

Södertörns högskola | Institutionen för Livsvetenskaper |  
Examensarbete 15 hp Utbildningsvetenskap| VT 2010

Kompletterande lärarutbildningen mot äldre åldrar

# Same, same, or different? A comparative study of guided tours about evolution.

– Are fossils interpreted the same way in South  
Africa as they are in Sweden?

By: Kajsa Carlsson

Supervisor: Ann Werner

## Abstract

Sweden and South Africa are two quite different countries, but they share the will to educate their people. The museum is an institution of learning and an opportunity to learn something more and something else than in the classroom. Thus the museums have an important educational task to fulfil. Various visitors may understand an exhibition at a museum differently since they have different references, culture, ethnicity and socioeconomic background.

Evolution may be a delicate subject to exhibit due to the visitors various religious beliefs. This may be a difficult challenge for museums of natural history. The aim of this study is to compare how the guides at museums of natural history in the two countries are presenting evolution, the genesis of life and humankind during the guided tours.

The method is participating observation, and the theoretical framework is based on theories about ethnicity and multicultural and intercultural education. Since all three museums depend on the same science and fossils, the conclusion is that they are less different than expected.

**Key words:** ethnicity, multicultural education, museum, exhibition, evolution

## Swedish summary

Den här studien jämför utställningar om evolution och livets uppkomst, i synnerhet de mänskliga arternas utveckling, på naturhistoriska museer i Sverige och Sydafrika. De två länderna är ganska olika, men delar uppgiften och viljan att utbilda hela sitt folk. Museum kan erbjuda en alternativ lärandemiljö med nya kunskaper och perspektiv, men evolution kan vara ett känsligt ämne på grund av religiösa skäl. Hur en utställning förstås beror på besökarens bakgrund och referensramar, vilka i sin tur kan bero på etnicitet, kultur och socioekonomisk klass.

Den här studien fokuserar på hur guider presenterar evolutionsämnet i sina visningar för skolklasser, och jämför de två länderna. Metoden har varit deltagande observation, och analysen baseras på teorier om etnicitet och multikulturell utbildning. Eftersom museerna i de båda länderna förlitar sig på samma forskning och samma fossil blir slutsatsen att visningarna och utställningarna är mindre olika än man först kan tro.

**Nyckelord:** etnicitet, multikulturell utbildning, museum, museipedagogik, utställning

## Table of content

<b>Abstract</b> .....	<b>2</b>
<b>Swedish summary</b> .....	<b>2</b>
<b>Prologue</b> .....	<b>4</b>
<b>1 Introduction and background.</b> .....	<b>4</b>
1.1 Relevant to educators programme.....	5
1.2 Disposition.....	5
<b>2 Aim of study and Questions</b> .....	<b>6</b>
<b>3 The museums – a presentation</b> .....	<b>6</b>
3.1 The Swedish Museum .....	7
3.2 The South African museums.....	9
3.2.1 The Ditsong National Museum of Natural History.....	9
3.2.2 Maropeng Visitors Centre .....	11
<b>4 Theory</b> .....	<b>12</b>
4.1 Multicultural or intercultural education? .....	12
4.2 Culture & ethnicity.....	15
<b>5 Definitions on other essential terms</b> .....	<b>16</b>
5.1 Education.....	16
5.2 Museums.....	18
5.2.1 History.....	18
5.2.2 Educator versus curator.....	19
5.2.3 Finances and the present .....	19
5.2.4 Educational environment .....	20
5.3 Evolution.....	21
<b>6 Materials, delimitations and definitions</b> .....	<b>22</b>
6.1 My selection .....	22
<b>7 Method</b> .....	<b>23</b>
7.1 Participating observation.....	23
7.2 Collecting information .....	24
7.3 Difficulties.....	25
<b>8 Analysis</b> .....	<b>26</b>
8.1 Evolution – a delicate subject.....	27
8.2 Fossils and early humans .....	28
8.3 Contemporary history.....	31
8.4 Exhibitions.....	31
<b>9 Discussion and conclusion</b> .....	<b>32</b>
9.1 Further research .....	33
<b>Special thanks</b> .....	<b>34</b>
<b>References</b> .....	<b>35</b>
<u>Litterature</u> .....	35
<u>Web sites</u> .....	36

## Prologue

When Nelson Mandela was released from prison in 1990 he was invited to give a speech in Globen in Stockholm, and I came to listen with my family. I was only 9 years old, and didn't understand a word of what he was saying. But I did get that it was a big, even huge, experience, and that I one day would travel to South Africa to find out why. I am very fortunate to have been given the opportunity to do this study.

## 1 Introduction and background.

Sweden is a small country of 450 thousand square kilometres and 9,2 million inhabitants far out on the northern hemisphere. It has no official language, but Swedish is dominating (and there is 5 official minority languages). Sweden is a monarchy and holds free elections to parliament every fourth year. Every child can and must go to school from the age of 6 to 15. (landguiden.se 10.08.05).

South Africa is a bit larger with its 1 221 thousand square kilometres and 50,1 million inhabitants, situated far out on the southern hemisphere. It has 11 official languages (and numerous other spoken languages). South Africa is a republic and holds free elections to parliament every fifth year. Every child should go to school from the age of 7 to 16, but isn't always able to. (landguiden.se 10.08.05)

At a small comparison, like above, the two countries seem quite different, but are they really? The South African rand (R) has just about the same value as the Swedish crown (SEK). Both countries are democracies and both love soccer. In a small and specific comparison, like of guided tours at museums of natural history, how different may those countries be?

People may be fascinated by the same stories and things, regardless of origin, language and cultural background. Hence we can choose to regard museums as a possible way to integration (Bergsland, 2003, p 39). To inform about the development of the human species based on scientific theory and results is of great interest for museums of natural history worldwide. The genesis of life is, of religious matters, a controversial subject in many countries, and thus a delicate and important task for the museums of natural history. How can a museum attend a multicultural and democratic perspective when exhibiting such issue? What pedagogy is used to mediate the subject to a society of many cultures? (Lorentz och Bergstedt, 2006, p 13). Equality, equity and quality may be the motto of all education, but is particularly important for multicultural education. All pupils should have equal

possibilities to succeed in the classroom. Thus the teacher has to provide an environment in which all pupils have equal access to information and the chance to develop to their full potential (Lemmer et al, 2006, p 8). Equity ensures the pupils in class equal possibilities to success, as long as the education is of high quality (Lemmer et al, 2006, p 8). The way a student relates to his or her ethnicity is important, regardless if one is proud of one's background or tries to distance it. For a teacher or a guide it is important to avoid generalizing, and never assume to know anything about a student, based on origin, ethnicity or culture (Arvastson & Ehn, 2007, p 74). This will be discussed this further in the theory part. What students learn depends on how one produces and intermediates the content of the subject (Uljens, 1997, p 66). This is challenging to each and every one working with education, teachers as well as museum guides.

