sub-problems. By integrating and accommodating a labour market with the existing and the future train networks, easier access will be created for craftsmen and labourers. Thus a friendlier pedestrian environment will be created and the integration of the isolated infrastructure of the Moot area with the rest of Tshwane will be achieved.

Hypothesis

The position that will be taken in this study is one of an acceptance of the existing and investigative ways of its transformation (for optimal performance) to meet the aims of the project.

As Friedrich Schröder Sonnenstern said “The situation produces the philosophy, and that’s the best sort – the one that flows from the situation”. (Beinart, 1961: 2)

Therefore, the first step of investigation would be to map the conditions of the existing both from a purely physical and experiential part of view. This entails observation, many site visits and recordings to form a hermeneutical¹ approach. In

order to achieve this, the sketches, illustrations photo-logo and visual imagery will be viewed as a way of mapping the existing. A visual language is used, because it could be argued that it has more common understanding across the spectrum of humanity, than that of lengthy text.

² hermeneutic – interpretation; hermeneutical - interpret

Organisational Method

An organisational method (see xxx) is employed as an aid to experience the complex nature of the inexhaustible urban situation. Moreover in the next section appropriate case-studies will be explored as precedents to provide insight into both the workings of transport interchange and labour markets. Influences on the design are in written in italics. Before tackling the design and technical aspect of the project (site, program, accommodation etc.) an analysis of the existing urban framework (*Proposed Tshwane Open Spaces Framework, 2005; The Tshwane Inner City Strategy, 2005*) will be a generator for the design, so that the existing situation can be weighed up to the proposed transformed.

Analysis:

- Mapping the Existing
- Case Studies

Mapping the Existing Urban Context

As previously mentioned due to the complicated nature of the urban problem, the layout of this section will be based on a simple method of organisation. The Cartesian grid is adapted to accommodate a series of maps on five identified categories. This method will incorporate information on many levels of scale, bringing the interwoven aspects of the urban context into a logical order (fig. 7).

In order to explain all the aspects of the urban context, five groups have been identified (fig. 6). The interwoven nature of these groups results in maps and diagrams that apply to more than one aspect and thus better communicated in a “datascape”. Slicing a bandwidth enables one to communicate ideas on multiple levels and overcome the restrictions of Cartesian thinking. Dividing this into digestible groups resulted the following:

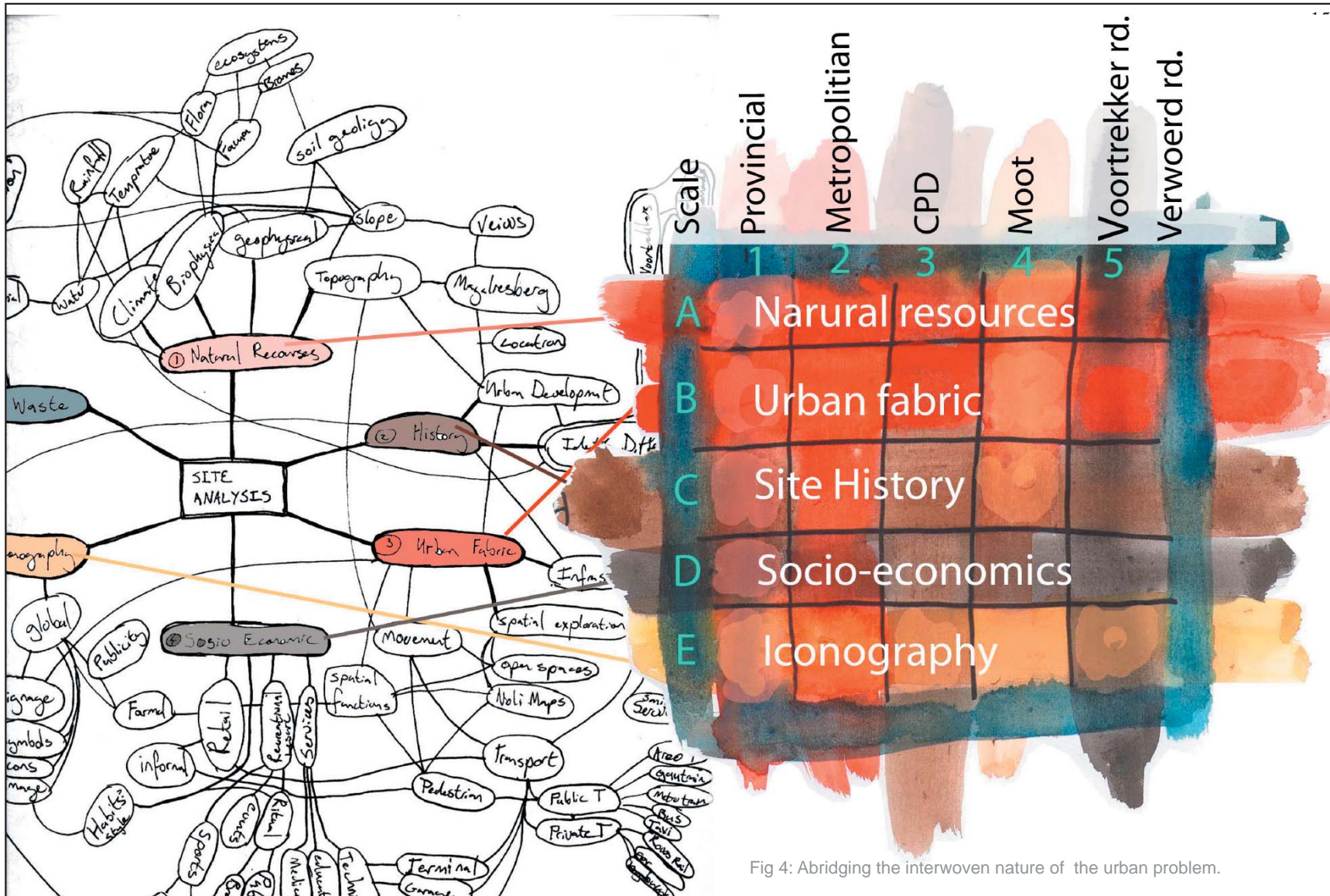


Fig 4: Abridging the interwoven nature of the urban problem.

Groups

A. Natural resources:

The topography of the site was there long before human intervention and still moulds the city. The foothill of the Magaliesberg starts in a place called Silverton and the range extends beyond the Hartbeespoort Dam in the direction of the neighbouring town Rustenburg. These physical barriers have largely contributed to the disconnected nature of the city.

B. Urban fabric:

Man made elements in the landscape act as threads weaving together the parts of the city, to create a richly textured fabric. This includes telephone lines, storm water ditches, electrical lines and transportation infrastructure. Major road links (accessibility) stimulates growth and stitches development together. Traffic congestion (especially on the N1) suggests that these routes are not sufficient enough. The rapid rail link (Gautrain) increase accessibility of city and could alleviate some of the correlating problems. Secondary public transport systems can feed of this link creating nodes around the interchanges with important development potential.

The following strategic objectives have been identified by the Gautrans initiative:

- The Gautrain Rapid rail Link (Gautrain) must facilitate development in the Province.
- The project must contribute directly and indirectly to job creation.
- It must assist in unlocking the economic development potential of the Gauteng SDI projects and strengthen existing development corridor.

- It must improve accessibility and mobility in this development corridor
- It must develop an integrated public transport system, through the use of feeder and distribution systems.
- It must integrate Land-use and transportation planning in the corridor.
- It must assist in improving the image of public transport.

(Integrated station Functional areas guidelines, Draft 3. September, 2002.)

- Create or reinforce densities, to promote rider ship (Getting feet to the station)
 - Establish different land uses, thus, land uses that generate frequent trips and not extensive land uses where population density is low; and
 - Establish new urban form that embraces the train system.
- (South African government. 2001. Gautrans rapid rail link.)

C. Site History:

Growth and time is inseparable. Investigating the past of the site, will give insights into its future.

Jeremy Cronin, (Deputy General Secretary of the South African Communist Party, ANC Member of Parliament) wrote in the journal *Urban Age* pg 9:

“Apartheid cities have unusual spatial contradictions”

“On the one hand, they are sprawling realities with density levels too low for sustainable public transport. This encourages further sprawl and growing car dependence. On the other hand, there is high density in the populous townships and informal settlements on the peripheries of our cities. In the apartheid era, these townships were deliberately surrounded by high speed freeways and rail-lines, like mediaeval moats but with the opposite intent – to protect what lay without.

"Marginalisation and containment, planned under apartheid, has often been unintentionally perpetuated in the post-apartheid period. For instance, two million low-cost houses have been rolled out nationally since 1994. But to meet this ambitious target, the bulk of the housing has been located on peripheral land. Access and mobility inequities have been deepened.

"This unwitting entrenchment of some of the apartheid spatial legacy has not been helped by neglect of public transport, or by a series of well-intended but inappropriate policies, tangled institutional arrangements and unsustainable interventions. The consequences are dramatically visible in our cities..." (Cronin, J 2006: 9)

D. Socio-Economics:

The dynamics of the urban context consists of many aspects formal and informal.

According to international Labour organisation "The contribution of the informal economy and street trading to South Africa's economy can be measured in two ways. The first way is to measure the number of people who have jobs in street trading. There is approximately half a million street traders in South Africa 1n 2000. The second way is to measure the goods that traders sell. Some people think that the economic contribution of street trade is not big in terms of money because most street traders earn so little. But in Durban alone, street traders sell about 28 tonnes of cooked mealies per day. This is equal to sales of about R200 000 per day, or R1 million in a five-day week! And this is only in Durban, and only mealies.

Some street traders are self-employed and some work for family members, sometimes with payment and sometimes without. Some street traders work for a wage. The '*bambelas*' in Durban are a good example of street traders working for a wage."(International labour Organisation. 2003: 8)

E. Iconography:

Image is the primary means used for navigation through the city. The site is situated in a visually competitive advertisement corridor, which is visually disorientating. Information broadens horizons and can be easily communicated across language and background barriers.

In *Learning from Las Vegas*, Venturi studied the dominance of signs over space, and how people react to the large signs at high speeds as he wrote "architecture of communication over space". One cannot help but compare the Las Vegas Strip to Voortrekker and Verwoerd road. The signs become perhaps more important than the buildings, which are merely decorated sheds. The signs and not the buildings, give the area character. Cars also travel at high speeds and signs compete with each other for the motorist attention.

Furthermore there are numerous similarities between Levitown, Las Vegas and the suburbs surrounding the site. Eclectic ornamentation on houses such as wagon wheel fences, statues of dwarfs and golf ball mailboxes on erect chains are used to identify and support the individualism of the owner.

Of further influence on the study were the following words of Venturi "... in the main the architect's concern should belong not with what ought to be but with what is – and how to help improve it now" (Venturi ,R:xxx)

Scales

1. Provincial:

The relationships between the metro poles (The city of Johannesburg, The city of Tshwane and the Ekurhuleni Metropolitan Municipality) are of primary interest. Urban development patterns become apparent.

