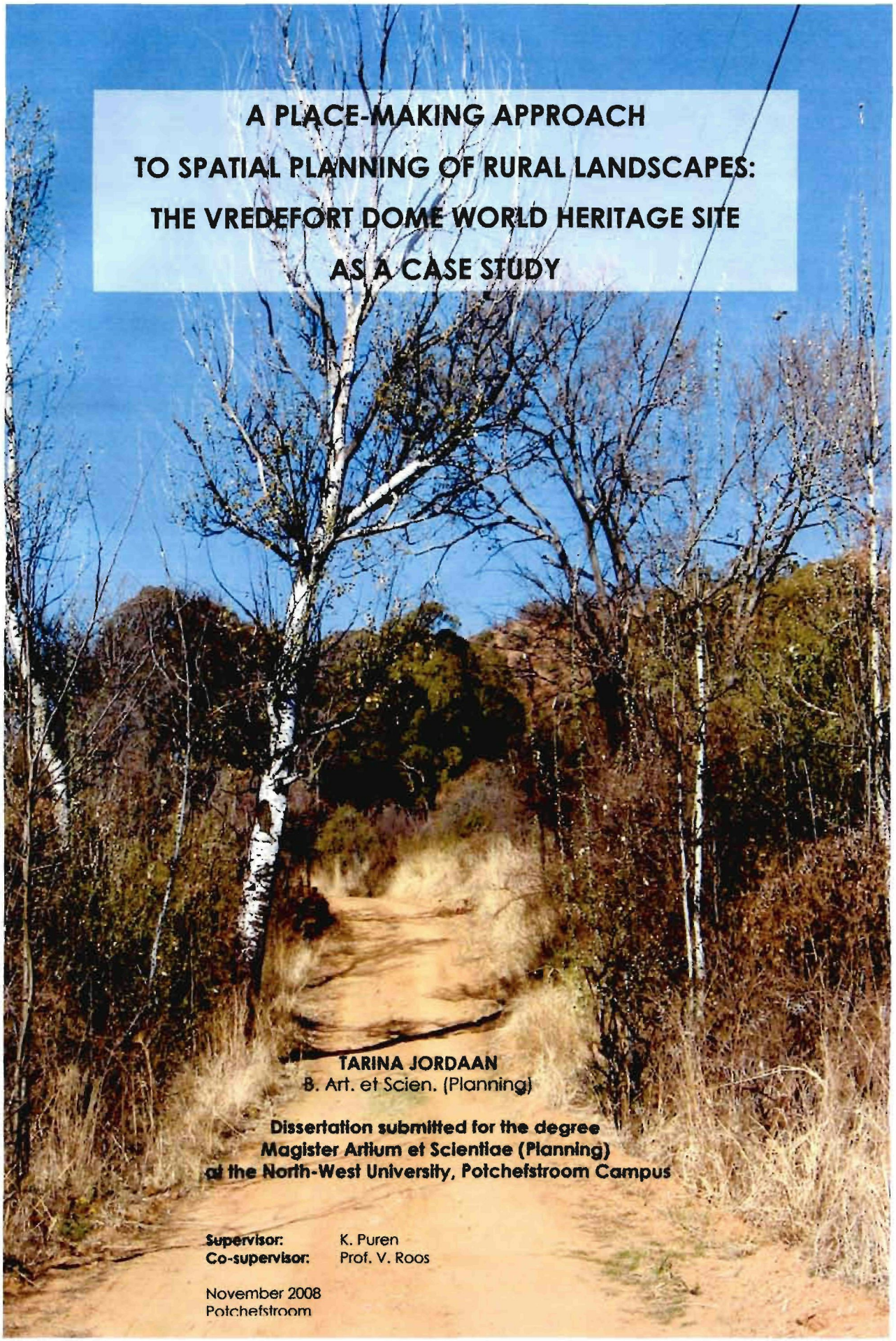

A PLACE-MAKING APPROACH TO SPATIAL PLANNING OF RURAL LANDSCAPES: THE VREDEFORT DOME WORLD HERITAGE SITE AS A CASE STUDY

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B. Art. et Scien. (Planning)

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November 2008
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DECLARATION

Hereby I, Tarina Jordaan, student number 12260347, declare that:

- The work in this dissertation is my own and that I gave due acknowledgement to the work of the other authors used in this document, and
- That the opinions held in this dissertation do not necessarily reflect those of the NWU, or those held by my supervisors.

Tarina Jordaan

21 November 2008

ACKNOWLEDGEMENTS

Two roads diverged in a wood, and I -
I took the one less traveled by,
And that has made all the difference.
- *Robert Frost,* ***The Road Not Taken*** (1920)

Writing this dissertation has indeed been a challenge. It would not have been possible without the diligent input from my supervisors, the anonymous reviewers and publishers of the *Acta Structilia* and *Stads- en Streekbeplanning* journals, Prof. Leon van Rensburg, my family and God.

Karen and Prof. Roos, as my supervisors,you have been brilliant. Your input was frequent, fair and enlightening. You formed me as an academic and encouraged me to excel. Thank you for your enthusiasm and vision.

I would like to thank my reviewers and the publishers of the *Acta Structilia* and *Stads- en Streekbeplanning/Town and Regional Planning* for their positive comments on my articles and their willingness to publish them. Without their input and trust this dissertation would have been incomplete.

Prof. Van Rensburg, without your continued support, always seemingly in the background, I would not have come this far in my academic career. Even though I chose a more challenging format for my dissertation, you supported my decision unfailingly.

For my family – proof-readers, supporters and steadfast believers in my abilities and worth – thank you. I cannot imagine this dissertation without you.

Lastly, I want to thank God, the Great Creator. There were times during the writing of this dissertation that I felt Your creative inspiration and guidance. Ultimately, this work belongs to You and the workings of the Universe.

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OPSOMMING

Die ontwikkeling van stads- en streekbeplanning is grootliks beïnvloed deur die modernistiese beweging, wat menslike omgewings met verskeie ekologiese en sosiale probleme gelaat het. In teenreaksie op hierdie probleme, het verskeie alternatiewe beplanningsbenaderings die lig gesien, waarvan plekskepping een was. Plekskepping is die fisiese ontwerp van 'n plek gebaseer op die plek se *in situ* kontekste. Plekskepping word geopper as 'n alternatiewe beplanningsbenadering tot huidige beplanningspraktyk om sodoende die ekologiese en sosiale probleme te verbeter of te voorkom. Dit impliseer egter dat huidige beplanningspraktyk 'n verskuiwing in fokus en doelwitte moet ondergaan. Die hoofimplikasies van plekskepping is dat beplanning meer konteksgedrewe, holisties, multidissiplinêr, asook mens- en kwaliteitgesentreerd moet word. Ook word dit voorgestel dat meer navorsing oor plek in die Suid-Afrikaanse konteks gedoen word.

In terme van huidige navorsing in Suid-Afrika, het 'n gemengde navorsingsmetode benadering dit moontlik gemaak om simboliese liggingselemente, soos sin van plek, in die beplanningsproses in te sluit. Navorsing oor die Vredefort Koepel se sin van plek het gepoog om sin van plek in 'n landelike gebied te verken en om dit te konkretiseer vir ruimtelike beplanningsdoeleindes. Aanvanklike kwalitatiewe navorsing het die kwantitatiewe navorsingsfase gerig. Op hierdie wyse kon simboliese ondervindinge en -betekenisse van deelnemers gekoppel word aan ruimtelike liggings en drie-dimensionele bakens, wat dit moontlik gemaak het om plekskeppingsbeginsels daar te stel, gebaseer op beide simboliese- en materiële kontekste van die Vredefort Koepel.

Sleutelwoorde: Plekskepping, stads- en streekbeplanning, kontekstuele ontwerp, gemengde navorsingsmetode.

ABSTRACT

In its course of development, urban and regional planning has been greatly influenced by the modernist movement, which left human environments with various problematic ecological and social conditions. In reaction to these conditions, alternative planning approaches branched from the planning profession, one of these being the development approach known as place-making. Place-making is the physical designing of a place based on locational contexts. Place-making is offered as an alternative planning approach to current planning practice to ameliorate and possibly prevent continuation of the problematic ecological and social conditions. However, this implies that there has to come about a shift in the focus and aims of current planning practice. The main implications of place-making are that planning should become more contextually driven, holistic, multidisciplinary, as well as human and quality centred. Also, it is proposed to increase research on place in the South African context.

In terms of current research in South Africa, a mixed-method research approach made it possible to include symbolic locational elements, like sense of place, in the planning process. Researching the Vredefort Dome's sense of place aimed to explore sense of place in a rural area and to concretise the area's sense of place for inclusion in spatial planning. Initial qualitative research informed the quantitative phase. This way symbolic experiences and meanings of participants were linked to spatial locations and three-dimensional features, which made it possible to create place-making guidelines based on both symbolic and material contexts of the Vredefort Dome.

Keywords: Place-making, urban and regional planning, place, contextual design, mixed-method research approach

PREFACE

This dissertation is presented in the form of two research articles as stipulated by the A-regulations (A.1.58) of the NWU, Potchefstroom Campus. The first of these articles was published in the *Acta Structilia Journal* (Jordaan, T., Puren, K. & Roos, V. 2008. The meaning of place-making in planning: Historical overview and implications for urban and regional planning. *Acta Structilia*, 15(1):91-117). The second article was accepted by the *Stads- en Streekbeplanning/Town and Regional Planning Journal* for publication purposes (Jordaan, T., Puren, K. & Roos, V. 2009. Exploring place-making in Vredefort Dome, South Africa: A mixed-method approach. *Town and Regional Planning*, 54 (in publication)).

The articles were written under supervision of my supervisors, Ms Karen Puren (Subject Group Urban and Regional Planning, NWU) and Prof. Vera Roos (Subject Group Psychology, NWU). Both gave permission to submit these articles for my magister degree at the NWU, Potchefstroom Campus.

In both articles, I acted as first author, Ms Puren as second and Prof. Roos as third author. Ms Puren and Prof. Roos's contributions to the articles included continuing advice on the structure and content of both articles. Also, all three authors formed part of the original research project that underlies this dissertation, namely *Vredefort Dome World Heritage Site: Determination of sense of place* (2006). Prof. Roos therefore inherently contributed to the qualitative research phase (see second article), whilst Ms Puren and myself contributed to the original quantitative study. Both these studies are described in the second article. Finally, I was responsible for the literature study and written format of the two articles presented here, with the structure and contents approved by my two supervisors.

The publishers of *Acta Structilia* and *Stads- en Streekbeplanning/Town and Regional Planning* gave permission to present these articles for the dissertation (written confirmation on these conversations are available on request). However, the copyright of the articles have been transferred to these journals when the articles were accepted for publication. The NWU (or any other party) would therefore have to get permission from the publishers of the two journals to use the articles in the future.

Potchefstroom
21 November 2008

THE RURAL CONTEXT, PLANNING AND PLACE-MAKING

1. THE RURAL CONTEXT, PLANNING AND PLACE-MAKING

1.1 *Introduction and background*

Global economic competitiveness is forcing urban centres to expand, encroaching into their rural hinterlands and destroying rural place identity (Hague & Jenkins, 2005: 25). In South Africa, high levels of urbanisation, peripheral low-cost developments and injudicious high income developments are also destroying the unique place identities of surrounding rural areas (Ferreira, 2007; South Africa. Department of Environmental Affairs and Tourism, 2007; South Africa. Department of Land Affairs, 2007; Pillay, 2004). Also, *contextually insensitive market driven development*, devoid of meaningful places and symbols for these places' users, exasperate a developmental mindset in which the symbolic nature of environments are excluded and lost (Arefi, 1999; Relph, 1976). Such a loss may affect peoples' psychological, physiological and economical living standards, especially for those directly involved in and most powerless to prevent these changes (Windsor & McVey, 2005; Holmes, Patterson & Stalling, 2003; Bell, Greenen, Fisher & Baum, 2001: 286).

In contrast, *traditional contextual approaches* in the spatial disciplines, like the work of Christian Norberg-Schulz (1980), focus on cognitive and exact phenomena as contextual design elements. Usually, these elements are confined to visual and natural elements, such as slope or vistas, but highly individual and personal reactions to places are not only elicited by these. It is also triggered by less tangible phenomena, like memories or place meanings (Hague & Jenkins, 2005: 5). Any future form of contextual development approaches would therefore need to include not only the activities and physical elements of a location, but also feelings and meanings associated with the location (Hague & Jenkins, 2005: 8).

Various scholars agree that any location is symbolic and material in nature (Hague & Jenkins, 2005; Thwaites & Simkins, 2005; Wheeler, 2002; Meethan, 2001: 168; Montgomery, 1998; Sharpley & Sharpley, 1997: 16; Norberg-Schulz, 1980; Rapoport, 1977; Relph, 1976). This dual nature of places implies a connection between places and the people who inhabit or use them. Therefore development should not take place without cognisance of both symbolic and material locational elements.

A reason proposed for the general exclusion of the symbolic elements of locations in the traditional planning process, is the lack of knowledge of these elements in the

planning profession. This is mostly due to the mainstream positivistic paradigm around which planning theory initially developed and the overemphasis of the rational planning model. Quantitative research approaches, an approach often used by positivistic researchers, easily incorporate material elements of locations into the planning process. However, these approaches are not geared for studying symbolic locational elements, hence the exclusion of these elements in the planning process (Schönwandt, 2008; Ravetz, 1986; Hall, 1982)..

Parallel to the mainly quantitatively oriented planning profession, the environmental and psychological sciences started to incorporate symbolic locational elements into research and practice as early as the 1960s. Eventually, this type of research filtered into planning theory as the term *place-making*. Place-making is a planning process that encourages unique development that is based on a location's *in situ* symbolic and material contexts (Jordaan, Puren & Roos, 2008).

The motivation behind this research is to explore the areas on the themes of place and place-making that have not yet been researched by South African authors. Prominent authors on this subject include Dewar & Uytenbogaart (1995, 1991) and Behrens & Watson (1997), as well as the CSIR's *Guidelines for Human Settlement Planning and Design* (2000). These documents are concerned with creating quality environments and refer to elements of place-making or place-making itself, but mostly discusses *what* must be achieved in urban environments in terms of place-making, rather than *how* it can be achieved. Once again, these literature primarily refer to the inclusion of the *traditional contextual design elements* into the planning process (like those of Norberg-Shulz), with scant reference to symbolic environmental elements.

1.2. Problem statement and aims

Despite the fact that research on the symbolic nature of places has gained increasing attention since the 1970s, literature on what place-making is, how it developed, and how it can be incorporated in the planning profession, is not abundant (Windsor & McVey, 2005: 147; Cresswell, 2002: 12; Grauman, 2002: 107; Kaltenborn & Williams, 2002: 189; Casey, 1996: 20). Even less is known about this topic in the South African context, despite the growing international belief that such a locally responsive development approach increases the quality of life for those inhabitants involved (Williams & Vaske, 2003: 831; Dewar & Uytenbogaardt, 1995; 1991; Tibbalds; 1992: 12).

In the light of the above, the first article, *The meaning of place-making in planning: Historical overview and implications for urban and regional planning*, aims to:

- clarify the concepts of place and place-making in planning by means of a historical overview of the development of place-making, and
- highlight the possible implications of place-making for urban and regional planning.

Research questions pertaining to this article, are:

- How is the concept *place* defined?
- How is the concept *place-making* in planning defined?
- How did place-making evolve in the spatial sciences?
- How can place-making possibly influence urban and regional planning as a profession?

The second article, *Exploring place-making in Vredefort Dome, South Africa: A mixed-method approach*, aims to:

- propose a possible research method to explore and explain place-making, using the Vredefort Dome World Heritage Site (hereafter referred to as VDWHS) as a rural place case study, and
- illustrate ways to concretise and/or integrate research results of a symbolic nature into spatial planning.

Research questions for this part of the document, include:

- What research method(s) is appropriate for this type of research?
- Why was the VDWHS chosen as case study?
- How can symbols, as an abstract concept, be concretised?

The general approach of this research is not to be technically detailed, comprehensive or definitive. Instead, as so little is known about the research topic, it is an explorative study, especially in terms of planning where the symbolic elements of locations are not commonly known. It is the sincere hope of the researcher that this study will pave the way for more detailed or exact research on rural place and place-making in the future.

