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### So long, gold mines long live industries?

A case study of Carletonville's battle for economic survival\*

by

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#### 1. INTRODUCTION

Laymen picture Carletonville as a prosperous mining town, associated with sinkholes. Although both impressions are part of Carletonville's history, they do not fully represent the present picture. Sinkholes, for example, are very low on the list of concerns, although visible signs will always remind those who have been personally affected by a period they would prefer to forget.

The first association, that of prosperous mining, is definitely a reputation the Carletonville community lives up to. However, there are reasons to be concerned about how long the existing seven gold mines, each with its own programme of expansion and production strategies, will be able to meet the demands of the community with its overwhelming single-purpose economic base. Since the 1950s community leaders and provincial leaders/structures have occasionally considered the necessity to plan, and to work constructively towards the vision of "so long, gold mines — long live industries!" The need to balance the local economic output effectively within the parameters of all the economic sectors frequently gave rise to debate, and to a number of suggestions.

<sup>\*</sup> Based on a paper presented at the 1996 annual conference of the Economic History Society of Southern Africa, University of the Witwatersrand, Johannesburg, September 1996.

The fact that this economic battle, figuratively speaking, still prevails as a matter of grave concern amongst local leaders proves that it is indeed accepted that Carletonville will have to effectively develop its secondary and tertiary sectors over the next 40 years in order economically to survive the gradually declining gold mine output. In this presentation, notes will be supplied on Carletonville's past economic framework before gold arrived on the scene. The community expansion and economic change (both positive and negative) brought about by gold mining activities will also be referred to in broad terms. Efforts and scenarios since the 1950s to change the "single-purpose" face of Carletonville's economy will be mentioned, and a conclusion will be drawn.

#### 2. ECONOMIC REVIEW, 1837-1948

Economic development and all other events in the Carletonville municipal area form an integral part of the historical development of the greater community of the Far West Rand (at present part of the Gauteng Province).

During the nineteenth and early twentieth century the area in which the town and municipal area of Carletonville are situated was known as the Gatsrand Ward in the district of Potchefstroom. As the area gradually developed economically and towns were proclaimed, as well as district boundaries redrawn, the name Gatsrand referring to the former ward faded away. Today the name Gatsrand only lives on as the Gatsrand hills which are a noticeable geographical landmark in this municipal area.<sup>1</sup>

Former inhabitants of the area have left a rich cultural history. The Le Ghoya and other tribes lived in the Gatsrand before Mzilikazi's Ndebele in the third decade of the nineteenth century started their

E.S. van Eeden, Die geskiedenis van die Gatsrand vanaf die vestiging van die Trekkergemeenskap omstreeks 1839 tot die proklamering van Carletonville in 1948, unpublished MA dissertation, PU for CHE, 1988

campaign of destruction on the Highveld.<sup>2</sup> According to legend the first White inhabitant, a certain Harmse, settled in the Gatsrand area as early as 1836. Documentary proof of the first White inhabitants exists from 1839.<sup>3</sup>

Gatsrand consisted mainly of farms as self-supporting units during the time of the government of the Zuid-Afrikaansche Republiek (ZAR). It also had respected members in its community who assisted the government of the day financially. The contributions by F.G.A. Wolmarans and P.J.W. Schutte to the economical development of the ZAR were prominent.

The conquest of the ZAR by Britain after the South African War (1899-1902) heralded a new phase of development for the Gatsrand Ward – a ward that, like other parts of the former Republic, was economically disrupted due to the military activities and the British Scorched Earth Policy that had been pursued. Most families had to start again from scratch. Rumours of possible gold mining exploration at this stage did the rounds.

Reconstruction and development as well as the search for, and discovery of, gold in the Gatsrand Ward followed in the 1930s. Apart from the foundation of a Dutch Settlement on the farm Wonderfontein in the late 1920s, which widened the scope of the economy to much more than merely farming, six towns were proclaimed. Politically these new economic activities enhanced the "healing" role the government represented after the war, with gold as a prime factor.

It needs to be added that the early economic development of Gatsrand owes its impetus to its central location as well. Two coach routes, namely The Potchefstroom-Pretoria mail coach (which passed the farm Welverdiend) and the Potchefstroom-Johannesburg-route went through Gatsrand. These two routes later became two main roads in

E.S. van Eeden, Carletonville van pionierstreek tot goudspens, Potchefstroom, 1995, pp 17-21

<sup>3.</sup> Van Eeden (1988), op cit, pp 2-19

Gatsrand. Gold mining activities after 1937 paved the way for more roads and improved motor ways in this area.<sup>4</sup>

Town development in the present Carletonville area gained momentum in 1937, when the gold mining industry was established in the area known as the West-Wits Line. Towns, people, business enterprises, opportunities, improved roads and a better developed railway system soon followed.<sup>5</sup>

The establishment of the first three gold mines, Blyvooruitzicht (1937), West Driefontein (1945) and Doornfontein (1947), arised the expectations of entrepreneurs. Several towns were founded in the area. They were West Wits (1937), Oberholzer (1939), Bank (1940), Welverdiend (1942), Blybank (1947) and Carletonville (1948). Carletonville, which was proclaimed on 20 January 1948 was the sixth town to develop in the mining area in less than a single decade. The financial impact of the Gold Fields of South Africa group of companies on the development of Carletonville accelerated the pace of town development ahead of the neighbouring towns of Oberholzer, Welverdiend, Bank, Blybank and West Wits.

