(C)Omissions of Perspective, Lens and Worldview: what Africa can learn from the 'Western Mind' about the Oral Tradition of (Indigenous) Knowledge

JOAN CONOLLY

ABSTRACT

Sometimes what is not in a text is more significant than what is. This paper examines a variety of texts to establish what is and is not present. The argument presented in this paper demonstrates that skewed perspectives, closed lenses, and distorted worldviews are powerful teachers. Appropriate perspectives and lenses can provide a worldview of complex and sophisticated thought, traditioned through memory, simultaneously stretching back into the past and drawing the past into the present ... and pointing a way into the future.

The paper examines a well-respected account of the 'Western Mind' and then demonstrates what is not in the text which could contribute to a fuller understanding of human civilization such as is present in the texts of peoples whose knowledge predates and/or precludes scribal alphabetic writing. The paper provides examples of such knowledges from societies which demonstrate sophisticated and complex thinking, both prior to 3000 BCE in the West and in ancient and present day Africa. The paper demonstrates that the exclusion of evidence of complex and sophisticated thinking which predates or precludes scribal alphabetic writing presents a skewed understanding of the knowledge in such societies, and that Africa can learn from such exclusions to its benefit.

Key words: Memory; oral tradition; indigenous knowledge; perspective; lens; worldview.

1. INTRODUCTION

This article originated in a request to explore subversion as an agent of the transformation of Western knowledge. I believe that subversion is most effective when it provides an alternative creative approach to the position being challenged. Consequently, I chose to adopt the position of critiquing what the West can learn from Africa. To do so, I chose to draw on the oral tradition of the indigenous knowledge of Africa.

I argue that when one examines the oral tradition and indigenous knowledges through a disciplinary lens and from a disciplinary perspective, the knowledge becomes reduced and distorted to such an extent that it loses its original and authentic value. Thus I argue it is necessary to regard such knowledges as seamlessly trans-disciplinary and even holistic, as identified by Smuts in 1925

(Smuts, 1987). I argue that to examine knowledge in its holistic state requires that we establish a number of factors such as the context of the issue being examined, the point of departure of the enquiry, and the worldview made apparent by the perspective and lens being used.

So it is that in this article, I begin by establishing my point of departure, and then attend to matters of context and approach, before embarking on my argument based on a well received account of the 'Western Mind'. I do this by positing questions and answering them using appropriate perspectives, lenses and worldviews, in the form of quotations and citing of historical and personal examples, all of which are recounted in the voice of the author.

2. WHAT IS MY POINT OF DEPARTURE?

"It is a bad scholar and a pitiful historian who judges the things of the past only according to its remnants.

One must also visualise their place in the world.

One must.

however daring this expression may be, guess by reflection what they were worth." Camille Jullian¹, Preface to Dottin's *The Language of Gaul* quoted in translation in Jousse, *The Anthropology of Geste and Rhythm*, 2000

"I was asked to do a piece of mathematics.

Could I combine a measure of the size of the Taung child's teeth with their shape.

so as to discriminate them from the teeth of apes?
I had never held a fossil skull in my hands, and I was by no means an expert on teeth.

But it worked pretty well:

and it transmitted to me a sense of excitement which I remember at his instant.

I, at over forty,

having spent a lifetime doing abstract mathematics about the shapes of things,

suddenly saw my knowledge reach back 2 million years and shine a searchlight into the history of man.

That was phenomenal."

Jacob Bronowski², *The Ascent of Man*, 1973

¹See http://en.wikipedia.org/wiki/Camille Jullian ²See http://en.wikipedia.org/wiki/Jacob Bronowski

3. WHAT IS MY CONTEXT AND APPROACH?

The dynamics of expression and communication impact on what we say and what we write. Speaking and writing in response to the same topic and question present subtle but significantly different demands, process and product. During 2007, I was asked to make a presentation for the St Jerome Day Seminar of the Department of Afroasiatic Studies, Sign Language and Language Practice at the University of Free State addressing the question: "What can Africa learn from the 'Western Mind'?" I chose to contextualize my response in the field of the oral tradition of (indigenous) knowledge, using my personal "laboratory of awareness" (Jousse, 2000) to illustrate my insights. What follows is a written 'translation' of my oral presentation on that occasion. I have chosen to write this article in a critical auto/ethnographic narrative (Taylor, 2007), to attempt to capture something of the interactive mode of explication, argument, and illustration in the oral presentation.

During 2007, I read *The Passion of the Western Mind: Understanding ideas* that have shaped our World View by Richard Tarnas ³, published in 1991, 18 years ago.

