

LSE Research Online

Deborah James

Musical form and social history: research perspectives on black South African music

Article (Published version) (Refereed)

Original citation:

James, Deborah (1990) Musical form and social history: research perspectives on black South African music. *Radical history review* (46/47), pp. 309-319.

DOI: <u>10.1215/01636545-1990-46-47-309</u>

© 1990 <u>Duke University Press</u>

This version available at: http://eprints.lse.ac.uk/24684/

Available in LSE Research Online: July 2009

LSE has developed LSE Research Online so that users may access research output of the School. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LSE Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain. You may freely distribute the URL (http://eprints.lse.ac.uk) of the LSE Research Online website.

This document is the published version of the journal article, incorporating any revisions agreed during the peer review process.

Musical Form and Social History: Research Perspectives on Black South African Music

Deborah James

Recently, audiences in Europe and the United States have responded with great excitement and enthusiasm to black music from southern Africa, especially from South Africa. While this new and unprecedented interest may be a product of growing awareness of the injustices and deprivations of apartheid, it must represent an appreciation of the rhythmic and melodic qualities of the music itself. A look at research and literature on the music reveals a preoccupation with these dual concerns: on the one hand, the socioeconomic circumstances from which the music has grown, and on the other, the intricacies of its musical form. Although in some studies these two perspectives have illuminated each other to provide a complete picture, most researchers have tended to emphasize either one dimension or the other.

Each of these approaches carries its own shortcomings. The earlier style in ethnomusicological analysis concentrates on the technical aspects of music, and examines musical instruments, scale-types, uses of rhythm, and the way in which these formal characteristics have spread from one "tribal" grouping to another. This perspective is most often associated with an interest in "pure" traditional music, and a scorn for hybrid styles or those which have evolved out of the experience of proletarianized communities. In its most conventional form, then, this kind of ethnomusicology appears remote from the concerns of social historians, and stands accused of irrelevance and lack of concern with the pressing issues confronting communities in present-day southern Africa.

The more recent approach views music as a sociohistorical phenomenon, and is concerned with the way in which social groupings have formed around, and expressed themselves through, musical performance. This style of analysis is predominantly concerned with evolving and urbanizing musical styles. In its preoccupation

with musical genres and lyrics as expressions of changing social experience and consciousness, it dovetails, often indistinguishably with the approach of social history. Its flaw, however, is that it sometimes ignores specifically aesthetic dimensions in favor of broadly social ones. Thus, for example, it provides no insight into why a song or dance better expresses particular sentiments than a political meeting or some other form of popular culture.

The apparent polarization presented here can be overcome. The two tendencies are in fact interdependent, and some of the best scholarship succeeds in integrating them both. From the point of view of social and cultural action, too, there is a need for the two kinds of understanding to complement each other. Black oppositional movements in southern and South Africa are often associated—either officially or informally—with programs of cultural revivalism, in which music has played perhaps the most important emotive and symbolic role. A successful use of music in this way has gained from an accurate record of how "indigenous" music was performed as well as a clear understanding of the fact that much of the music deemed "traditional" is really the product of ongoing processes of social change.

During the 1920s and 1930s there were two notable initiatives in the documenting and recording of African music: by Hugh Tracey and Percival Kirby. Tracey's research has perhaps become more widely known through the pages of African Music, the journal he founded, and through his later involvement in broadcasting. His research trips, funded first out of his own pocket and later by the Carnegie Corporation, took him to a wide variety of regions in sub-Saharan Africa. The recordings he made were issued in the Sound of Africa record series.

In 1934, the same year Tracey took up broadcasting, Percival Kirby published his book on South African indigenous musical instruments. Like Tracey's, much of the research was funded by the Carnegie Corporation, but while Tracey had concentrated on making sound recordings, Kirby's approach was to collect and photograph instruments, to document their names and uses, and to classify them by demonstrating broad patterns of similarity uniting superficially different musical and tribal traditions.