<sup>4.</sup> Van Eeden (1988), op cit, all chapters

<sup>5.</sup> Union of South Africa, Department of Commerce and Industries, Annual Report No 6, Council for the Development of Natural Resources, 1 January-31 December 1950, Pretoria, 1950, pp 34-36; Anonymous, "Seventeen-hundred new houses for miners: mines of West Wits Line and Klerksdorp have create four new towns - Carletonville, Westonaria, Stilfontein and Orkney", Mining Survey, 3(2), March 1951; R.A. Pelletier, "Contributions to the geology of the Far West Rand", Transaction of the Geological Society of South Africa, 40, 26 July 1937, p 128

R. Macnab, Gold their touchstone: Gold Fields of South Africa, 1887-1987, a centenary story, Johannesburg, 1987, pp 64-161

Unie van Suid-Afrika, Departement van Handel en Nywerheid, Jaarverslag No 3, Raad vir die Ontwikkeling van Natuurlike Hulpbronne, 1 Januarie-31 Desember 1950, Pretoria, 1950, pp 34-35; Jaarverslag No 6, 1 Januarie-31 Desember 1953, Pretoria, 1953, p 19 and Carletonville Munisipaliteit, CM, Titelvoorwaardes, 1937-1960

Interim Archive [IA], Carletonville Municipality [MCV], file 22/1(b)(2),
Dorpe: memorandum ivm die verskynsel van sinkgate en grondbeweging in
dolomitiese gebiede en die uitwerking wat dit vir die toekomstige ontwikkeling
van Carletonville inhou, 17/4/1976, p 6

within this setting that the economic development of the Carletonville area took place.

#### 3. ECONOMIC DEVELOPMENT AND SPATIAL LOGISTICS

Before gold was discovered in the area only a few trading stores did business there. By 1951 the number of businesses in the immediate surroundings of the gold mines more than doubled.<sup>9</sup>

On 1 July 1959, the Local or West Wits Area Committee's dream was realised when Carletonville became an independent municipality. The newly demarcated area, which extended from Welverdiend towards Bank in the east and up to the Gatsrand Hills in the south, also included the areas leased by the Doornfontein, Blyvooruitzicht and West Driefontein mines, as well as the later East Driefontein, Elandsrand, Deelkraal and a part of the Western Deep Levels mining area. 11

Carletonville at that stage of gold mining development had already proclaimed three town extensions, and one extension had been proclaimed in the neighbouring town of Oberholzer. By 1995 the number of extensions had more than quadrupled. However, this high rate of expansion is not directly indicative of a balanced economic sector. Several efforts, which are referred to in section five, were aimed at achieving this goal. How successful it has been will be evident from the discussion in sections five and six.

E.S. van Eeden, Ekonomiese ontwikkeling en die invloed daarvan op Carletonville, 1948-1988: 'n Historiese studie, unpublished PhD thesis, PU for CHE, 1992, p 210 diagram

Rand Daily Mail, 2/7/1959, p 6. Also compare with the manuscript of W. Hagan-Watson, "Down memory lane: Blyvoor's first 20 years", pp 1-10.

Unie van Suid-Afrika, Die provinsie van Transvaal, Offisiële koerant, 169, 24/6/1959, kolomme 11-14; and Carletonville (Municipality), Local Area Committee (LAC), Minutes: minute, 18/6/1959, pp 6-7

Carletonville (Municipality) local Area Committee (LAC) file T6/13(2), Town and regional planning: West Wits Local Area Committee, Dec. 1952, p 26

Carletonville Herald, 6/11/1987; Urban Dynamics, Greater Carletonville/Fochville sub-regional structure plan, March 1995

TABLE 1

Extent and distribution of formal sector employment opportunities

Area	Employment	% of regional employment opportunities
Khutsong	*	
Carletonville	5 712	6,5
Wedela	*	
Welverdiend	155	0,2
Mines	78 791	89,8
Rural	1 761	2,0
TOTAL	87 763	100,0

<sup>\*</sup> No formal figures available

Source: Urban Dynamics, Greater Carletonville/Fochville sub-regional structure plan, March

The above-mentioned towns in the Carletonville area were traditionally White. However, it was not unusual to see Indians trading in the towns for many years. But as a result of enforced residential separation, Indians had to travel from the Indian township of Lenasia in Johannesburg on a daily basis to trade in the Carletonville area. The Black township of Khutsong, situated north-west of Carletonville has never since its founding in 1958 until recently been part of the Carletonville municipal area. Through all the years its economic link with Carletonville were the labourers needed in the various economic sectors of the Carletonville municipal area, of which the gold mines clearly are the biggest employer (see Table 1 for labour statistics). 14

By 1988 trade by Indians, Coloureds and Black people in Carletonville were legalised as a result of the two free trade areas approved by the government. Thanks to the large numbers and the purchasing power of the Black inhabitants working on the mines, the business

Carletonville (Municipality), [LAC] Minutes: minute, Ondersoek ingevolge die Wet op Groepsgebiede 1950, Wesrand-Streek, 24/9/1957; 20/6/1957; 11/2/1958

sector made reasonable profits (see Diagram 1 for population statistics).  $^{15}$ 