### 1.1 Relevant to educators programme

A multicultural perspective in its broader definition is necessary in all education, at primary school as well as at educators programme. Not just because it is stated in the curriculum, but also because every pupil is an individual with own cultural references. This perspective gets more important as the world becomes smaller and people with different ethnicity and from different cultures easier interact with each other. The museum may be used as a complement to the ordinary teaching at school, providing a new learning environment and perhaps a new perspective. The museum must not become out of date, and must always renew itself, perhaps by seeking inspiration from colleagues at other museums in the world. Preferably, the museums work according to the curriculum, and thus can provide useful as well as interesting information. If the museum can provide versed and inspiring guides in diverse, interesting and beautiful exhibitions, then I believe the visitors will come back throughout their whole lives, for one is never fully trained.

### 1.2 Disposition

After the short introduction above, I will present my aim of study and the questions' formulation. The following part is a detailed presentation of each museum, the guides and the exhibitions I have examined, to provide a "mental picture" of the studied environment.

Then I present the theories that are my base for the study, and definitions of the terms I use. *Culture* is a difficult term it self, so how difficult mustn't it be to choose between a *multi-cultural* and an *intercultural* perspective? I will also give a short background to some other important terms that are used, including necessary theory about museums and pedagogy

used in museums that may be a complement to the previous introduction of the museums I have studied.

The next part concerns methods, delimitations and difficulties, explaining the practical side of my work. The last parts are the analysis where the results of my research are highlighted and the broader meanings are analysed, and the discussion where I answer my questions and make conclusions.

## 2 Aim of study and Questions

The aim of the study is to compare museums of natural history in Sweden and in South Africa. In my study it is thus my aim to scrutinize the content in the guided tours and the museum's educational task from a multicultural perspective, specifically the exhibitions of evolution and the development of life and human species.

My main question is to examine if the variety of ethnicities, cultures and backgrounds in the two nations' populations is considered in their museum's pedagogy.

- If so, in what way?
- How are the guides working?
- What are they saying, and where (at what display case)?
- How are they different and how are they alike?

These are the main questions I would like to scrutinize and, hopefully, answer in my study.

## 3 The museums – a presentation

This study compares museums of natural history in Sweden and in South Africa, specifically the exhibitions of evolution. I have scrutinized the genesis of life in general and the human species in particular. Naturhistoriska riksmuseet (The Swedish museum of Natural History) in Stockholm, Sweden is compared with the Ditsong National Museum of Natural History in Pretoria, and Maropeng visitors centre in The Cradle of Humankind, South Africa. I included an additional South African museum to be just to the country; otherwise the results would be distorted. Both Naturhistoriska riksmuseet and Ditsong National Museum have unique collections of natural objects, while Maropeng is not an institution of great collections but rather exhibiting replicas of fossils belonging to Ditsong and others. While Ditsong museum, founded 1892, is somewhat older than its Swedish counterpart, that opened 1916, South African society has experienced far more modern and post-modern changes than Swedish society. This is of interest for my research project.

The museums will be presented in order of visits (“appearance”), and since the research began in Sweden, I will start with the Naturhistoriska riksmuseet in Stockholm, followed by the Ditsong National Museum in Pretoria and ending with the Maropeng visitors centre in The Cradle of Humankind in the vicinity of Pretoria and Johannesburg.

### 3.1 The Swedish Museum

At the Naturhistoriska riksmuseet in Stockholm there is no entrance fee, and a guided tour costs SEK 650, regardless of the number of participating pupils. The museum opens at 10 am but the tour starts at 9 am and lasts for approximately one hour. Thus the museum is empty and silent and the guide can easily get heard without using a microphone. Several groups may be guided at the same time, but by different guides and mostly in different exhibitions. The subject of the tour is booked in advance, and could be any one of the nine permanent exhibitions, or sometimes a workshop. I have participated in six tours.

This study focuses on the two exhibitions about evolution, called *4.6 billion years* and *The Human Journey*. Both are very popular and often guided. *4.6 billion years* opened in 1996 and is about the genesis of life and planet Earth covering the history from the origin of Earth to the extinction of dinosaurs. This exhibition has recently (in April 2010) been given some repainting and renovation. *The Human Journey* opened in 2008 and covers the development of humankind, from the eldest human fossil dated some 6 million years ago and to our own species’ life during the last ice age.

There are one male and two female guides working full time, and a woman who works part time, all somewhere in between 40 and 60 years old. During tours they wear casual clothing, mostly jeans and a sweater, and the museums’ official vest. The guides appear to work close together concerning the tours, and, of course, rely on the same scientific information. Thus, the tours are very alike, regardless of the guide and the age of the pupils, but the presentation may vary slightly since younger pupils’ vocabulary is a bit limited. Guides also adjust their examples to the pupils’ references, regarding age as well as ethnicity.

First, the guide introduces herself (or himself) and gives a warm welcome. The pupils get campstools (most of the preparations for each tour is to find enough stools) and are bid to sit down. The stools tend to make pupils remain still and quiet (one of the guides tells me this after a tour). During the introduction the guides talk about basic subjects like fossils and evolution. All of the guides frequently ask questions to establish a discussion and make the pupils part of the tour. It is mostly rhetoric questions, but the answers reveal the level of knowledge of the group, and encourage the pupils to ask questions back.

All tours seem to highlight the same display cases, but with some variation. In *4.6 billion years* the highlights are *plate tectonics*, *Silurian under water diorama* (or a combination of *Cambium*, *Ordovician*, *Silurian*), *Devonian land diorama*, *Carbon land diorama*, *Permian land diorama*, *dinosaur skeletons*, *sedimentary stone wall* (or *giant sea living reptiles*), and finally a *human ancestor diorama* (*Homo neanderthalensis* or *Australopithecus afarensis*). The dioramas contain plastic models of possible scenarios, somewhat smaller than actual size. The other exhibits are models as well, but free standing and not behind glass. A map and some short text information accompany each exhibit. The guides stick to the chronologic timeline, but may give some information at different dioramas, for example the information about how fossilisation happens may be given in the beginning, middle or the end of the tour, depending on who is guiding.

In *The Human Journey* the tour begins at *the evolution of horses diorama*, followed by *the human family tree*, *Australopithecus afarensis* (Lucy) *diorama*, *Mammoth skeleton* (sometimes), *Homo habilis diorama*, *Turkana boy diorama* (*Homo ergaster*), *Homo floresiensis diorama* (sometimes), *Homo neanderthalensis diorama*, and ends at the *Homo sapiens Cromagnon diorama*. All of those dioramas are behind glass, except the mammoth. Models are full size and look very believable, made by a French artist named Elisabeth Daynes. A digital text monitor with several pages of information and a small hands-on sculpture (a help for blind visitors to 'se' the item) accompany each exhibit.