What both research programs had in common, however, was a concern with the technical and formal details of performance, rather than the social uses of music.² Other scholars shared this interest in the formal qualities of African music and were influenced by the work of Kirby and Tracey. As a professor at Wit-

watersrand University, Kirby supervised dissertations such as that of Yvonne Huskisson on traditional Pedi music. The fact that Huskisson subsequently achieved an influential position in the black division of the state-run South African Broadcasting Corporation—which upheld the official policy of ethnic segregation by disseminating suitable music for each of the designated "ethnic groups"—perhaps indicates the politically indiscriminate uses to which a purely formalist approach can lead. Other academics also became interested in the stylistic qualities of South African music. David Rycroft from the University of London's School of Oriental and African Studies, for example, conducted research on the forms and structures of Nguni music, and Deidre Hansen, presently at the University of Cape Town, investigated the music of Xhosa-speakers.⁴

Tracey had no formal academic connections and no institutional backing apart from the opportunities provided by the broadcasting industry. With the continued support of the private sector, he founded the International Library of African Music (ILAM), where he continued his work in research, recording, and documentation. His aversion to modern, urban forms of black music led many people—especially the black South African jazz musicians performing in and around Johannesburg in the 1950s and 1960s—to revile him and his research project. From the criticisms of irrelevance to bitter accusations that he tried to divert the development of black musical forms, or even "stole the people's music," one can see that Tracey has been a contentious figure.

Nevertheless, in retrospect the value of the methodical record kept in the ILAM is evident. Especially useful is the inventive expansion introduced by Hugh Tracey's son, Andrew Tracey, the present director of the library. While this ethnomusicologist shares his father's interest in the formal and structural dimensions of African music, he has made a particularly valuable contribution through the systems of notation he has developed, making the music more accessible to a wide range of would-be performers. His influence in this regard has been very broadly felt: at universities, colleges of education, alternative educational institutions such as the Funda Centre in Soweto and the Kwanongoma College of Music in Zimbabwe, and in many more informal settings.

Also notable are the films Andrew Tracey has made in conjunction with the U.S. producer Gei Zantzinger, which provide clear demonstrations of the cyclical structure and improvisatory techniques used in, say, the music of the Shona *mbira* (a plucked reed

instrument sometimes referred to as "thumb piano") and the Chopi timbala (xylophone). The films, some of which attempt to depict the total context in which the music is played, also go some way to evoking a sense of its social embeddedness.

The first written accounts to emphasize the social dimension came from scholars with a stronger anthropological bent. One of these was John Blacking who, at Hugh Tracey's suggestion, conducted research into Venda music in the 1950s. His writings, although not neglecting the formal aspect, emphasize the social basis of the various musical styles. He demonstrates, for example, how the various agricultural phases of the year are accompanied by specific work songs, while periods of minimal agricultural activity allow time for major ceremonies and rituals and the music which accompanies these. Likewise, the life of an individual is divided into clearly distinguished phases, each initiated by a specific set of ceremonies in which music plays a crucial role. Two of these to which Blacking gives special attention are childhood and the songs associated with it and girls' initiation. He also investigates the role played by music in maintaining and perpetuating power and status differences in Venda society, showing how an essentially "commoner" musical tradition has been co-opted by the chiefly group and used to enhance its prestige.6

A similar study was conducted by Thomas Johnston on the music of the Shangana-Tsonga people of the eastern Transvaal and southern Mozambique. Like Blacking's, Johnston's analysis looks at every aspect of Tsonga social life and shows how music integrates and enhances it. He gives particular attention to the opportunities provided by musical performance for individual entrepreneurship. An example he cites is that of chiefs whose hereditary claim to office does not afford them much prestige in its own right, who attempt to attract musicians to their courts by offering them chiefly patronage. An even more striking example is that of possession-cult doctors who attract large followings of people—both as cult followers and onlookers—through their impressive ceremonies of which music is an essential part. A particularly weak chief, in a bid to enhance his standing, will try and ensure that one of these doctors becomes attached to his court as a permanent fixture.

In attempting to bridge the gap between formal musical analysis and the domain of social/anthropological studies, these two writers typify what was to become a new approach to the study of music in southern Africa. But neither demonstrates what later became a crucial issue: an awareness that the communities they con-

sider had already been subjected to extensive changes, and were already involved in migrant labor and the cash economy.