On the front cover, no less a scholar than Joseph Campbell writes "The most lucid and concise presentation I have read of western thought ... a noble performance."

On the back cover, we read ... "Magnificent ... allows readers to grasp the big picture of Western culture as if for the first time" San Francisco Chronicle.

And yet further – "An extraordinary work of scholarship. It not only places the history of Western thought in perspective, but offers new insights concerning the evolution of our thinking and the future of the whole human enterprise." John E Mack, Harvard Medical School /Winner of the Pulitzer Prize.

And yet even further — "The masterful chronicle of the roots and major flowerings of the Western search for understanding, from pre-Socratic Greeks to the present day. It is also a powerful multi-layered synthesis that precisely integrates the philosophical, spiritual and scientific dimensions of that search, and prophesies its coming transformation a great work of art, an original illumination." Hellenic Journal

It is clear from these commendations that Richard Tarnas is well supported in his account of Western mind / thought / culture / civilization / philosophy / science / spirituality.

Who is Richard Tarnas? We are told that he is "Distinguished Rockefeller Faculty, Professor of Philosophy and Psychology at the California Institute of Integral Studies in San Francisco. He directs a programme in Philosophy, Cosmology, and Consciousness and was formerly director of programmes and education at the Esalen Institute." It is clear that Richard Tarnas is highly respected, with good cause, in his field of scholarship.

In terms of my particular interest in human beings and their capacity to be civilised, I found Tarnas's book lacking in some interesting and significant ways. While I concede that no book can be exhaustive in its enquiry, a book's title and its selected commendations (recorded above) make claims for it that its readers are entitled to use for its appraisal. In this instance, Tarnas claims that his book reveals "ideas that have shaped our World View", while the commendations claim it as a "complete liberal education", which "allows readers to grasp the big picture of Western culture", "places the history of Western thought in perspective", and "precisely integrates the philosophical, spiritual and scientific dimensions". These are broad and inclusive claims, of which I find some significant lacuna in the book, and it is these omissions and their significance which I wish to address in this article.

As a point of departure, I refer to the index of the book, which reveals no entries for 'memory/mnemonic', 'expression/communication', 'oral/orality/oral tradition', or 'literacy/ literate'.

While some of these issues are referred to in the book, they are not entered in the index. And this omission is significant, because in the business of scholarship, we expect to have our attention drawn – in the index – to what is fundamental and significant to the author. The converse also holds. Significance 'by exclusion' is in effect a "null curriculum" (Eisner, 1994), telling us that what is excluded is marginal and does not merit our attention.

Tarnas's book is about humankind and its history over a period of nearly 4 000 years – from 2 000 BCE to 1990 CE – and yet some of the very aspects which define the human mind, viz. that we conceptualise, record, and express ourselves in interactive communication out of creative memory through the oral tradition, and only more recently though alphabetic literacy, is not addressed in any focused and specific way. Instead, Tarnas refers to all those knowledges which were/are the product of oral tradition (also sometimes known as indigenous knowledge) as 'myths' and 'legends', implying that they are somehow different from knowledge, per se: that the oral tradition of (indigenous) knowledge is, somehow, not real knowledge and is therefore unreliable and of relative inconsequence in the development of the Western Mind.

Tarnas is not alone. There are any number of "null curricula" (ibid) in the account of the history of our human species and its capacity for being civilized. Jousse identifies some part of the problem when he notes

> In the past it was accepted that the human psychological faculties of white, adult, 'bookish intellectuals', civilized according to our Graeco-Latin culture, were the norm; this kind of ignorant judgement relegated the rest of humanity to 'primitive and prelogical mentality'. Such artificial categories are singularly dangerous to any healthy psychology, and are fortunately disappearing. (Jousse, 2000:28)

This article does not allow for an exhaustive exploration and demonstration of this phenomenon, so I will restrict myself to only one other example.

The Histomap of World History also records human endeavours from 2 000 BCE to 1990 CE. This remarkable piece of scholarship provides us with a visual record of the waxing and waning of political influence of various peoples. But once again, it is not what the text does include that is most significant but what it does not include. Close examination reveals that The Histomap of World History is not actually a record of WORLD history, but of WRITTEN world history. Consistently excluded are all civilizations which use(d) the oral tradition of (indigenous) knowledge as mode of thinking and feeling, archive and communication.

The significance of this becomes clear when one reflects upon the instances all over our planet of the demonstration of complex and sophisticated thought in the absence of scribal alphabetic writing, which, it has been averred, is responsible for the intelligent faculties which identify the human as a superior species.