The guides encourage the pupils not to take notes, but to listen and experience the tour and the exhibition. Occasionally some pupils record the tour on their cell phones instead of taking notes. The accompanying teachers are often very enthusiastic; ask a lot of questions and seem proud of his or her pupils. The tour ends about 10 o'clock, i.e. the same time as the museum opens for public. Usually a lot of schools and classes arrive at this time, and the sound level raise rapidly. There are fewer visitors in the afternoon, and on Fridays.

The aims of the visits vary. It might be a kick off for a new chapter of learning, or the last chance to learn before the test, or a visit just for fun. After the tour, some teachers have prepared sheets of questions to fill in; some have printed learning material from the museum's web page, and some let their pupil's just walk around. The guides, however, leaves the exhibit for other duties.

## 3.2 The South African museums

### **3.2.1 The Ditsong National Museum of Natural History**

At the Ditsong National Museum of Natural History in Pretoria the entrance fee is R 15 per person, regardless the amount of participating pupils. A guided tour is then always included. I have participated in seven tours. The larger cost of an excursion such as a museum visit is to hire a bus to get there (public transports are not reliable enough, and sometimes the distances are very far). Therefore it is common to bring a whole grade, or three or four classes at the same time. These large groups are divided on the four guides to be able to handle. There are two male and two female guides, all between 20 and 40 years old and thus slightly younger than the guides at Naturhistoriska riksmuseet. The guides wear casual but proper clothing, like a dress or pants and a shirt but no tie. The museum opens at 8 am and the tour starts whenever the visitors arrive, which is often around 9 am or 1 pm. The tours are always booked in advance and there are a variety of perspectives to focus on. The museum is open 7 days a week, and Friday is the most popular day for school visits. Ditsong National Museum also provides the event “Night at the museum”, a sleepover party with tour, dinner and games.

The guides work as a team and rely on the same scientific information, and help each other. The structures are similar to those at Naturhistoriska riksmuseet in terms of methods, cooperation and cohesiveness. The guides at Ditsong National Museum face additional challenges in terms of language since South Africa has eleven official languages, of which three are large in this region. Most of the tours are held in Afrikaans, English, or a mix of English and Sesotho (north Sotho). The subject of evolution is also delicate. It is officially considered to be a theory amongst other theories, and sometimes teachers forbid the guide to even mention it. The guides do believe in evolution, and have found ways to talk about it without offending teachers and pupils who might have a different opinion or religious belief.

The most common tour is a general introduction of the whole museum, which takes about two hours. This tour starts with a general introduction of the guide and the museum in *The Austin Roberts hall of birds*, continues to *Genesis one* and *Genesis two* and ends with *Stones, rocks and minerals*. I have participated through the whole tour, but this study will only concern *Genesis one* and *two*. Ditsong National Museum does not provide camping stools, but the pupils are bid to sit in staircases, benches and occasionally on the floor. Some guides prefer a standing audience. I have not asked why. The guides frequently ask questions to keep interest alive and make the pupils part of the tour.

All tours mostly highlight the same display cases, but the amount of information may alter. *Genesis one* opened in 1978 and is an exhibition about the genesis of life and planet Earth, an introduction of all animal phyla (the broadest category in the systematic classification system), in order of thought development. Present species (shells, stuffed animals, skeletons, or dried arthropods) is exhibited side by side with related extinct species. This composition differs Ditsong National Museum from Naturhistoriska, since the latter focuses on eras instead of phyla.

The *Genesis* tour begins with dioramas and boards about *the origin of Earth* including *photosynthesis* and *historical eras*, continues to a soft bench facing the *mollusc dioramas* where the guides often add an introduction of the upcoming *chrustacea dioramas*, and sometimes makes a stop to talk about *vertebrates*. Most of the dioramas contain real fossils or items but plastic models occur, either replicas of extinct species, or enlarged present species. Each subject has a batik picture and each diorama includes a short text. The exhibition continues in the hall of *Genesis two*, first opened in 1987 but continuously updated. *Genesis two* focuses on mammals and the evolution of humankind. This is the most delicate exhibition at the museum, and guides tend to say quite little. Usually the guides stop at *the fossilised tree*; sometimes they mention the full size, but rather puppet-like, hominid model of *Paranthropus Robustus* standing next to the entrance (the pupils usually find this hominid model very fascinating), and occasionally at the *mammal family tree*. If the tour is specifically about evolution (this happened once during my time of research) there will be a stop by the diorama showing *skeletons and small models of various human ancestors*. A short text complements each display case.

The accompanying teachers decide whether pupils must take notes or not. Every now and then, some pupils record the tour on their cell phones, or take pictures with the cell phone camera. Teachers tend to stay in the background, to look after the pupils but not interfere with the guide.

The aims of the visit vary in the same ways as at Naturhistoriska Riksmuseet, but it is not unusual that this day is the only excursion of the year, and the main priority is to have a good time, before heading to another museum after a few hours. Fridays are very popular for this event. The Ditsong National Museum did not have a web page at the time of my research, but released an official website in June 2010. The website does not contain educational materials, and thus teachers can not download assignments from the Internet, but have to prepare questionnaires themselves, or encourage the pupils to take notes. One of

the tours started with a power point presentation and the teacher told everyone to listen carefully because there would be a test the following day.

### 3.2.2 Maropeng Visitors Centre

Maropeng means, “returning to the place of origin” (Fleminger, 2006, p 67). It is not an ordinary museum, but a visitors centre, and it has no ambition to provide any more natural science than that of the development of humankind. Maropeng is situated in The Cradle of Humankind world heritage site, not far from Pretoria and Johannesburg. It was first open in 2005 and opening hours are from 09:00 to 17:00 daily. I only visited this museum once, Saturday 22<sup>nd</sup> 2010, but it wouldn't be fair to South Africa to exclude it and therefore it is important for this study. The museum is guided at no additional cost, but only in weekends and public holidays. The website is encouraging teachers to bring their pupils and an ambitious education pack for each learning phase are available for free downloading. It contains information, questions and assessment tasks for various subjects, such as natural science and mathematics. It is meant to prepare pupils before the visit as well as providing follow-up assignments afterwards, and it is all linked to the curriculum. (maropeng.co.za 10.08.05) Since I visited Maropeng during a weekend I did not get the opportunity to participate in a guided tour for school classes. I assume the school tour to be similar to the one I did participate in, and which I hereby will read up on.