1.3. The meaning of place-making in planning: Literature study

The initial phase of the development of planning as a profession gained momentum with the *Garden Cities of Tomorrow* by Ebenezer Howard and *Cities in evolution* by Patrick Geddes. Wheeler (2002) considers this phase of planning as characterised by a relatively location-based approach to development. However, the increased popularity of modernistic principles after the Second World War influenced the planning profession drastically, causing planning decisions and actions to be based increasingly on economic principles, functionality and technology (Wheeler, 2002; Relph, 1981; Porteous, 1977: 316). The focus shifted therefore from creating unique places embedded in both their symbolic and material contexts, to creating *spaces*, uniform locations unrelated to their surrounding contexts (Arefi, 1999; Relph, 1976). Locations were seen as spatial tools, governed by economic activities, factor costs and market price differentials (Hague & Jenkins, 2005; Agnew & Duncan, 1989: 2). Regional planning theories reflecting these aspects, include those of Christaller (1933), Perroux (1950), Hirschman (1958), Isard (1960) and Alonso (1964). These theories were an outflow of the previously dominant modern paradigm, leading to what has been termed *modern planning approaches* (Ravetz, 1986; Hall, 1982).

Modern approaches to planning decisions and actions led, just like global competitiveness does now, to the loss of of unique places because of the exclusion of the *in situ* contexts of locations. These environments were described as economically driven, mono-functional, monotonous and sterile (Arefi, 1999; Dewar & Uytenbogaardt, 1995; Bentley *et al.*, 1985; Norberg-Schulz, 1980; Relph, 1976; Jacobs, 1961). Relph (1976) called these spaces *placeless*, without a unique identity or character.

One prominent author to question this growing movement towards placelessness in urban environments, was Jane Jacobs (1961). Her critique against mainstream planning practice sparked a series of theoretical inquiries in the environmental sciences, which eventually led to a social turn in the planning profession where perceptions were beginning to be deemed important. The first of these enquiries is encompassed by the term *environmental understanding*, reflecting an attempt to explain the physiological and psychological processes involved in the way people perceive their natural and built environments (Jordaan, Puren & Roos, 2008a: 97). It also tries to explain the way these perceptions influence peoples' experiences of their environment and the way peoples' perceptions alter their usage of the environment.

These perceptions were explored via cognitive maps, which is one of the ways in which the symbolic nature of the VDWHS was explored later on.

The second enquiry, *enabling morphology*, pays more attention to the qualities the urban environment must have to allow its inhabitants to fulfil their physical, socio-economic and mental needs, rather than trying to understand how their inhabitants experience them. The urban form is thus considered to be the vehicle for the possible fulfilment of its inhabitants' needs (Montgomery, 1998; Bentley *et al.*, 1985; Lynch, 1981). The physical qualities of a place therefore ought not be considered seperately from its users. Later on in this particular research, participants were asked what their needs and expectations in terms of the VDWHS for future development were, enabling the researchers to explore the physical design considerations necessary for the inhabitants' development needs.

Finally, place-making entered the planning profession, defined as the process through which an environment with a unique sense of place is created (Behrens & Watson, 1997: 10). Such environments reflect the qualities of their *in situ* contexts. Hague and Jenkins (2005: 8) prompted planners to play an important role in future application of place-making, though planners are not the only role-players in the process of place-making. Planners and the community are considered to be co-creators of place.

Internationally, the case for place-making seems to be strengthened by an increasing need for the management of resources in both natural and built environments (Williams & Vaske, 2003; Wheeler, 2002). In South Africa, the fragmented and unequal physical legacy of the apartheid era, together with the current high level of urbanisation, creates a development canvass ready for change through place-making planning decisions (CSIR, 2000; Behrens & Watson, 1997; Dewar & Uytenbogaardt, 1995). However, place-making implies the inclusion of both the symbolic and material elements of locations. This requires the possible inclusion of disciplines not traditionally associated with the planning profession, such as psychology. This, however, is not the only implication place-making has for the planning profession.

As a place-making development approach is not solely economically driven, its focus is placed on long term investment returns. Quality of places is considered more important than the quantity of spaces created. However, it is important to note that place-making does not disregard economic and functional realities. Rather, these

realities prompted acknowledgement of the abstract realities such as psychological dimensions. This means that place-making does not replace exact planning approaches, but rather introduce a new level of environmental awareness into the planning process.

In essence, people matter in place-making, as it is the human experiences and symbols that form the basis of the symbolic nature of a location. Consideration for the experiences (or potential experiences) of the current or future end-users is just as important as those who finance the development for economic purposes. The planner is therefore considered to be ethically accountable for the development decisions and actions beyond the project completion point.

Finally, because there exists a lack of guidance on the topic of place-making in planning, there is a need for increased research on an academic level. The researchers tried to address this last implication by providing a second academic article, which was focused more on the methodological aspects of place-making in the South African rural context.

1.4. Exploring place-making in the Vredefort Dome: Empirical study

The notion of a natural or built location having both a material and a symbolic constitution is not new and dates back as far as Roman times (Norberg-Schulz, 1980: 18). This symbolic constitution, known as a location's *sense of place*, refers to a place's physical attributes (topography), activities that happen in that location, and subjective human experiences generated in that location (Haartsen, Groote & Huigen, 2000; Punter, 1991; Rapoport, 1977; Tuan, 1977; Relph, 1976). Planners may have knowledge on the effective ordering of physical elements and activities of places, but they may not have a full understanding of the subjective experiences of these places (Hague & Jenkins, 2005; Bell, Greenen, Fisher & Baum, 2001: 382). Multidisciplinary researchers from planning and psychology engaged in this joint research effort to achieve a more holistic view of people's experiences of the VDWHS.

The VDWHS forms part of a 2,023 million year old meteorite impact structure and is located approximately 120 km south-west of Johannesburg. It the largest astrobleme yet found on Earth (UNESCO, 2008). The status of this World Heritage Site increased the awareness of the area's potential tourism value, as well as possible

loss of symbolic elements, such as the Dome's sense of place, due to possible injudicious development that does not respect the existing sense of place, the character of the area, or the needs of the area's inhabitants. Since little is known about the symbolic meanings of rural areas such as the VDWHS, the qualitative study was completed and then used to direct the quantitative study (Creswell, 2003: 216). This means that phase one explored the VDWHS's inhabitants' sense of place, whilst the second phase determined the locations and the physical features in which these experiences were constructed.

In the first research phase an inductive approach was applied to explore the inhabitants' sense of place, as this would allow the researchers to investigate the place *meanings* people have to make sense of in their lives, their experiences, and the structures of the world in their natural settings (Denzin & Lincoln, 2000: 3; Merriam, in Creswell, 1994: 145). A qualitative approach was appropriate for this study since it emphasised the importance of contextual knowledge (Creswell, 1994: 5).

Purposeful sampling was used to include participants from different cultural backgrounds, gender and age groups. Data was collected using focus groups, individual interviews, observations, photographs and Mmogo™-models. Data was analysed according to thematic content analysis, whilst various forms of triangulation ensured trustworthiness of the data.

Six main themes were identified, relating to the Dome's contextual description, economic indicators, symbolic meanings, social connectedness, future development and non-negotiables. These themes formed the basis for the research questionnaire used during the second phase of the research, which was the creation of spatial guidelines (place-making guidelines) for the VDWHS.

The quantitative study followed the qualitative study in order to use its findings as input. The aim was to spatially link the experiences and relationships of participants with the VDWHS by means of a questionnaire for place-making purposes. A once-off cross-sectional design was used in this phase (Creswell, 1994: 118).

The systematic random sampling method was location-based and included individuals from both genders aged 19 years and older. Data was gathered using a structured interview, conducted according to a questionnaire that was completed

during the interview. Questions were based on the themes identified during the qualitative research phase and were therefore grounded in the views of the VDWHS inhabitants (Creswell, 2003: 221). The questionnaire was designed to capture symbolic environmental elements (participants' environmental meanings and experiences) and link these spatially to zones or landscape features in the Dome.

The data was analysed using descriptive statistics such as frequency tables. Results were validated when the findings of the quantitative study supported the results from the qualitative study, which indicated a strong experience of the natural and rural identity of the area (Ammenwerth, Iller & Mansmann, 2003: 244; Puren, Drewes & Roos, 2008: 140). Also, natural features, such as the ridges, *koppies* and the Vaal River were considered to be prominent symbols of the area. Finally, it was possible to create a sense of place map of the VDWHS which indicated where and with what intensity the sense of place is felt by inhabitants.

From these findings it was possible to concretise the symbolic elements of the VDWHS for spatial planning purposes. The proposed place-making guidelines included design guidelines to keep the overal architectural features rural in character, the creation of spots of excellence which emphasise the prominent symbols of the area, and three zones based on level and type of development allowed in each zone.

As little research of this nature currently exists, this research contributed to the South African planning profession in the following ways. **Firstly**, the research focused on how to concretise and then to integrate intangible environmental elements into spatial planning. In the future, this can be the starting block for a new approach to development in the country, supplimentary to the functionalist and market-driven approach in the profession. **Secondly**, the research expanded knowledge on the cooperation between two professions not commonly linked with each other, namely planning and psychology. As cooperation between these two professional teams evolved, it became clear to the researchers that both professions delivered a more holistic understanding of the phenomenon (sense of place and place-making) being researched, than without the other. The contributions of each strengthened the findings of the other. **Lastly**, though research on sense of place and place-making does exist, little of this focuses on the rural context. Existing research focuses on the symbolic environmental elements in urban contexts. This means that this particular research is very relevant and new in South Africa and its planning profession.

THE MEANING OF PLACE-MAKING IN PLANNING: HISTORICAL OVERVIEW AND IMPLICATIONS FOR URBAN AND REGIONAL PLANNING

2. THE MEANING OF PLACE-MAKING IN PLANNING: HISTORICAL OVERVIEW AND IMPLICATIONS FOR URBAN AND REGIONAL PLANNING

2.1. Introduction

Since the 1970s concepts like place, sense of place and place-making received increasing attention in both spatial research and practice (Windsor & McVey, 2005: 147; Cresswell, 2002: 12; Graumann, 2002: 107; Kaltenborn & Williams, 2002: 189; Casey, 1996: 20). This was to a large extent a reaction towards modernism that influenced urban planning practice – a reaction against the destruction of unique local identities that resulted from standardising and sterilising environments, or creating fantastic environments out of tune with their surroundings (Arefi, 1999: 185; Tibbalds, 1992: 9; Relph, 1976). Urban planners kept themselves uninvolved with the context[1] of the locations they designed in order to achieve efficiency or a large profit margin (Madanipour, 1996: 28; Jacobs & Appleyard, 1987: 168). These practices continue today and critique against these approaches has not yet slackened (Carmona, Heath, Oc & Tiesdell, 2003: 12; Arefi, 1999: 184; Dewar & Uytenbogaardt, 1995: 4).

In an attempt to understand and perhaps improve the imprints left by modernism on the physical and social realms of humans and environment, there seems to be a great interest in place research. Place research encompasses a wide variety of studies done in various disciplines and paradigms (Patterson & Williams, 2005). Humanistic geography, forestry, resource management, anthropology, sociology, psychology, architecture, landscape architecture, urban design, and urban and regional planning all contributed to place research. Both qualitative studies, as was done by Norberg-Schulz (1980), and quantitative studies, like those of Shamai & Ilatov (2005) have been done in place research. Because of the variety in disciplinary and paradigmic approaches in place studies, place is considered a complex phenomenon. Therefore, it cannot be classified as a singular research field. Rather, it must be considered as a phenomenon that ought to be studied in an interdisciplinary and encompassing way (Patterson & Williams, 2005).

The overall characteristic of place research is the increasing attention given to affective and subjective dimensions of locations. On an international level, place

[1] Contexts in this research refers to the natural, cultural, socio-economic, political, mythical, ethnic, and aesthetic milieus and whichever of these play the strongest role on a location, as identified by Loukaki (1997: 309).

research is fuelled by a spreading belief that a locally responsive approach in management and development of locations increases the quality of life for those inhabitants involved (Williams & Vaske, 2003: 831; Dewar & Uytenbogaardt, 1995; 1991; Tibbalds, 1992: 12). On a local level it is fuelled by an increasing need to address the existing shortcomings of modernistic planning – based mostly on economics and functionality – and *apartheid* planning, based on the separateness principle of the *apartheid* regime, in their inability to create locally responsive, unique, and viable settlements (CSIR, 2000; Behrens & Watson, 1997; Dewar & Uytenbogaardt, 1995). Despite this, it is disappointing to notice that current South African development law[2] makes precious little mention of place issues within development legislation, giving priority to socio-political, socio-economical, and land and resource issues.

Where humans are actively involved with their environment the landscape plays an active role in everyday life (Hufford, 1992: 241). Human experience and understanding do not exist separately from physical space (Hufford, 1992: 232). Research has shown that places have an enduring effect on the lifespan of an individual on both a physiological and psychological level (Chalwa, 1992; Marcus, 1992; Rubenstein & Parmelee, 1992; Saegert, 1976). This means that peoples' experiences of a place have spatial implications in the creation of human environments (Thwaites & Simkins, 2005: 11). If urban and regional planners pay more attention to meanings assigned to places by their users, they may possibly achieve a better understanding of development issues (Davenport & Anderson, 2005: 639). This may enable planners to manage and/or create places that are embedded in their context (place-making) rather than to implement homogenising or context-alien designs (space-making) favoured by global development pressures (Hague & Jenkins, 2005).

In the Western World globalisation causes increased international and interregional competitiveness in terms of economic growth (Hague & Jenkins, 2005: 25). A consequence of this competitiveness is physical expansion of cities. Current observers noted that this expansion can influence the rural hinterland around such centres in different ways: either homogenous sprawl creates an expanding semi-

[2] For a more complete list of South African development law, see Scheepers, T. 2000. *A practical guide to law and development in South Africa*. Kenwyn: Juta.

suburban rural waste, or local communities insist on contextual development that strengthens the local place identity and can be used as a place-marketing tool (McCarthy, 2008; Hague & Jenkins, 2005; Carmona *et al.*, 2003: 101; Raagmaa, 2002; Haartsen, Groote & Huigen, 2000: 148). In South Africa cities also experience these globalisation forces, and together with the high levels of urbanisation, settlements are expanding rapidly. This causes uneven land use management, urban sprawl – notibly informal peripheral settlements with insufficient service delivery and government housing projects – and environmental degradation (South Africa. Department of Environmental Affairs and Tourism, 2007; South Africa. Department of Land Affairs, 2007; Pillay, 2004), *all of which influence place meanings and identity.* In areas that show tourism potential due to their strong sense of place, injudicious development, such as new middle to high income property developments, threatens to change the place identity and meanings that gave rise to its tourism potential in the first place (Ferreira, 2007). The loss of place meanings and identity is therefore very real in South Africa, and though place-making is not the panacea for this problem, it can redress it to some extent.

The question of importance is then why place-making is meaningful for urban and regional planning. To explore the validity of place-making in planning, one has to have an understanding of the historical development of place-making in urban and regional planning, as well as the possible meanings of place and place-making for planners. The aim of this article therefore is firstly, to clarify the concepts of place and place-making in planning by means of an historical overview of the development of place-making, and secondly, to highlight the possible implications of place-making in urban and regional planning.

2.2. Historical overview of place-making

Interest in place and place-making developed from a variety of disciplines. Of primary importance for this research is how this interest developed in urban and regional planning.

According to Wheeler (2002), the initial phase of the development of urban and regional planning as a profession gained momentum in 1902 with the *Garden Cities of Tomorrow* by Ebenezer Howard (1946) and in 1915 with the work of Patrick Geddes (1968). This phase, which Wheeler calls 'ecological regionalism', is characterised by a relatively encompassing and place-oriented approach (a planning approach embedded in the location's contexts) to urban and regional planning.

Therefore planning's origin was considered to be initially a locally responsive spatial discipline.

A typical characteristic of the pre-modern communities was how they adapted to and fashioned their world according to the opportunities and constraints of their environment. Their living places were embedded in the contexts present and suitable for the existing conditions (Williams, 2002). With the advance of the modernistic era, the change in managerial and technical skills since the First World War, and the rising popularity of modernistic principles in the spatial discipline after the Second World War, the focus of urban and regional planning shifted. It changed drastically from its initial holistic place-centred development, to an approach where the physical development of the environment was increasingly determined by economic principles and technology (Wheeler, 2002; Relph, 1981; Porteous, 1977: 316). Interest in fashioning places according to the natural and social contexts in which they were located – as described by Norberg-Schulz (1980) – waned. Gone was the creation of unique and locally responsive places. In its place, human environments were now created to reflect economics and functionality according to modernistic interpretation (Arefi, 1999; McHarg, 1992; Bentley, Alcock, Murrain, McGlynn, & Smith, 1985; Relph, 1981; 1976). This pointed to a shift in planning towards a more abstract and positivistic way of thinking about human and natural environments, one in which the concept of 'space' gained some prominence over 'place'.