WHAT EVIDENCE CAN I CITE TO SUPPORT MY POSITION?

There are drystone constructions⁴ all over our planet, but I will focus here on only two examples - in Ireland.

The megalithic tombs in the Boyne Valley⁵ of Ireland are telling examples of the human capacity for complex and sophisticated thought in the absence of scribal alphabetic writing. Visits to the sites at Newgrange⁶, Knowth⁷, Lowth⁸, and Loughcrew⁹ are singularly instructive.

^{*}See http://en.wikipedia.org/wiki/Dry-stone wall#Dry stone walls
*See http://www.geocities.com/TheTropics/Paradise/3202/boyne eng.htm
*See http://www.knowth.com/
*See http://www.knowth.com/
*See http://www.knowth.com/
*See http://www.loughcrew.com/cairns.html

These megalithic tombs were constructed over 5000 years ago out of 'megaliths'—large stones—above the ground and then covered with earth and stone to hold them in place. These constructions coincided with the development of scribal alphabetic writing, but, at a significant geographic remove which prevented any impact on the construction of the tombs.

Newgrange is the major tomb open to the public. The entrance is topped by a boxlight above the doorway that seems superfluous until one discovers that the only sunlight which enters the tomb at Newgrange does so specifically and only during the winter solstice and only immediately after sunrise. It seems highly unlikely that this is coincidental. Apparently, the Newgrange builders sited the tomb deliberately for this event. This could only have been done if the builders were appraised of the movement of the sun and had the ability to design and build the tomb for this specific effect. This is a telling example of the application of complex and sophisticated thought, which would have been remarkable even with scribal alphabetic writing, let alone without it.

The inner walls of the tomb consisting of slabs of dolomite stand an average of two metres high, and the passageway of the tomb stretches over twenty meters. The multilayered cantilevered ceiling, also consisting of dolomite slabs, is held in place by numerous stones and pebbles. There is no mortar of any kind.

Near the end of the passage, there is a second passage at right angles to the first. At the confluence of the passageways, a corbelled vaulted roof is held in place with numerous small stones and pebbles. Again, there is no mortar of any kind. And again, one is struck by the complexity and sophistication of the construction and the application of mathematical, astronomical, and physics principles all accurately and effectively employed; and these all in the absence of scribal alphabetic writing.

Off the west coast of Ireland are the Arran Islands¹⁰, one of which is Inis Mean¹¹, famous for its Arran Sweaters¹² – and less well-known for its drystone walls, which number many hundreds covering the island in a network of paths and pastures. These walls, built of undressed stone without mortar, have withstood the blast of the northern Atlantic gales for at least a century, if not longer. And yet, when I started to take photographs of what I considered to be an indication of 'ordinary people doing extraordinary things', I was admonished by my Irish hosts who found my interest quaint – to say the least.

¹⁰See http://www.from-ireland.net/lewis/g/arranislands.htm

¹¹See http://gaelart.net/inismean.html; http://www.world66.com/europe/ireland/aranislands/inismeain ¹²See http://patterns.on-arran.com/page/The+Arran+Sweater; http://en.wikipedia.org/wiki/Aran sweater

5. SO WHAT HAS THIS TO DO WITH AFRICA?

This 'contempt born of familiarity' surprised me and caused me to reflect on my perceptions of similar South African capacities. Because where examples of complex and sophisticated thought in the absence of scribal alphabetic writing in Ireland come from a distant past, examples of complex and sophisticated thought of a like calibre in the African context are both ancient and current.

The applied science and mathematics of the oral tradition of (indigenous) knowledge on every continent worldwide is manifest in what I believe is erroneously and dismissively referred to as 'craft'. Such 'craft' is very often made by people who have no formal education, speak little of the dominant political language(s) of their regions, and are frequently not scribally literate to any significant degree, if at all. Yet the 'craft' made by such people displays significant characteristics of complex and sophisticated thinking. This is evident in material products such as beadwork, grasswork and basketry, carvings and sculpture, and building, but also in animal husbandry, crop cultivation, home making, child rearing, care of the aged, sport and recreation, mores, ethics, and spiritual belief systems — in fact all aspects of life which constitute being civilized and living in ordered and mutually supportive ways that make the survival of our species possible.

African civilizations have survived centuries of brutal oppression as result of slavery, colonization, and apartheid, and it is in this context that my concern about 'myth' and 'legend' becomes particular. I record the following example to illustrate that what appears to be 'mythical' and 'legendary' – and therefore not real history – can actually be rooted in real time and space, with justification for its apparent lack of logic.