#### DIAGRAM 1

#### Population trends within the Oberholzer district

450		*	*	160000			*
400				140000			
350				120000			
300				100000		*	
250				80000			
200			+	60000			
150	*	+		40000			
100				20000		+	+
0	+			0	* +		
	1945	1985	1991		1945	1985	1991
	+	Asia	ns		+	- Whi	tes
* Coloured				* Blacks			

Source: Republic of South Africa, Central Statistical Services, Population Census 1991, Report 03-01-02, Geographical distribution of the population

#### 4. THE ECONOMIC ADVANTAGES AND DISADVANTAGES OF THE GOLD MINING ACTIVITY IN THE CARLETONVILLE AREA

#### 4.1 Economic advantages

Gold mining activities, apart from the three pioneer gold mines Blyvooruitzicht, Doornfontein, and West Driefontein, were further expanded from the 1950s onwards. This gave rise to four new gold mines, namely Western Deep Levels, East Driefontein, Deelkraal

Carletonville (Municipality), CM, Council minutes; vergadering van die Bestuurskomitee, 9/1/1989; South African Institute of Race Relations, Race relations survey, 1988/89, p 419

and Elandsrand. <sup>16</sup> Western Deep Levels, which is more than four kilometres deep, is widely known to be the world's deepest mine. <sup>17</sup>

#### (1) Town development

One of the immediate advantages of having some of the world's finest producers of gold in the municipal area has been town development due to population growth. Town development and economic enterprise mainly revolve around the needs of the gold mines. Existing enterprises have, up to now, not been able to fulfil the demands of the gold mines. Therefore, it is a pity, after so many years since gold mining first started in the Carletonville region and began providing opportunities for industrial development, that there is still a lack of mining-orientated industries locally. This means less purchasing power and income for Carletonville.

Through the years the gold mines invested in town development on mine property as well as in the surrounding towns, especially in Carletonville. Within a matter of one decade the town infrastructure of Carletonville underwent a metamorphosis. The mining authorities also initiated forums to discuss the direction of future economic development of the Carletonville municipal area, should mining activities come to an end (see discussion in section five).

<sup>16.</sup> Van Eeden (1992), op cit, chapter four

J. Oxley, Down where no lion walked, the story of Western Deep Levels, pp 225-26; Van Eeden (1995), op cit, p 194

CM, LAC, Minutes, minute, 16/11/1951; IA, MCV, file 89/2/3, Nywerheidstatistiek: brief, Lisensie en Verkeershoof Carletonville/Chris van Rensburg publikasies, 24/6/1969

Carletonville Herald, 8/2/1985, 22/11/1985; Interview, Mr D.O. Ndzeku (mayor of Carletonville)/E.S. van Eeden, 20/8/1996

<sup>20.</sup> Compare interview Ndzeku/Van Eeden, 20/8/1996.

<sup>21.</sup> Van Eeden (1992), op cit, pp 22-42

#### (2) Influence on the world market

In 1988 gold production of the Carletonville mines declined, with the exception of the two latest additions, Deelkraal and Elandsrand. This was probably because the life span of several mines had passed their peaks, but the local economy, the region and South Africa nevertheless profited tremendously by gold mining development in the Carletonville area. The 97 per cent contribution of the Carletonville gold mining industry to the Gross Domestic Product (GDP) for the West Rand Region and its contributions of 18 per cent and 23,58 per cent to the total gold production of South African gold mines by 1988 and 1996 respectively prove this beyond a doubt. The gold mines in the Carletonville area had a significant effect on the world market and on the South African economy. It secured millions for the State treasury. South African economy.

#### (3) Population growth

The revolutionising effect locally was visible in the infrastructure. Especially because of the growth in the labour population, more housing, general services (institutional and administrative) and trading opportunities were made available on mine property as well as in Carletonville and the surrounding area. By 1991 the Oberholzer District represented 20,43 per cent of the total population in region 75 (formerly region 50). In 1996 the formal population figure of the district was an estimated 204 000. This is an increase of approximately 30 000 since 1991 (see Table 2 for trading statistics and approval of building plans). <sup>24</sup>

<sup>22.</sup> Chamber of Mines, Mining Annual Report, the years 1984-1988

<sup>23.</sup> Van Eeden (1992), op cit, pp 191-92; Van Eeden (1995), op cit, p 237

Compare with Union of South Africa, Department of Commerce and Industries, Annual Report No 8, Council for the Development of Natural Resources, I January-1 December 1955, p 9; PU vir CHO, Voortgesette streekopname van Beheerde gebied No 2..., Verslag No 3, 1956/57, p iii

TABLE 3

Building plans passed for industrial purposes

	Year	Carletonville
[Extension 6]	1987	7
	1988	15
	1989	13
	1990	1
	1991	8
	1992	-
	1993	
[Extension 4]	1994	2
	1995	30
	TOTAL	68

The figures above indicate that a very low percentage of the stands available in formal industrial areas are occupied. The recent addition, namely extension 14, has 175 stands available but, as can be seen, only 30 were occupied by 1995. Khutsong industrial extension No 5 is not even considered here, because by 1995 not a single one of the 83 stands for small-scale industries was believed to be occupied.