For the purpose of this article, 'space' is considered to be as how Relph (1976) described it – sterilised locations that can be anywhere, physical designs that one can duplicate elsewhere so that it is totally unrelated to its context, and what Trancik (1986) coined as lost spaces, no-man's lands that are unformed and under-utilised. Space is perceived through the physical senses and is different from people's mental interpretation of the space (Madanipour, 1996: 12). It carries no human meaning and is regarded as 'objective' (Tuan, 1977: 54). Space is therefore a developed site that stands unrelated to its relevant contexts and the symbolical meaning associated with its location. Space-making is then defined as the process of creating spaces.

This interpretation of space is not the only one that exists. The debate around space and place is particularly visible in the field of geography. Economists and economic geographers see space as a tool to develop scientific generalisations (Cresswell, 2002), especially when referring to the spatial distribution of social and economic activities, factor costs and market price differentials (Hague & Jenkins, 2005; Agnew

& Duncan, 1989: 2). This view of space is clearly visible in regional planning theories, such as those of Christaller (1933), Perroux (1950), Hirschman (1958), Isard (1960) and Alonso (1964).

Human geography was the first academic field to take a step away from the notion of scientific space, to one of 'place' as the setting for everyday routine social interaction (Agnew & Duncan, 1989: 2), as was reflected in the works of authors Lynch (1960), Tuan (1974; 1977) and Rapoport (1977). More recently, cultural geography showed interest in the concept of 'sense of place' or the identification with a place engendered by living in it (Agnew & Duncan, 1989: 2). It is this latter view on 'place' – one in which intangible elements feature – that is the basis for this article, though it is by no means the only one that exists.

'Place' refers to personal, group, or cultural space that has subjective meanings and an emotional tie between humans and their location (Windsor & McVey, 2005: 147; Altman & Low, 1992: 5). It is a space with a specific character or a sense of place (Norberg-Schulz, 1980: 5). This means that it has meaning for the individual or group (Violich, 2000: 113). Sense of place implies that people are satisfied with a place, and appreciate the land in a way that stretches beyond its use value (Stedman, 2002: 563; Eisenhauer *et al.*, 2000: 423). It is the character, the comprehensive atmosphere of a location, as well as the concrete space-defining forms present. It can be described as a place's "fingerprint" (Loukaki, 1997: 308; Rapoport, 1977: 179). It is the perception of what is most salient in a specific location (Cantrill, 1998: 303). Such places are unique and locally embedded, and vibrant with urbanity (if located in an urban setting) (Montgomery, 1998; Behrens & Watson, 1997; Dewar & Uytenbogaardt, 1995; Jacobs & Appleyard, 1987; Bentley *et al.*, 1985; Jacobs, 1961). Place is therefore a location that is clearly embedded in (or has drawn inspiration from) its relevant contexts and reflect the symbolic meanings humans associate with it. Place-making would then be defined as the process of creating places, rather than the manifestation of the physical product, which is 'place'.

One of the aspects of modernistic planning that is greatly lamented is the loss of unique places. This was due to partial or complete physical destruction and redevelopment of such places, as well as newly created locations which can be described as mostly mono-functional, monotonous, and sterile (Arefi, 1999; Dewar & Uytenbogaardt, 1995; Bentley *et al.,* 1985; Norberg-Schulz, 1980; Relph, 1976; Jacobs, 1961). This is not the only critique against modern planning. Authors (Arefi,

1999; Behrens & Watson, 1997; Jacobs & Appleyard, 1987; Trancik, 1986; Relph, 1976; Jacobs, 1961) site various problems of modern design, such as large-scale developers creating ever larger-scale developments causing loss of residents' control of their own living places. Also, privatisation of the urban environment leads to loss of vibrancy in public places, while modern designs cause increasing spatial fragmentation between different social groups. Profit-based usage of valued places leads to these places' destruction, which increases placelessness, users' alienation from the urban environment, and inequality between environments of the rich and the poor. Lastly, design professions – influenced by positivism and consumerism – increasingly design for people and locations from a universal viewpoint, applying instant solutions without considering the contexts involved.

The above-mentioned limitations were the impetus for the initial attack on modernistic urban and regional planning. Urban journalist, Jane Jacobs (1961), strongly opposed the theoretical basis on which planning rested on, that was economically driven (for a more detailed discussion, also see Wheeler, 2002). The reality of how cities work – according to Jacobs – differs from the planning theories applied to them. Perhaps this was the spatial disciplines' first inspiration for turning towards a related academic field, humanistic geography, to try to understand the problems of the modern city.

It was during the 1960s and 1970s that the influence of humanistic geography on urban and regional planning became apparent. This contribution in the development of place-making is what can be called the era of environmental understanding[3].

2.2.1 Environmental understanding

Environmental understanding tries to explain the physiological and psychological processes involved in the way people perceive their natural and built environments. In addition, it tries to explain the way these perceptions influence people's experience of their environment. The way people experience their environment in turn influence how they use it, which also influence how the physical environment is further utilised.

The primary works of environmental understanding came from humanistic geography and urban and regional planning. According to Yi-Fu Tuan (1974; 1977), Downs & Stea (1977), Kevin Lynch (1960), and Amos Rapoport (1977), people gather

[3] Environmental understanding and enabling morphology are the authors' own terms used for classifying relevant literature that reflect similarities in content.

environmental information in a physiological way through the senses (environmental perception), which is then assimilated in a cognitive process, known as environmental cognition (Carmona *et al.*, 2003: 87; Rapoport, 1977: 31).

During environmental cognition people understand, structure, and learn about their environment (Rapoport, 1977: 31). It is an intellectual process and less consistent over cultural boundaries than environmental perception (Rapoport, 1977: 33; Tuan, 1977: 37). Through environmental cognition, people come to understand their environment, connecting it with communal or individual symbolism in the form of cognitive maps (Downs & Stea, 1977: 68; Rapoport, 1977: 31). Meanings are attached to both the physical and the social environment, and are represented as such in their cognitive maps (Rapoport, 1977: 168). The value of these meanings or symbols (whether positive, negative, or neutral) determines attitudes, attachment towards the environment, and usage of the environment. This is very similar to symbolic interactionism, in which people's actions towards things are based on the meanings they ascribe to those things while interacting with them (Blumer, 1969).

Two distinctive parts of environmental understanding is obvious from both the humanistic geographic and planning perspectives. Firstly, environmental input is experienced through the biological senses, as well as on a psychological level. The focus of Tuan's work (1977) overall relates to the way people experience space and place on both a biological and symbolical level. The dimensions of the human body, the cultural and the individual orientations of people holistically influence the way people experience physical places on all spatial levels, which in turn influence the symbols and meanings people assign to these places. Tuan's understanding of the physical environment therefore tries to explain how people assign meaning to the physical environment. Rapoport (1977), writing as an urban and regional planner, illustrates a similar biological and psychological process in the human experience of the environment which eventually leads to the assignation of meaning to physical places. Both studies are useful in terms of place-making, since place-making is the process of actively weaving contextual meaning, whether it is everyday, temporal, or symbolic meaning, into the structure of a place (DeMaria Harney, 2006: 25; Tuan, 1977: 102).

The second part of environmental understanding focuses on how these environmental meanings are spatially represented. Kevin Lynch (1960), as a planner, writes that people's spatial understanding of their environment can be categorised

into five spatial elements, namely paths, edges, districts, nodes, and landmarks. These elements can be superimposed on a physical map of an environment, creating a spatial representation of people's understanding of place. Similarly, though writing from a geographical viewpoint, Downs & Stea (1977) focus specifically on the development of cognitive maps relating to people's spatial experience of an environment. Cognitive maps are abstractions covering cognitive abilities that enable people to collect, organise, store, recall, and manipulate information about the spatial environment (Downs & Stea, 1977: 6). It is therefore the manner in which people organise their representations of some part of the spatial environment, which is obtained through the biological senses, interpreted through the cognitive processes and which are based on a unique personality, cultural, and demographic profile. Understanding the way in which cognitive maps are developed and used offers another way to explore the meaning that users of a specific environment attach to it.

After the spatial sciences' rather short focus on environmental understanding, the 1980s heralded the second contribution in the development of place-making, namely enabling morphology.

2.2.2 Enabling morphology

Enabling morphology seems to have developed partially due to the continuance of Lynch's initial work in the 1960s, and partially due to the burgeoning urban design movement as critique against the spatial legacy of modernism (Bentley *et al.*, 1985). It pays more attention to the qualities the urban environments must have to allow their inhabitants to fulfil their physical, socio-economic, and mental needs, rather than trying to understand how their inhabitants experience them.

Kevin Lynch in *Good City Form* (1981) did work in which he identified performance qualities that can be used to 'measure' whether an urban environment fulfils the needs of its inhabitants. Performance qualities are identifiable spatial characteristics reflecting on the performance of cities that are also measurable scales (Lynch, 1981: 111).

In *Responsive Environments: A Manual for Designers*, Bentley *et al.* (1985) discussed appropriate qualities for urban environments (from an urban design viewpoint), ranging from permeability on the larger scale of the city, to personalisation of the more personal, small-scale places. Similarly Montgomery (1998) – an urban and regional planner – lay down three principles for creating

successful urban places, namely good city form, sensory experience, and human activity. All of these author's performance qualities and principles are refined into qualities that describe either what the city must allow its citizens to experience, such as vitality and access, or the morphological qualities that must be achieved, like density and scale. Either way, the city is seen as a vessel that can be managed or manipulated to create certain human experiences or enable these experiences, based on the needs of the city's inhabitants.

The essence of enabling morphology is that the physical form of cities is subservient to the needs of its inhabitants. It is however important to create an appropriate physical form in order for the city to serve its inhabitants. This morphology of a city is therefore the vehicle for the possible fulfilment of its inhabitants' needs.

The contributions of environmental understanding and enabling morphology are important in urban and regional planning's movement from modernistic planning and towards a more contextually grounded planning of human environments. They both contributed to place-making in planning. However, they truly cannot be considered as place-making, since they do not carry the main elements of place-making, which is 'physical design' within 'locational context' (Behrens & Watson, 1997; Tuan, 1977).

2.2.3 Place-making

Place-making is considered to be the process through which an environment with a unique sense of place is created (Behrens & Watson, 1997: 10). It is the awareness of weaving contextual meaning – cultural, historical and natural – into physical structure (Trancik, 1986: 97; Tuan, 1977: 102). Built environments based on the principles of place-making reflect the characteristics of their unique natural and cultural settings (Behrens & Watson, 1997: 11). Through place-making, the site's uniqueness is enhanced, instead of standardising its character. Designers working from a place-making viewpoint are against imposing abstract designs unrelated to the contexts present like modernists often do (Trancik, 1986: 98).

Urban and regional planners seem to play an important role in the future application of place-making in the spatial professions. Hague and Jenkins (2005: 8) see planning as "being about place-making; that is to say that a key purpose of planning is to create, reproduce or mould the identities of places through manipulation of the activities, feelings, meanings and fabric that combine into place identity". However, "while place-making is more central to the profession of planners than to most other

social groups, the planners do not have a monopoly on the power to determine a place identity" (Hague & Jenkins, 2005: 8). The making of places, participation from vested individuals and groups, and planning are intimately intertwined.

Internationally, authors who endorsed the place-making viewpoint opposed modernistic planning as early as 1960s (McHarg, 1969) and 1970s (Relph, 1976). In South Africa a similar reaction occurred in urban and regional planning, where the reaction also included a critique on the spatial legacy of the apartheid era (CSIR, 2000; Behrens & Watson, 1997; Dewar & Uytenbogaardt, 1995). Internationally, the past two decades gave rise to a distinctive kind of 'ecological thinking' regarding natural resources, focusing on both tangible objective and intangible subjective environmental properties. It also includes emotional and symbolic meanings people associate with specific places (Williams & Vaske, 2003: 830). Urban and regional planning is seemingly moving into what Wheeler has referred to as the 'new regionalism' era, which is characterised by a concern for the environment, equity, and economic development (Wheeler, 2002). In addition, there is an increasing focus on the developing or managing of human environments in a place-oriented manner. A large body of existing literature in the spatial sciences mirrors this new regionalism of Wheeler. The literature focuses on creating quality places rooted in their local contexts and not just places that purely reflect the principles of economy and efficiency, though not scorning it either (Hague & Jenkins, 2005; Behrens & Watson, 1997; Dewar & Uytenbogaardt, 1991, 1995; McHarg, 1992; Jacobs & Appleyard, 1987; Lynch & Hack, 1984; Norberg-Schulz, 1980; Relph, 1976).

Place-making's history has long been in the making. Starting in the 1960s with Ian McHarg's *Design with Nature* (1969/1992), environmental design ethics was very much at the forefront. McHarg believed that a consumerist approach towards development of human environments was leading to destruction of nature, as well as creating meaningless towns and cities without a sense of place. In order to stop environmental degradation and the creation of characterless profit-driven urban environments, McHarg – and later also Lynch & Hack (1984: 5) – proposed that any site's development must be guided by the inherent possibilities and constraints of that particular site, whether it is historical, physical, or biological. A development ought to adhere to the sense of place, and should therefore be rooted in its contexts. It is here that Lynch & Hack (1984: 5) refers to the skilled site planner as one that "suffers a constant anxiety about the 'spirit of place'".

Hague & Jenkins (2005) have recently illustrated the use of an area's unique character in guiding its development in a contract research project, NoordXXI, which formed part of the European Union's Interreg IIC project *Quality by Identity: Beyond Traditional Spatial and Economic Development*. The project illustrated how place-making can be integrated into planning practice, which is in line with the increasing interest from professional planners in place constructs (Hague & Jenkins, 2005: 3). The aim of the project was to influence the spatial development of each region based on a stronger local identity (Hague & Jenkins, 2005: xiv). This place identity is more or less based on Norberg-Schulz's sense of place concept (1980) which means that a place has unique natural characteristics that can be strengthened by a sensitive design solution. Also, it is based on the intangible meanings people associate with these characteristics. Planning is therefore seen as intimately involved in the processes of creating and disseminating meanings and identities. In addition, it is important for planners to realise that past and present identities cannot be summarily erased in favour of a new identity, but must be used as an important point of reference for the construction of a new place identity (Hague & Jenkins, 2005: 11).

Similarly, South African planners Dewar & Uytenbogaardt (1991: 42) view place-making as allowing environments to develop their own 'logic'. A positive environment is one that is sensitive to the social and natural contexts of the place, allowing a fine-grained small-scale structure to exist between larger scale directional-giving structures that are coarser. To create quality places is to make built environments which are not based on ephemeral conditions – like population growth and rapid urbanisation – but places that encapsulate timeless qualities that support human activity, needs and reflect the natural and human contexts, as well as histories present (Dewar & Uytenbogaardt, 1991: 13). Place characteristics, human activities and cultural expressions all work together to co-create unique places, which are regarded as the basis of society. Seen from a place-making viewpoint, planning must not be a purely functional, programmatic and technocratic exercise, but rather one that "also calls into play intuition, imagination and insight" (Dewar & Uytenbogaardt, 1991: 13).

Championing the creation of unique places, Edward Relph (1976) and Christian Norberg-Schulz (1980) pleaded for the creation of authentic places (spaces with a sense of place) and saw consumeristic rootless development – based on modernism and the International Style – as destroying the meaningful places of peoples' lives by creating standardised places out of context. Jacobs & Appleyard (1987) also

opposed the universally designed developments and 'instant' development solutions. According to them, places must be designed to have a unique accessible character or sense of place in the whole, not as isolated icons unrelated to their contexts.

Overall, place-making can be seen as a complex, interdisciplinary phenomenon that was influenced by various spatial and humanistic paradigms (figure 1).

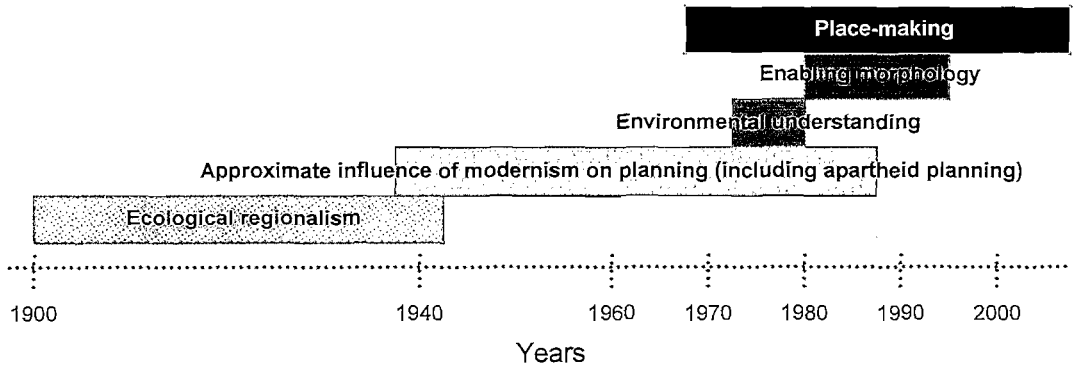


Figure 1 – The development of place-making in urban and regional planning (2007).