Clementine Yeni, in her master's study on stories of land loss, records the following song.

Tshelane u Botha nina tshelane u Botha Iyekela iswe loba Tshelane u Botha nina Tshelane u Botha Iyekela iswe loba Iswe lobaba mama Iswe loba Iswe lobaba mama Iswe loba Twi twi twi (Yeni 2000)

The song records the protest against PW Botha, who was head of state during the time that the Group Areas Act of 1968 was in operation, which robbed so many people in South Africa of their traditionally, ancestrally, historically, and, therefore, legitimately owned land.

The significance of this song in the context of this discussion is the fact that this song was, and still is, a 'wedding song'. Why? The origins of the practice lie in the history surrounding Apartheid legislation, specifically in the acts which prohibited public gatherings¹³. So this 'land loss protest song' was sung at the only public gatherings that were legally permitted: weddings. Over time, it became a 'wedding song' and thus entered the realms of apparent illogic and again apparently - anything but sophisticated and complex. Actually it is profoundly so, mirroring one small example of the infinite complexity of the human condition and the ways in which its record is challenged. To explain the full text and context of the song Tshelane u Botha nina to a non-Black South African (and even many Black South Africans), let alone a non-South African, literally requires a thesis. And this is an example of how such events and customs enter the realm of the half-credible, the questionable reality, the fanciful identity of the 'oral tradition', and 'myths' and 'legends' 14.

The 'myths' and 'legends' of the San¹⁵ people are popularly well known. Public awareness of San tracking and hunting expertise can be attributed in considerable measure to Louis Liebenberg¹⁶, who has recorded this knowledge in a book titled The Art of Tracking (1990)17. Liebenberg significantly subtitles this book The origin of science. Liebenberg bases this not inconsiderable claim on the fact that the tracking skills of the San are founded in simple, systematic, and speculative thinking - the same kinds of thinking employed in modern scientific laboratories. Liebenberg avers that the San have been tracking and hunting effectively using this thinking for 150 000 years and that this capacity has been handed down from generation to generation through memory and the oral tradition. Scribal alphabetic literacy is little known in the San community even today, and so we can conclude that this knowledge, its origination, record and transmission has taken place, evidently very successfully, using human memory and performance: the oral tradition. What Liebenberg shares with us challenges the often commonly held perceptions that such knowledge is 'myth' and 'legend'.

³Suppression of Communism Act 44 of 1950: Public Safety Act of 1953: Riotous Assemblies Act 17 of 1956:

Public Safety Act of 1953; Gatherings and Demonstrations Act 52 of 1973; Internal Security Act 74 of 1982 Examples from other (South African) cultures abound, often as Iullabies and nursery rhymes, such as

^{&#}x27;Siembamba', 'Ring-a-ring-a-rosies' revealing the hidden histories of the times of origination.

⁵See http://en.wikipedia.org/wiki/Bushmen; http://africanhistory.about.com/library/weekly/aa-SAColonists1.htm; http://countrystudies.us/south-africa/2.htm

See http://www.mg.co.za/articledirect.aspx?area=mg_flat&articleid=42349

Ysee http://www.cybertracker.co.za/ArtOfTracking.html; http://www.spectrum.ieee.org/feb06/2834
See http://www.physorg.com/news67095569.html; http://www.ted.com/index.php/talks/view/id/168

6. WHAT CONCLUSIONS CAN I DRAW?

Based on the examples recorded here, and their ilk, I suggest that we entertain two thoughts, viz. that 'knowledge which is recorded in scribal writing is not intrinsically and automatically superior to that recorded in memory' and that 'scribal writing is not intrinsically and automatically superior as a medium of expression of knowledge'.

If we are going to accept the paleo-anthropological perspective that the age of the human species is anything between close to 10 million and 3.3 million years old 18, then the development of scribal alphabetic writing in the last 5 000 years is but a drop in the creative ocean of the evolution of the universe.

So, what CAN Africa learn from the Western Mind?

Africa can learn that it is possible to lose the oral tradition of (indigenous) knowledge... and that wherever the oral tradition of (indigenous) knowledge is lost, it has a serious and negative effect on people as individuals, and their civilisation.

What contributes to the loss of the oral tradition?

A significant factor is the loss of an appropriate perspective and allowing the appropriate lens to close, so that an appropriate worldview is lost.

How does this happen? What is already being done about this?