#### (4) Development of the local infrastructure

Gold mining companies also took it on them not only to supply funds but also to make available expertise to assist in improving the local infrastructure. The building of supply roads, the provision of water and electricity as well as the development of school buildings, together with the financial and administrative obligations that went along with it, were willingly undertaken. The Black township Wedela, for example, which is situated between Elandsrand and Western Deep Levels gold mines, is a typical success story for which the Anglo American Corporation was mainly responsible. <sup>25</sup>

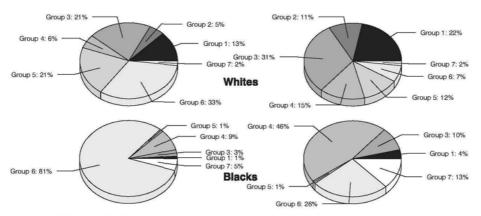
<sup>25.</sup> Van Eeden (1992), op cit, chapters two, four, five and seven

**DIAGRAM 2** 

#### Population distribution: occupations

#### Carletonville area

#### South Africa



OCCUPATIONS: GROUP 1 (professional, semi-professional, technical, engineering, architecture, science, medical, teaching etc, arts, sports, leisure); GROUP 2 (constitutional, executive, management, administrative); GROUP 3 (clerical, merchandising); GROUP 4 (transport, communication, services, farming fisheries); GROUP 5 (artisan, apprentice); GROUP 6 (mines and quarries, production, supervision, operators); GROUP 7 (unskilled, unclassified)

More than ever before the community structure took on a cosmopolitan character. For older inhabitants the presence of English-speaking Whites and the variety and number of Black ethnic groups, some of whom took to squatting due to a lack of housing, were changes they had to adapt to. The economic advantages and opportunities which gold mining created far outweighed any emotional distress accompanying these changes. The economic advantages are emotional distress accompanying these changes.

#### (5) Provision of labour

Apart from the advantages brought about by the production of gold, the seven gold mines provided employment for an extensive number of the economically active population in the Carletonville area, as indicated in Table 1 (see Diagram 2 for a more detailed breakdown of occupational statistics in the Oberholzer district).

#### (6) Cultural platform

Lastly, one of the advantages of the contribution of gold mining to development in general was that it created a platform for the provision, creation and practising of sports, cultural and recreation activities on mine property as well as in the town of Carletonville.<sup>28</sup>

Thus in looking at the infrastructure in general, it appears as if the gold mining industry has done its part to ensure that the Carletonville area attract investors and newcomers. An accusation might be that the industry mainly stimulated and initiated town development one-sidedly, to their own benefit and to meet their own needs. As far as a sound framework for economic development was concerned, it was left to local government to initiate this. A lack of mutual

<sup>26.</sup> Van Eeden (1992), op cit, compare with pp 44 and chapter seven; CM, LAC, file N9/7/149 NAD, Komitee Wes Witwatersrand Naturellesake: vergadering Naturellesake Onderkomitee, 21/3/1958; file N79/10/149, West Wits Plaaslike Gebiedskomitee, huisvesting van Naturelle op privaateiendom, 1956

<sup>27.</sup> Compare with Van Eeden (1995), op cit, pp 172-73, 237

<sup>28.</sup> Van Eeden (1992), op cit, chapter four

co-operation and exchange of ideas between the local government of Carletonville and the local mining industry over many years also contributed to the maintenance of the economic status quo. <sup>29</sup> The de-proclamation of local territory in 1994 brought an end to this situation. <sup>30</sup>

#### 4.2 Economic disadvantages

#### (1) Dewatering of land and destruction by sinkholes

For the gold mines of Carletonville the development they inspired also had its drawbacks, as was seen during the period of sinkholes. The presence of underground water, a mining problem that had in fact limited gold exploration opportunities in Carletonville quite seriously for years before actual discovery in the 1930s, again caused destruction during the 1940s and 1950s. Fear that these underground water depositories might endanger the lives of mine workers underground led to the decision of mining companies rather to pump out the surplus water gradually. The consequences were catastrophic<sup>31</sup> and affected every sphere of community life, of which the economy was one of the most important. The depletion of underground water by the mines in the 1960s was suddenly of great concern to the new local authority, especially because everyone concerned realised that a single-sector economy could make or break a community at will. The occurrence of sinkholes in the Carletonville area received increasing attention<sup>32</sup> and for nearly a decade caused a static economy. With regard to secondary industries, this catastrophe, apart from other reasons, caused a lack of adequate growth. To indicate the detrimental effect one event can have in a what was mainly a single-sector

Compare the attitude between council and the mines in Van Eeden (1992), op cit, pp 22-42 and chapter five

Compare with interview, Ndzeku/Van Eeden, 20/8/1996; interview, Mr B. Strydom (chief town planner, Carletonville)/E.S. van Eeden, 16/8/1996.