These influences did not necessarily follow each other chronologically, but rather subtly influenced each other over traditional disciplinary boundaries. Place-making is mostly about creating places that fit the natural contexts, human body, as well as the way the human mind and heart works (Lynch & Hack, 1984: 72). Finally, it is about embracing both tangible and intangible elements of human existence and using these elements to guide physical development in partnership with the meanings that vested individuals and groups associate with a specific environment.

2.3. Discussion

Even though urban and regional planning might initially have been a contextually driven profession, it was drastically influenced by modernism. In fact, it seems as if its largest theoretical basis is still primarily based on the principles of 'objective' functionality and economy in which the end-users have less say in the development of a place than the developers do. These principles are also perpetuated by a profit-oriented approach to what the requirements of a good development are – the largest feasible number of units per area at the lowest cost. Global capitalism creates environments that focus more on quantity than quality. Place is devaluated and turned into a commodity. Numbers, economies, accessibility, and potential for growth change a collective experience and management of the urban environment into a solitary one. The individual's living experience is not so important anymore as the privatisation and iconification of individual pieces of land. This 'everyone for himself'

attitude breeds social incivilities and nuisances, replacing the self-policing nature of premodern neighbourhoods (Arefi, 1999: 182). Additionally, consumeristic development practices increase the potential for environmental degradation and poor quality living environments (McHarg, 1992; Lynch & Hack, 1984: 2; Relph, 1976).

The essence of this planning approach therefore implies that quantity is king over quality. This is not entirely reproachable – making the most of scarce resources cannot be criticised. However, a balance must be achieved. Priming resource use for financial gain over the ecological needs and needs of a place's users is surely to devaluate the human experience and the habitat that supports humans.

This 'objective' approach, or space-making, created (and still creates) various problems for the ecology and users of such spaces, mostly because such objective developments go against, or ignore, the very social and natural contexts in which they are located (McHarg, 1992). To rectify these problems the planner has to step away from this singular focused approach towards a more integrated and multi-disciplinary approach. Planners, for example, can draw on the expertise of psychology, which can broaden the list of contexts that can be included in physical designs. Psychology studies tangible and objective properties of the environment that influence humans, as well as the subjective and symbolic meanings attributed to places by people (Williams & Patterson, 1999: 142). This is important, since there are many spatially related meanings and values that cannot be identified through measurable or traceable means like market transactions (Williams & Vaske, 1999: 143). The use of knowledge from psychology is not new – it has proven useful in disciplinary challenges in fields like urban and regional planning (Williams & Vaske 1999: 141; Lynch & Hack, 1984: 68).

In addition to broadening his/her theoretical scope, the planner will have to cultivate a new definition of what urban and regional planning ultimately has to achieve. Whereas 'objective' planning aimed to achieve economy and functionality, contextual planning aims to create places that are meaningful for its users without compromising the natural contexts in which it functions. The essence of contextual planning is therefore place-based design – the use of local knowledge and/or resources available *in situ* to guide the design.

The argument here is that place-based planning, or place-making, has a greater potential to rectify and prevent the problems associated with 'objective' planning. The

motivation behind this reasoning is that place-making aims to understand the contexts in which a place is to be created before a design is created, while letting the physical design be guided by these contexts when the actual planning starts. This implies that the planner has a greater understanding of the history of the place aforehand, enabling him/her to minimise potential negative outcomes, such as anti-social user behaviour like vandalism and crime, which can have financial and security comebacks for the place's users (Bell, Greenen, Fisher & Baum, 2001: 286).

Understanding a place also prevents the loss of a location's history – collective and personal – that preserves history for its current and future users. Place-making does not forcibly shear people from their known lived-in world and destroy their place identity. To do so can cause emotional reactions like grief, anxiety, despair, xenophobic reactions towards outsiders, migration, groundlessness, and rootlessness (Holmes, Patterson, & Stalling, 2003: 245; Tibbalds, 1992: 77). In a moving case study about the loss of place and place identity of the Cheslatta T'En Canadian First Nation, Windsor & McVey (2005) wrote about the social ills and the decline of the living standards amongst these people. The Cheslatta community was forced to migrate away from the place they had populated for at least 10 000 years because their valley was flooded for a dam to run a hydroelectric plant (Windsor & McVey, 2005: 154). The loss of place and sense of place created havoc among the traditional lifestyle, effectively destroying the core values and traditions of a whole rural community. This shows that a place's identity can quickly disintegrate when even one of its three formative elements – socio-economic, spatial, and historical-cultural meanings – are threatened, changed, or destroyed (Raagmaa, 2002: 56; Harner, 2001: 675). The influence of loss of place identity can be major because of the role places have in forming and affirming a sense of personal identity (Williams, 2002: 353).

Understanding a place also enables the planner to maximise positive outcomes, such as creating a cherished environment that satisfies human needs such as identity, belonging, groundedness, meaning, growth, and spiritual well-being (Stuart, 2004: 76; Holmes *et al.*, 2003: 241). In addition, when such a cherished environment is under threat from harm or destruction, inhabitants have a greater propensity to rehabilitate it or preserve it (Brehm, Eisenhauer & Krannich, 2006; Brody, Highfield & Alston, 2004; Gifford, 1997: 51) – an element which seemingly lacks in modern landscapes (Relph, 1981: 99).

One way to gain a better understanding of the human contexts of a place under scrutiny is to draw on the knowledge and methods of environmental understanding. Considering environmental understanding, planning opened itself up to the introduction of subjective, less quantifiable elements. Environmental understanding makes it clear that although there is a fundamental difference between the physiological and psychological experience processes, they are ultimately linked to each other. (Bell *et al.*, 2001: 95). The human body and mind cannot be treated as separate from its physical environment, since it is environmental input that drives these processes. Also, physiological experiences, such as environmental stress, have distinct physical and psychological effects on humans. This topic has been extensively researched in the field of environmental psychology. The link between environmental stress and psychological disorders shows an increasing occurrence in physical illnesses, mental disorders, performance decrements, aggression, irritation, social withdrawal, and decrease in prosocial behaviour (Bell *et al.*, 2001; Gifford, 1997).

In addition, environmental understanding states that the physical dimensions and qualities of environments have the ability to produce personal and collective symbology for their users. How users perceive their environment has an influence on users' experience of it and on how users will use it (Tuan, 1974). Environmental understanding therefore enables the planner to acknowledge the human meanings attached to a physical location, which in turn gives a probable description of how this place might or ought to be used in the future.

When the planner has a clear understanding of the potential usage of a place, he/she can turn to enabling morphology, which gives guidelines on how to achieve a physical design that enables certain experiences and meanings, as asked for by its users. However, there is the question of relevance of these guidelines. Most of the goals and principles of enabling morphology are generalised, based on goals that are supposed to be representative of all human urban needs. The question arises, for example, on whether these goals and principles are as applicable to a European metropole as to a small village in Sub-Sahara Africa. Identical environmental elements are not necessarily meaningful for different people, as certain elements – like culture – influence people's meanings (Rapoport, 1977; Tuan, 1977: 162). To assume that environmental elements have the same meanings for all people, is to assume that most socio-cultural differences between countries have been eradicated

by some global process, such as globalisation. Nevertheless, it still ought to be possible to apply these principles to a relatively homogenous, localised population.

However, knowing what the end-users' needs are and how to create a place that has the physical dimensions to satisfy these needs, is not what true place-making entails. True place-making also entails, in addition to the formerly mentioned elements, that the place is created according to its location's and users' unique identity. Otherwise, such a place, no matter how successful it is in satisfying its users' basic needs, is just another place that only satisfies basic human needs.

The uniqueness in question can be achieved by letting the design be guided by the inherent (natural or built) potentialities – the sense of place – of such a site. Hague & Jenkins (2005), Ian McHarg (1992), Norberg-Schulz (1980) all give extended descriptions on how to do just so. Ultimately then, it is using a site's character, the sense of place, together with the meeting of ecological and users' needs, for a physical design that crowns long-term quality of place over short-term monetary gain (McHarg, 1992; Norberg-Schulz, 1980).

2.4. Implications for urban and regional planning

Place-making has arisen from a human-inhabited landscape that was and still is characterised by definite environmental and social challenges due to certain planning practices. That is not to say that human settlements before the advance of urban and regional planning were free of similar challenges – perhaps these problems were only more in proportion to its inhabitants and more localised than with today's budding global population.

As it is, planning physical environments from a locally responsive way will require some shift in the way planners perceive developments, cities, and regions (Wheeler, 2002). Place-making calls for a more holistic, integrated, and multidisciplinary approach to planning. This means that any form of physical development cannot happen in isolation from the natural, social, and historical contexts that aided in the forming of the site's character; planning must not happen in a way that ignores the site's sense of place. Also, place-making's focus is long term, encompassing a wide range of contexts and meanings.

Every site is unique due to the complexity of its parts and patterns (Lynch & Hack, 1984: 30). It is composed of many factors from various contexts, and to disturb one

factor is to create a chain of reaction in others. Disturbance is inevitable in any form of planning – making places is therefore the creative art of producing a design for a site based on the unique parts and patterns present.

The consequences of planning are therefore greater than might initially be expected. This has several implications for planning practice (table 1).

Table 1 – Main implications of place-making for urban and regional planning (2008).

Place-making	Implications for planning
Holistic, integrated, multi-disciplinary	Source information and techniques from related fields, not just those commonly used in planning.
Contextually based	Unique designs, based on *in situ* contexts and experiences.
Long term focus	Base design on projected long term ecological, social, and financial returns.
Complex approach	Include a wide range of elements in design.
Habitational and end-user oriented	Base design on site's ecological and end-users' needs, not solely on the expectations of developer.
People matter	The human experience[4] must be considered prime over economic or functionality principles.
Quality *versus* quantity	Quality of places is more important than quantity of spaces.
Accountability	Planner is directly responsible for creating places that meet immediate ecological and user needs; indirectly responsible for long-term quality of environment and life.
Lack of guidance	Increase place-making research on academic level.
Resources	Training personnel can cause temporary temporal and financial difficulties.

Place-making implies that "[r]eal space – seen through direct observation and understood through experience and contextual study – must take precedence over the abstraction of space contained within computer models, which are after all only tools to help planners understand the real world" (Wheeler, 2002: 274). The real world is not only about the level of cost-efficiency per spatial unit. The real world is

[4] The extent of the 'human experience' for the purpose of place-making is a topic that will have to be researched in the future, as different demographic groups experience the same place in different ways (Williams & Vaske, 2003: 831; Tuan, 1977: 162)

also about the way the layperson feels about the settlement, neighbourhood, and *erf* he or she lives on. If the layperson's lived-in world is characterised by a feeling of loss due to the obliteration of a place's inherent spirit; by spatial monotony that confuses place identity (but is easy to create on the drawing board); by frustration of a spatial design that does not fit or threatens his/her needs, cost-efficiency is the last thing this person thinks about. Ignoring the way people experience place and the meanings that they attach to places; ignoring the character – its inherent opportunities and constraints – of a place in favour of a context-alien design, is to scorn the value of human life and the world that makes life possible. Planning places must therefore ultimately be done from a point of view in which the site's and end-users' needs are prime, not the developer's (although in practice this might be harder to implement than in theory).

At first, including subjective aspects in planning practice may seem daunting, though this is indeed possible. Place-making starts with understanding the place and its various contexts as a whole (Lynch & Hack, 1984: 127). It integrates local knowledge and experience of the environment into the design – it is not a top-down design approach. When designing with the local contexts, the planner's development can perhaps avoid losses due to context-ignoring design of the environment as described by McHarg (one of his own examples refers *inter alia* to flooding). In addition, because place-making is contextually driven, basing designs on users' needs and meanings, it gives users control and choice over their environment. In cases where the planner does not know who the end-users are, design can be based on the locational envelope's natural and social contexts. Producing locally embedded developments might initially seem to be more expensive than the usual space-making, but they tend to have more long term gains – financially, ecologically, and socially – than the former because of the greater level of user responsibility (Brehm *et al.*, 2006; Brody *et al.*, 2004; Gifford, 1997: 51; McHarg, 1992).

However, despite the application value of place-making in urban and regional planning, several difficulties are anticipated. Firstly, there is no clear guidance on how to proceed when making a place, since appropriate planning sources on this subject are scarce. Secondly, it is questionable whether the process of place-making should be made according to a 'mould', rather than develop organically from each individual project. Thirdly, there is the question of whose meanings to use when guiding place-making. In a place where many cultures, groups with different levels of income, and personal preferences co-exist, it may be difficult to determine which

meanings and symbols to include or exclude in the design. Fourthly, the increased input from vested individuals has cost implications in terms of time and labour. Training personnel to handle qualitative data in the field and processing it afterwards takes time and money, which professionals might not have. It might also be difficult to create a cut-off line, a point to which vested individual participation is confined in the planning process. Lastly, one wonders whether it is possible to create a place with a unique identity that is meaningful over a long period of time when identities are constantly fluctuating in some way or another.

Despite these challenges, the authors still hold that place-making is a worthy design approach when compared to consumeristic or space-making approaches. It is a call for planners to take responsibility for their designs, not only towards those who pay the planner, but also those who have to inhabit or use it once completed, since the making of a place "has a biological, social, and psychological impact that goes far beyond its more obvious influence on cost and technical function. It limits what people can do, and yet also opens new opportunities to them...Its influence outlives that of most buildings, since site organization persists for generations. What we do to our habitat has an enduring effect on our lives" (Lynch & Hack, 1984: 2).

Urban and regional planners may consider place-making as a way to challenge the traditional view of planning. The course of human history is rife with examples of progress that was preceded by challenges in people's believes. Place-making holds definite challenges for the understanding and *status quo* of the planning profession. Perhaps planning should move away from its pride in efficiently organising spatial solutions for spatial demands, to a passion for providing a spatial design process that adds value to a place's sense of place and the lives of its users. As Lynch & Hack (1984: 30) stated, "[n]o one should engage in site design who does not have a passion for the land, who is not as fascinated by the variations of site character as a teacher is fascinated by the marvellous variations of the human personality. And so a site of uncertain form should disturb us as much as a person of disordered character".

2.5. Conclusion

The legacy of modernism, apartheid planning and continuing development pressures in South Africa created – and still creates – concerns for the loss of place. Loss of place implies more than physical loss; also at stake are the intangible elements of

place that contribute to the physiological and psychological functioning of the inhabitants in question.

Internationally, concern for place and place-making increases and show some entrance into the spatial disciplines and practice, such as the EU's NoordXXI project. This, however, seems not to be the case for South Africa. Very little emphasis is placed on place-making in development policy and legislation, and planning research and practice, despite the scope for it due to growing levels of urban development in the country. Locations showing relatively high levels of tourism potential can also benefit from place-making to protect and strengthen the place identity for place-marketing reasons. This way these places can achieve capital gain without sacrificing their unique sense of place or way of life.