The entrance fee is R 59 per learner and includes a guided tour. I came as a tourist on a weekend, and paid R 105 (for adults) a guided tour then included. Weekend tours starts about every half hour, and groups could be small or large. Our group contains approximately 15 persons of a few different nationalities. This arrangement demands a rather big set of guides. The website has an ambitious presentation of all of the staff, and about eleven people of both sexes are guides or work with education of some sort (maropeng.co.za 10.08.05). My impression of the guides (the one guiding us, and a few other men I observed guiding other groups) is that they are about the same age and style (clothing) as at the Ditsong National Museum. The tour starts with a short introduction of the museum and some famous fossils. Since this is a museum specifically about the development of human kind, all exhibitions, or rather, parts of the big exhibition are related to this subject. However, not all exhibitions are permanent, and it takes some time to reach them. Maropeng wants to take the visitors on a journey that begins with a “Ride through time” or rather through a series of tunnels, rocks, water, smoke and ice, which are representing the four elements formatting a primordial Earth. One must also walk through a vortex tunnel with spinning walls representing Big bang. After this “ride” the tour,

continues through an ambitious exhibition about the origin and evolution of the human species, making stops at numerous display cases. The exhibition feels very modern and is most varied, including items for all senses (except taste). The dioramas are mostly not the classic glass boxes, but of various shapes and sizes. They contain very different items showing fossils and models of early humans as well as features of the human body and mind.

There are lots of text information on boards and signs, accompanying the exhibits or photos displaying issues and world problems of today, asking questions about the human species and encouraging the visitors to think and reflect. The models of different human species are full size and look very believable, made by John Gurche. They are accompanied by short texts hanging over their heads. They are standing behind fence but not behind glass, which makes them irresistible to touch, and they feel soft. Full size but fictive X rays showing each skeleton are displayed elsewhere in the hall, with additional information.

## 4 Theory

The right to education is expressed in the 26<sup>th</sup> of the articles in the Universal Declaration on Human Rights ([www.un.org](http://www.un.org) 10.08.05). The following is written at *Save-the-Children's* web site:

*"Education is conclusive for both democracy and development. A child who is deprived of its right to education will get a one-way ticket to poverty and unemployment. A society where a majority of the citizens lack the ability to read, write or estimate information will never become a full democracy. Furthermore if young people are without education, employment and hope of a better future, they are easy targets for extreme armed movements. This is unacceptable"* (my translation. [raddabarnen.se](http://raddabarnen.se), 09-12-18).

Thus education is of the highest importance for every country in the world, for achieving progress and development.

### 4.1 Multicultural or intercultural education?

The term "diversity" originates from the Latin term *diversus*, meaning "variety", "of different kind" or "more than one". Factors such as migration, immigration and colonisation have caused demographic shifts all over the world for decades (Lemmer et al, 2006, p 14). Diversity constitutes groups based on class, ethnicity, language, culture or religion, as well as any other kind of variety in humankind, including sexual orientation, disability, learning preferences, nationality, educational level etc (Lemmer et al, 2006, p 15). If groups are divided by ethnicity, it needs to be emphasised that individuals within every ethnic group differ from

each other as well as ethnic groups differ from each other (Lemmer et al, 2006, p 15). As a result of various political, social and economic developments most societies throughout the world have become heterogeneous. As a consequence, politicians and education policy-makers have been faced with the challenge of how to deal with such diversity. Early responses were to assimilate minorities to the majority, but this point of view has gradually been replaced with a multicultural perspective (Lemmer et al, 2006, p 2). Assimilation has, until recently, prevailed as a policy in most multicultural Western societies (Lemmer et al, 2006, p 2). It is a monocultural policy that tries to minimise cultural differences and encourage social continuity and conformity (Lemmer et al, 2006, p 2). The minority is required to adopt the language, culture and values of the dominant group (Lemmer et al, 2006, p 2).

The South African author Lemmer defines multiculturalism:

*“Multiculturalism recognises and accepts the rightful existence of different cultural groups and it views cultural diversity as an asset and a source of social enrichment rather than as a disability or a social problem. Unlike assimilation, multiculturalism fosters a balance between social conformity on the one hand and social diversity and change on the other. Moreover, it encourages a process of acculturation, as opposed to assimilation, whereby peoples’ cultures are shared and become modified and enriched through interaction”* (Lemmer et al, 2006, p 2). Hence, there is a diversity of cultures, which are different but dynamic and equally valuable.

*Multicultural education* incorporates the concept that all students – regardless of their social class, gender or ethnicity – should have an equal education and equal opportunity to learn (Lemmer et al, 2006, p 5). It must be regarded as an on-going process and a guideline for all education systems, in such a fashion that it appropriately includes all cultural groups, and transfers the culturally pluralistic society into the education system (Lemmer et al, 2006, p 3). The process is not limited to curriculum change but will also involve changes in the total school or learning environment (Lemmer et al, 2006, p 5).

The development of the term *interculturalism* started in the 1980’s and is a subject that primarily concerns intercultural communication and learning (Lahdenperä, 2004, p 11). The intercultural pedagogy is a way to integrate different cultures, countries and minorities and was developed to create a united Europe (Lahdenperä, 2004, p 12). In 1985 the members of the Swedish parliament decided that all education at every level must be characterized by an intercultural vision that concerns all pupils. It is not a subject but an attitude to apply on all subjects (Lahdenperä, 2004, p 11). *Interculturalism* is a term that implies a process. The

aspects of interculturalism imply that citizens within a heterogeneous society may obtain respect and understanding towards other cultures and their various needs, wishes and values of life (Lahdenperä, 2004, p 15). Interculturalism requires interaction and exchanging of knowledge and experience. Not just giving new input to other cultures, but gaining as well. *Intercultural pedagogy* scrutinizes socialisation, learning and teaching in a multicultural, multiethnic, global and intercultural context, by making apprehension of how culturally specific ideas influences pupils, students, teachers and parents, in a constantly changing society (Lahdenperä, 2004, p 14).

I choose to use the term *multicultural* rather than the term *intercultural*, even though the latter is the word that has penetrated the educators' programme at Södertörns högskola. The term *multicultural* is often used to describe the diverse nature of a society. It is still far from assimilation, and accepts the fact that pupils may have different background, even though they are part of the same school class (Lemmer et al, 2006, p 2). This term is meant to be seen as an umbrella term that includes all kinds of diversity; not only cultural, racial and ethnic groups, but also learning preferences, nationality, geographic origin, disability, educational level and so on. Using this term in its wide definition may lead to misunderstandings (Lemmer et al, 2006, p 15) but I consider it the best definition for my aim of study.

*Multicultural education* is used in South Africa but also in USA, Canada and Australia, whilst in Europe (England excluded) the term *intercultural education* is more frequently used. The British definition *intercultural and anti-racist education* is the one most similar to the common Swedish definition of *intercultural pedagogy* (Lahdenperä, 2004, p 12, citing Leeman, 2003). *Multicultural* has been used as a point of view in Sweden previously, and is the proper term in the South African educators' programme right now. The term has been criticised for being ill defined and lacking in substance, since it has been defined and interpreted in numerous ways, and many educators have therefore been hesitant to adopt it as a sound educational approach (Lemmer et al, 2006, p 3), and thus has in Sweden been replaced by the term *intercultural*. The South African broader definition of *multicultural education* is far more diverged than the Swedish, and thus is the definition used in this study, since it is the most common and accepted term world wide (Lemmer et al, 2006, p 3).