<sup>31.</sup> Compare with Van Eeden (1992), op cit, all chapters

Compare with IA, MCV, file 33/1/4(e), Formasie, gevolge van ontwatering: memorandum aan die minister van Mynwese en van Beplanning, 14/9/1967; Van Eeden (1992), op cit, chapter five

economy, the following areas which were affected during the period are broadly outlined as examples:

#### Media

The media went over board reporting on this rarity and in the process disturbed the general economy for a considerable time, especially after cracks and damage to buildings were discovered and builders exposed subterranean caves during construction work. <sup>33</sup> In a well-known Afrikaans South African family magazine, an article was published with the significant title *Transvaal town becomes lopsided*, which undoubtedly drew adverse attention to the young mining town. <sup>34</sup> However, no attempts by the town council to promote favourable publicity prevented the so-called *invisible giant* from *gnawing* away at the Carletonville area. <sup>36</sup> Ironically enough the sinkhole events of 1963 provided a platform for the founding of the first fully fledged local newspaper, the *Carletonville Herald*. <sup>37</sup>

#### Damage and loss of lives

Several incidences of sink-holes on mine property occurred after 1962 and in some cases caused a loss of lives, of which the death of the Oosthuizen family is probably best known. Despite much criticism, and a heavy financial burden as a result of this ecological disaster, mining authorities persevered. As a result, three of the gold mines mentioned earlier started with production, namely East Driefontein (1968), Deelkraal (1974) and Elandsrand (1974). 38

Union of South Africa, Department of Commerce and Industries, Annual Report No 12, Raad van die Ontwikkeling van natuurlike Hulpbronne, I Januarie 1959-1 Desember 1959, pp 5; Unie van Suid-Afrika, Die provinsie van Transvaal, Offisiële koerant, 169, 24/6/1959, kolomme 14-16

Die Vaderland, 13/12/1962, p 1; Dagbreek en Sondagnuus, 20/5/1962, p 1;
 16/12/1962, p 2; The Star, 10/4/1963, p 2; Die Transvaler, 11/4/1963, p 1

K. Steytler, "Transvaalse dorp trek windskeef", Die Huisgenoot, 22/2/1963, pp 8-13

<sup>36.</sup> The Star, 23/1/1963, p 1; 10/4/1963, p 2

<sup>37.</sup> Compare with Carletonville Herald, 25/1/1963.

<sup>38.</sup> Van Eeden (1992), op cit, chapter four

#### Disruption of town development

As far as town development was concerned, the picture appeared more gloomy. The towns of Bank, Blybank and West Wits did not survive this economic experiment as did Carletonville, to some extent. In January 1970 occupants of Bank were advised to evacuate the town permanently because of the unstable surface caused by intense ground movement. <sup>39</sup> In the years that followed extensive demolition of houses in Carletonville Extensions no 5 and 8 in particular took place. <sup>40</sup>

#### Agricultural set-backs

Apart from the fact that agriculture lost its position as prime economic activity in the former Gatsrand after gold had been discovered, further change occurred as a result of the evacuation of rich farming areas in the Bank area. The buying out of farms by gold mining companies contributed to the still declining profile of the agricultural industry.  $^{41}$ 

Some farmers who had not been as drastically affected as those in the Bank area experienced scattered incidences of subsurface hydroextraction on their farms. The water that was pumped out by the West Driefontein Mine was then channelled to the local Irrigation Board to relieve the farmers' shortage of water due to hydroextraction at two points. The fact that farmers were dependent on the goodwill of the mining sector further weakened the economic position of farmers by 1966. Mines in the region were already supplying water to more than 30 farmers whose bore-holes had dried up. After the 1960s nothing visible remained of the once well-watered Wonderfontein and the Eye of Wonderfontein, once a spot of scenic beauty. A network of irrigation canals has been laid on by the mines to provide in the water needs of the farmers.

Die Transvaler, 29/4/1970; Republic of South Africa, Debates by the House of Assembly, 24/5/1973, column 7633; Carletonville Herald, 30/1/1970.

Transvaal Archive, MCV, vol 43, file 70/2/1(1), Beplanning en ontwikkeling: vergadering, bestuurskomitee, 4/1/1966.

<sup>41.</sup> Van Eeden (1992), op cit, chapter three

Complaints from farmers that the West Driefontein mine had dumped polluted water with harmful mineral elements like boron and aluminium into the irrigation canals, evoked widespread reaction. Some farmers claimed that this affected the vegetation and animal life of the area. Examples of abnormal absence of seed during the harvest of buckwheat, maize and corn, the heavy pigmentation of grass and clover planted for feeding purposes and the abnormal number of deaths, miscarriages and deformities that occurred in fish, goats and pigs were mentioned.

Economically the above-mentioned friction, which started in the 1960s and which still continues, caused hostility between the mines and farmers, which resulted in a further decline of the farming industry. A water shortage and disputes with the mines about the alleged pollution, as well as the exhaustion of the once rich subsurface water sources had evidently become too much for some farmers. Their discontent was exacerbated by the crop failures and stock losses of the last few years, which were blamed on these problems.

Furthermore, financial problems accumulated and the Dolomitic Water Association, founded by the mining authorities, was blamed for their strict screening before claims for damages were paid out. In the midst of these events some of the farmers decided to leave the region voluntarily. By the 1980s the mines became the prime "manager" of the agricultural areas in the Oberholzer district—see Diagram 3 as presented by Urban Dynamics in 1995.

On a regional level, the contribution of the Oberholzer agricultural district to the region's GDP by the 1980s was only 16,1 per cent. This district involves an agricultural area much more extensive than that part which falls within the boundaries of the Carletonville municipal area, which indirectly indicates the extent to which this economic sector in specifically the Carletonville area

E.S. van Eeden, "The impact of economic logic on the environment: a case study on the effect of subsidences, hydroextraction and hydropollution on the agricultural industry of the Oberholzer district (Carletonville area), 1959-1972", Monitors, H-Africa network, 1996

must have been affected by the presence and activities of the mines.