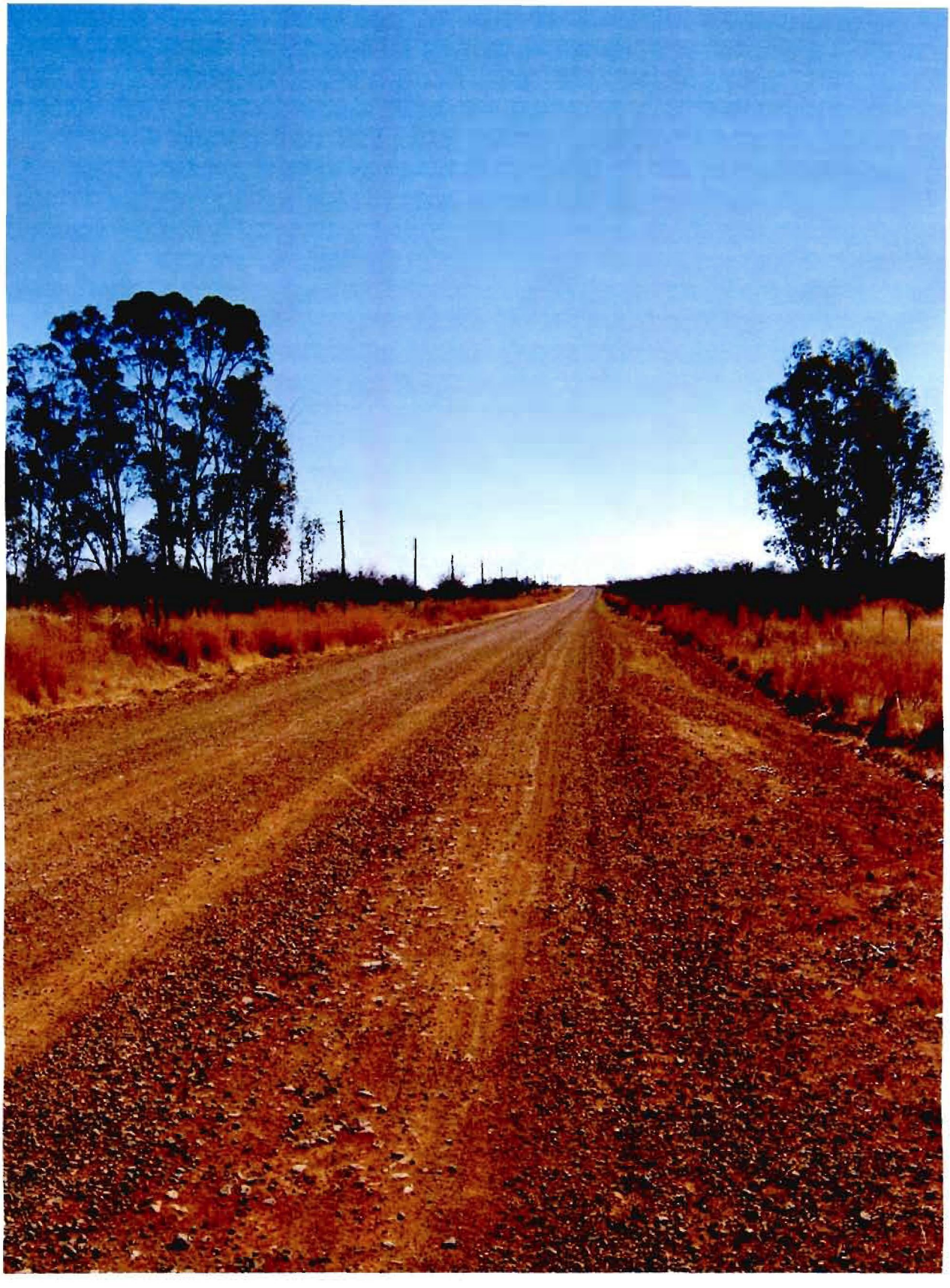
Understanding how 'place' and 'place-making' developed in the spatial disciplines broadens the South African planner's knowledge base, which currently is – to a large extent – based on positivistic learning. A quantitative approach to development issues cannot capture all of the intangibles of place. In a country such as South Africa, rich in different cultures, histories and place identities, one cannot expect to understand, safe-guard and manage these riches by focusing only on what can be quantified. Planners have to realise that these subjective elements can, to some extent, be used to broaden the economic base of cities, or even those of whole regions (Raagmaa, 2002). This is an important goal for a developing country like South Africa where the number of people living on less than $1 per day, increased by 122.6% between 1996 and 2005 (South African Institute of Race Relations, 2007).

The inclusion of intangibles in the planning process is not the only implication for planners. Other implications have already been named in table 1. It ought to be of major importance for South Africa to increase research on place and place-making in South African contexts specifically, and to spread the word of place-making to the institutions that influence development policy and legislation in the country. Also, greater effort ought to be made to include place-making in planning practice, which is incidentally one of the foreseeable difficulties, as this would challenge the existing *status quo* of the planning profession.

In the light of this, it is proposed that place research in the South African context ought to be increased. It is recommended that the research focuses firstly, on how places are experienced by different demographic groups (according to age, gender,

culture, income, etc.); secondly, on ways to determine the sense of place or place identity of locations in South Africa, as well as how to render them for practical purposes; and lastly, how to integrate and implement the above in the country's planning profession and development policy and legislation.

In conclusion, one has to state that place-making cannot predict the quality of life in a certain environment, though it can provide the positive or negative potential for the interactions and experiences people can have with the environment. Careless planning of the landscape harms humans; skilled organisation enhances them, as Lynch & Hack (1984: 12) wrote. Finally, place-making is not a rigid exercise bound by specific scientific standards. Rather, it is the spatial expression of common sense and a genuine caring attitude towards fellow human beings and the environment without which no living being can truly thrive.



EXPLORING PLACE-MAKING IN VREDEFORT DOME, SOUTH AFRICA: A MIXED-METHOD APPROACH

3. EXPLORING PLACE-MAKING IN VREDEFORT DOME, SOUTH AFRICA: A MIXED-METHOD APPROACH

3.1. Introduction

Globalisation motivates context insensitive development, fuelling international and interregional competitiveness in terms of economic growth (Hague & Jenkins, 2005: 25). Competitiveness expands cities and influence their rural hinterlands in different ways. Either an expanding semi-suburban rural waste is created, or local communities insist on contextual development for place-marketing purposes (McCarthy, 2008; Hague & Jenkins, 2005; Carmona *et al.*, 2003: 101; Raagmaa, 2002; Haartsen, Groote & Huigen, 2000: 148).

South African cities also experience these globalisation forces, and high levels of urbanisation cause rapid settlement expansion. This causes uneven land use management, urban sprawl and environmental degradation (South Africa. Department of Environmental Affairs and Tourism, 2007; South Africa. Department of Land Affairs, 2007; Pillay, 2004). Areas with tourism potential due to their strong sense of place are threatened by injudicious development, such as new middle to high income property developments. This threatens to change their place identity that gave rise to its tourism potential in the first place (Ferreira, 2007). The loss of symbolic place elements are therefore very real in South Africa, with rural areas being especially vulnerable for such losses (Windsor & McVey, 2005: 151).

Little is known on how to integrate a location's symbolic dimension in the planning process, either in urban or rural settings (Jordaan, Puren & Roos, 2008). The aims of this article are therefore, firstly, to illustrate how the symbolic elements of the VDWHS were explored as an example of a rural place and secondly, to illustrate how these symbolic elements were concretised for spatial planning in the Vredefort Dome World Heritage Site, South Africa.

3.2. Background to the research

Place-making is a development process that creates places based on the *in situ* symbolic and material contexts (Jordaan, Puren & Roos, 2008). This implies that any location has a material and symbolic composition. Urban and regional planning is well acquainted with assessing measurable material components of locations. In terms of the symbolic elements of place, planning is less sure of itself (Hague & Jenkins, 2005; Ravetz, 1986: 45; Hall, 1982: 189). The notion of a location having

both a material and a symbolic constitution is not new and dates back as far as Roman times. Each place was considered to have a *genius loci* that determined the character or identity of a place (Norberg-Schulz, 1980: 18). *Genius loci* is now more commonly known as *sense of place* which consists of the physical attributes (topography), activities that happen in that location, and subjective human experiences generated in that location (figure 2) (Montgomery, 1998; Rapoport, 1977; Tuan, 1977; Relph, 1976).

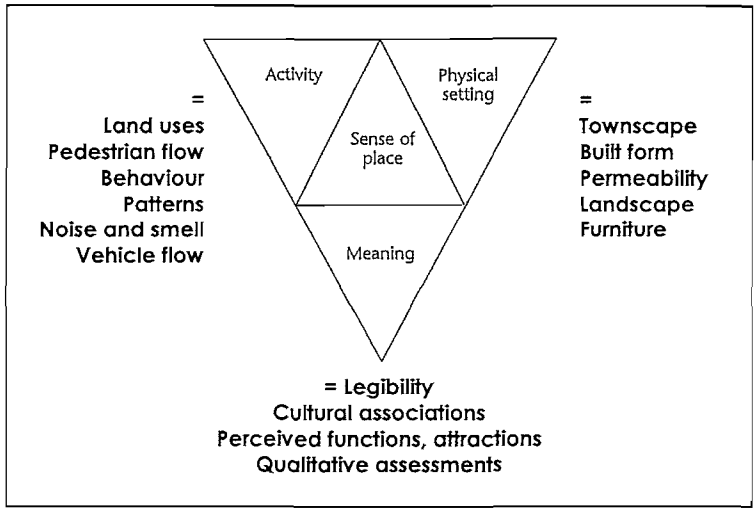


Figure 2 – The elements of urban sense of place (Punter, 1991).

Figure 2 illustrates the components of urban sense of place. What constitutes the sense of place of rural places is more vague. Haartsen, Groote and Huigen (2000) find that the components of a rural place's identity depend on the physical setting, the symbols linked to the landscape, as well as the functions that are associated with the rural place. In this regard urban and rural sense of place show general consensus on its components. Rural sense of place can thus be defined as the character of a rural location based on the physical setting, the symbols associated with the physical setting and the functions present (like agriculture or recreation).

There seems to be a general agreement that both natural and built environments are material and symbolic in composition (Hague & Jenkins, 2005; Thwaites & Simkins, 2005; Wheeler, 2002; Meethan, 2001: 168; Montgomery, 1998; Sharpley & Sharpley, 1997: 16; Norberg-Schulz, 1980; Rapoport, 1977; Relph, 1976). This dual nature of places implies a connection between places and the people who inhabit or use them, as people assign meanings to places and derive meaning in their lives from places. These place meanings translate into affective bonds that influence attitudes and

behaviours within the context of those places (Davenport & Anderson, 2005: 627). The importance of the symbolic nature of places becomes visible when sense of place is threatened or lost. Such loss may affect individuals' psychological, physiological and economical living standards (Windsor & McVey, 2005; Holmes, Patterson & Stalling, 2003; Bell, Greenen, Fisher & Baum, 2001: 286). Loss of sense of place happens due to forced relocation, destruction of a place due to war or natural disasters (Holmes, Patterson & Stalling, 2003) and contextually insensitive physical development, empty of meaningful places and symbols (Arefi, 1999; Relph, 1976).

Planners may have knowledge on the effective ordering of physical elements and activities of places, but they may not have a full understanding of the subjective experiences of these places (Hague & Jenkins, 2005; Bell, Greenen, Fisher & Baum, 2001: 382). Multidisciplinary researchers from planning and psychology engaged in this joint research effort to achieve a more holistic view of people's experiences of the VDWHS. The findings would assist planners to spatially concretise these symbolic elements for the purpose of spatial planning (Manzo & Perkins, 2006; Hague & Jenkins, 2005).

3.3. Research setting

In 2005 the Vredefort Dome, South Africa, was declared a World Heritage Site (UNESCO, 2008). The Vredefort Dome forms part of a 2,023 million year old meteorite impact structure, the oldest known structure of this kind. It is located approximately 120 km south-west of Johannesburg and has a radius of 190 km, making it the largest astrobleme yet found on Earth (UNESCO, 2008). The Vredefort Dome is located in both the Free State and the North-West Provinces (figure 3).

The prominent physical features of the Dome are the ridges, *koppies* and the Vaal River (figure 4). The Dome's character is predominantly rural and the main land uses are agriculture and tourism-oriented facilities.

The World Heritage status increased awareness of the area's potential tourism value. The area's new status created concerns about the increased tourism visitation numbers and future (possibly inappropriate) development that can impact on the area's natural character and the unique sense of place (Drewes, Puren & Roos, 2006).

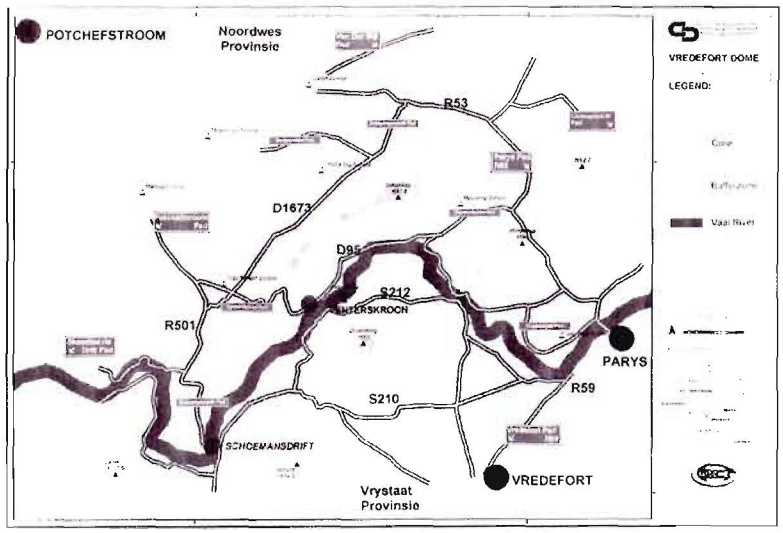


Figure 3 – The VDWHS's core and buffer areas, important routes, urban centres and the Vaal River (Giscoe, 2006).

Figure 4 – Prominent features of the VDWHS (Own collection, 2006).

Such conflicting expectations between the preservation of symbolic meanings and the utilisation (especially in the tourism sector) are not confined to the VDWHS, but is a relatively well-known international phenomenon in rural places (Kaltenborn & Williams, 2002: 189).

3.4. Research methodology

Previous sense of place studies use either qualitative and quantitative approaches. Quantitative studies focused mainly on either measuring sense of place and its components, or to identify variables that play a pivotal role in the formation of people's sense of place, such as Williams & Roggenbuck (1989), Williams, Anderson, McDonald & Patterson (1995), Kaltenborn & Williams (2002), Williams & Vaske (2003), Nanzer (2004), Shamai & Ilatov (2005), and Kyle, Graefe & Manning (2005). The qualitative studies focused more on understanding people's sense of place through understanding their world view and the way they experience the world

(Davenport & Anderson, 2005: 629). For the purpose of this study it was decided to follow a mixed-method approach, namely the sequential exploratory strategy (figure 5). A sequential exploratory strategy is a research approach in which one research phase informs the following research phase (Creswell, 2003).

Since little is known about the symbolic meanings of rural areas such as the VDWHS, the qualitative study was completed and then used to direct the quantitative study (Creswell, 2003: 216). This means that phase one explored the VDWHS's inhabitants' sense of place, whilst the second phase determined the locations and the physical features in which these experiences were constructed.

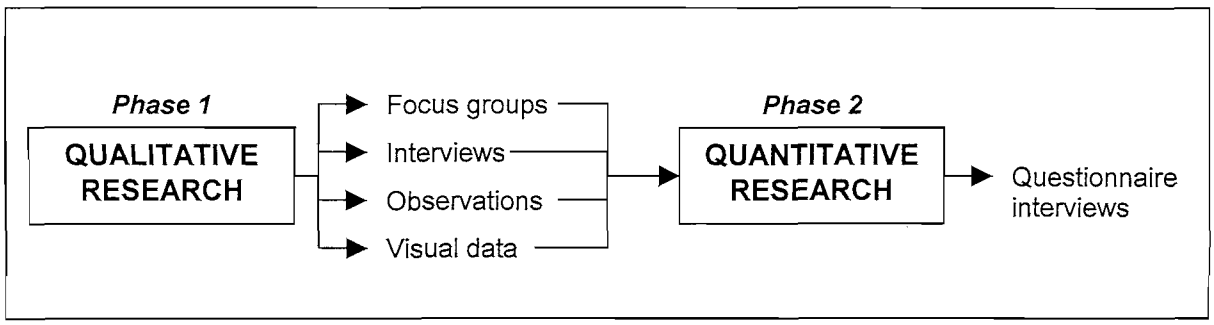


Figure 5 – Sequential exploratory approach followed in the sense of place research.

3.4.1 Qualitative study

An inductive approach was applied to explore the inhabitants' sense of place, since this would allow the researchers to investigate the meanings that people have to make sense of their lives, experiences, and their structures of the world in their natural settings (Denzin & Lincoln, 2000: 3; Merriam, in Creswell, 1994: 145). A qualitative approach was appropriate for this study since it emphasised the importance of contextual knowledge (Creswell, 1994: 5).

3.4.1.1 Participants

Purposeful sampling – a small number of samples, key informants, groups, places, or events that provide information-richness to understand one phenomenon in a qualitative study – was used to obtain rich and contextual data (Texas Tech University, 2009; Creswell, 1994: 148). The selection criteria was to include participants from different cultural backgrounds, gender and age groups (ages 7 to 65). The following participants were included:

- 13 people with a vested interest in the area, either as property or product owners, who participated in two focus groups;

- 12 participants who participated in one-on-one interviews;
- 26 learners from Tygerfontein Primary School who made visual presentations of their relationship with the environment;
- 20 people who took photos of the environment and were interviewed to explore the meanings attached to these photos; and
- 40 people who participated as observers during all of the above.

3.4.1.2 Data gathering

Data was gathered by various methods, including focus groups, individual interviews, observations, photographs and the Mmogo^{TM}-method.

(a) Focus groups

It seemed as if a focus group was an effective and economic way to obtain rich, descriptive data from a small group of individuals to understand their sense of place of the VDWHS (Wilkinson & Birmingham, 2003: 90; Sarantakos, 1993: 249). The data was collected in a conversational manner, focusing on the participants' experiences of the physical and social contexts of the Vredefort Dome. The following question was used to start the discussion: *Please tell us about your relationship with the Vredefort Dome*. Follow-up questions explored the meanings that emerged to obtain greater clarity, such as elements that made the VDWHS's identity unique, and which will have to be preserved in the face of potential future development.