Around the same time—the late 1960s and early 1970s—a strong thrust toward a socio-musicological approach was coming from U.S. ethnomusicologists such as Alan Merriam, and it was a student of Merriam's, David Coplan, who came out to South Africa during the 1970s to undertake the first serious piece of research into changing styles in South African music.⁸

It may seem puzzling that earlier research projects had for the most part excluded any reference to new musical forms arising out of industrialization and social change, and that it should have been an American who first became interested in looking at these issues.⁹ Part of the explanation lies in the attitude—strongly held for example by Hugh Tracey—that urban African music lacks the formal integrity of its "traditional" forebears, and that it has been bastardized by its assimilation of Western forms. Coplan's research made it clear that much of the exotic "foreign" music embraced by urban and proletarian communities in South Africa, such as American ragtime and jazz, was itself derived from African roots. Its appropriateness to the black South African urban setting resulted "from the comparable experience of the two peoples under white domination." Whereas those focusing on questions of musical structure and form had concluded that new forms were degraded, those like Coplan focusing on the social processes of urbanization and the formation of new social classes, developed a vision of urban African music as an essential expression of these processes.

Coplan's research encompassed a broad sweep of history, from the early days of colonialism in the Cape right through to Soweto of the 1970s. Perhaps the most insightful chapters deal with black urban performance culture in Johannesburg up to about 1960. Here, from archival sources supplemented by a rich variety of oral testimony, Coplan has reconstructed a picture of a complex world of nascent urban communities. Different groups entering the city brought with them a variety of local musical styles and adapted them to help cope with the exigencies of the new environment. Due to the use of Western instruments with standardized scales, these local styles became mutually intelligible, and were influenced by each other as well as by the music of missionaries and, later, of black Americans. An emerging social stratification in black Johannesburg did entail, to some extent, the development of separate sub-styles of music, with, for example, a mission-educated elite favoring church choir music and enjoying American ragtime, while shebeens frequented by poorly-paid industrial workers provided entertainment by marabi pianists, whose music had a more indigenous flavor. But Coplan insists that these streams could not remain divergent for long. As music began to be disseminated through sol-fa notation, on record, and by professional musicians who played for audiences irrespective of class or even color, influences were transferred from one incipient social class to another. The result, Coplan argues, was a broad-based black urban music with wide appeal, transcending narrower socioeconomic divisions. 12

Coplan's seminal work laid the ground for a new interest in the study of black South African music, particularly in its sociological, anthropological, and historical dimensions. Indeed, a shortcoming of his book and of some work in a similar vein was that it tended to de-emphasize issues of musical form and style altogether. For example, Eddie Koch's study of the Johannesburg slumyards presented to the 1981 History Workshop, although containing some observations on the *marabi* piano style, subsumed these within a broader consideration of *marabi* culture in general, and a class culture in formation.¹³

Coplan's interpretation was criticized by others, equally interested in questions of class-formation but wishing to reconcile this with a close study of musical forms. They argued that Coplan, in ignoring the stylistic dimension, overstressed the degree of musical homogenization occurring between urban social strata, and that socioeconomic class and musical style were closer than Coplan acknowledged.

Other scholars examined local musical traditions in more detail. This new interest in local tendencies challenged the earlier view of a universal urban working-class music, reflecting similar developments in the wider field of social historical study. For example, the first book of History Workshop papers published in 1979, reveals a concern with broad issues of class formation and class-based action, and with the objective material circumstances which underlie these things. In contrast, the most recent History Workshop collection, published this year, manifests a greater interest in regional variation, locally-constructed identities, and the subjective, or "emic," conceptualizations communities may have of themselves. 14

These opposing perspectives are presented in their starkest form in a "popular" work by the journalist Muff Andersson. In this overview of South African music both black and white, Andersson starts by roundly condemning the Traceys' work for its exclusive attention to traditional forms, since this, she claims, amounts to a tacit approval of the South African government's policy of ethnic separation and "separate development." According to her argument, it follows that any black music arising from the urban/industrial experience which is remotely "traditional" in form or content is, likewise, party to this official promotion of ethnicity. For instance, Andersson views in this light the *isicathamiya* music and lyrics of Ladysmith Black Mambazo. ¹⁵ The music of which she writes with approbation is that which, in contrast, espouses avowedly working-class causes and uses completely urbanized forms. ¹⁶

That this is a crude and simplistic view is revealed by studies which pursue an alternative idea—hinted at but not fully explored in Coplan's book—that different groups moving to the city were involved in creating their own vital versions of urban musical culture out of traditional styles. Far from representing a quiescent acceptance of government-imposed ethnicity, this music often expressed resistance and oppositional sentiments. The studies concern themselves with groups which, while becoming involved in the urban labor market, nevertheless retained strong links in the countryside. Instead of shedding their diverse backgrounds to immerse themselves in the homogenous urban culture which Coplan described, these groups evolved versions of migrant culture which derived from their particular experiences of deprivation and oppression.