#### **Business sector**

During 1965 the business sector in Carletonville did not experience any improvement in their situation. The findings of the Government Co-ordinating Technical Committee had indicated that some of the plots could possibly be classified as permanently unsuitable. This would, of necessity, have a negative effect on the future of Carletonville. To the city council, which had up until then made a valiant attempt to retain the businessmen's confidence in them, this was a decisive blow. When the Dolomite Water Council furthermore announced that builders would not in future be compensated for damage to buildings caused by sink-holes, it served to further exacerbate the situation of the already debilitated community structure. After all, this would imply that fewer builders would be prepared to construct buildings in the Carleton-ville area in future. 43

The Bank area did not share in the same process of recovery as the business sectors of Carletonville and Oberholzer. The dewatering of the Bank Compartment had increased the occurrence of sink-holes in Bank which, by 1970, had made it extremely dangerous to live in this area. Most activities in this area, among them old established businesses, simply disappeared. Some said that the gold which had *attracted* them in the first place, had now been the cause of their *exodus*. 44

Despite the evacuation of the town of Bank and several other problems which subsiding soil had caused in the area, business activities in Carletonville seemed more prosperous at the beginning of the 1970s. For instance, in the motor industry, Ed's Motors

Die Suid-Afrikaanse Vereniging van Munisipale Werknemers, Suid-Afrikaanse Munisipale Jaarboek, 1964-65, p 321

Carletonville Herald, 24/1/1969, p 1; TBP, Argief van die Departement Bantoe- administrasie en -ontwikkeling (BAO), Band 3038, lêer C39/28/1108, Arbeidsburo Carletonville: brief, Vener, Mosdell, Suttners Stores, Spilkins Outfitters/Dept Bantu Administration and Development, 24/4/1970

had opened in Annan Street in Carletonville after moving from Bank.  $^{45}$  At this stage, the business circles in Carletonville distinguished between those with so-called grit and the so-called undesirables. The "gritty" ones were regarded as those merchants who had stayed put and were now reaping the benefits of surviving several difficult years after the undesirable merchants, who had been scared off by the sink-holes, had left.  $^{46}$ 

Although the local tertiary sector had then indeed started to recover, it could still not hope to compete with that of neighbouring towns in the area. This was also applicable to the strength of the labour force in this sector. By 1970 about 4,72 per cent of the local population was employed in the tertiary sector and 1,2 per cent of the population in the secondary sector. These numbers were decidedly lower than in the neighbouring towns of Randfontein, Roodepoort and Krugersdorp. The most obvious reason for this, apart from subsidences, and which is still valid today, is that there appears to be a more even division of labour between the economic sectors in these three towns, while in the Carletonville district, mining has remained the dominant employer.

Despite this economic imbalance in Carletonville, the number of businesses which operated in Carletonville during 1971 and 1972 had risen to 330, which was considerably higher than during the 1960s. The fact that a variety of commercial services were situated on the consumer's doorstep – from toy and hobby shops to consumer goods, furnishers and suppliers of agricultural implements – had probably also favourably influenced the confidence

<sup>45.</sup> See Van Eeden (1992), op cit, chapter 5

Carletonville (PU vir CHO), Ref 3: Interview, E. Twaits (ex businessman of the towns of Bank and Carletonville), 20/4/1989

<sup>47.</sup> Die Vaderland, 16/10/1980, pp 16-17

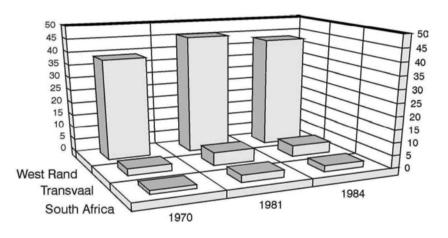
Republiek van Suid-Afrika, Departement van Statistiek, Verslag No 02-05-06, Bevolkingsensus, Beroep en nywerheid volgens distrik en ekonomiese streek, 1970, pp 51, 115, 173, 215

in the future of the area of the Carletonville consumer. <sup>40</sup> The city council's concern with its local business sector during the 1960s had proved how important the confidence of tertiary institutions in the area had been in gaining the confidence of the rest of the community - see Diagram 3 for Carletonville's contribution to the Gross Domestic Product. <sup>50</sup>

#### DIAGRAM 3

## The GDP contribution of the primary, secondary and tertiary sector of the Oberholzer district (Carletonville area) in a national and regional context 1970-1984

(per cent)



Die Suid-Afrikaanse Vereniging van Munisipale Werknemers, Suid-Afrikaanse Munisipale Jaarboek, 1971-72, p 351; Carletonville (PU for CHU), Ref 1: verslag, getal besigbede en lisensies uitgereik vir die jare Jan 1973-Okt 1988, 19/10/1988

TA, MCV, Vol 52, lêer 73/5(7), Publisiteit: saketelefoon en koopgids vir Carletonville, 1970-71