(b) Individual interviews

The flexibility of individual interviews enabled the researchers to meet diverse situations in which the interviews were conducted and to gain detailed information about the research subject (Babbie, 2007: 306; Sarantakos, 1998: 464; Wilkinson & Birmingham, 2003: 43). The participants were presented with the same open-ended question as the one that was posed to the focus groups. These interviews offered the opportunity to record spontaneous answers from participants and immediate follow-up of questions and clarification of statements if needed (Babbie, 2007: 306; Sarantakos, 1998: 266; Kvale, 1996).

(c) Observations

The researchers observed and recorded participants' ongoing behaviour while they were participating in the research and interacting with their environment ((McBurney & White, 2007: 215; Wilkinson & Birmingham, 2003: 117). For the purpose of this

study aspects[5] such as non-verbal communications (individuals' roles and mannerisms), the nature of the physical setting, the way participants interact with each other and the environment, the tone of the session, and the way the interaction ended, were observed (Gay, Mills & Airaisian, 2006).

(d) Visual narratives: Photographs

Photographs allowed for different viewpoints of the same phenomenon to emerge that may not have previously emerged from the written or spoken data (Bolton, Pole & Mizen, 2001: 503). Photographs were particularly useful in this research since they were socially constructed and defined the participants' relationships with the VDWHS (Banks, 2001: 10; Harper, 2000). They allowed for the active involvement of the participants for a specific purpose (Banks, 2001: 45; Bolton, Pole & Mizen, 2001: 504). Participants were asked to take photographs of the places that had special meaning to them. Since the participants themselves took the photographs, they were the 'authors' of the photographs – the photographs carried the meanings of their own choosing (Banks, 2001: 10; Bolton, Pole & Mizen, 2001: 506; Rose, 2001: 22).

(e) Visual narratives: Mmogo^{TM}-method

The Mmogo^{TM}-method[6] is based on the theoretical principles of social constructivism, symbolic interactionism and community psychology (Roos, 2008). The method acknowledges that meaning-making is derived from interactions within particular socio-cultural contexts.

The Mmogo^{TM}-method facilitated an understanding of the symbolic meanings of the participants in their culture-specific context (Roos, 2008). The participants created their own data with contextually grounded visual representations, based on the open-ended question: *Make a visual presentation of your life in this area (the VDWHS).* Also, the built models made it easier for the children to express abstract concepts or experiences that might have been difficult to verbalise.

[5] For example, some children during the Mmogo^{TM} session kept looking at the observers for unspoken affirmation. Other children were not interested in their own initiative and were heavily influenced by their classmates. Some were very shy in the beginning which influenced their tempo of work and quality of the model. Environmental qualities included and recorded were the observation location (such as a classroom), the quality of the surroundings and aspects like seating arrangements.

[6] *Mmogo* is a Setswana word, meaning relatedness, co-ownership, togetherness, co-construction and interpersonal threads.

The Mmogo™–method used malleable clay, grass stalks, and coloured beads as a projective technique to understand the presentation of meaings when participants found it difficult to express themselves regarding abstract and emotional content (Roos, 2008). Participants were divided into groups (eight to ten individuals per group) and asked to build their models simultaneously, allowing observations of the interactions between participants. After completing the models, individual participants were asked about the meanings of the visual presentations.

3.4.1.3 Data analysis

All data was analysed according to thematic content analysis since it was aimed at a qualitative and/or quantitative analysis of the content of texts, pictures and other forms of verbal, visual or written communication (Sarantakos, 1998: 279). It also allowed for a more in-depth study of the research topic, as both the *manifest content* (the visible, surface text) and the *latent content* (the underlying meanings and symbols) could be included in the research (Sarantakos, 1998: 280).

Textual data were analysed according to the steps of Giorgi (Burns & Grove, 2001). The first step was to read the entire description. Then units from the descriptions were discriminated according to a psychological perspective with a focus on the phenomenon under study. In the third step the psychological insight contained in each of the meaning units were expressed more clearly. The last step was to synthesise all the transformed meaning units into a consistent statement with regard to the participants' experiences.

The visual data were analysed by listing and categorising the constituent elements and literal meanings of the photos and visual presentations. The categories chosen were exhaustive, exclusive and singular in order to ensure replicability. Secondly, participants were asked what the listed elements meant to them. Coupling the visual data with the textual data allowed themes and statements to reveal themselves within the context and meanings that participants experienced in the VDWHS (Rose, 2001).

Data from the Mmogo™-method was analysed in four steps, focusing on both the explicit and implicit social-cultural content of the visual presentations (Roos, 2008). During the explicit analysis, participants were asked questions about the formal components of their presentations. This was followed by determining the relationships between the different objects in the visual presentation. The explicit

content of the presentation was then applied to the initial research question. Implicit social-cultural analysis of the data (inherent socio-cultural meanings) explored the contextual meanings that were manifested in the symbolic use of the specific objects in the presentation, especially with reference to the VDWHS.

3.4.1.4 Trustworthiness

Triangulation was used to increase the trustworthiness of data and findings (Lincoln & Guba, 1985: 307; Sarantakos, 1998: 469). Methodological triangulation was used by applying various methods for data collection (Ammenwerth, Iller & Mansmann, 2003). Data triangulation included different sets of data such as focus groups, individual interviews, observations, photographs and Mmogo™ models (Halcomb & Andrew, 2005: 74). Investigator triangulation was applied by involving various researchers, observers or interviewers, each with their own personal methodological background, in data gathering and analysis (Ammenwerth, Iller & Mansmann, 2003). Multi-disciplinary triangulation was obtained by involving researchers from the disciplines of planning and psychology (Sim and Sharp,1998).

3.4.1.5 Ethical aspects

Permission to conduct the research was obtained from the University's Ethical Committee, the Department of Education and the Chairperson of Bewarea. Informed consent was also obtained from all the participants. Participants were given a description of the purpose and entailment of their involvement in the research, the content of the research, the duration of their involvement, confidentiality issues and their voluntary involvement. The relevant people were contacted for appointments and data for this part of the research was obtained in March 2006.

3.4.1.6 Results

Six main themes (figure 6) emerged from the study. These themes informed the second phase of the research.

(a) Theme 1: Contextual description

In the Vredefort Dome different role players had different relationships with the area, which were expressed in relation to the Vredefort Dome's unique historical heritage, the natural environment and its rural and untainted atmosphere. The following quote provides an example of the importance of a relationship with the natural and untainted environment:

'Vir my is dit nogal baie belangrik om die stukkie natuur ongeskonde, so ongeskonde as moontlik te kan behou.'

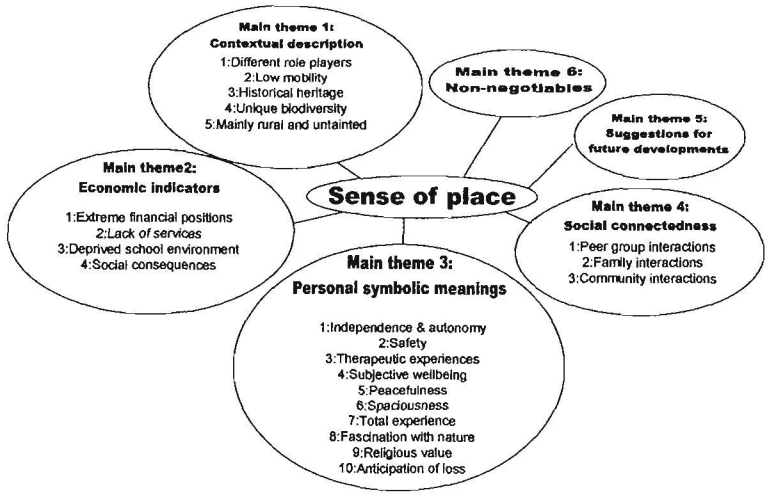


Figure 6 – Main themes surrounding sense of place in the VDWHS.

(b) Theme 2: Economic indicators

Extreme financial situations existed amongst inhabitants (figure 7), especially between land owners and non-land owners. A lack of services – such as electricity supply or public transport – were especially prominent for the poorer section of the VDWHS's inhabitants.

Figure 7 – Extreme financial situations among inhabitants of the VDWHS.

(c) Theme 3: Symbolic meanings

Several symbolic meanings emerged. Feelings of independence and autonomy, especially freedom from the pressures of city life and the 'rat race' were described. Physical safety and property were not threatened by crime:

'[W]ant jy kan stop en iemand oplaai...en ek het geen vrees nie.'

Therapeutic experiences and feelings of subjective well-being in the VDWHS provided a setting to recentre participants' lives in times of personal emotional unrest:

> '[J]y kan op jou eie stukkie [eiendom in die Koepel] sit en jy kan voel hoe daai moegheid uitgaan, sonder om 'n woord te sê'.

Also, feelings associated with peacefulness and spaciousness were prominent:

> '[D]is 'n innerlike vrede wat jy kry'. 'Ek dink dis die...rustigheid van die omgewing. Die feit dat dit totaal onderontwikkel is...daar is groot oop ruimtes...'

Participants expressed a 'total' (holistic) involved experience. It touched the participants on a physical and emotional level, which is why the participants considered it important to preserve the local sense of place:

> '[J]y moet fyn ingestel wees op die omgewing...Jy moet dit nie bederf nie'

There existed a fascination with nature which was not only ecologically unique and varied, but also provided a lifelihood for some of the inhabitants:

> '[Die omgewing] het absolute unieke berge, klowe...plantegroei, uitsig, klimaat, die river. Al daai elemente is wat mense aantrek'. Also, 'I go into the field...I get some meat and eat it...I catch them, I eat them'.

Religious experiences and a connectedness to God were expressed:

> 'ek sien die Here se hand in die natuur'.

A feeling of loss in anticipation due to potential future development in the area was expressed.

(d) Theme 4: Social connectedness

Participants felt that social interactions and relationships with their families, friends and other residents were an important part of life in the VDWHS. The area offered the inhabitants opportunities to develop various social relationships with other people. This became especially clear during the Mmogo™ session where participants' models reflected symbols of social interactions and community relationships (figure 8).

In figure 8 a participant's social interaction with friends was symbolised by a mattress because it allowed his friends to sleep over at his house. The second and third models contain human figures of a grandfather and an uncle respectively. The participants explained that the extended family play important roles in their lives, especially in the sense of protection and upbringing of the children.

Figure 8 – Examples of Mmogo™ models that reflect symbols of social interaction in the VDWHS.

Participants felt that the environment faciliated enabling social interactions on different levels and if the human-environment relationships was disturbed in a major way, the social connectedness of the area might suffer as a result of insensitive development decisions or actions.

(e) Theme 5: Suggestions for future developments

Future development ought to happen in zones, with each zone's nature determined by factors such as the number of potential tourists, type of recreational facilities, private ownership of land and the natural and cultural resources. The type, quantity, and style of developments must not be in contrast with the environment and the sense of place must be preserved:

> 'Die struktuur sal aansluit by die omgewing, dit sal struktuur wees wat uit hout, klip, natuurlike herfskleure bestaan, met ander woorde saamsmelt en nie skreeu teen die omgewing nie. Daar sal oop ruimtes wees, grasvelde, berge...daar sal `n element wees van rustigheid'.

(f) Theme 6: Non-negotiables

Non-negotiables identified included high noise levels, pollution, large scale development, disruption of the horizon line, vehicular-related activities (motor sports) and facilities that attract large numbers of people:

> 'Ek dink van my kant af is die eerste ding jou uitsig op die koppe. Sodra jy begin om jou um ... jou horisonlyne en daai goeters te breek, sodra jy jou geboue hoër sit want jy het ligte wat jy orals kan sien. So ... so jou estetiese waarde gaan verlore ...'

3.4.1.7 Themes informing the second research phase

While exploring participants' symbolic meanings and relationships with VDWHS, the researchers found that places were experienced in terms of different relations, including a unique personal and subjective relatedness, close interpersonal and social relationships and an awareness of the broader socio-cultural context. The findings in the first phase then informed the second phase. For example, an awareness of the economic diversities of the inhabitants of the VDWHS guided the researchers to include participants from varied income brackets. An inclusive approach made it possible to take note of the lack of services and facilities by groups such as the unemployed, children and the elderly. To ameliorate these shortages with the proposed planning guidelines, participants were asked to identify specific needs in terms of services, facilities and infrastructure, which will guide future place-making decisions in this area.

The personal symbolic meanings were used to determine what type of sense of place is important, since individuals' relationships with and meanings of their environment differ not only from person to person, but also from culture to culture and between different demographic groups (Rapoport, 1977; Tuan, 1977: 162). Any future place-making decisions ought to (ideally) reflect all broad sections of the population.

Suggestions for future development played a very important role in the development of the quantitative questionnaire as it pointed to place-making principles to preserve or strengthen the VDWHS's sense of place. Participants' references to physical locational elements alerted researchers to the importance of showing visual representations of the VDWHS to participants (figure 9). Maps of the VDWHS were used to link the fifth theme to geographical locations, a step of great consequence for incorporating symbolic environmental elements into the planning process. Place-making is therefore not only determining a location's sense of place, but also suggesting how this sense of place can be manifested physically.

The final theme guided the second phase researchers to ask questions on types of developments and activities to be allowed within the Vredefort Dome, as well as where to allow them. This enabled the researchers to address the activity setting of the area's sense of place (see figure 2) for place-making purposes.

Figure 9 – Visual representations of the VDWHS presented to the participants during the second phase of the research (Drewes, Puren & Roos, 2006).

3.4.2 Quantitative study

The quantitative study followed the qualitative study in order to use its findings as input. The research was based on the assumption that participants had a specific sense of place experience of the VDWHS, based on their attachments to and relationships with the area. The purpose of including a quantitative survey in the research, was to generalise from the small sample of qualitative findings to the general population of the VDWHS so that inferences could be made about the inhabitants' spatial meanings and experiences.

3.4.2.1 Survey design

The aim of the second phase of the project was to spatially link the experiences and relationships of participants with the VDWHS by means of a questionnaire for place-making purposes. A once-off cross-sectional design was used in this phase (Creswell, 1994: 118).

3.4.2.2 Population and sample

As no census data exists for the VDWHS, sampling could not be based on individuals in the VDWHS. Instead a location based sample was used. Data available from Giscoe in 2006 stipulated the presence of 420 registered farms in the VDWHS at the time the survey was conducted, which was used as the sampling unit.

A systematic random sampling of the registered land parcels was done and included parcels in both provinces. All the registered farms were listed as a sampling frame and a sampling fraction of 10 was computed, which means that every tenth farm on the list was drawn for sampling reasons (Sarantakos, 1998: 145). In total 42 farms

were included in the survey, which represented a 10 %[7] sample. Due to the small population size a random sampling method was appropriate and had the added benefit of being unbiased towards population elements included in the sample (Schnetler, 1989: 96; Steyn *et al*, 1998: 24).

Participants included individuals from both genders and were aged 19 years and older. Most participants spoke Afrikaans (53%), followed by Setswana (29%) and English (8%).

Due to the fact that this research was location based (as opposed to respondent based), both the land owner and a non-land owning employee (either the first male, first female, or first child, in this order) were interviewed. The latter means that (for example) on the first farm the first available male employee was interviewed, on the second farm the first female employee, and on the third farm the first available child from an employee. On the fourth farm, the first available male employee would be interviewed, the sixth a female employee, and the eight a child of an employee. This sequence was repeated for the other 34 farms.

3.4.2.3 Data gathering

Data was gathered using a structured interview during the period July-September 2006. A structured interview insured minimum interviewer bias and the highest degree of uniformity of procedure (Sarantakos, 1998: 247). Also, since sense of place is not a colloquial term widely known to lay persons, the trained interviewers were able to clarify any uncertainties the participants had in connection with the research topic. In terms of the survey questionnaire used in the structured interviews, the advantages were those of economy of design, a rapid turn-around in data collection and the ability to identify attributes of a population from a small group of individuals (Creswell, 1994: 119).

Interviews were conducted in the mother tongue of the respondent (Afrikaans, Setswana, or English) in order to lower the chance of communication skewering the responses (Henning, 2004: 54). Any non-question-related and relevant responses made by the respondents were taken note of during the interview on the questionnaire.

[7] The VDWHS Sense of Place Project was mandated by Department Environmental Affairs and Tourism, who stipulated the use of a 10% sample in the research. This determined the sample size used by the researchers, which meant that 42 farms out of a total of 420 was sampled.