Coplan himself, after completing his broader study, began an intensive investigation into a Sotho genre known as lifela (songs). Developing from an earlier, traditional form of praise poetry, this style, evolved by migrants, enabled them to express their anxiety and fear about working in the mines and to recount their bravery under these harsh conditions. A novice poet becomes apprenticed to one who has mastered the art of improvisation required by the genre, and sharpens his talents by engaging in lifela competitions held during leisure time in the mine compounds. Thus in form, content, and the social milieu engendered by their performance, lifela can be understood as facilitating a grassroots, self-created worker identity, and is thus "ethnic" in the sense elaborated by recent writings in anthropology without any manipulation of ethnic identity from above. ¹⁸

Similar observations have been made by Johnny Clegg about the music of Zulu migrant workers in Durban and Johannesburg. As with *lifela*, traditional styles were adapted to urban usage. Mouth-bow and chest-bow songs customarily sung by young unmarried women about the men courting them became the songs, accompanied by trade-store instruments like guitars and concertinas, with which migrants boasted about their exploits in the world of the cities. Again as with lifela, an aura of intense competition surrounds the performance of this music, with street guitarists devoting hours of their time to the creation of new variations which they hope will be judged superior to those of their rivals. With these migrants, however, the competition is fiercest at the rural pole of their lives. Clegg recounts how the areas traditionally inhabited by clans such as Chunu and Tembu were overlaid by arbitrarily-imposed white farm boundaries, and how this resulted in intense competition between these groups, for labor contracts on the farms and ultimately, therefore, for the right to remain resident on the land. This rivalry, which at its worst gives rise to bitter and violent feuds, is channelled into ngoma (song/dance) competitions and has been the source of some extraordinary inventiveness by particular famous dance-team leaders. While Clegg acknowledges that this creative energy has been harnessed and, in a sense, coopted by the employers of these migrants in the urban setting (who provide costumes, judges and incentives for the competitions), his implication is that this ethnic divisiveness is not so much a conscious creation of officialdom as an unintended result of colonial processes of land dispossession. 19

Another aspect of the Zulu musical repertoire is explored by Veit Erlmann. He looks at the style known as mbube (bombing) or isicathamiya, recently made internationally famous by Ladysmith Black Mambazo. This style has several different sources, among which are the ngoma dancing described by Clegg, the Christian genre of Imakwaya (choir) music, and the American minstrel music first made popular in South Africa when Orpheus McAdoo toured with his Virginia Jubilee Singers in the 1890s. Erlmann's study addresses the same, recurring question: how is a class identity based on objective, material conditions integrated with other sources of identity-primordial, religious, or even stylishly urban and modern? Although isicathamiya carries a number of apparently paradoxical messages, including an unmistakably Zulu stylistic quality, an emphasis on both traditional values and Christian affiliation, as well as a "self-conscious display of urban status and sophistication," none of these is necessarily incompatible with the expression of a working-class identity. Here, "ethnic music" is not seen as pulling against a sense of proletarian unity, but as providing a medium in which this sense can be expressed.²⁰

Erlmann's writings cover a broad range of other topics as well: from South African protest music through to the attitudes of elite Africans about the inclusion of traditional African music in the black education syllabus. ²¹ In all of these, he demonstrates his ability—due partly, perhaps, to the fact that his training in Germany included high-level courses in musicology, ethnomusicology, and anthropology—to combine the skills of formal analysis and sociohistorical investigation.