According to publication P.0401 of the Central Statistical Service in 1991 the economic structures of the West Rand vary widely. In the Oberholzer district nearly 89 per cent of GDP came from the primary sector, whereas in the Krugersdorp district it amounted to only 10 per cent. The region therefore has a weak secondary sector contribution to GDP of 2,6 per cent and a tertiary GDP contribution of 9,2 per cent. Despite this high degree of dependence on the mining sector, the Oberholzer district accounted for nearly 48 per cent of the regional GDP in 1991. 51

#### Communication

As far as the visible effect of the sinkhole period on the total communication network was concerned, it was mainly the road and railway networks that were detrimentally affected. Apart from the fact that passenger services at Bank Station had been permanently discontinued as from 1970, three provincial roads had to be partially closed and alternative roads used. This temporarily crippled the local business sector as it caused a delay in the transport of products to and from other towns.<sup>52</sup>

Like other institutions and the government, the mining industry helped, and in many ways it was primarily responsible for restoring confidence in the economy and the community life of Carletonville. Building societies, for example, increasingly demonstrated their willingness to provide funds for individual and business purposes. This restored confidence manifested itself in the local economy. The building of a grain elevator and of hyperstores by two nation-wide traders, OK Bazaars and Pick-'n-Pay, in the 1970s are visible examples of this trust.<sup>53</sup>

Partly as a result of the so-called gritty ones as mentioned earlier, the people of Carletonville had entered a more stable economic period in

<sup>51.</sup> Source: Urban Dynamics (1995), op cit, p 8

<sup>52.</sup> Van Eeden (1992), op cit, chapter six

CM, file 15/19/2, Stadsbeplanning, ontwikkeling, beheer, grondformasie, versakkings: minutes, Local Ground Movement Co-ordinating Committee, 5/9/1988; Chamber of Mines, Far West Rand Dolomitc Water Association, annual report, 1988, p 20

the history of Carletonville by 1976. However, the mines still called the tune.

 TOWN PLANNING STRUCTURES AND ECONOMIC DEVELOPMENT SCENARIOS: An effort of Carletonville to overcome its dependence on gold

For years before the proclamation of Carletonville as a town, some development took place in the tertiary and secondary sector. The Dutch pioneers who mainly came from Groningen to settle on a portion of the farm Wonderfontein in 1928 contributed to the establishment of factories and trading stores in what was later to become the town of Oberholzer.

Some secondary industries in due course provided in the needs of the gold mines. Amongst them were West Rand Lime, The Cementation Company Africa Limited and the quarries of Gebroeders Schutte Eiendoms Beperk. Other economic initiatives were few and this condition still prevailed in the 1950s, when the Council for Natural Resources proposed that recommendations for development on the Far West Rand be reconsidered seeing that an industrial area was needed for Carletonville. 55

The Local Area Committee and the Peri-Urban Areas Health Board at that time already had in mind Carletonville extension 6  $(172 \text{ ha})^{56}$  as an industrial township. However, the close proximity of the industries on the Reef contributed to the slow pace at which industrial settlement in Carletonville was undertaken.<sup>57</sup> As a result no clear alternatives developed.<sup>58</sup>

CM, LAC, file L1/29/4, West Wits Local Area, Committee: buildings and building plans, June 1949-August 1952

<sup>55.</sup> Annual Report No 8, op cit, p 9

<sup>56.</sup> CM, Health Board for Peri Urban Areas, file T6/13(2), Town and regional planning: West Wits Local Area Committee, West Witwatersrand Region Town Planning Scheme, report of the town planning officer on the basic principles underlying and the main proposals of the scheme, December 1952

<sup>57.</sup> Van Eeden (1992), op cit, chapter two

<sup>58.</sup> Compare with CM, LAC, Minutes: minute, 15/7/1949.

From the last part of the 1950s to the 1970s the Local Area Committee and later the local government undertook rather weak efforts to proclaim an industrial township. Differences over the most suitable locality, and the uncertainty with regard to the future of Carletonville at that stage, as well as the nearby industrial neighbours on the Reef, probably contributed to this. Several government plans (such as the National Physical Development Plan) which were lined up in the 1970s to be implemented to the benefit of local development, took care of Carletonville's economic needs in a Cinderella fashion. By 1976 only 32 light industries were active. The GDP contribution of the Oberholzer district industries to Region 50 in 1978 only amounted to 1,82 per cent (also compare Table 2 and Diagram 3).

The concern about the further development of industries was also shared by the gold mining authorities and 62 addressed by the West Wits Regional Planning Committee in 1982. 63

By the time the local tertiary sector in early 1987 had recovered from the effect of the subsidences, Carletonville extension 6 was already being developed as an industrial area in order to meet the shortage of industrial sites. As their predecessors, the then city fathers wanted to cater mainly for the light industrial market that provided manufactured products for the mines. Extension 14, next to extension 6, was laid out in 1987-1988. Approximately 128 light industries were active in 1988. Progress in the secondary industry undoubtedly was

<sup>59.</sup> Compare Van Eeden (1992), op cit, pp 198-206.