3.4.2.4 Instrumentation

The structured interview was conducted according to a questionnaire that was completed during a personal interview (Appendix A). The initial questionnaire mainly focused on the material dimension of the study area. After much consultation with psychologists, more questions that focused on the symbolic elements of the area and visual aids (photographs and 1:125000 cartographic maps) were included. The highly visual nature of the questionnaire made it possible to gather subjective responses from participants in a systematic way that might not have been possible if a non-visual questionnaire was used.

Questions were based on the themes identified during the qualitative research phase and were therefore grounded in the views of the VDWHS inhabitants (Creswell, 2003: 221). The questionnaire was designed to capture symbolic environmental elements (participants' environmental meanings and experiences) and link these spatially to zones or landscape features in the Dome. Participants were asked to:

- mark the priority and intensity of symbolic experiences;
- demarcate the location (or zones) where they experienced the sense of place of the VDWHS on a cartographic map; and
- identify three-dimensional features that reflects the visual character (natural and built) of the area.

Participants scaled symbolic experiences of the Dome according to a set of affective statements (see section 3.4.1.6 (c)). A Likert scale was used to scale responses. A Likert scale employs a set of response categories ranging from very positive to very negative, one of which the respondent has to choose (Sarantakos, 1998: 465). Using a Likert scale in this instance enabled the researchers to determine not only the direction of experiences, but also their relative intensity according to unambiguous ordinality (Babbie, 2007; McBurney & White, 2007).

Participants demarcated the sense of place zones on a map which is a well-known research tool, especially in geographical and psychological research (García-Mira & Real, 2005; Polic *et al.*, 2005; Smrekar, 2005; Broderick, 2003; Tuan, 1975; Lynch, 1960). These types of maps provided spatial information on the participants' personal experiences in the study area (Smrekar, 2005: 11).

The three-dimensional features (routes, edges, districts, nodes and landmarks[8]) that represented the visual character of the VDWHS was tested using a selection of photographs, together with a simple Likert scaling. Participants had to identify the photographs that best represented the visual character of the VDWHS best. Also, they had to scale these material elements according to their perceived importance in terms of sense of place.

3.4.2.5 Data analysis and validity procedures

The data was analysed using descriptive statistics. Descriptive statistics is useful in the ordering and summarising of data which makes it possible to discover inherent trends and characteristics of the data (Steyn *et al.*, 1998: 5). Each possible response available on the questionnaire was assigned a code, after which frequencies (the number of times a specific answer was chosen) of the answers were calculated.

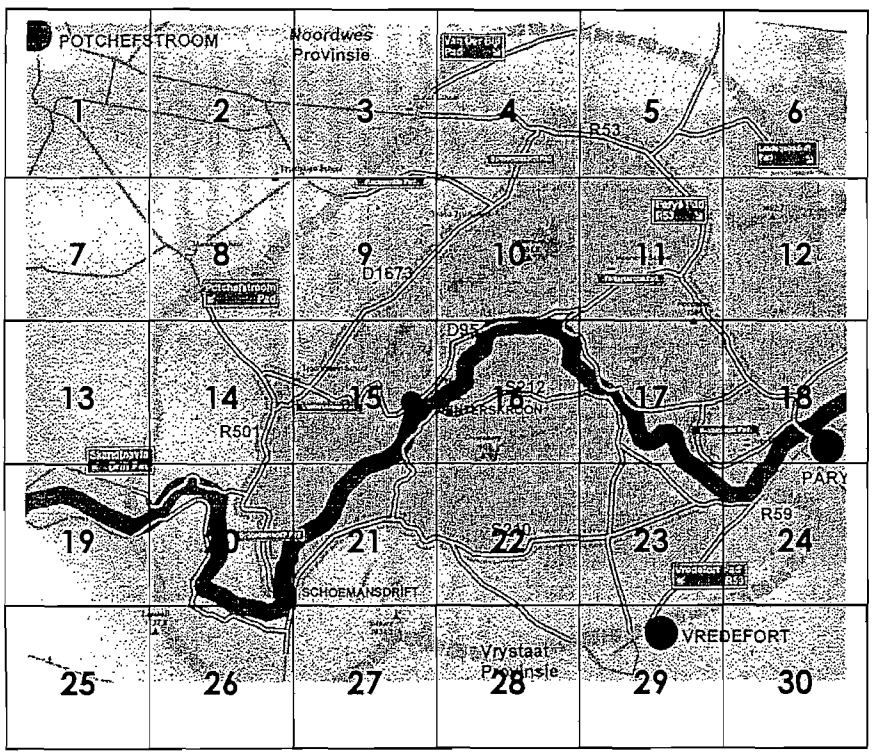


Figure 10 – Grid system according to which the sense of place maps were analysed.

The participants' sense of place maps were analysed according to a grid system placed over the map (figure 10). Results were tabulated in a frequency table. These maps were drawn free-hand by participants and the demarcated areas were only

[8] For lack of existing theory on the subject the choice of elements were based on the elements as identified by Kevin Lynch (1960): routes (existing roads), edges (the boundaries of the core area and buffer zone), districts (provinces or core and buffer areas) nodes (existing towns and hamlets) and landmarks (ridges and the Vaal River).

taken as relative geographical indications of the experience of sense of place in the VDWHS. As it was the aim of the researchers to gain a general impression of sense of place spatial trends, it was not considered necessary to digitise the exact markings of each participant using a GIS program, as was done by Smrekar (2005).

As for the questions using Likert scaling, the use of Likert scales to scale the participants' experiences and their perceived hierarchy of the VDWHS' material elements was appropriate since this scaling provided a high degree of validity and reliability (Sarantakos, 1998: 90). Also, the main data collection tool was applied to various demographic groups, making it possible to validate the research instrument with a sample representative of the VDWHS population (Creswell, 2003: 221).

Validity was ensured via content validity, which refers to how much a measure covers the range of meanings included within a concept (Babbie, 2007: 147). Sense of place is a concept that refers to both symbolic and material environmental elements. As the questionnaire was informed by the symbolic elements of the initial findings, and linked these symbolic elements to the physical environmental elements present in the VDWHS, content validity was ensured.

Reliability is the property of consistency of a measurement that gives the same result on different occasions (McBurney & White, 2007: 129). As this research produced spatially linked descriptive statistical findings that confirm qualitative findings from the first research phase, the research instrument was considered to be reliable and valid (Ammenwerth, Iller & Mansmann, 2003: 244).

As such, validation was ensured by means of triangulation (Williamson, 2005). Validation of results was obtained when the findings of the quantitative study supported the results from the qualitative study, which indicated a strong experience of the natural and rural identity of the area (Ammenwerth, Iller & Mansmann, 2003: 244; Puren, Drewes & Roos, 2008: 140).

3.4.2.6 Findings

Participants agreed that the VDWHS elicited affective experiences in people in the area (as opposed to lack of any experience). Therefore the material surroundings of the VDWHS were not considered seperately from the symbolic place elements by the inhabitants. Two experiences that all participants found to be universal and very strong in the VDWHS, were 'peaceful and quiet' and 'free and unbounded'.

'Connectedness with nature' and 'holiness' (sacredness) were other experiences that participants felt featured strongly.

In terms of symbolism, participants considered the VDWHS to be rural – basic infrastructure, such as gravel roads, with the presence of a hamlet (Venterskroon) characterised by low development and population densities and scattered historical built structures. Natural features, such as the ridges, *koppies* and the Vaal River were considered to be more prominent symbols of the Dome than built rural elements like wind pumps and low-level bridges scattered through the area (figure 11).

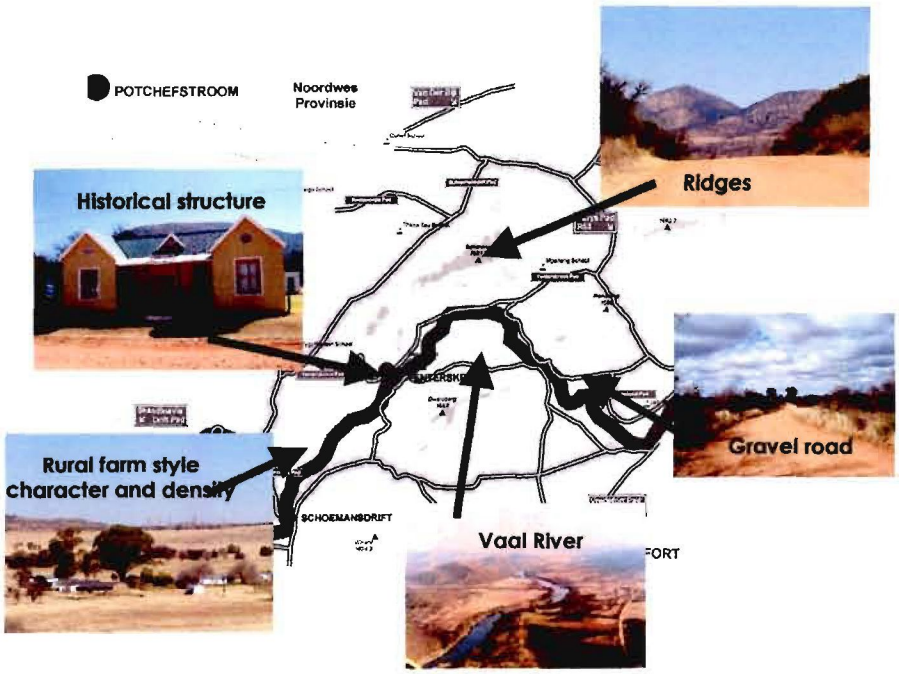


Figure 11 – Symbols of the VDWHS and their locations.

The differences between the demographic groups' sense of place experiences are illustrated in figures 12 and 13. Figure 14 represents the cumulative frequencies for each section on the grid system. General consistencies between maps 12 and 13 are visible. The greatest differences between the two demographic groups are the inclusion of the town of Vredefort – located outside the VDWHS – and the lower sense of place experience intensity of the non-land owner group.

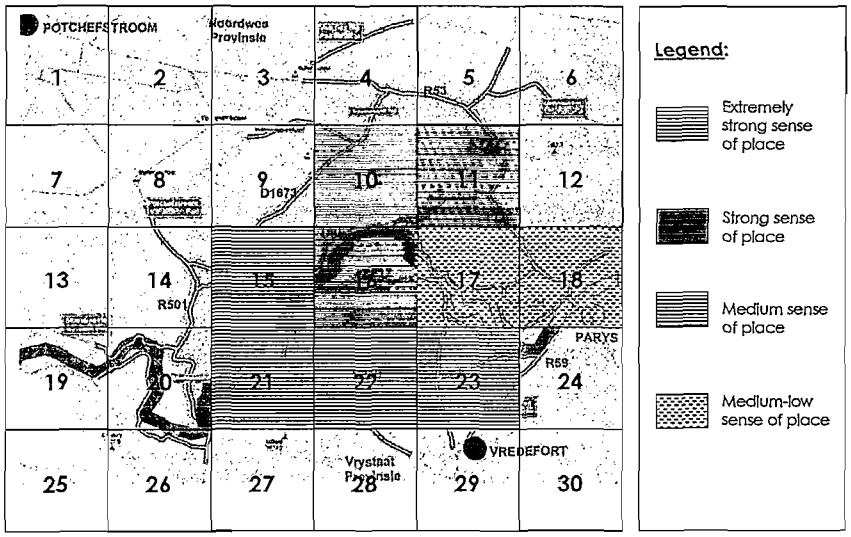


Figure 12 – Sense of place map, land owners.

The final sense of place map shows the sense of place experience to be slightly more extended than either of the demographic groups on their own.

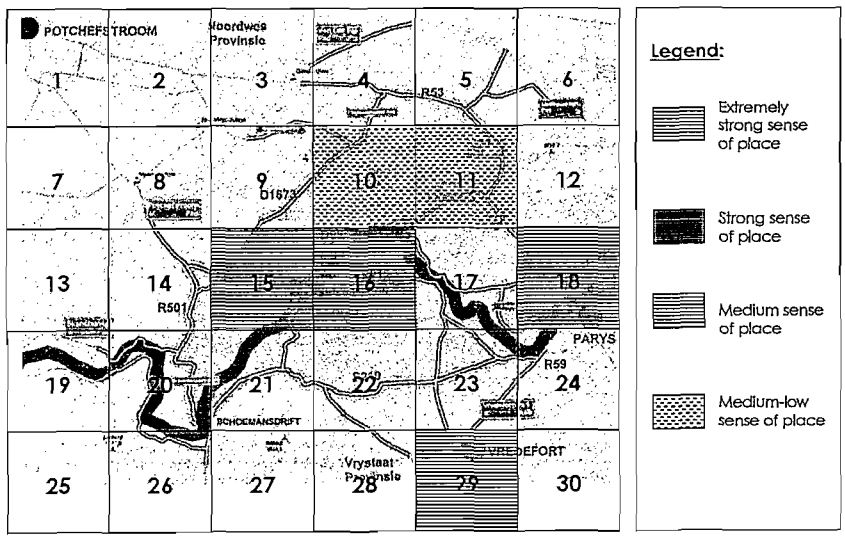


Figure 13 – Sense of place maps, non-land owners.

What is clear from the final map, is that participants considered the area's sense of place to be strongest in the core area, around Venterskroon, the ridges, *koppies* and the Vaal River. Further away, the Free State areas around Schoemansdrift, Vredefort and Parys were still considered to have a sense of place, though not as strongly as the previously mentioned areas.

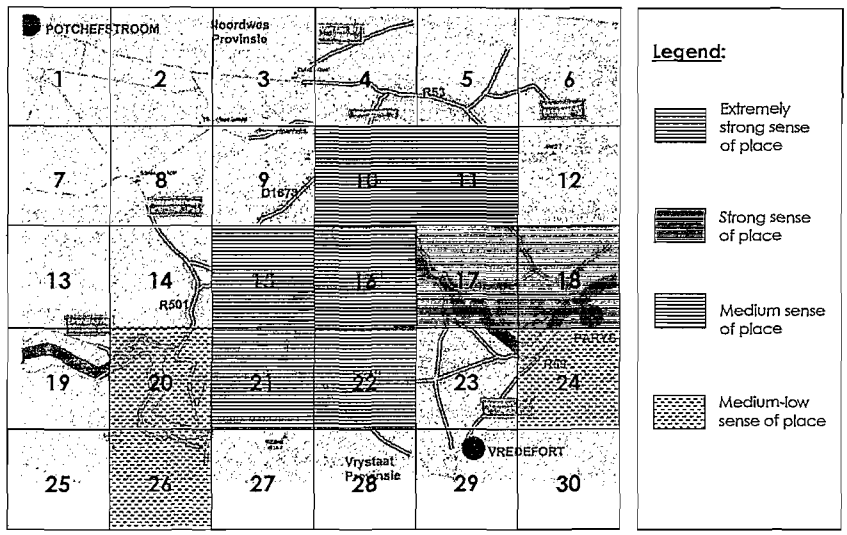


Figure 14 – Strength of sense of place in the VDWHS.

3.5. Discussion

Knowledge of what sense of place means to people, its location and what elements generate it is the first step towards place-making. In the case of the VDWHS, findings pointed to the priority of and the very strong experiences of 'peaceful and quiet' and 'free and unbounded' in the area. In order to preserve these experiences, the proposed place-making guidelines will maintain the rural farm-like character of the area of nodes such as Venterskroon, keeping the existing gravel roads and footpaths that cross the area (Puren, Drewes & Roos, 2008: 142).

In terms of cultural diversity it was found that it was possible to create a sense of place map that represented the collective experience of the VDWHS's inhabitants, regardless of varied backgrounds. This was especially relevant in a country like South Africa with its varied cultures and intracultural groups. However, despite general consensus on the research topic, slight differences between the groups signalled the need for further research on this matter as this might not be the case in other places.

The sense of place maps revealed that certain areas of the VDWHS had a stronger sense of place than other areas. This translated into place-making guidelines that firstly, emphasised the natural features (hills, ridges and Vaal River) that partly constituted the sense of place of the area, and secondly, provided for minimum negative human intervention in terms of planning actions (Puren, Drewes & Roos, 2008: 142).

The former type of guidelines allowed for the identifying and management of a system of *spots of excellence* where the sense of place of the VDWHS was experienced strongly. Spots of excellence ought not to dominate or damage the natural character of the place, but ought to provide individuals the opportunity for the experience of the site. Typically, such spots of excellence would be located near the hills, ridges and Vaal River.

The latter type of guidelines proposed the development of a hills and ridges policy to protect the horizon line against development, as well as a zoning policy that guided development and conservation in the area according to three proposed zones (figure 15).