2. Metropolitan:

Tshwane is shattered into development satellites. This urban sprawl is a result of various aspects of the city's history of development of which some of the most observable reasons are the Apartheid urban engineering and the surrounding topography. Obvious needs become apparent which begins to inform the designing of a link.



Fig 5: South Africa in relation to the continent.



Fig 6: Gauteng Province.

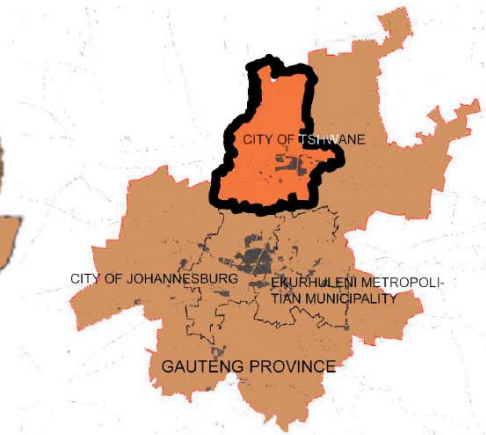


Fig 7: Scale 1 - The City of Tshwane in relation to the City of Johannesburg and Ekurhuleni Metropolitan Municipality

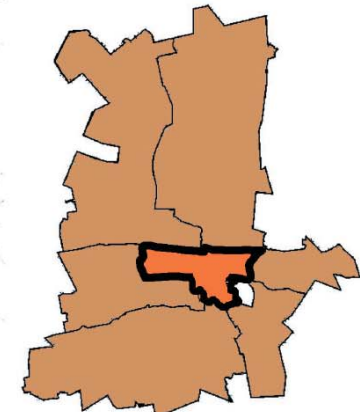


Fig 8: Scale 2 - The metropolitan City of Tshwane.

3. CPD:

This precinct includes the boundaries of the old Pretoria and gives one insight on the previous municipal view. The nature of the connection with the city centre also becomes apparent.

4. Moot (dale):

In the dale (The word “moot” translate to “dale” or “Valley; Low area more or less enclosed by hills...”) north of the central business district, with radiating development spines are obvious locations where interventions can be catalytic with considerable results (fig x).

5. Voortrekker road. And Verwoerd road

The most prominent spine of commercial and light industrial development runs north from the CPD across the railroad. The train platform is used as an entry to the city and a distribution point for employment seekers.

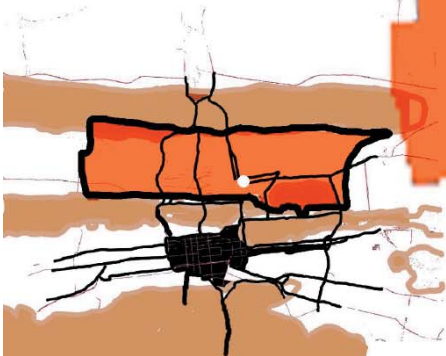


Fig 9: Scale 3 – The old city of Pretoria



Fig 10: Scale 4 – The Moot region

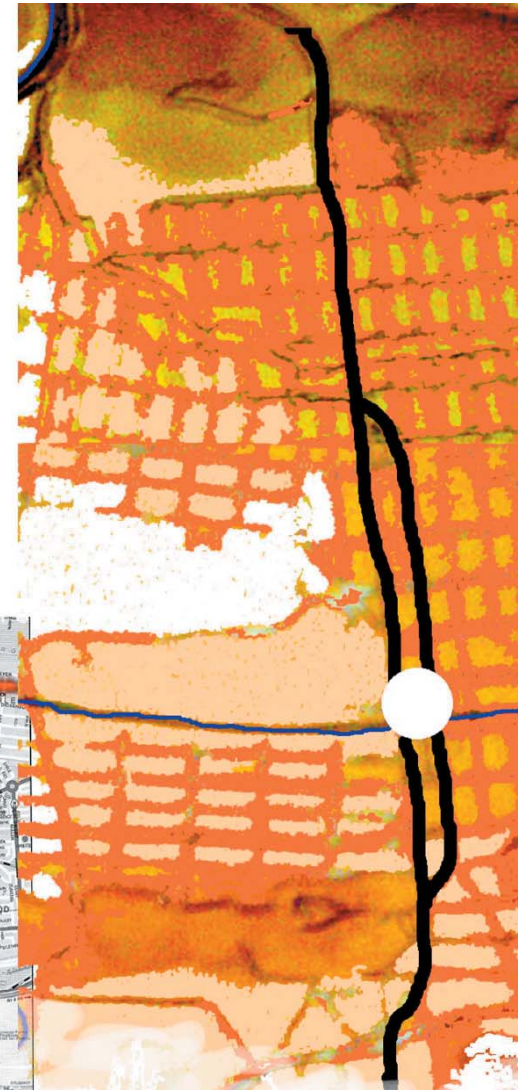


Fig 11: Scale 5 – Gezina suburb with Voortrekker and Verwoerd road

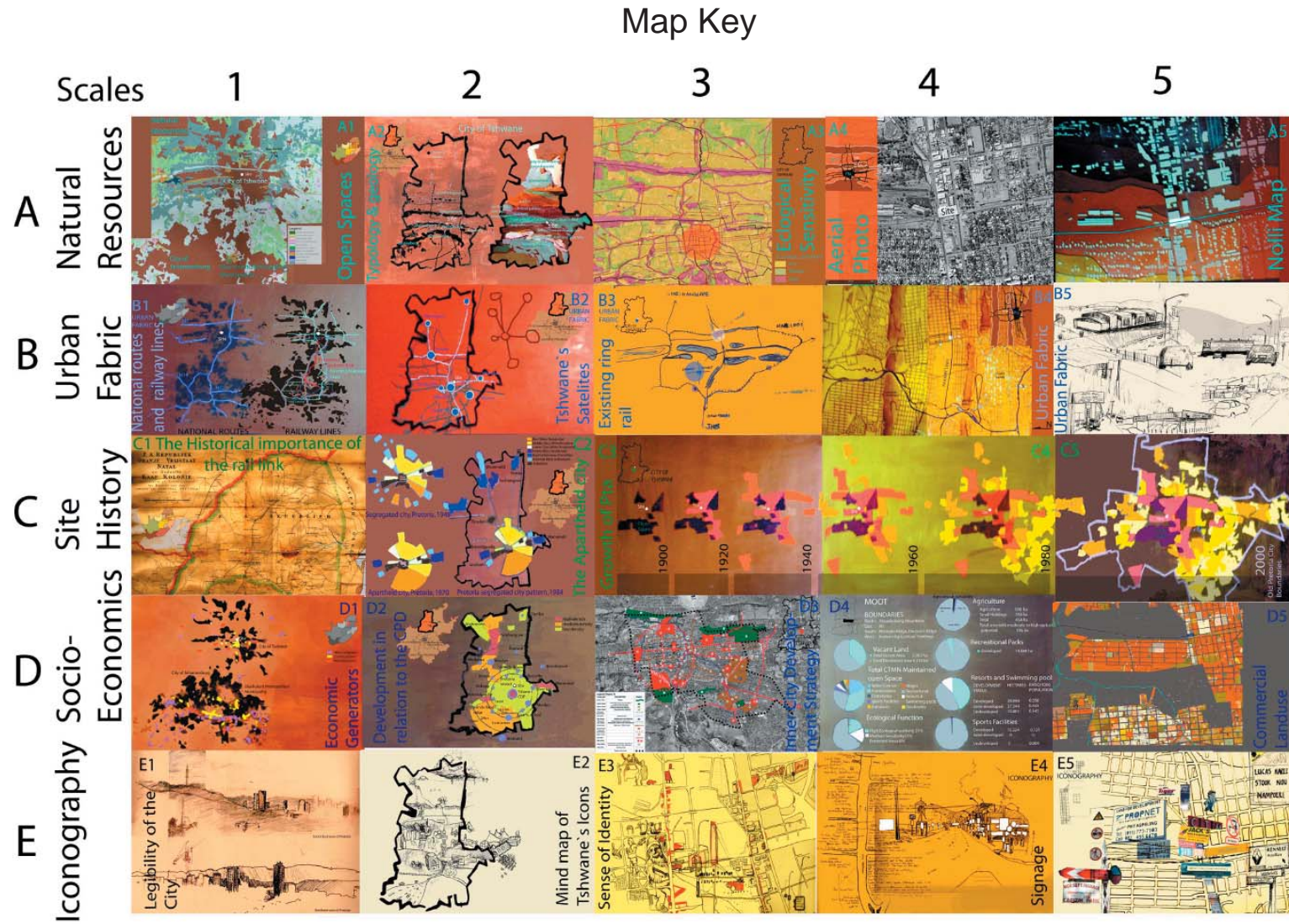
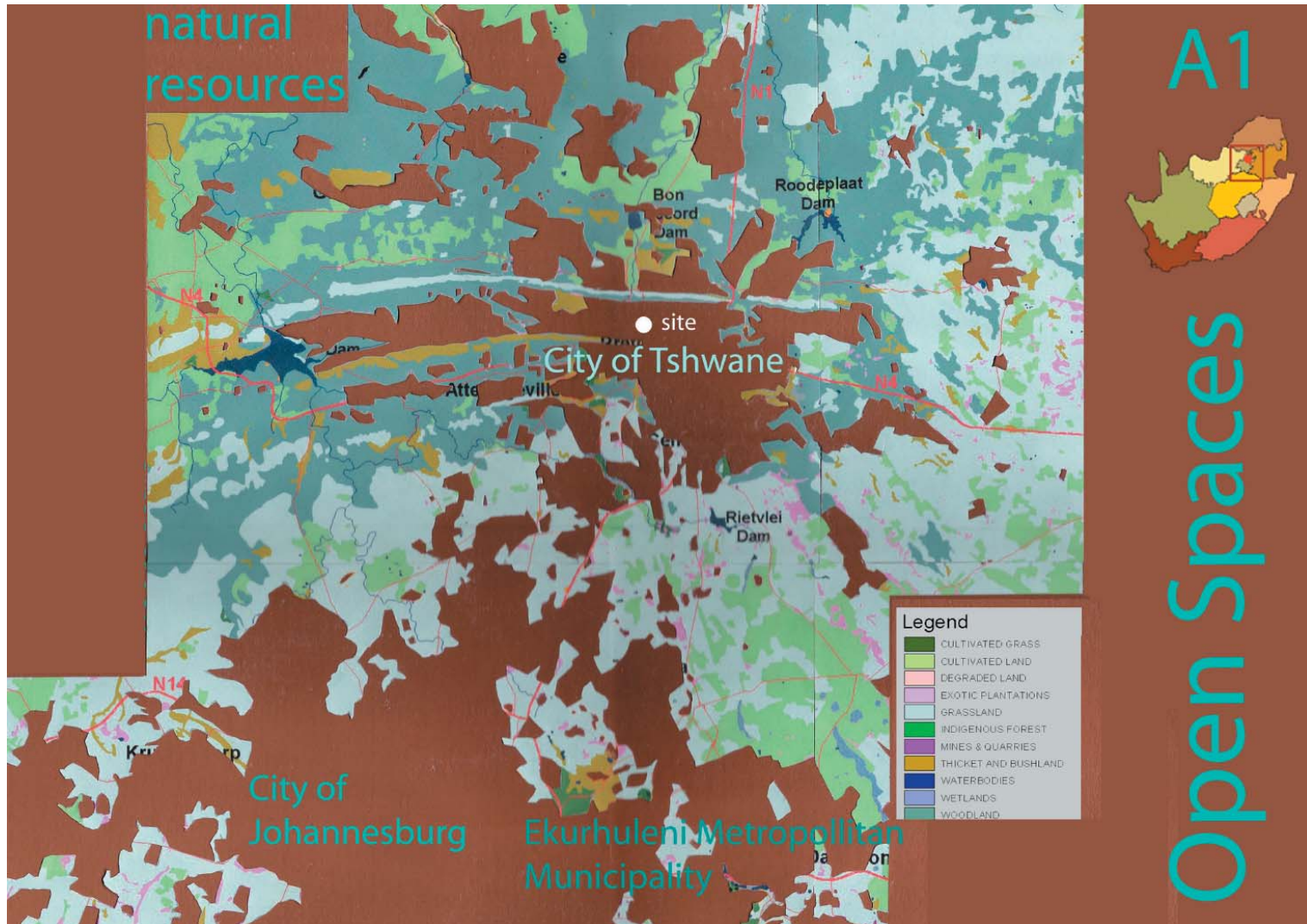


Fig 12 : Map Key

Fig 13: A1 Open Spaces around the City of Tshwane. The fragmented nature of the city has resulted in ample open spaces in between development pockets. These spaces should be managed to combat further urban sprawl and conserve the natural resources.