A different direction is taken by Patrick Harries in his work on the songs of relocated communities in the north-eastern Transvaal. In contrast to the ethnomusicologists cited above, he views folksongs from a historian's standpoint, as did Leroy Vail and Landeg White in their work on Mozambique. His emphasis is thus on lyrics rather than on musical styles, and he views these as valuable historical documents enabling the reconstruction of the history of remote rural communities which would otherwise remain undocumented. Songs are especially reliable as sources of evidence, he argues, since they cannot be manipulated or changed at will as can the oral testimony given by an informant to an interviewer. Rather than being idiosyncratic, they are likely to reflect communally-held beliefs and opinions, and "are only retained if they express popular attitudes and opinions." An issue hinted at by Harries, and more fully explored in his 1987 History Workshop paper, is the extent to which songs—or, indeed, all oral testimony—may project an idealized, "Golden Age" view of the past, or a version of society from which real political tensions and social inequalities are absent.²²

The studies of particular local traditions mentioned above could be seen, in a sense, to have brought research on southern African music full circle. Like the researchers of the 1920s and 1930s, Clegg, Erlmann, Harries, and Coplan in his recent work are concerned to investigate the specific musical styles and practices of specific groups and communities.²³ But these later writers have brought to their work a sense of the social dynamics of the music they study, and of the way it has changed in accordance with its use as a vital and effective mechanism of social and cultural adaptation.

To return to the point with which this review began: the overseas audiences which have responded so enthusiastically to black South African music may be curious about its social origins as well as being moved by its rhythms and melodies. From the above account it can be seen that this music derives not from a single or monolithic experience of social change but that it is constructed out of a variety of ethnicities, class backgrounds, religious affiliations, and experiences of urban life. A style such as that made popular by Ladysmith Black Mambazo combines elements of Zulu tradition with the influence of Christian hymns and American minstrels. This eclecticism represents neither a bastardization of pure tradition as the early ethnomusicologists would have it, nor a reactionary hankering after the past as might be implied by a simplistic sociohistorical view of working-class culture. Only by combining musicological and historical insights can one gain a comprehensive understanding of the strength and vigor of a musical style like this one; an accurate awareness of its form will lend itself in turn to a more precise understanding of the socioeconomic milieu which generated it.

Notes

- 1. P.R. Kirby, The Musical Instruments of the Native Races of South Africa (Oxford, 1934).
- 2. See, for example, H. Tracey, Chopi Musicians: Their Music, Poetry and Instruments (London, 1948); "The Mbira class of instruments in Rhodesia," and "Measuring African Scales," both in African Music 4:3 (1948); "Behind the Lyrics," African Music 3:2 (1963).
- 3. Y. Husskisson, "The Social and Ceremonial Music of the Pedi," Ph.D. dissertation, Witwatersrand University, 1958.
- 4. D. Rycroft, "Nguni vocal polyphony," Journal of the International Folk Music Council 19 (1967); D. Hansen, "The Music of the Xhosa-speaking People," Ph.D. dissertation, Witwatersrand University (1981).
- 5. See, for example, A. Tracey, How to Play the Mbira dza Vadzimu, International Library of African Music (Roodepoort, 1970); "Matepe Mbira Music," African Music 4:4 (1970); "The Nyanga Panpipe Dance," African Music 5:1 (1971).
- 6. J. Blacking, The Role of Music Among the Venda of the Northern Transvaal (Roodeport, 1956); "The Cultural Foundations of the Music of the Venda," Ph.D. dissertation, Witwatersrand University, 1964; How Musical is Man? (Washington, 1973); Venda Children's Songs (Johannesburg, 1967); "Songs, Dances, Mimes and Symbolism of Venda Girls' Initiation Schools," African Studies 28 (1969); "Initiation and the Balance of Power—the Tshikanda Girls; Initiation School of the Venda of the Northern Transvaal," Ethnographic and Linguistic Studies in honour of N.J. van Warmelo (Pretoria, 1969); "Musical Expeditions of the Venda," African Music 3:1 (1962).
- 7. T Johnston, "The Music of the Shangana-Tsonga," Ph.D. dissertation, Witwatersrand University, 1971; "Tsonga Music in Cultural Perspective," Anthropos 70 (1975); "Possession music of the Shangana-Tsonga," African Music 5 (1973); "Power and Prestige through Music in Tsongaland," Human Relations 27:3 (1974).
 - 8. A. Merriman, The Anthropology of Music (Evanston, 1964).
- 9. Exceptions were P.R. Kirby, "The Uses of European Musical Techniques by the Non-European Peoples of South Africa," Journal of the International Folk Music Council (1959); D. Rycroft, "The New 'Town' Music of Southern Africa," Recorded Folk Music 1 (1958); and "Evidence of Stylistic Continuity in Zulu 'Town' Music," in K.P. Wachsmann, Essays for a Humanist (New York, 1977).
- 10. D. Coplan, In Township Tonight (Johannesburg, 1985), 3; see also "The African Performer and the Johannesburg Entertainment Industry: The Struggle for African

Culture on the Witwatersrand," in B. Bozzoli, ed., Labour, Townships and Protest (Johannesburg, 1979).