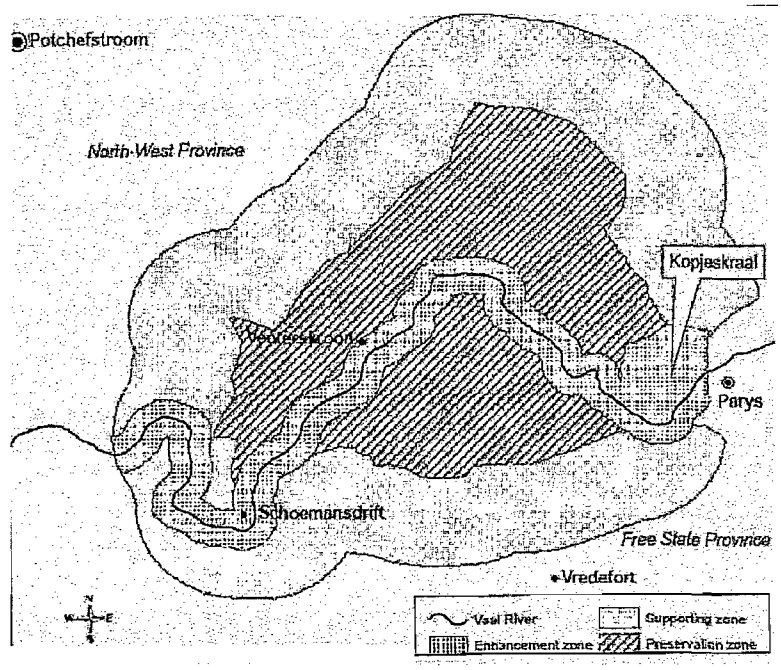


Figure 15 – Proposed zoning policy for place-making in the VDWHS (Puren, Drewes & Roos, 2008).

The first zone (preservation zone), in the core of the VDWHS, was an area in which no further development was to be allowed in order to preserve the sense of place. This zone was represented by the participants as the area that had the strongest experience of sense of place. The second zone (enhancement zone) followed the course of the Vaal River and allowed river front properties to be developed according to strict land use, density, height and architectural guidelines. This zone represented the river as one of the three-dimensional features that gave the Vredefort Dome its visual character. The final zone (supporting zone) was a flat and outstretched

surface. Here the use of place-making guidelines that focused specifically on maintaining the visual character of the area was necessary. Though not necessarily demarcated as an area of strong sense of place by participants, this area was necessary to facilitate a gradual 'entrance' between the strong sense of place areas and the rest of the hinterland not included in the VDWHS.

From the above one can see that the mixed method approach provided a more comprehensive understanding of sense of place that inspired the place-making guidelines for the Vredefort Dome area. This mixed-method research approach brought forth knowledge on multiple levels. Firstly, a combination of disciplines on place research may prove to be rewarding for planners in general. In the South African context (where this research is new), it can expand the planner's knowledge of sense of place in order to practise place-making. Interdisciplinary methods were helpful to enable researchers to study phenomena where too little was known about the phenomena to formulate proper hypotheses (Sumner, 2003). Further more, interdisciplinary research may have added value because this type of research was more creative and more likely to lead to applicable results due to the fact that it was more oriented towards problem-solving approaches (Carayol & Nguyen Thi, 2005). Research on sense of place was therefore seen as more appropriate when informed by multiple research traditions.

Secondly, the research broadened the scope of urban and regional planning to include not only elements from the material aspect of the environment, but also to include symbolic environmental elements in the planning process. This process, better known as place-making, is fast becoming an important topic in the environmental disciplines on an international level and South African planners and planning authorities ought to take heed of this new approach to planning for places. It was obvious to the researchers that the inclusion of symbolic environmental elements is not currently a priority in South African planning circles, nor do the development legislation or guiding documents of the country make mentionable references to this important aspect. These documents focus mostly on socio-economic goals and take very little heed of a more well-rounded approach to development issues in the country.

As such, research on the symbolic nature of environments ought to focus on the sense of place of different landscapes (rural and urban) and on the differences/similarities between the experience of sense of place.

3.6. Conclusion

Place-making is the process that creates places based on their *in situ* symbolic and material contexts. Sense of place is an expression of this dualistic nature of places. In the case of the VDWHS, a mixed-method research approach enabled researchers to study both the symbolic and material elements of a location. The qualitative research phase studied sense of place in the Vredefort Dome as an example of a rural landscape. Its findings formed the basis of the quantitative research phase, which concretised the sense of place of inhabitants of the VDWHS by linking it to geographical locations and features. These findings were then used to create place-making principles that reflect the values, experiences and symbolism of the inhabitants of the Vredefort Dome. Finally, one ought to keep in mind that what constitutes the sense of place for one location is not necessarily the same for another area. The process and findings of this research ought to be used only as a guide on how to proceed.

FINAL CONCLUSION AND RECOMMENDATIONS

4. FINAL CONCLUSION AND RECOMMENDATIONS

Once the eye is cast over the continuing history of the planning profession, it would be wise to pay more attention to the growing number of references to the symbolic nature of places in the spatial sciences. Although the greatest number of these references exist mainly on an international level, the planning profession in South Africa ought not to ignore this in order to continually better itself, its deliverables and professional service. As sense of place and place-making are topics that have not yet been explored to its full potential in the country, and the scope for advancement is great in this field, South Africa can become a flagship for holistic planning in both urban and rural areas.

As such, it becomes clear that the rural context, planning and place-making are all intertwined with each other. The process of exploring the history of place-making, its possible implications for planning, and the nature of sense of place in rural South Africa for spatial planning purposes, create recommendations that are considered appropriate for spatial planning.

Firstly, locations that exhibit a strong sense of place ought to be developed or managed *contextually* so that their place identity could be used for place marketing purposes. This would probably broaden the economic base of regions with tourism potential. Also, not destroying or altering the sense of place of locations and using it for place marketing purposes, translated as a more efficient approach to managing resources. Place-making could be considered resource efficient because it utilises both material and symbolic 'resources' localised in a specific location.

Secondly, research on sense of place and place-making in South Africa ought to be increased. This is important, as what constitutes the sense of place for one location is not necessarily the same for another area. Sense of place is also experienced differently by different demographic groups and individuals. As the country is characterised by a varied demographic composition, the issue of whose sense of place to utilise for place-making purposes would probably become more prominent.

Thirdly, planning legislation and guiding documents ought to be amended to include the symbolic contexts of places in the planning process. Currently, the focus is mostly on achieving socio-economic goals and sorely ignores the more symbolic goals of place-making. A future challenge would be to integrate place-making in the development protocol of various levels of governance in South Africa.

Fourthly, planning as a profession would have to include other academic fields, such as psychology, in its project team in order to effectively include symbolic locational elements in the planning process. Planners would therefore have to acknowledge that a change is necessary in the traditional *status quo* of the profession. Obtaining knowledge and data for the planning process would require input from a new collaboration between planning and psychology. More research is needed to strengthen the links between the two professions.

Finally, one has to caution the reader that the process and findings of this research ought to be used only as a guide on how to proceed during place-making. As each location is unique in its symbolic and material contexts, so each location will have its own, unique set of place-making guidelines. At first glance this may seem superfluous for those used to planning according to economy and functionality, but perhaps this is the next challenge for a profession in need of change and growth.

APPENDIX A

EXAMPLE: RESEARCH QUESTIONNAIRE

OPNAME: 'SENSE OF PLACE'

A: ALGEMEEN

1. Plaasbeskrywing _____

2. Hoedanigheid

Eienaar (*permanent inwoonend*)	
Eienaar (*nie-permanent inwoonend*)	
Werknemer	
Inwoner (*nie werksaam*)	

3. Hoe lank woon u al in die Koepel?

0 - 2 Jaar	3 - 5 Jaar	6 - 10 Jaar	11 Jaar +

4. Demografiese profiel:

Ouderdom:	12 - 18 Jaar	19 - 64 Jaar	65 Jaar +
Geslag	M	V	
Taal:	Afr	Eng	Tsw	And

B: ERVARINGSPERSPEKTIEF

5. *Dui aan, in volgorde van belangrikheid (1=belangrikste; 9=minste belangrik), watter van die volgende woorde u ervaring van die Koepel die beste beskryf. Dui dan aan hoe sterk hierdie woord u gevoel beskryf.*

	Baie Sterk	Sterk	Matig	Min	Geen
Vry en ongebonde					
Veilig					
Temperatuese ondervinding					
Rustig en stil					
Stabiel					
Verbintenis met die natuur					
Heilig					
Heenwee					

6. Waar in die Koepel ervaar u die karakter van die omgewing. *(Dateer areas op Kaart A)*

6.1 Besonder sterk? *(Rooi arsering)*

6.2 Matige ervaring? *(Oranje arsering)*

6.3 Geen ervaring? *(Geel arsering)*

C: VISUELE KARAKTER

7. As u gevra word om vir iemand te verduidelik hoe die Koepel lyk (wat die belangrikste sigbare kenmerke daarvan is), watter van die volgende (in volgorde van belangrikheid) sal u uitwys. *(Beantwoord hierdie aan die hand van kaart A en foto:)*

- Roetes: paaie, kanale, korridors, visuele verbindings
- Rande: grense, oorgangsones van een area na volgende
- Distrikte: areas, gebiede, samehangende dele
- Nodusse: kern, sentrale punt, strategiese plek, byeenkaarkompunt
- Landmarke: baken, natuurlik of menslemaak, wat visueel uitstaan in die omgewing

(Drewes, Puren & Roos, 2006)

EXAMPLE: RESEARCH QUESTIONNAIRE

Roetes:

Rande

Distrikte:

Nodusse:

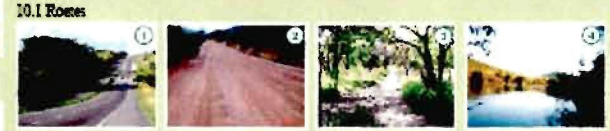
Landmerke:

8. Watter ander kenmerke sal u graag wil uitwys? *(Dui liggings aan op Kaart A)*

9. Wat is die ingang/uitgang van die Koepel? *(Dui met pyltjie aan ← → op Kaart A)*

10. Watter van die volgende stel die kenmerke van die Koepel die beste voor?

10.1 Roetes



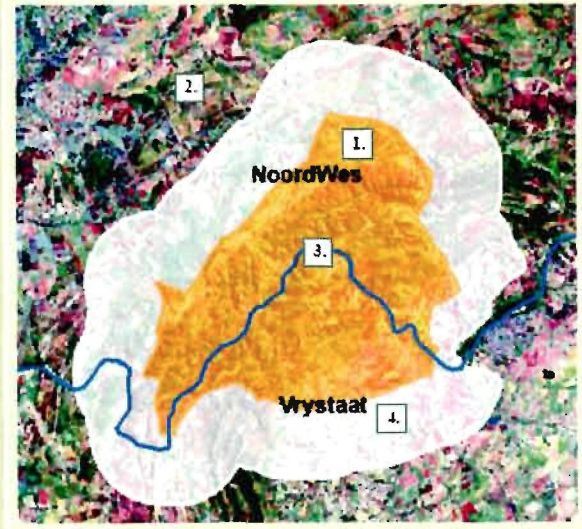
10.2 Nodusse

10.3 Rande (merk slegs een)

(Drewes, Puren & Roos, 2006)

EXAMPLE: RESEARCH QUESTIONNAIRE

10.4 Distrikte *(merk slegs een)* 1. ☐ 2. ☐ 3. ☐ 4. ☐





10.5 Landmerke



10.6 Ander _____

D: TOEKOMSTIGE BEWARING/ONTWIKKELING

11. Watter dele moet bewaar word *(geen verdere ontwikkeling mag daar voorkom nie)*?

•Hele Koepel ☐ •Kern ☐ •Buffersone ☐ •Gedeelte ☐ •Geen ☐

12. Wat is volgens u mening belangrike areas in die Koepel wat bewaar moet word?
(Arseer areas op Kaart B)

12.1 Baie belangrike areas vir bewaring *(Rooi arsering)*

12.2 Minder belangrike areas vir bewaring *(Oranje arsering)*

12.3 Nie nodig om te bewaar nie *(Geen arsering)*

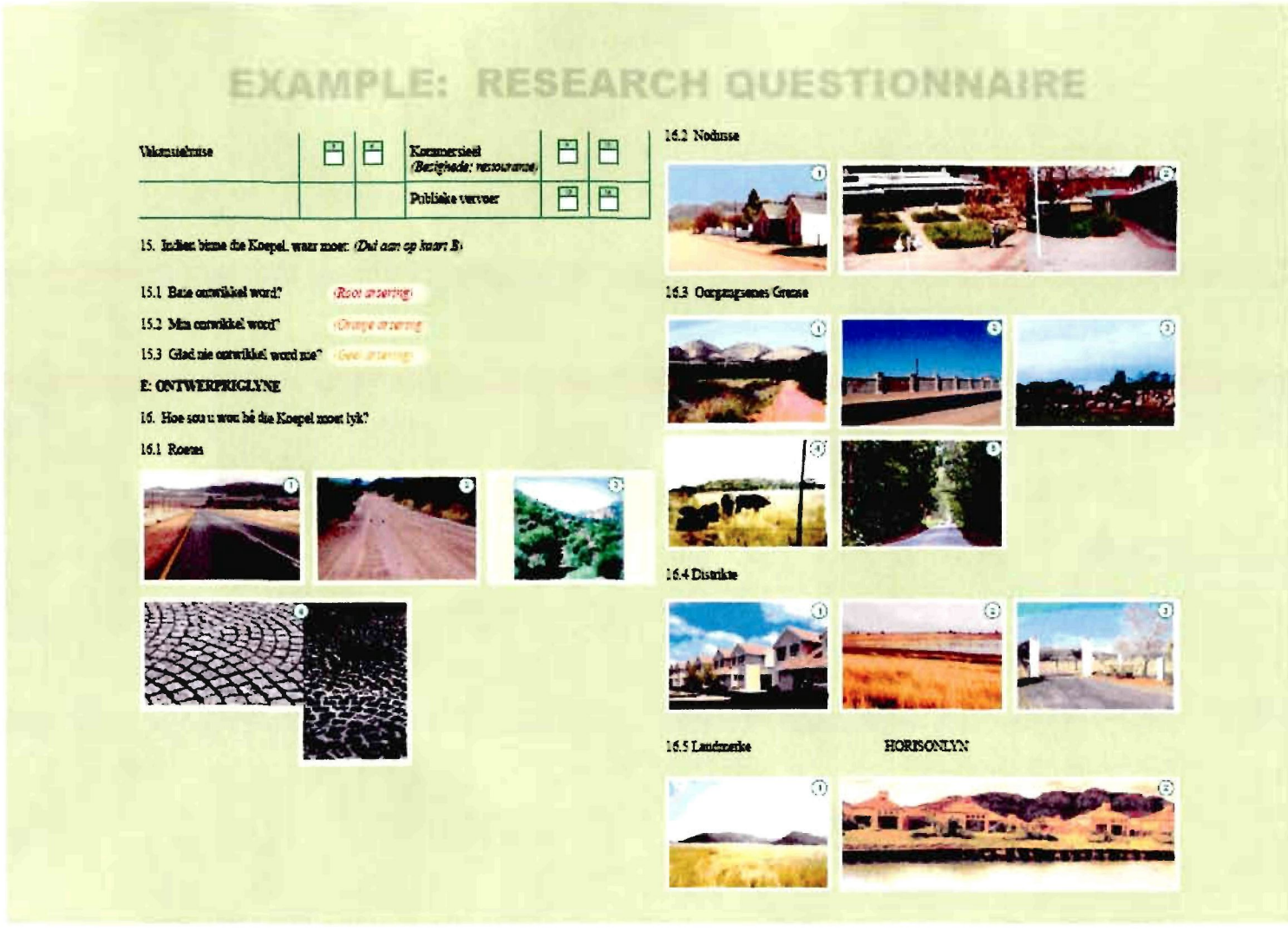
13. Waar moet daar ontwikkeling plaasvind, indien enige?

Binne Koepel	☐	Buite Koepel	☐
		PARYS	☐
		POTCHEFSTROOM	☐
		VREDEFORT	☐

14. Watter van die volgende fasiliteite moet voorsien word in die omgewing? Moet dit binne of buite die Koepel voorkom?

BEHUISING	In	Uit	TOERISTE FASILITEITE	In	Uit
Basiese Behuising	☐	☐	Inligtingsentrum	☐	☐
Toegangsbeheerde landgoedere ("estates")	☐	☐	Rekreasie	☐	☐

(Drewes, Puren & Roos, 2006)



(Drewes, Puren & Roos, 2006)

EXAMPLE: RESEARCH QUESTIONNAIRE

RIVIER


17. Watter van die volgende pas die beste in die Koepel?

17.1 Ingang\uitgang




17.2 Gebou



17.3 Dienste


18. Watter, volgens u mening, is die belangrikste gedeelte van die Koepel?

_____

_____

_____

(Drewes, Puren & Roos, 2006)

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