*Multicultural education – An educator's manual* (Lemmer et al 2006) is the one book on this important subject presently used at the South African educators programme. I have compared its' definition with that of the book used by the pedagogues at Naturhistoriska

riksmuseet; *Interkulturell pedagogik i teori och praktik* (Lahdenperä, 2004). I conclude Lahdenperä's Swedish definition of *intercultural* to be quite comparable with Lemmer's South African definition of *multicultural*. The terms are used in similar ways and with similar definitions, and I decided to use the term *multicultural* because it will work in both Sweden and South Africa and because I believe that is how museum pedagogy works. Exhibitions is a one-way communication, the learning and the information is predestined. Also the guide, who represents the two-way communication, spends too little time with each tour group to have the chance to learn or exchange knowledge, and thus work intercultural.

#### 4.2 Culture & ethnicity

Culture itself is a complex human phenomenon. It is frequently defined in terms of obvious visual aspects and artefacts such as clothes and art, and by features like music or food. Culture is also often associated with society as a way of living (Lemmer et al, 2006, p 15) and cannot be ignored if multicultural education is to achieve its goals (Lemmer et al, 2006, p 15). Multicultural education is viewed with certain suspicion in South Africa because of its emphasis on culture, but culture forms an essential part of this educational approach (Lemmer et al, 2006, p 15). This scepticism is mainly a result of the history of the South African society, education included, that used to be structured on a policy of separatism based on race, a term that unfortunately sometimes is used as a synonym for culture, yet perhaps erroneously (Lemmer et al, 2006, p 15). *Race* is not a term often used in Sweden nowadays, and I have tried to avoid it in my text, using the term ethnicity instead.

Ethnicity is complex, and may be used in many ways, and sometimes, unfortunately takes the form of racism. "*Ethnicity is the suspicious twin of race,*" Kerstin von Brömssen summarises, and ethnicity may be used as a synonym for race, in order to separate one group of people from all other people (Lorentz & Bergstedt, 2006, p 55). However, race is a cultural construction, and as a term it is not always replaceable (Hylland Eriksen, 2002, p 5 at books.google.com). Race is a way of sorting out people by the colour of their skin. This is easy to do without even having to talk to one another. Thus race can't always be neglected. Race and racism is not synonyms (Hylland Eriksen, 2002, p 5 at books.google.com). *Racism* implies that some people are superior, based on their skin colour, whereas *race* only is about colour and not about superior or inferior (Hylland Eriksen, 2002, p 6 at books.google.com). I am aware of this complexity, but I choose to use the term ethnicity anyway.

The word ethnicity origins from the Greek word *ethnos* that means people. The definition of ethnicity is similar to that of culture and "*the fundamentally distinctive feature of an ethnic group*

*is not its physical appearance, but its cultural heritage and values*" (Lahdenperä, 2004, p 2, cited from Pumfrey and Verma, 1990) so ethnicity is based on culture of several generations. It is an aspect of social relationship between individuals in a group who define themselves as culturally distinctive from members of other groups, and the groups must have a minimum of contact with each other (Hylland Eriksen, 2002, p 6 at books.google.com). Ethnicity may be an identity put upon a person by oneself or by others (Lahdenperä, 2004, p 17).

The social position of non-Europeans in western European countries is formed by European colonization. The dichotomy and significance of 'white' and 'black' (i.e. racification processes) was created during this historic era. The idea that the black/white dichotomy is closely related to the level of civilization or evolution was then founded (Dahlstedt et al, 2007, p 324).

## 5 Definitions on other essential terms

### 5.1 Education

Much can be said about the importance of education. Jovchelovitch puts it this way:

*"It is the human capacity for critique, for revising errors, for learning from previous mistakes and from the experience of others, through communication, reflection and self-critique, which provides both the antidote for the isolation and loneliness proposed by relativism and at the same time the elements for the growth and development of all knowledge"* (Jovchelovitch, 2006, p 182).

But the importance is interpreted differently in different countries. This study compares South Africa and Sweden. Both countries agree that education is an important issue in a democracy, and both aims to offer every child the possibility to go to school. The educational history, however, is different.

Sweden has had a mandatory schooling since 1842, at least concerning the most essential education of reading and writing. UNICEF's convention on the Rights of the Child, the Swedish law of school and the curriculum (svenska Läroplanen 1994) states equal right to education for all children, and right to equal conditions regardless of talent, interests and ability (Läraryboken, 2008, p 13). Every school shall provide facts, extensive insights in various subjects, confidence and a social network to every student (Haug, 1998, p 14).

Almost all education is free of charge in Sweden; at least, every child has the opportunity to participate in free education. Previously, higher education had a fee, but the lower grades have always been for free. South Africa has a history of very good education for some (a

small, white elite), and very poor education for others, according to the laws of apartheid. The majority had to pay a fee for their (very poor) education, but the very good education reserved for a few privileged was free of charge (en.wikipedia.org 10.05.10). Today the new South African constitution from 1996, on the website said to be one of the world's most progressive, specifically states equality of all humans, regardless gender, sexual preferences, ethnic group, religion, etc. (www.info.gov.za, 091219) and equal education for all children is an important part of this ambition. Today there is a fee, but also the opportunity to go to a free school, though the teachers at those schools are often very poorly educated (landguiden.se 10.08.05).

South Africa has a unique composition of citizens' origin from Europe, Asia and all of Africa, which makes South African society essentially multicultural (Lemmer et al, 2006, p 15). South Africa is thus a society of many languages and cultures and, for this reason, an education system that acknowledges the need to value diversity is essential (Lemmer et al, 2006, p 8). Sweden is not as heterogenic, but has to struggle with diverse school classes and a society of many cultures as well. It is therefore important for both countries to create a learning environment that will motivate pupils and teachers to acquire the necessary skills, attitudes and knowledge to participate meaningfully in a multicultural society (Lemmer et al, 2006, p 8). The educational systems in both countries also has to comply with the UN convention of abolishing racial discrimination from 1965, which aims to prevent prejudices concerning race, and to encourage understanding, tolerance, and friendship between states, race groups and ethnic groups. The UN members must take every intervention regarding education, child raise, culture and information (Ds 1998:46, 19) (Lahdenperä, 2004, p 15-16). However, it is unlikely that South Africa was a signatory in 1965 when apartheid system was in its full bloom. For example:

The Minister of Education in 1959 stated "*There is no place for (the Bantu, i.e. African) in the European community above the level of certain forms of labour... What is the use of teaching the Bantu child mathematics when it cannot use it in practice? That is quite absurd. Education must train people in accordance with their opportunities in life, according to the sphere in which they live*" (wikipedia.org 10.05.10).