22 Fig 14: A2 Typology & Geology. The Magaliesberg mountain range runs east to west through the city of Tshwane and influences its urban planning. A break between Meintjieskop and Daspoortrant ridge results in notable development potential to the north. The soil conditions are stable and suitable to build on.

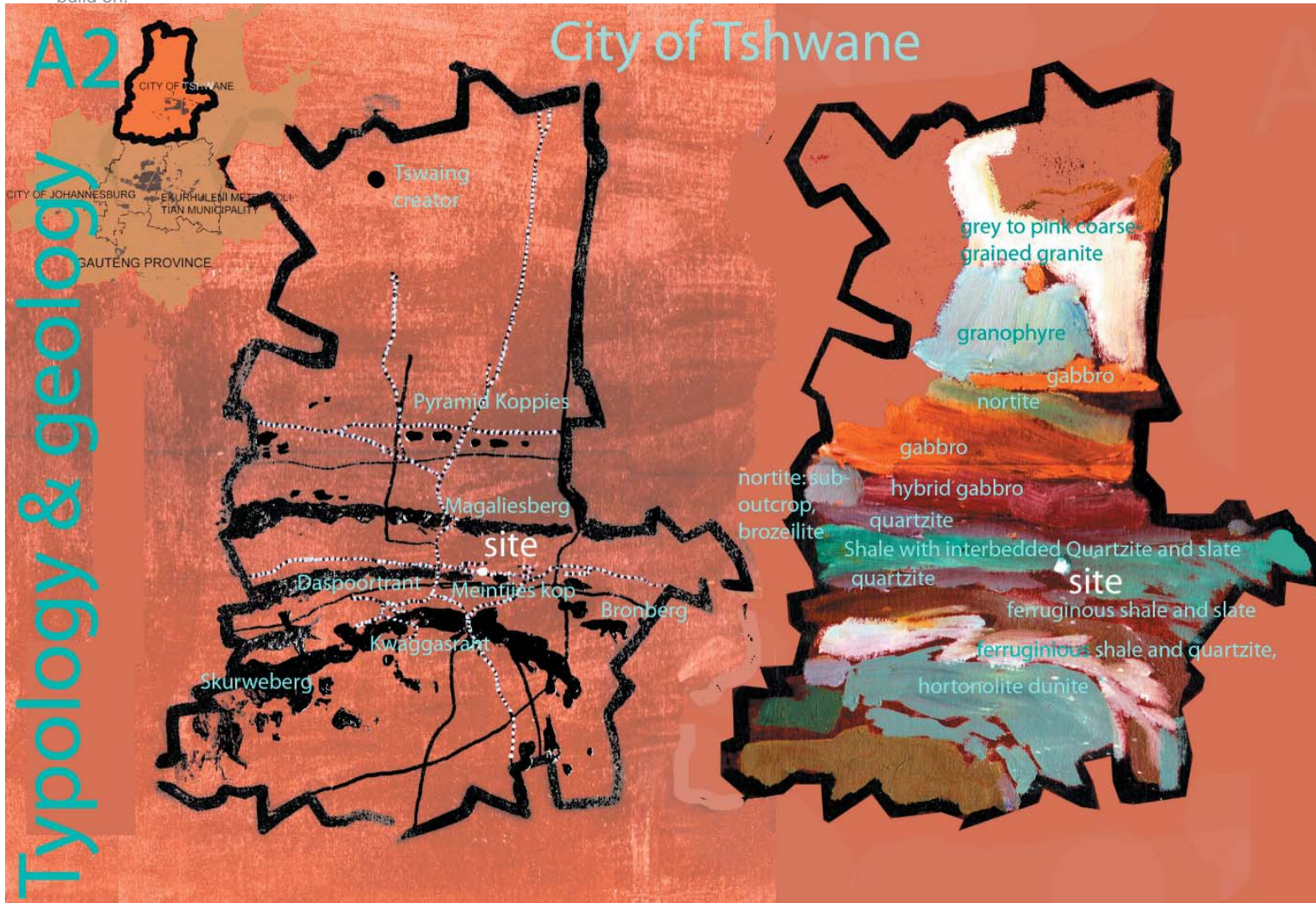
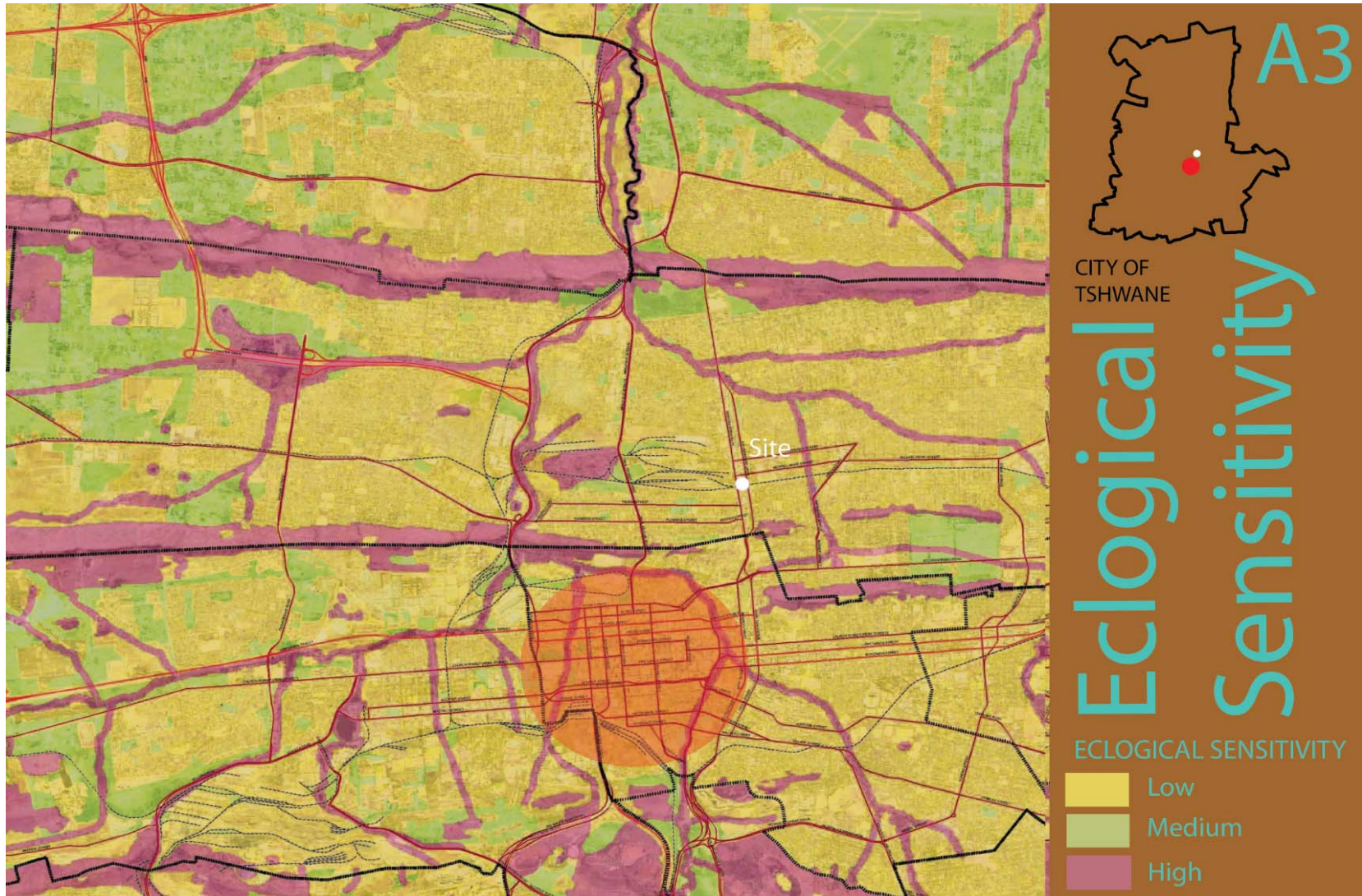