Appropriacy of perspective and lens is about authenticity. We need to ask the questions: 'Are we seeing what we are looking at for what it is? Are we looking at the subject on its own terms? Or are we seeing it from an alien perspective and on terms other than its own?' For example, when we look at the tombs, the walls, the beadwork, the baskets, inter alia ... are we seeing them as 'beautiful and artistic craft', or can we simultaneously see them as 'applied science', 'applied mathematics', 'technology', 'engineering'?

What I am suggesting is not novel. Professor Paulus Gerdes of Mozambique has spent over three decades analyzing woven artefacts from all over the world to demonstrate conclusively the scientific principles – both mathematical and chemistry – which inform the weavings ¹⁹. The implications of this perspective for the understanding and teaching of science in Africa are enormous, and potentially transformative.

¹⁹As of the end of 2007, Paulus Gerdes had published numerous books on ethno-mathematics in English, Portuguese, French and German demonstrating the mathematical underpinnings of weaving and basketry worldwide. For a comprehensive list, see Gerdes, P. 2007. African Basketry: A Gallery of Twill-Plaited Designs and Patterns. pp. 215-219. Mozambique: Universidade Pedagógica.

Shan and Bailey (1991) remind us, through the words of Munir Fasheh, *Mathematics, Culture and Authority,* 1988, that

The main objective of teaching mathematics and for that matter any other subject should be to doubt, to enquire, to discover, to see alternatives, to enhance a critical attitude of one's self, society, and culture, and most of all to be an instrument in changing attitudes, convictions and perspectives.

Further to the concerns about authenticity: "Are we adopting an oral traditional worldview to examine the texts of the oral tradition, or are we looking at them through a literate lens?"

To answer as succinctly as possible, the answer is a matter of physics and mathematics. Put simply – because of contextual constraints – on the one hand, the mode of transmission of the oral tradition of (indigenous) knowledge is performance, and therefore active and three dimensional: even the material products of the oral tradition of (indigenous) knowledge can only be produced through specialized acts and expertises, and all such ex-pression is three dimensional and active. On the other hand, the expression of the literate tradition is two dimensional and inert²⁰. They cannot operate equally.

Given that the literate tradition has dominated the planet since at least the 18th century, we need to ask 'With what perspective and through what lenses has the literate tradition interpreted/ translated the oral tradition?' A succinct response would be 'predominantly on literate terms – and all that that implies in terms of modern technology and its values - and not on the terms of the oral tradition and its values'.

Let us examine the English translation of the 'imbongi' as 'praise singer'. When we consider the role of the imbongi — when we listen closely to what the imbongi has to say — he (or 'she' these days) uses the medium for criticism as much as for praise. So to call this activity 'praising' is inaccurate. More accurately the imbongi fulfils the time-honoured role of "The Conscience of the King or Queen". The imbongi alone has the right to criticize the ruler, to temper his flight when he soars too high, to remind her of her duty and responsibility when she is forgetful, and to lift his spirits when he is low. In the oral traditions of the world, it was the imbongi who reminded the ruler that 'Power corrupts, and absolute power corrupts absolutely'.

I observed recently at the inauguration of the Chancellor and the Vice Chancellor of the Durban University of Technology, attended by the Minister of Education, that the *imbongi* played the role of the 'praise singer', rather than *imbongi* in the sense explained above.²¹ Each of the Chancellor, the Vice

²⁰For a more detailed explanation of this point, see Conolly, J. 2002. Memory, Media and Research: Mnemonic Oral-style, Rhythmo-stylistics and the Computer. Alternation. Vol. 9, No. 2, 2002. pp. 156-178.
²¹"This arose as a quotation by John Emerich Edward Dalberg Acton, first Baron Acton (1834–1902). The historian and moralist, who was otherwise known simply as Lord Acton, expressed this opinion in a letter to Bishop Mandell Creighton in 1887.
"Power tends to corrupt, and absolute power corrupts absolutely. Great men are almost always bad men."
Another English politician with no shortage of names - William Pitt the Younger, The Earl of Chatham and British Prime Minister from 1766 to 1778, is sometimes wrongly attributed as the source. He did say something similar,

Chancellor, and the Minister of Education were praised unconditionally and actually the 'praise poem' – for such it was – became effectively a chanted Curriculum Vitae. There was no word of wise warning of the dangers concomitant upon these powerful roles, no kind but firm reminder of the ways in which they could fail in the execution of their duties, no assurance that there would be support in times of trouble. If ever there was a case where the African oral tradition of (indigenous) knowledge has been poorly translated, this, for me, is a cogent example.