The social and political landscape of South Africa has been shaped by apartheid policies and colonial history for more than a hundred years. When the first truly democratically elected government came into the power in 1994, they were faced with the fact that the quality of educational provision and the social status ascribed to groups largely reflected a deep divide

along the lines of race (Lemmer et al, 2006, p 1 cited from Asmal 2000). This means that teachers in South African schools are now challenged to teach increasingly cultural diverse classes, and must implement school reform programmes meant to maintain the needs of all pupils (Lemmer et al, 2006, p 1). At the same time they are facing the challenge of changing the nature of both teaching and learning (Lemmer et al, 2006, p 1). Many South Africans, none the less their teachers, see a multicultural education as a way to improve understanding and acceptance of all races and cultures in the country after decades of separation between racial and ethnic groups (Lemmer et al, 2006, p 4). An investigation tells that educationists' requested a more comprehensive, all-embracing approach to education, which takes into consideration racial and cultural inequalities as well as socioeconomic and gender-based inequalities (Lemmer et al, 2006, p 4). This approach is also administered on educationists at the educators' programme at Södertörns högskola in Sweden.

## 5.2 Museums

### **5.2.1 History**

The museum is a modern institution in a post industrial and multicultural society (Bergsland, 2003, p 37). They were established during the nationalistic era of the 19th Century (Bergsland, 2003, p 37) and often integrate with the universities. (I know this for a fact about Sweden and South Africa, and I assume it to be guilty for all of the Western societies). They were purpose-built as a spatial environment and container for the objects they displayed (Pollock & Zemans, 2007, p 98). National items and culture was highlighted. An evolutionary story built on a scientific narrative was told. The museum was an educating institution and may also be seen as a way for the bourgeoisie to control lower classes (Bergsland, 2003, p 37). Some museum's stock of artefacts was influenced by large quantities of items from certain private collectors, which made them grew rapidly (Arcadius, 1997, p 269). Private collections of natural items such as minerals, stuffed animals, insects, sea-shells etc had been a huge trend amongst the wealthy people during the 18<sup>th</sup> century, and was donated by later generations about a hundred years later, to what was to become the Swedish Museum of Natural History. Those artefacts are still part of the museum's collection.

Some understood the modern industrial society, where the museums emerged in the 19<sup>th</sup> century, as a threat against traditions. Permanence became a task for the new museums, as well as participation (Arcadius, 1997, p 267). Museums are not, nor have ever been, approved to become out of date, but must not conflict their own traditions in their way to

modernity. Museum work is demand to constantly change itself, even though it at first was intended to create something permanent by exempting it from change (Arcadius, 1997, p 266). During the 20<sup>th</sup> century they, as seen below, became more educational, at least in Sweden. Swedish sociological studies in the 1960s presented visitors at museums and exhibitions as a fairly homogeneous group (Pollock & Zemans, 2007, p 141). This wasn't a preferred result in a country turning more diverse every year. Then, in the 1970s, the museum's chore was divided into several tasks. A short summary said: "collect, conserve, investigate, explain" (Arcadius, 1997, p 13). The museums investigation from 1994 focuses on a public welfare where the museum's task is to provide *memories* and *benefits*. This task has also been known as the task to *save* and *mediate* (Arcadius, 1997, p 13).

### 5.2.2 Educator versus curator

Considering this task, museums have much to learn from school pedagogy about how to approach knowledge (Bergsland, 2003, p 38). The educational responsibility requires pedagogy and a strategy while forming the exhibitions and guided tours (Arcadius, 1997, p 13). The curator has a central role while creating exhibitions, since he or she has the responsibility for its content, and making the selection of arts, texts and exhibits that will accomplish the aim of the exhibition. The curator thus has his or her own agenda. The responsibility of teaching by sharing information in guided tours, and the facts and knowledge provided in the exhibition, lay on the museum educators. If the main aim of the exhibition is to be used as a learning environment curators and museum educators and other experts may cooperate while creating the exhibition. (Those are all my thoughts, based on experience, earlier university studies and informal conversations with staff at Naturhistoriska riksmuseet). Curators and museum educators have not always been eager to cooperate, since they have different approaches to the visitors (Pollock & Zemans, 2007, p 174), but when staffs from different departments have worked together in monetary stressed times, they have managed to produce large, successful, research-based projects (Pollock & Zemans, 2007, p 175).

### 5.2.3 Finances and the present

The government support for museums has decreased during the last 40 years in most Western societies (Pollock & Zemans, 2007, p 173). Judith Mastai makes that statement regarding Canada (Pollock & Zemans, 2007, p 173). I made this conclusion about South Africa when I was visiting the exhibitions at Ditsong National Museum, of which none is younger than 23 years, and I have experienced it while working at Naturhistoriska riksmuseet. The reduced financial support has shifted the museums main focus into serving

the customers (visitors) to make them come back (Pollock & Zemans, 2007, p 173). Sociological studies (in Sweden) showed that holding an exhibition at a place with a frequent stream of people, like a shopping centre, was not a guarantee to attract many visitors. An interesting subject will always tempt new visitors, but to make them come back again is a tricky challenge (Pollock & Zemans, 2007, p 143). This has forced the museums to become more commercial in terms of reaching the audience by providing a 'product'. The major product is the exhibition, from which most other products are generated (Pollock & Zemans, 2007, p 173). Thus the museum has become more of an educational environment, and more visitor-friendly (Pollock & Zemans, 2007, p 173-174).

#### 5.2.4 Educational environment

*"The task of the educator is to bridge the gaps between inquiry and authority, between desire and satisfaction, between length of attention span and volumes of potential information"* (Pollock & Zemans, 2007, p 176).

Museums have a history of educational importance, mainly for scientific studies, but they also have the task to make scientific results public by exhibitions and guided tours. A museum may function as a practical complement to the books and theories of school education. If the museum is regarded as an educational institution one must go back to the collections, which are the body of the information provided. The mandate of the museum, like any other educational institution, is to upstart within interest and curiosity and build bridges between what is known and what is yet to know (Pollock & Zemans, 2007, p 175). If the museum then is regarded as an educational resource for lifelong learning, the task includes the challenge to provide multiple points of entry for a great diversity of visitors of different ethnicities, ages, gender and levels of knowledge etc. (Pollock & Zemans, 2007, p 175).