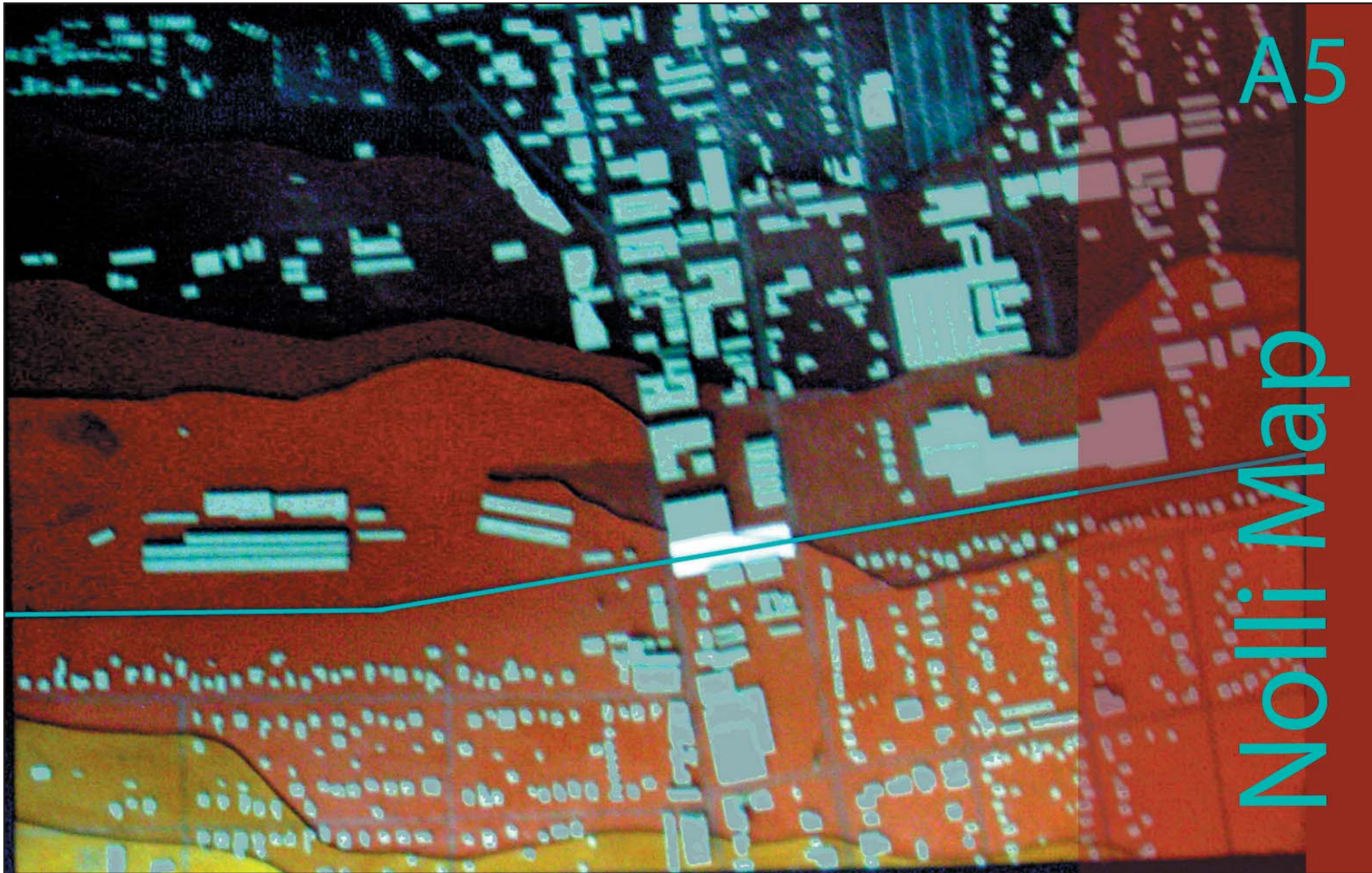
Fig 15: A3. Ecological Sensitivity. The site is situated on a brown field in a light industrial development strip.



24 Fig 16: A4. Arial Photo. The surrounding area of the site shows how a portion of previously mentioned light industries are sustained by major vehicular routes.



Fig 17: A5. Nolli Map. This map shows the build up environment and five meter contours descending to the top of the page.



26 Fig 18 .B1. National Routes and Railway Lines. Major road links (accessibility) stimulates growth, and traffic congestion suggests that these routes are not sufficient enough. The rapid rail link (Gautrain) increase accessibility of city and could alleviate some of these problems. Secondary public transport systems can feed of this link creating nodes around the interchanges with important development potential.

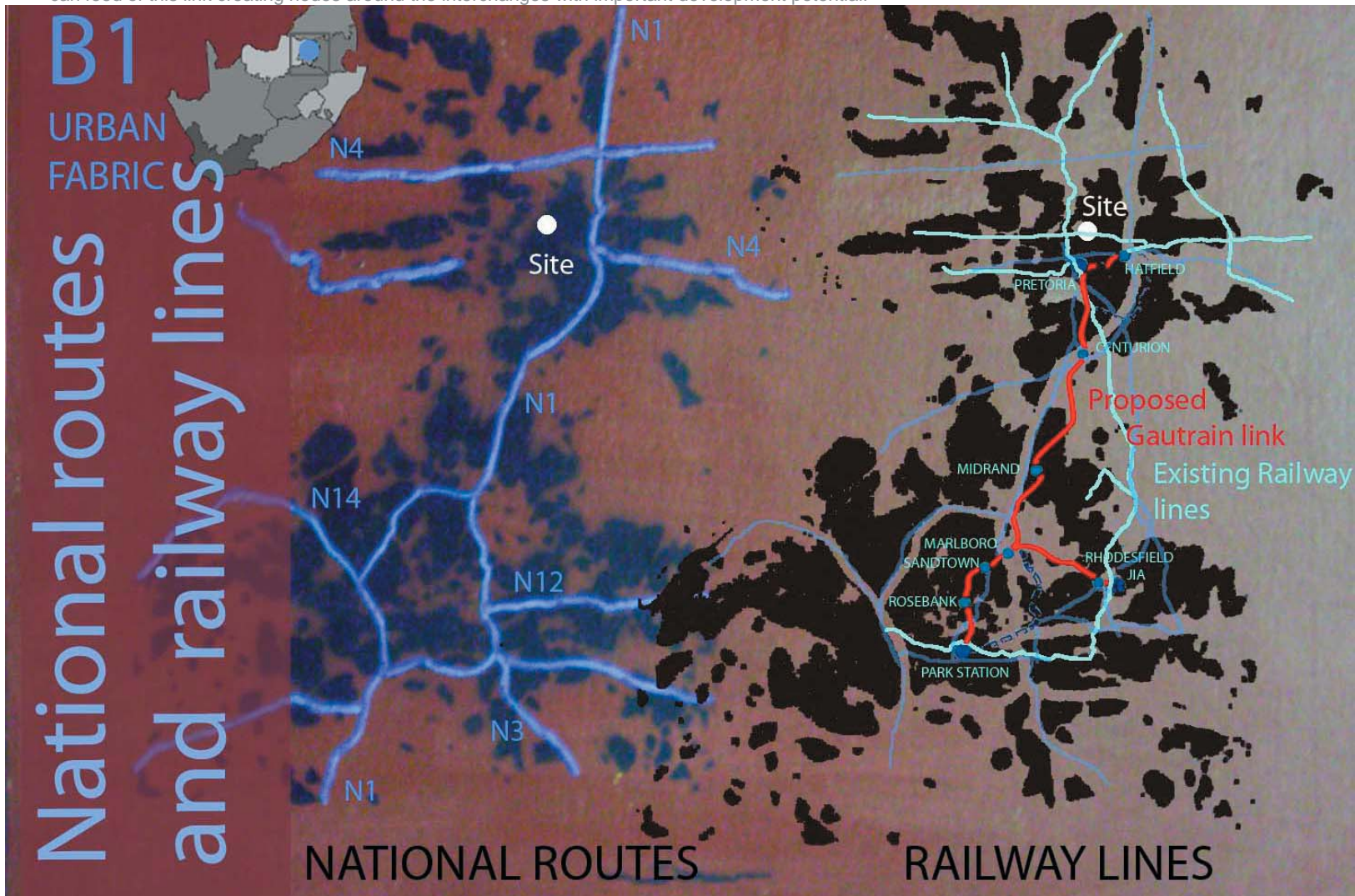
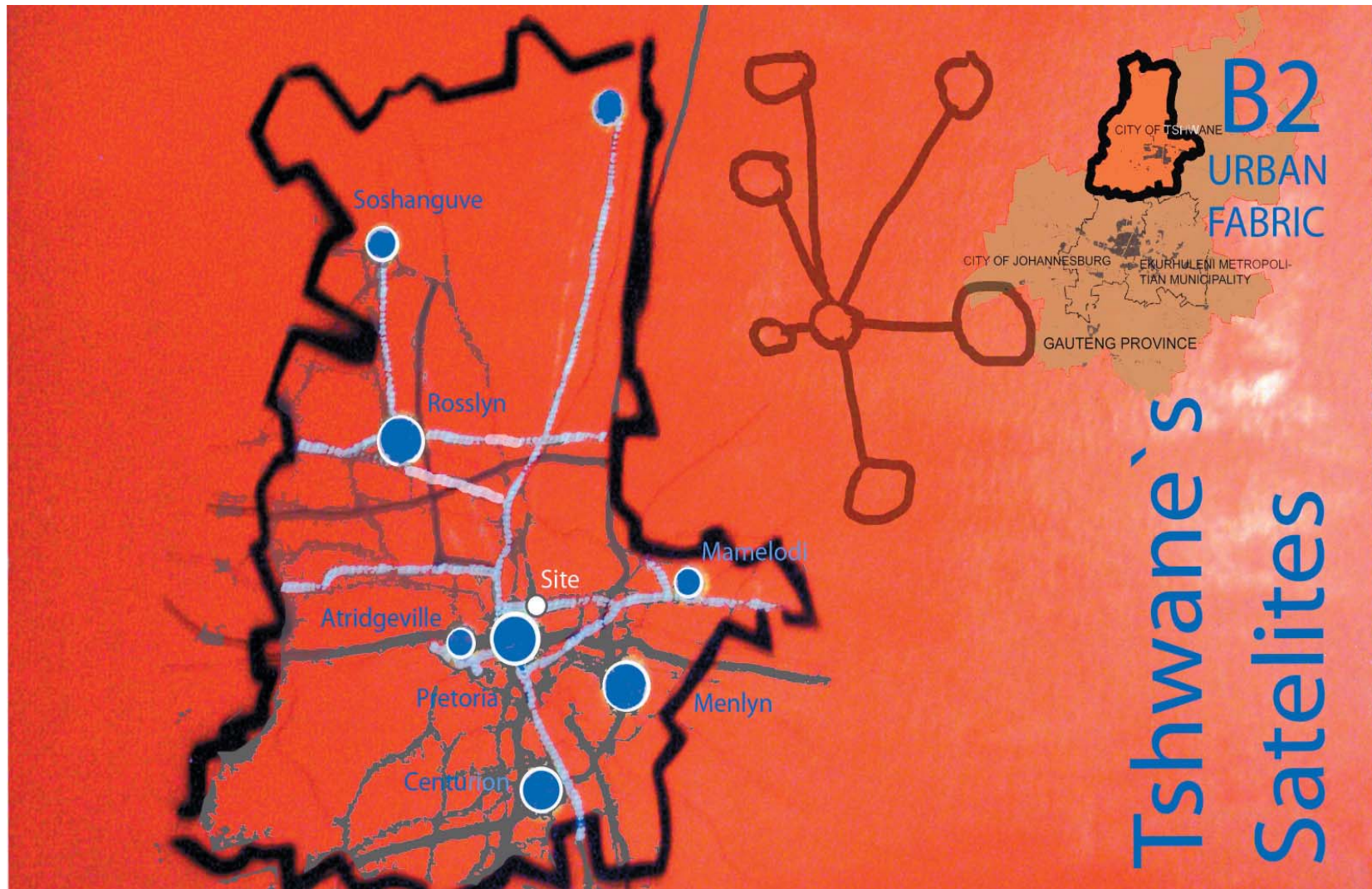


Fig 19 .B2. Tswane's Satalites. Primary economic nodes, as identified by the municipality of Tshwane, correlates to the existing infrastructure except for the north²⁷ nodes due to Apartheid urban Engineering (fig 25). These nodes were intentionally isolated with limited access and need to be reconnected.