IA, MCV, file 93/1/27(2), Streeksontwikkeling vir Wes-Transvaal en aangrensende gebiede: brosjure, terugblik oor tien jaar, 1964-1974, 31/10/1974; Van Eeden (1992), op cit, chapter five

J.C. Schutte (ed), Wesrand Streeksdiensteraad, beplanningsondersoek, pp 381-82

<sup>62.</sup> Carletonville Herald, 24/10/1980, p 3

J.R. Rosmarin, "A strategy for industrial development", symposium of the West Wits Regional Planning Committee: strategy for the future, September 1982, p 18

CM, Council minutes: Minute of the Executive Committee, 25/2/1986, p 9;
 file 2/8/2, Organisasie en beheer Streekdiensterade: Indeling van streek en die afbakening van sentrale en nywerheidsgebiede, 1987; Carletonville Herald, 18/3/1988

made possible by these developments. Unfortunately for those concerned, this "battle for survival" nearly stagnated in the 1990s. At present it is realised that the establishment of more industries, once again, need to be encouraged. Although a Structure Plan for the Greater Carletonville Area was drawn up by March 1995<sup>65</sup> and proposed three alternative development scenarios for Carletonville, as a result of the White Paper on Reconstruction and Development accepted in 1994, town planners are awaiting suggestions from experts as to how the Development Facilitation Act of the new government can be successfully applied. This may eventually lead to a more constructive programme of phasing in new industries. Although this may take years, it appears that the hope for economic survival beyond the era of the gold mines is still alive.

#### 6. CONCLUSION

Agricultural activity had been the core economic activity in Carleton-ville before gold mining in the area began in 1937. As a new initiative, which soon proved to be the dominant economic factor in the local economy, the development of gold mining was not the only reason why agriculture lost its long-standing economic position in the Carletonville community. The effect of the presence of the mines in the area can be perceived both negatively and positively. It did the area's economy a lot of good, but in a distorted and one-sided manner. On the negative side, it was the extraction of the subsurface water by the mines, followed by surface subsidence and the drying up of bore-holes, that primarily had a detrimental economic effect on the farming segment of the community, and an overall negative effect on the community as a whole.

Business activities in the Bank area did not share in the same process of recovery as the business sectors of Carletonville and Oberholzer, because of their distance from the gold mines. The dewatering of the

Compare with interview, Mr B. Strydom/E.S. van Eeden, 16/8/1996; CM, Document on the Development Facilitation Act (DFA), Dec 1995.

Compare with interview, Strydom/Van Eeden, 16/8/1996; CM, Document on the DFA, Dec 1995; Urban Dynamics (1995), op cit, pp 70, 90-95.

Bank Compartment had increased the occurrence of sink-holes in Bank which, by 1970, made it extremely dangerous to live in this area. Most activities in the area, among them old established businesses, had simply disappeared.

The sinkhole period proved that Carletonville needed to address its single-focus economy more effectively. Despite proposals from the Council for the Development of Natural Sources in 1957, preceded by two reports compiled by experts from the Potchefstroom University in the same year, as well as the report of the symposium organised by the West Wits Regional Planning Committee (titled "The development potential of the West Wits Line, strategy for the future"), very little happened with regard to industrial development. In 1995 a new development-potential structure plan for the greater Carletonville/Fochville sub-region was prepared by Urban Dynamics Inc, Bedfordview. Although their prime task was to facilitate a process in which all stakeholders of the Carletonville area would be involved, the structure plan indicated that the secondary sector of the Oberholzer district was fairly weak. The consultants pointed out that almost 90 per cent of the economic input comes from the mining sector. 67 Urban Dynamics advised that cognizance be taken of trends and patterns in the gold mining industry of South Africa with regard to future planning. They proposed three scenarios which still need to be considered.

The dominance of the mining sector therefore still leads to a level of long term insecurity and distorted spatial distribution of population and employment. At present, a lack of a firm economic substitute for the gold mines in the Carletonville area is an issue without clear directions or programmes. To a degree the town planning department of the so-called greater Carletonville appears to be confident that the Development Facilitation Act (DFA) of December 1995, with its focus on the Land Development Objectives, will provide the platform on which a new structure can be built to counteract the one-sided nature of the economy.

<sup>67.</sup> Urban Dynamics (1995), op cit, p 8

<sup>68.</sup> Urban Dynamics (1995), op cit, pp 11, 49, 60

<sup>69.</sup> Compare CM, Document on the DFA, Dec 1995.

The city council also appears to be concerned about the prevailing economic situation and hopes that the DFA may give direction, and that the development scenarios proposed by Urban Dynamics may be useful. The city council also proposed ideas that they hope may be successfully tried out. Their hope is that the opening of a new extension and the encouragement of industries to produce quality products which the mines can use, and may even have an export value, could be a starting point to break the nearly 60 years of dominance by the gold mining industry.<sup>70</sup>

Although the DFA does provide a few broad aims as to what needs to be considered with reference to local circumstances, demographic characteristics and spatial patterns relating to urban growth and urban reform, they do not directly address ideas for specific conditions of local economies. To a degree it aims more at ensuring political and economic opportunities and equality. In the process of ensuring these things, Carletonville may pave the way towards creating an economic survival potential within all the sectors, against the day when the mining industry will finally hand over the baton of the single-focus economy to the rest of the local economic sector.

In many respects the DFA may be more successfully implemented if past efforts and proposals (as mentioned) to direct the way of the local economy to adulthood are also reconsidered.

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<sup>70.</sup> Compare interview, Ndzeku/Van Eeden, 20/8/1996.