There is really no such thing as *a* visitor. The people who visit exhibitions and museums, as said above, bear a great variation (Pollock & Zemans, 2007, p 176). During the past seven years of working as a guide at Naturhistoriska riksmuseet in Stockholm, I have come to meet a lot of different visitors. This peaked during the years of free museum entrance, when new groups of people came to visit the museum, many of them with a non-Scandinavian ethnic background and varying degrees of education. The museum's task is to talk to each and every one of them in person, to design many possible ways of catching their interest, and to collect their response through comment cards and over the Internet (Pollock & Zemans, 2007, p 176). The school classes that visit the museum in weekdays are still very

varying in both age, place of growth and cultural background, but the weekend visitors are a somewhat more homogeneous group. I do not dare make such generalizations about the South African museums since I have not visited them as many times as Naturhistoriska.

Each museum has to work according to their own conditions and with the items and display cases they have got. A general visitor may not read many signs (according to the project leader at Naturhistoriska riksmuseet, 10.04.21). There are several ways to provide the wanted information to the visitor anyway. Items are isolated in display cases and with careful lighting, or put in context next to other items (Pollock & Zemans, 2007, p 81). Immanent meanings of an item are drawn out by extras such as maps, texts and dioramas (Pollock & Zemans, 2007, p 81). If an exhibition totally excludes texts and signs, the absence of text information will be paid attention to, according to an exhibition made by Riksställningar in 1987 (Pollock & Zemans, 2007, p 149). My professional experience from the museum is that exhibitions often are more easily understood if presented by a guide. A guide will make the group watch an item or a diorama and really observe its contents whilst listening to the guide telling the story about it. Thus I believe that the guide has an important task to make the exhibitions understandable and interesting for visitors of various backgrounds. As every individual visitors bring his or her own narratives to the museum and, walking their own paths of desire and interest, and will end up at various points of association with the museum (Pollock & Zemans, 2007, p 175-176). A subject, for example an exhibition, can percept in various ways to this heterogeneous public, this is a central didactical fact (Uljens, 1997, p 132). As Jovchelovitch says: *"There is not only one form of knowing, there are many. This variation corresponds to variation in the forms of social relating that constitute both knowledge and community: to know is an act dependent on who knows, from where and when one knows, what, why, what for one knows, and in relation to which significant others one knows"* (Jovchelovitch, 2006, p 125). This challenges the skills of the guides.

### 5.3 Evolution

*Evolution is all the changes that have transformed life on Earth from its earliest beginnings to the diversity that characterizes it today* (Campbell et al, 1999, p G-9). It is the description of evolving life, about the on-going development of species, from what it were to what it is to what it will be in generations yet to come. Species will not evolve within a lifetime, nor within a few generations. It simply means that each generation will become more fit than previous generations to the environment in which the specie lives. If the environment changes, then so are the species living within it forced to do as well (Campbell et al, 1999, p 12). Individuals or species that are not able to adjust to a changing environment will get

extinct. This process will most often, but not always, requires sexual selection. Within species that have sexual reproduction the female will choose a male to mate with (or vice versa) based on some characteristics (Campbell et al. 1999, p 12). For example, among swallows the female tend to mate with a male with long tails. Thus their offspring will probably get a long tail too, and the tails of the swallows grow longer for every generation (nrm.se 10.08.07).

Evolution isn't believed to have a goal, it isn't going anywhere, and it is only adjusting to the time being. This may seem desolating for some, because one might want to have, or believe in, a greater purpose of life than just living it. That is why evolution sometimes comes in conflict with religious views. Though, evolution does not necessarily have to exclude religion, it is just a matter of how and what one choose to believe.

## 6 Materials, delimitations and definitions

The study began at Naturhistoriska riksmuseet in Stockholm, in aim to adjust the methodology of the study in a well-known environment before leaving for the field studies in Pretoria. The study continued in South Africa and ended with a comparative analysis of collected information back in Stockholm.

I have studied the exhibitions of the genesis of life from a multicultural perspective by doing participant observatories of the museums guided tours for school classes. I repeated this method at the Ditsong National Museum in Pretoria and Maropeng visitors centre in The Cradle of Humankind.

The raw material is thus written and recorded notes taken during guided tours, photos, display case's texts and items in exhibitions of the genesis of life. I have done participatory observations in guided tours in all three museums. This have generated enough material for a comparative study of exhibitions, primarily regarding information presented by a guide, secondarily regarding substance, pedagogy, texts and signs.

### 6.1 My selection

I couldn't choose the ethnicity of the visitors, in terms of background, experiences and primary language. I decided to participate in tours for older pupils, from age 12 to adults (except at Maropeng, which I only got to visit once). Age 12 is the first year of Swedish 'högstadiet'. To have a reasonable limit to the study, and because evolution is an abstract subject, which demands a mature thinking and imagination, I chose to work with older pupils. I wanted the tours to be comparable, so I had to choose a category somehow. I

depended on the tours set up for the schools visiting the museums at the time of my research. The multicultural perspective is put on the analysis.

## 7 Method

Qualitative methods are a collection of methods with the only common aspect not to be quantitative (Bjereld et al 2009, p 118). My method is participating observation. It contains three components, *I* (subject), *the other* (the guide, also subject) and a common *object* (i.e. the multicultural pedagogy) (Stensmo, 2002, p 117). Participating observation is a method which includes all senses, and which will be analysed and put into context after completed fieldwork (Bjereld et al 2009, p 108). As a researcher I have participated in the activity of interest, and interacted with people in that field of activity.

### 7.1 Participating observation

During fieldwork the participating observer must both see what everybody else sees, and what they don't see, by participating and stepping aside at the same time (Stensmo 2002, p 118). The observer must never in advance *believe to know* what to expect, but must always have an unknowing approach to every situation. One must take notice of every detail all the time (Stensmo, 2002, p 118). The researcher usually has a dialogue with "the other subject", but since I attended guided tours I could not talk to anyone during the observation. I was participating on almost the same conditions as every other visitor. Furthermore, to be permitted to do the South African part of the study I must promise not to interact with the pupils, since guiding is a qualified job that requires a licence. This was an absolute condition to be allowed to participate at Ditsong National Museum. Communication doesn't always have to be a two-way activity, but may also be one person talking and one listening. Silent participation and attention for details collected enough information.

Participating observation is a research process that tries to find the perspective of the participators in a certain activity. Thus the researcher must participate in the activity and try to share the actors' lives and experiences, and at the same time try to keep alienation and an overview (Stensmo 2002, p 116). This is the obvious method for research on guided tours, a situation with several subjects interacting and conversing about an object. To be able to observe a guide the researcher (me) will have to participate on a guided tour. A guide is used to talk to people and have a listening audience, and should not be disturbed by the presence of a researcher. The thing that divided me from the other participants is that I was primarily observing. My focus was the guides presentation, the tours content and its motive and directives, rather than to obtain knowledge of a subject. I recorded and took notes, which

also separated me from the rest of the group. At Naturhistoriska I remained behind the group and took notes, but at Ditsong and Maropeng I had to stand in the front row to be able to make good recordings.