28 Fig 20 .B3. The Existing Ring Railway Lines. The isolated northern development nodes all have access to the existing railway. These train routes radiate from Pretoria station and could be managed more sufficiently by incorporating a ring rail system, using the existing railway tracks. This is mostly an administrative and managerial problem although, more formal stations with adequate facilities are needed.

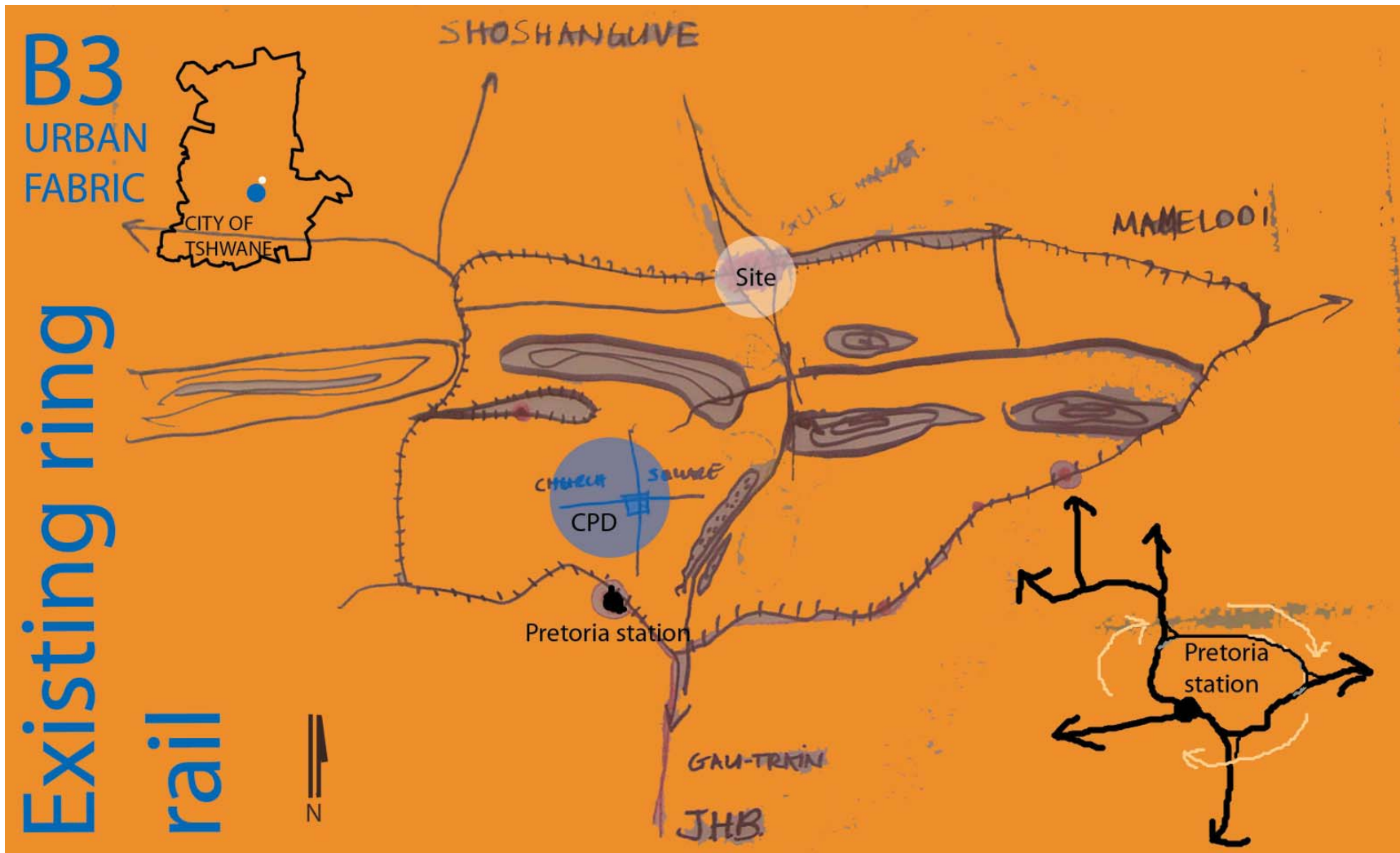


Fig 21.:B4. Urban Fabric. The roads and railway lines and ridges.

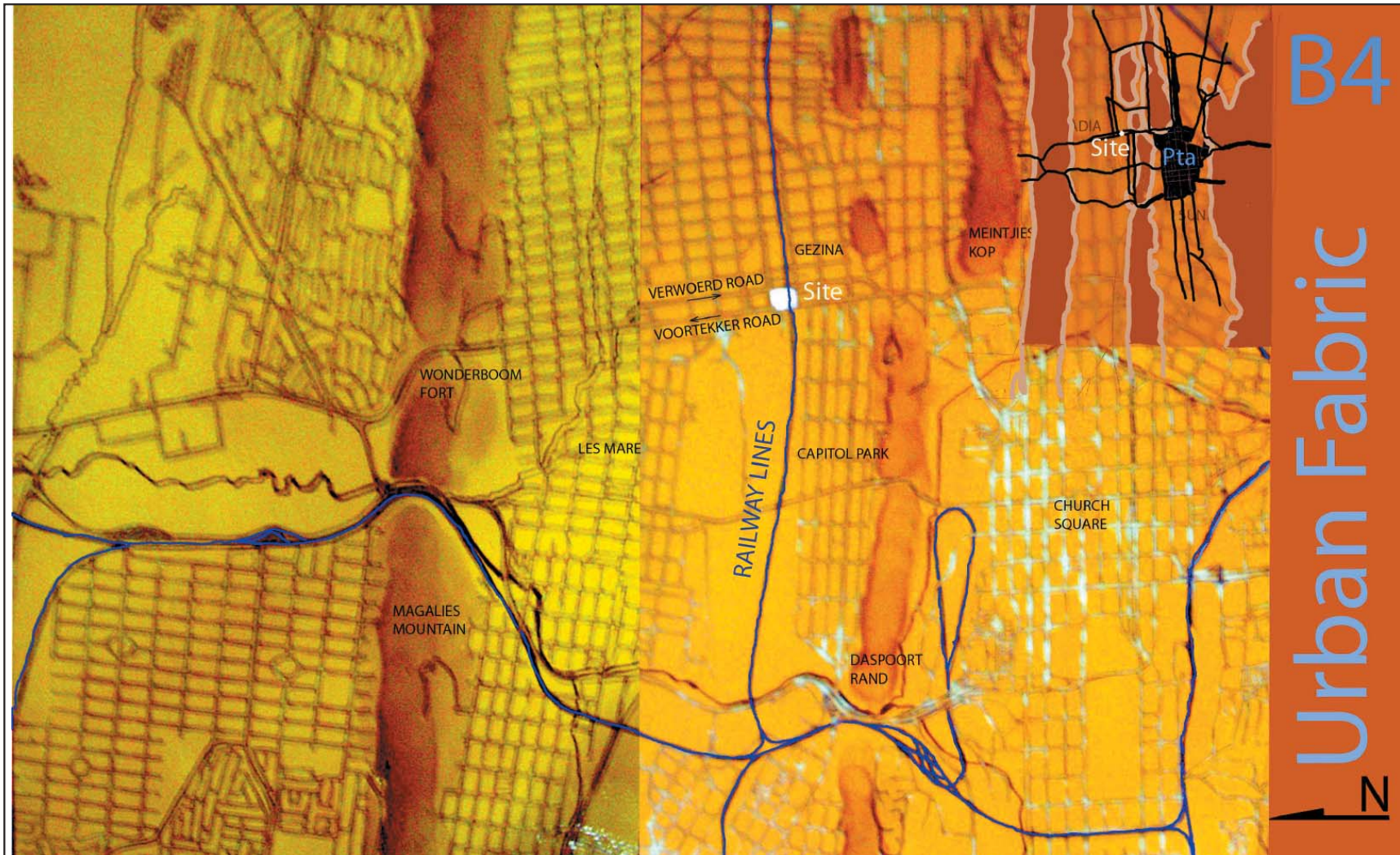


Fig 22: B5. Urban Fabric. The character of the streetscapes.



Fig 23: B5. Urban Fabric. The character of the surrounding railway entities.



32 Fig 24: C1. The historical importance to this specific rail link. The Zuid Afrikaanse Republic was formed to gain independence for the Afrikaner from the British owned Cape colony. The republic discovered gold and was thriving and needed a seaport to truly be independent. They built this railway line from Pretoria (City of Tshwane) to L.Marques (in the neighbouring Portuguese colony now Mozambique, Maputo). Shortly after construction was completed the Anglo-Boer war started and the link never reached its full potential.



Fig 25: C2. A segregated Pretoria engineered by Apartheid.