- 11. Shebeens are places (usually the home of the brewer) where home-brewed liquor is bought and consumed. The origins of the word manbi are unclear: "a possible source is ho mba naba (Sotho: to fly around). . . . Some Africans identify the word with Marabastad, the . . . Pretoria location where African domestic workers lived as early as 1880," D. Coplan, In Township Tonight, 94.
- 12. D. Coplan, "The Emergence of an African Working-Class Culture" in S. Marks and R. Rathbone, eds., Industrialisation and Social change in South Africa (London, 1982).
- 13. E. Koch, "Without Visible Means of Subsistence': Slumyard Culture in Johannesburg 1918-1940," in B. Bozzoli, ed., Town and Countryside in the Transvaal (Johannesburg, 1983).
 - 14. B. Bozzoli, ed., Labour, Township and Protest (Johannesburg, 1979).
- 15. D. Coplan, In Township Tonight gives the Zulu meaning as "a stalking approach"; Erlmann, "'Singing Brings Joy to the Distressed': The Social History of Zulu Migrant Workers' Choral Competitions," Witwatersrand University History Workshop mimeo (1987), claims that the work derives from the Zulu cathama, "to walk softly."
 - 16. M. Andersson, Music in the Mix (Johannesburg, 1981).
- 17. D. Coplan, "The Power of Oral Poetry: Narrative Songs of the Basotho Migrants," Research in African Literatures 18:1 (1987); Coplan, "Eloquent Knowledge: Lesotho Migrants' Songs and the Anthropology of Experience," American Ethnologist 14:3 (1987). Coplan's researches into this genre have resulted in a film, The Songs of the Adventurers, made in collaboration with Gei Zantzinger.
- 18. See, for example, F. Barth's introduction to EthniC Groups and Boundaries, (London, 1969); A. Cohen, Custom and Politics in Urban Africa, (Berkeley, 1969).
- 19. J. Clegg, "The Music of Zulu immigrant workers in Johannesburg—a Focus on Concertina and Guitar," Papers presented at the first symposium on ethnomusicology, ILAM, (Grahamstown, 1980); "Towards an Understanding of African Dance: the Zulu Isishameni Dance Style," Papers presented at the second symposium on ethnomusicology, ILAM (Grahamstown, 1981); see also "Dance and Society in Africa South of the Sahara," unpublished B.A. Hons. dissertation, Witwatersrand University, 1977; "An Examination of the Umzansi Dance Style," Papers presented at the third and fourth symposia on ethnomusicology, ILAM (Grahamstown, 1984).
- 20. Erlmann, "Singing Brings Joy"; "A Feeling of Prejudice: Orpheus McAdoo and the Virginia Jubilee Singer in South Africa, 1880-1898," in S. Clingman, ed., Regions and Repertoires: Topics in Politics and Culture (forthcoming).
- 21. Erlmann, "Black Political Song in South Africa: Some Research Perspectives," Journal of Musicology (forthcoming); "Apartheid, African Nationalism and Culture: the Case of Traditional African Music in Black Education in South Africa," Perspectives in Education 7:3 (1983).
- 22. P. Harries, "A Forgotten Corner of the Transvaal': Reconstructing the History of a Relocated Community through Oral Testimony and Song," in B. Bozzoli, ed., Class, Community and Conflict: South African Perspectives (Johannesburg, 1987).
- 23. There have been some recent studies which examine urban music as a whole, although even these tend to concentrate on particular substyles and subcultures within the broader field. See for example H. Lunn, "Antecedents of the Music and Popular Culture of the African Post-1976 Generation," M.A. dissertation, Witwatersrand University, 1986; I. Jeffrey, "The Sharpetown Swingsters: Their Will to Survive," B.A. Hons. dissertation, Witwatersrand University, 1985.