What further needs to be done?

I argue that it comes back to the appropriacy of perspective, lens, and a worldview

If we look at the oral tradition of (indigenous) knowledge from a literate perspective and through a literate lens, all we will see is the literate view of the world - again.

Let us take into account that one does not change perspective by turning the object of one's gaze around. Such inertia achieves only self-deception. To see the oral tradition of (indigenous) knowledge on its own terms, I find that I have to move myself. Instead of looking back at the history of humankind from where I am, I find that I have to examine the story of human kind from the dawn of time, from 'the mouth of the cave', as it were. The injunction from the ancient African Oral tradition recorded by Amadou Hampaté Bâ ... in French ... is significant ...

We cannot know where we are going, unless we know whence we come.

So – finally – what can Africa learn from the Western Mind?

Marcel Jousse (2000) records the words of Camille Jullian (pp. *viii* to *x* of the Preface to Dottin's *The Language of Gaul*)

I repeat with sadness and anger: wretched are the historians who only understand the past through its remnants: they kill it, I do believe, not just once, but twice. (...) I cannot forgive Rome and Caesar for having been the cause of this intellectual massacre, following so many other massacres. For, look! Charlemagne thought to record the popular songs of the Franks; and no-one in the Roman Empire had the least idea of transcribing the poems of the Druids or the verses of the bards?

in a speech to the UK House of Lords in 1770: "Unlimited power is apt to corrupt the minds of those who possess it."" http://www.phrases.org.uk/meanings/288200.html

What sort of intelligence did these masters of the universe possess if they failed to recognise the beauty of the works of the people they had vanquished, if they failed to understand their duty to conserve them? Nothing is a more accurate measure of the incredible moral pettiness of the great Roman Empire than its disdain for any thoughts and letters which did not originate in Rome or Greece. Let us get rid once and for all of our conventional admiration for the imperial forms of the past, for sumptuous edifices which are but facades, enveloping mostly the bloodied corpses of men and the agonies of mothers and countries. (Jousse, 2000:466/7)

Jullian records for us the tragedy of a destroyed, abandoned, and lost civilization. We can learn from the 'West' what happens to human beings who do not see, acknowledge, and value oral tradition of (indigenous) knowledge, held in memory and transmitted in performance.

Because we in Africa are still blessed with a wealth of vibrant oral traditions, we can learn to adopt perspectives and use lenses which inform a worldview that fully reveals the knowledge archived in memory and transmitted through the oral tradition. We can learn how to accommodate such knowledges on their own terms, so that they are optimally developed and used. We can explore the potential 'gains' and 'losses' of engaging the oral tradition of (indigenous) knowledge and the knowledge of the industrialized world, and can make informed decisions about what kind of future we want to have : the one the 'West' has, or something more in touch with our identity, our essence, our humanity, with which to face the future.

7. **BIBLIOGRAPHY**

Eisner, E. 1994. The Educational Imagination: On the Design and Evaluation of School Programs, 3rd edition. New York: Macmillan College Publishing.

Gerdes, P. 1995. Women and Geometry in Southern Africa. Some suggestions for further research. Mozambique: Universidade Pedagógica.

Gerdes, P. 2006. Sona Geometry from Angola. Mathematics of an African tradition. Milano: Polimetrica.

Gerdes, P. 2007. African Basketry: A Gallery of Twill-Plaited Designs and Patterns. Mozambique: Universidade Pedagógica.

Jousse, M. 2000 The Anthropology of Geste and Rhythm. Durban: Mantis Publishing.

Liebenberg, L. 1990. *The Art of Tracking: The Origin of Science*. Cape Town: David Philip.

Shan, S. & Bailey, P. 1991. *Multiple Factors: Classroom mathematics for equality and justice.* Great Britain:Trentham Books.

Smuts, J.C. 1987. Holism and Evolution. Cape Town: N and S Press.

Sparks, J.B. 1990. *Histomap of World History.* The rise and fall of nations for 4000 years. USA: Rand McNally.

Tarnas, R. 1991. *The Passion of the Western Mind: Understanding the ideas that have shaped our World View.* UK: Random House.

Taylor, P. C. 2007. *Critical Auto/ethnographic Research as / for Transformative Professional Development*. Curtin University of Technology, Perth.

Yeni, C.S. 2001. Empowerment through expression: the land dispossession story of the Marburg Black Lutheran Community in KwaZulu-Natal. Unpublished MA Orality-Literacy Studies, Centre for Oral Studies, University of Natal, Durban.