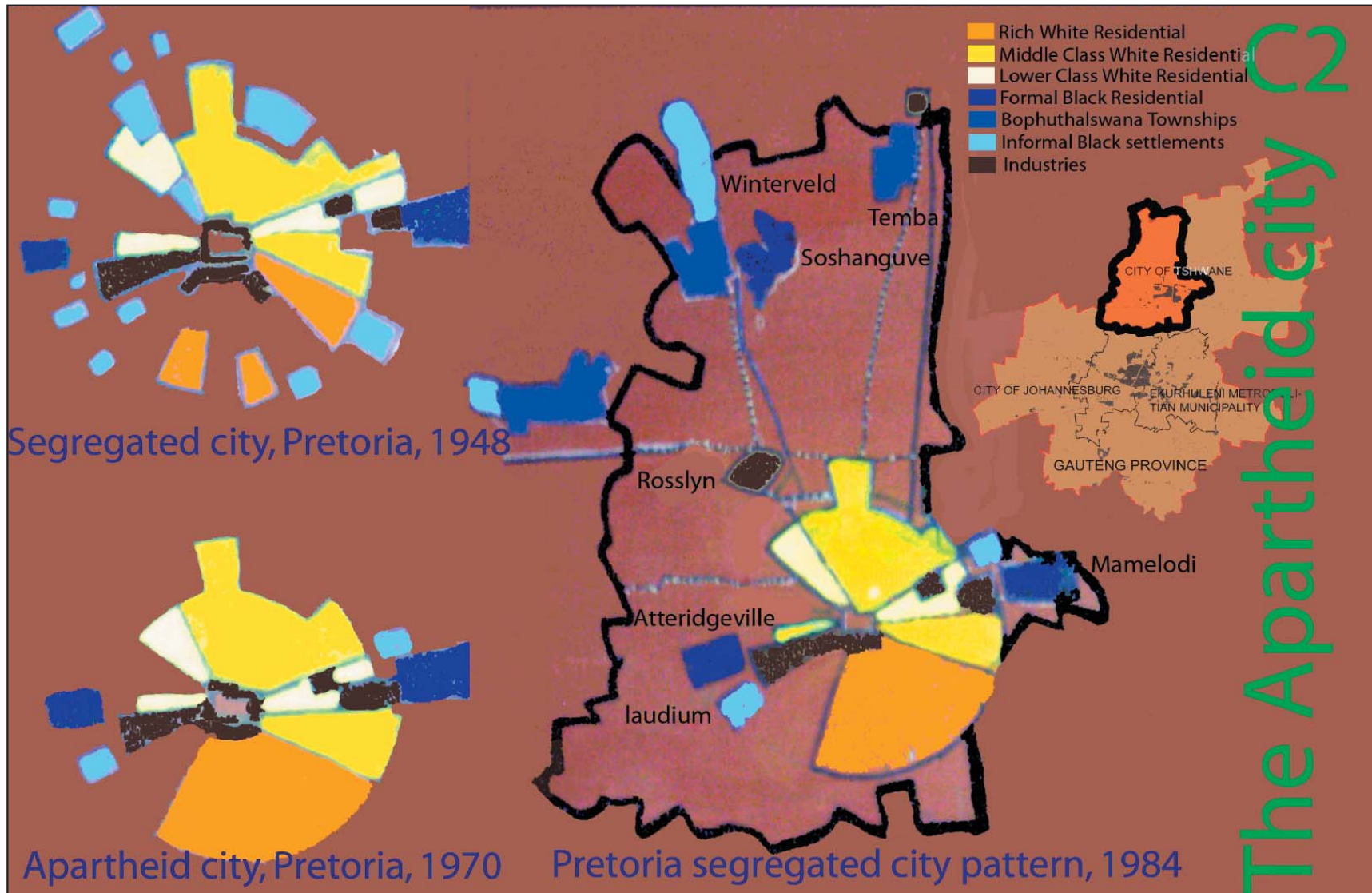
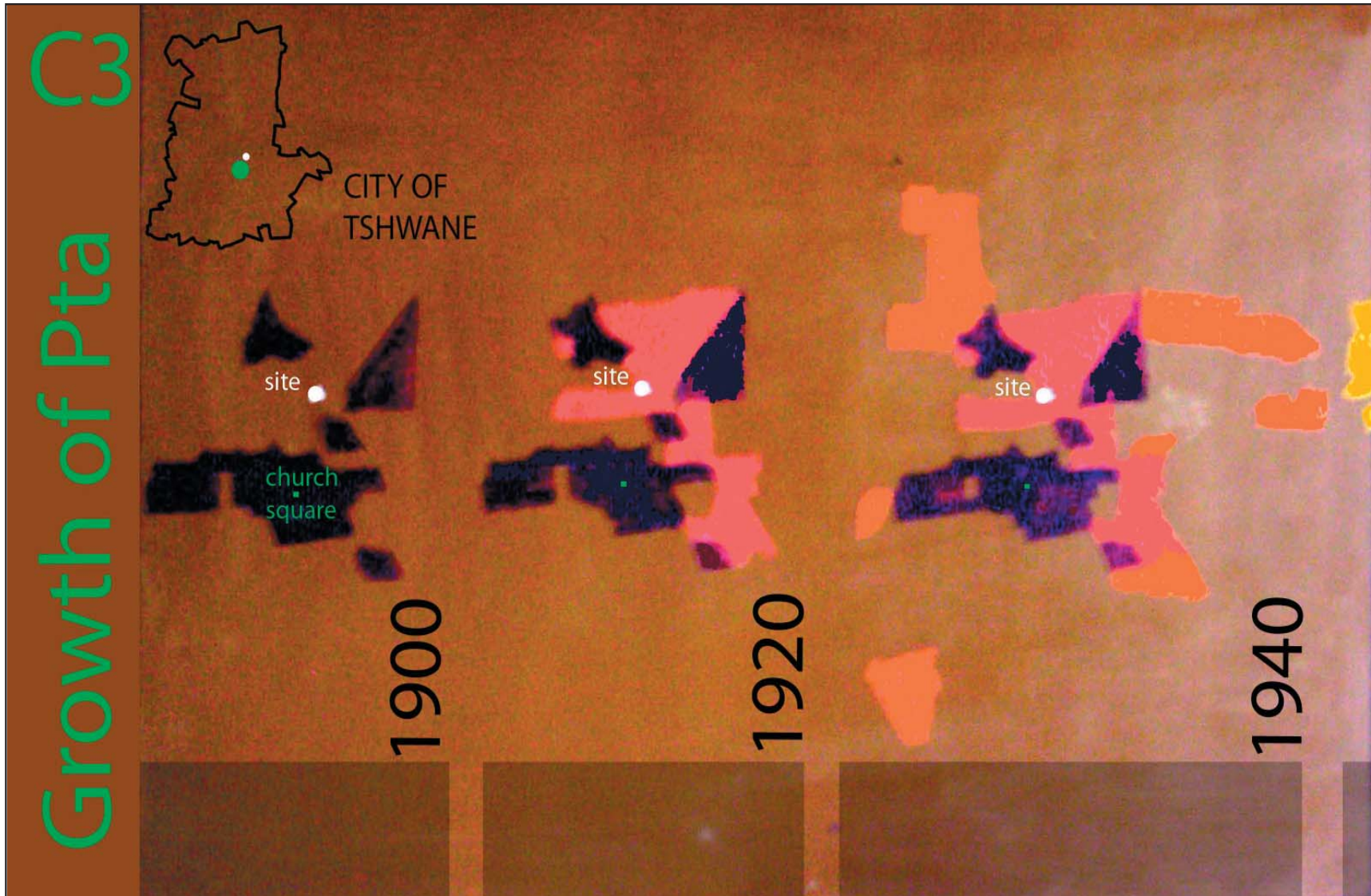
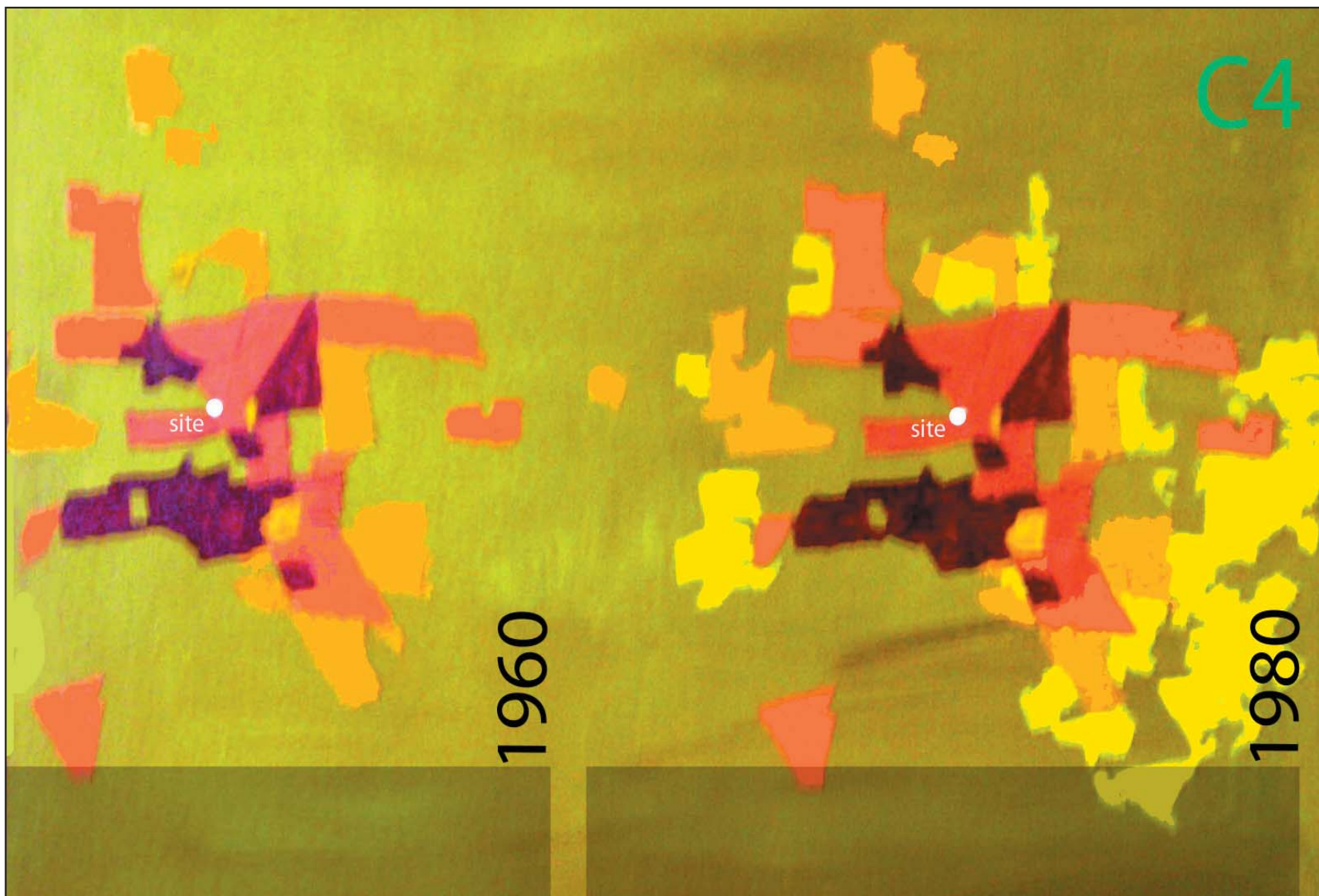


Fig 26-28: C3-5. The growth of the city from 1900-2000.





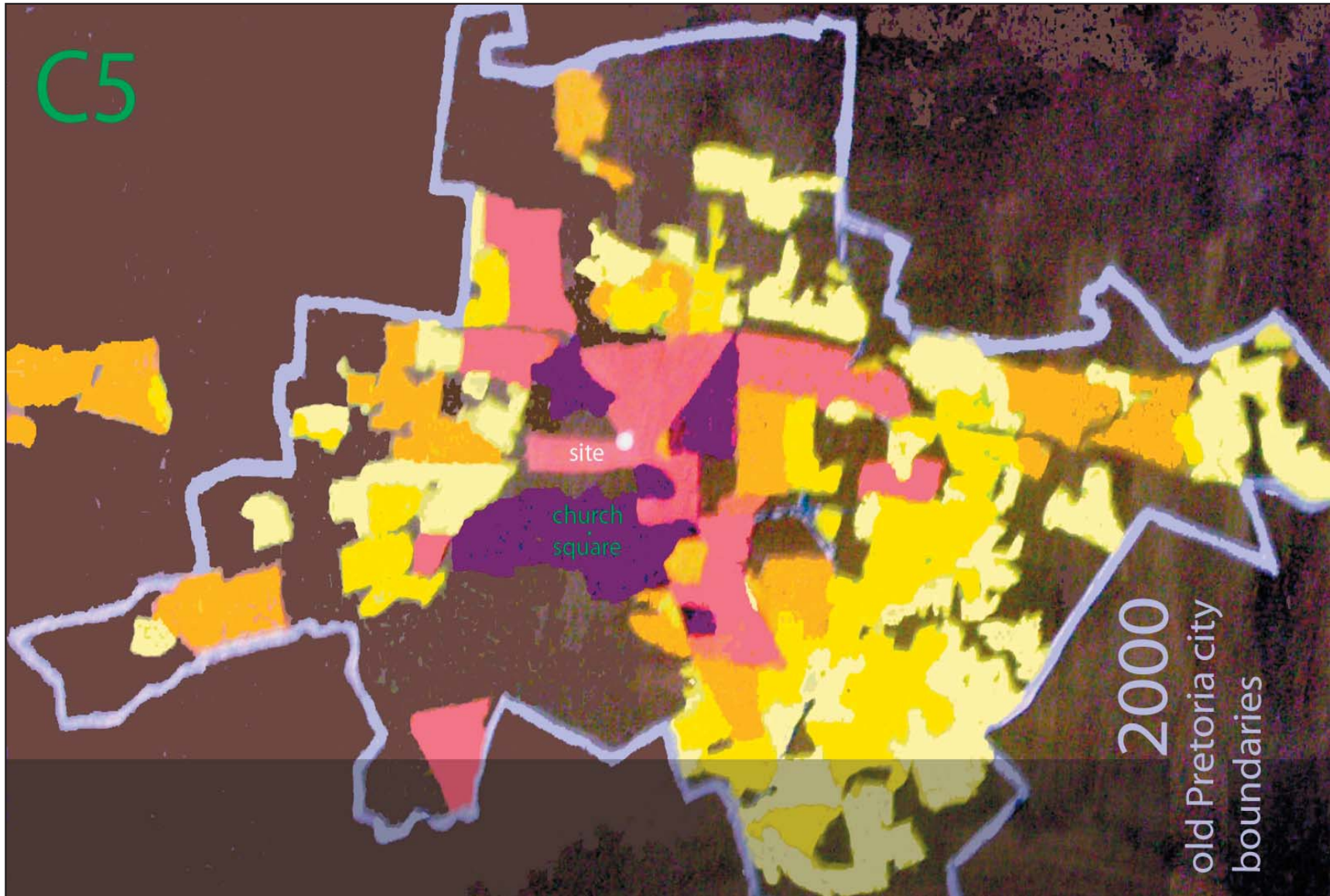


Fig 29: D1. Economic Generators

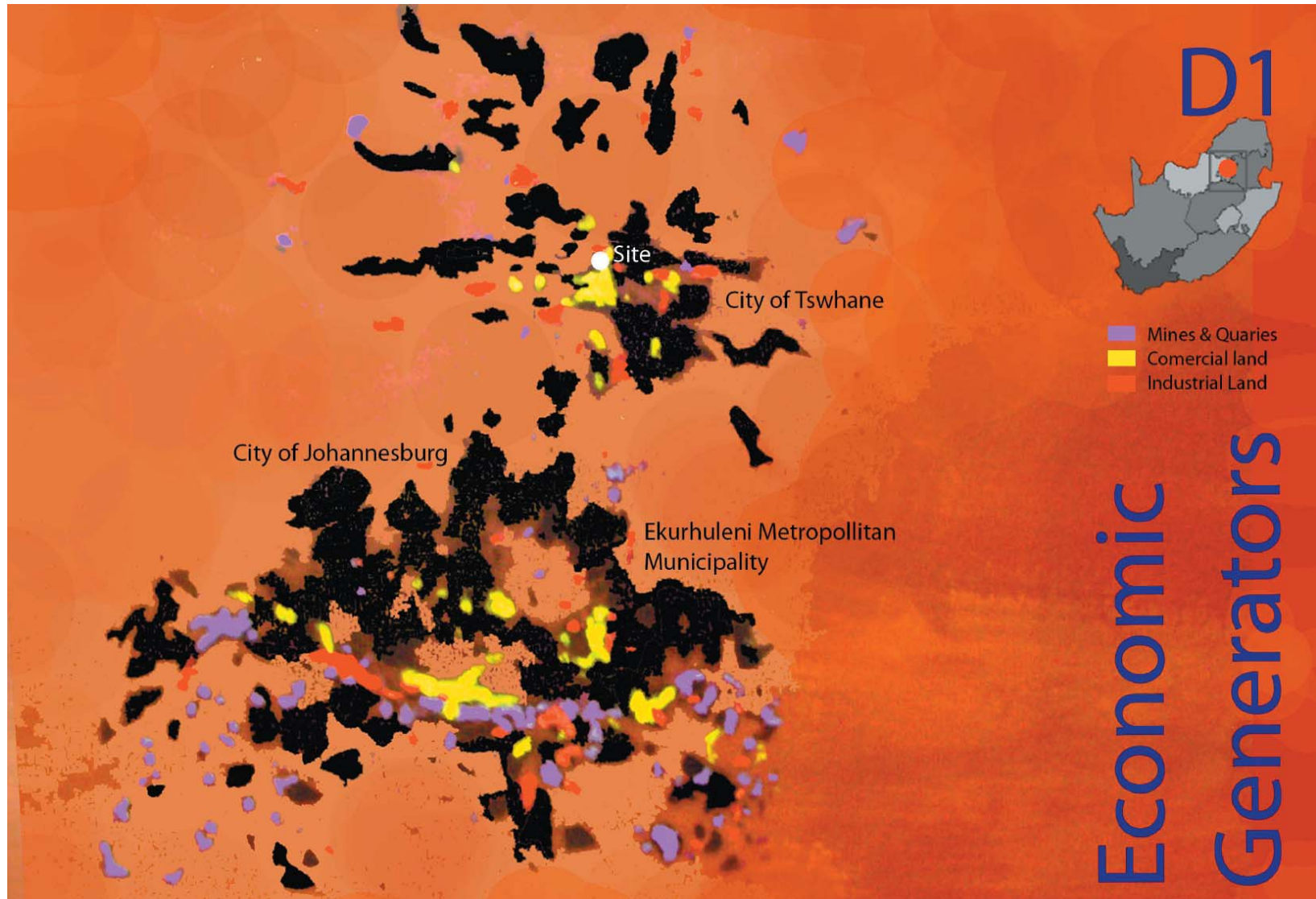


Fig 30: D2. Development in relation to the CPD

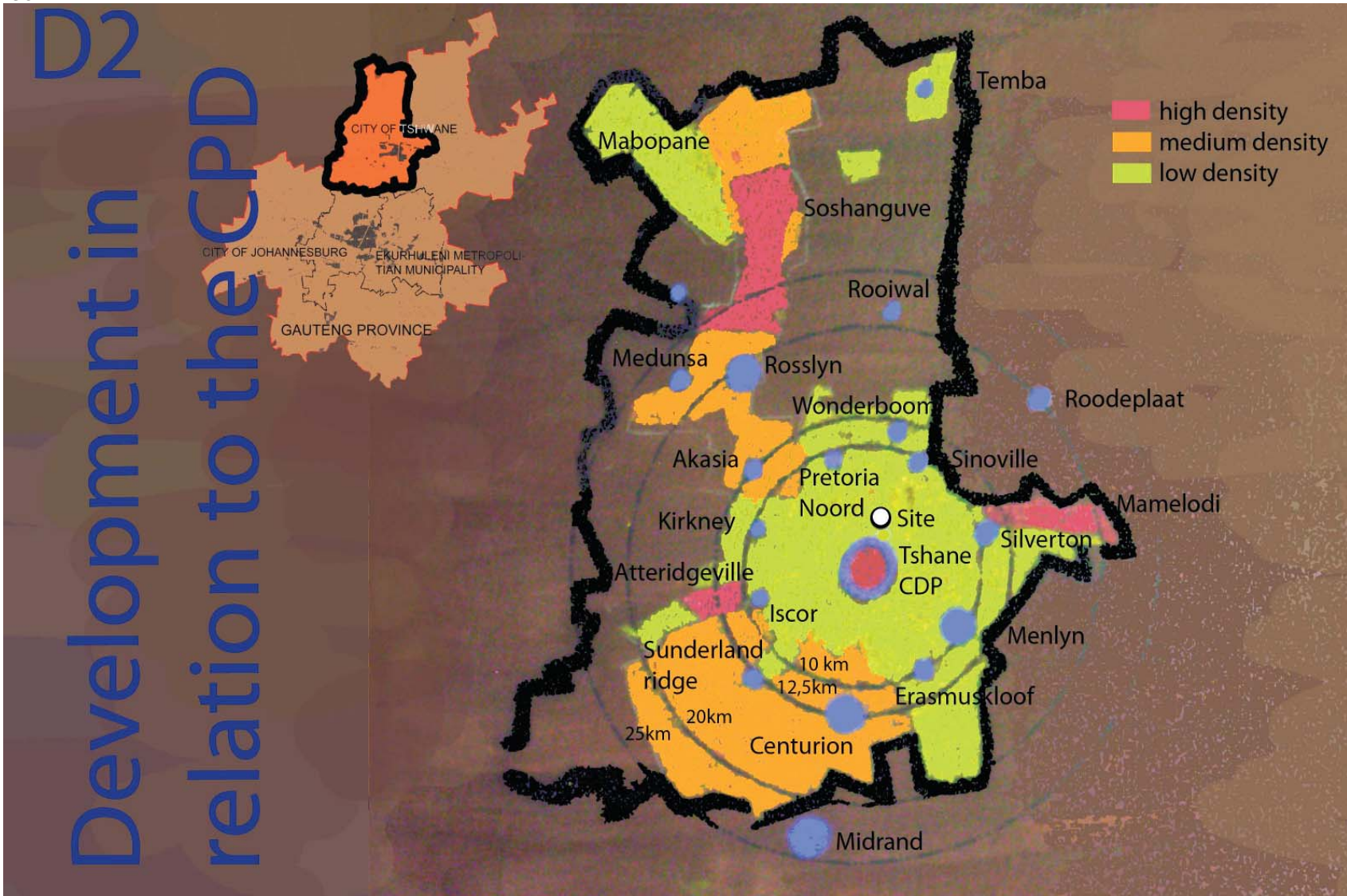


Fig 31: D3. The Inner City Development Strategy. The brown and red areas show the socio-economic municipal priorities. No32 is the MDC (Mandela Development Corridor) and the catalytic development could be linked with the site.

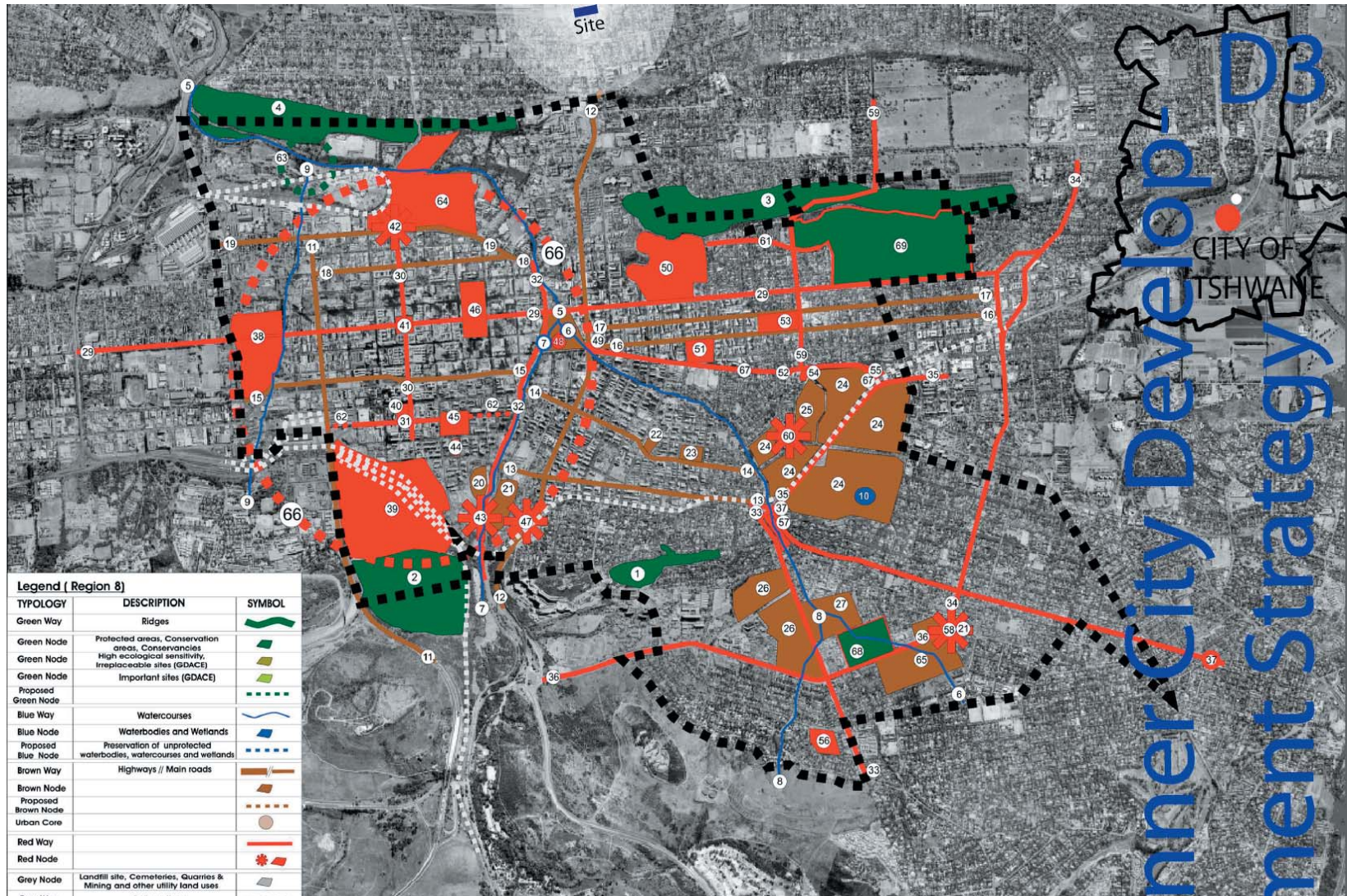


Fig 32: D4. Vital Statistics

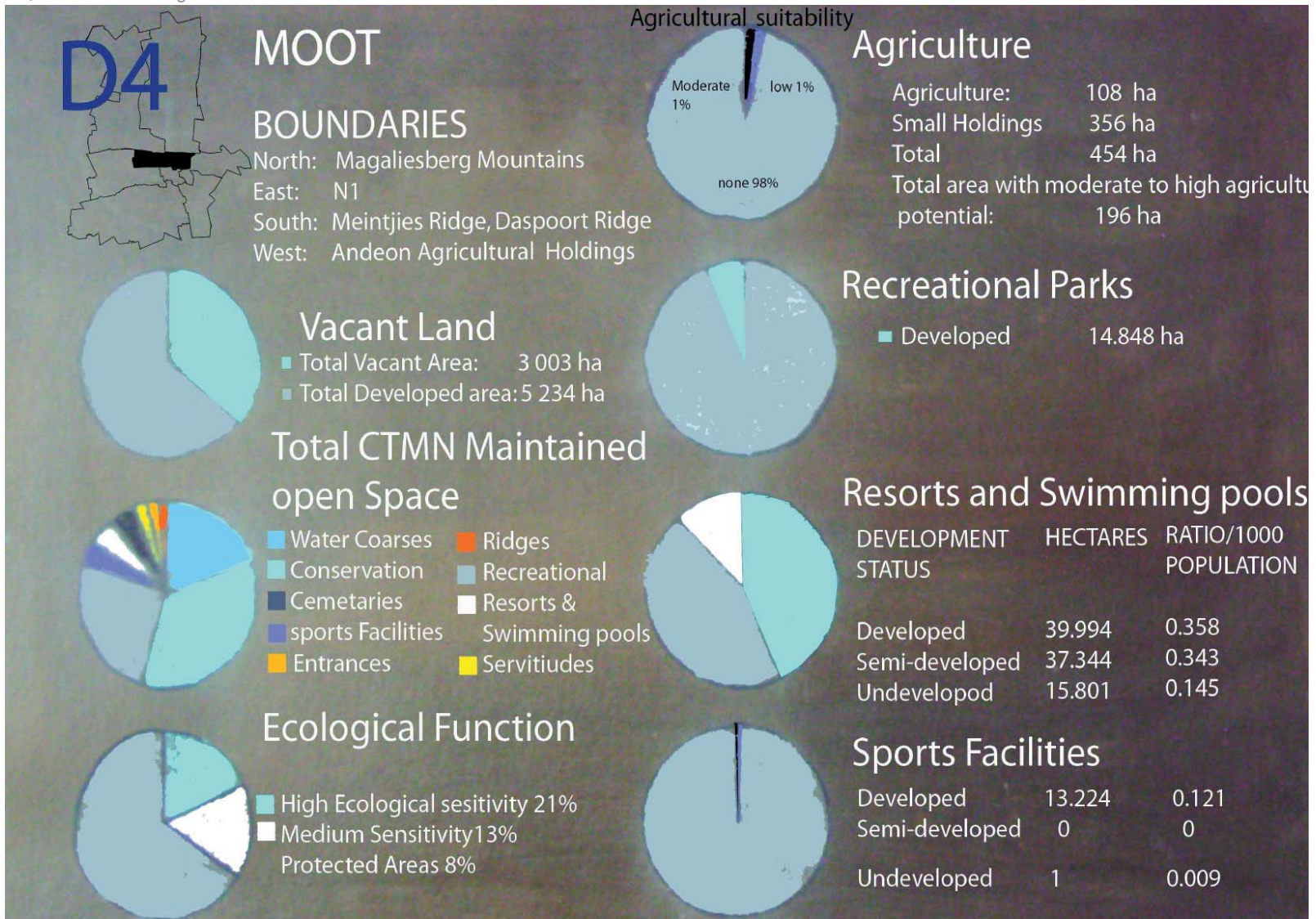


Fig 33: D5. Land Use. Orange – residential .Green –vacant. The rest shows different commercial and industrial use.



Fig 34: E1. Legibility of the City. Land marks in the area used to navigate



Fig 35: E2. Mind map of Tshwane. Perception map with the prominent landmarks and icons

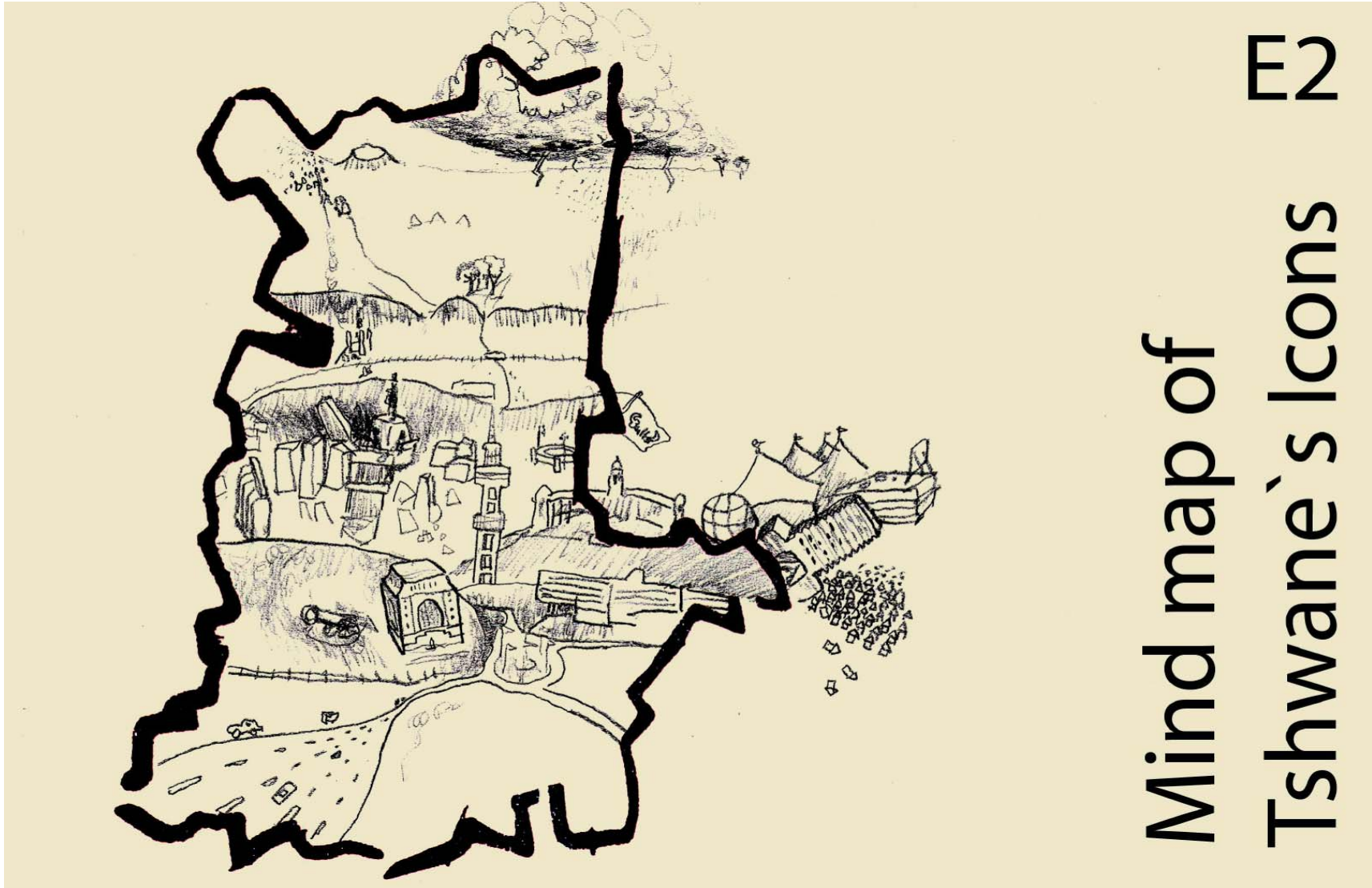


Fig 36: E3. Sense of Identity. The moot region is renowned for its eclectic ornamentation and ample signage. This has become part of the area's physical character and in most cases properly more important than its architecture.



Fig 37: E4. Signage looking north in Voortrekker road.



Fig 37: E4. Signage looking north in Voortrekker road.