During participant observation all sorts of information can be collected, such as observations of; clothing, articles, diaries, photos, interviews, informal conversations etc (Stensmo 2002, p 117). I am used to keep a log from my practical education (VFU), and I find it very useful, so I took accurate notes every day. Documentation is important during participant observations. The advantage of written notes is that they are immediate, time saving (doesn't have to get transcribed) and can give a complete picture. The disadvantage is that one constantly has to decide what to write, and the selected information might be shallow and inaccurate, and there is no replay option (Stensmo 2002, p 118). Though additional notes may be added after the observation.

## 7.2 Collecting information

The advantage of a sound recorder or a video recorder is that it can be replayed many times, and the researcher doesn't immediately have to decide what information is important enough to include. Furthermore intonation and, if on film, body language is registered as well (Stensmo 2002, p 118). The disadvantage might be if the recorder disturbs the guide, which is common if using a film camera. The sound quality might be bad because of disturbance and thus hard to transcribe. The recorder doesn't register smells, temperatures and other features important for the over-all experience either and such details must then be written in an additional notebook (Stensmo 2002, p 118). In Sweden permission from parents are always required if filming, and in South Africa an official permission from the museum is required. To avoid all the work of getting permissions for something that might not give an awful lot in return, I decided not to film. Instead I have used a combination of sound recording and written notes to get a complete picture (Stensmo 2002, p 119). I have recorded the tours in South Africa, and once in Stockholm, and then transcribed them, because while beginning the study I felt insecure in my understanding of English. I felt much more at home in the exhibitions at Naturhistoriska riksmuseet since I have been visiting them very many times, and because I didn't have access to a recorder before leaving for South Africa. Unfortunately taking notes wasn't as easy as expected since the guides are talking much faster than I am able to take notes. The note writing thus continued for some time after the tours were finished, to get it all on paper.

My focus was mainly on what the guides were saying at what display case, what questions were asked and what questions were answered. The pupils' receptions and reactions were given less attention, since my main interest is about teaching rather than learning, but the reactions of the pupils are not neglected. Reactions and questions are important during a guided tour, as part of the work and the content of the rest of the tour. But the multicultural perspective I want to scrutinize is that of the guide and the content of the tour. As long as the tour itself is my main interest it will also have the main part of my attention and concentration.

I have been working extra as a guide at Naturhistoriska riksmuseet for several years. This circumstance may be both strength and a weakness. Strength because I understand the full meaning of the job, and thus am able to participate and step aside simultaneously (Stensmo 2002, p 118). I also have knowledge of the subject, and may focus on how rather than what things are said. Though this is a weakness too, as I occasionally lost focus on the guide and thought wandered away elsewhere. Also I could not consider myself as part of the group of pupils, but rather as a participating teacher. Sometimes it was difficult not to teach!

As support for the study space was left for informal interviews and conversations with guides and other museum staff (Kvale 2009, p 132). I have been fortunate enough to talk to a guide (museum pedagogue) and the project leader of the exhibition *The human journey* at Naturhistoriska riksmuseet as well as a guide and the head of guides at Ditsong National Museum. However, it is not primarily an interview-based study. Using interview as main method would probably generate the same information from the guides regarding the scientific content of the objects, but would lack the guides' term of address and the reception of both guides and audience and the learning experience. This assumes that my experience is similar to the other visitors' experience, which might be incorrect since I am a guide too and thus hold most of the facts that the exhibitions and guides are hoping to mediate. Furthermore there is no guarantee that the message the guide wants and believes to mediate is the same as the message given during a tour.

### 7.3 Difficulties

The fieldwork in South Africa could have been a problem concerning the norms of interaction in a foreign culture might differ from what the researcher (me) was used to. This is particularly critical for interviews since different cultural references may affect the relation between the observer/interviewer and the person being interviewed. Even gestures and other non-verbal elements could be misunderstood (Kvale 2009, p 160). It is therefore

fortunate that I got to spend eight weeks, a relatively long time, in the new culture, which probably helped me avoid some communicative difficulties, though cultural differences can never completely be avoided.

I have participated in six guided tours at Naturhistoriska riksmuseet. The guides have not been disturbed by my presence, and their entire focus lay on the present school classes. I took notes, which was much harder than expected, so focus became *what* the guide was saying. Since I have been standing behind the audience I have not always been able to catch the questions asked, but the answers are usually revealing the question. I haven't managed to do a detailed study on the school classes, but noted the number of students and the gender proportions.

I spent two days just studying and photographing the exhibitions before participating in seven guided tours and one sleep over at Ditsong National Museum of Natural History. When I asked them the guides told me they have not been disturbed by my presence, but their full attention have been at the present school classes and I was regarded as part of that group. I sound recorded and took notes since a lot of necessary facts and material don't get recorded and since the sound environment at some times got quite noisy. I kept the same focus as at Naturhistoriska riksmuseet. Even though I was standing right in the middle of the groups it was sometimes hard to register questions. The South African classes were as diversified as the Swedish, but because they are all wearing school uniforms it was sometimes hard to keep track of the gender proportions (girls are not obliged to wear skirts).

I have participated in one guided tour at Maropeng visitors centre, at the same condition as all the other weekend visitors. My presence or my sound recorder did not disturb the guide at all. I didn't take notes during the tour, but made detailed notes later that night. I spent a long time in the main exhibition after the tour, to memorize and take a lot of photos. Since it was a Saturday there were no present school classes.

## 8 Analysis

In all tours, in all three museums, I only meet one guide, at Naturhistoriska riksmuseet, who started the tour by asking a few questions about the pupils, such as what school they come from and what prior knowledge they have about the subject. The way he asked them made this group calm and they dared discuss and ask questions back. In my opinion this is absolutely necessary if a guide wants to work intercultural instead of multicultural. It is impos-

sible to talk to every pupil individually, especially in South Africa where the groups often are very large, but a few friendly questions will break the ice.

All South African guides explain difficult words and terms. I have heard the meaning of *Australopithecus* ('southern ape'), Maropeng ('returning to the place of origin'), Black Widow Spider ('she is now a widow, she is black in colour and she is a spider'), and many other words. The guide explaining the word 'bilateral' used a pupil as an example, pointing at his two sides. The process of naming a new fossil was very well explained at one occasion as well ('it can be named by what it looks like, after the person who found it or the place where it was found'). Explaining the words creates a sense of logic in a subject that may appear difficult and scientific. It widens the language and the understanding for the subject. Many South African pupils do not speak English as their first language. Another guide at Naturhistoriska started her tour at the display case showing the development of horses, from very small specie to the rather large animal of today. The guide asked if anyone rode horses, and a few of the girls did. The guide caught this opportunity to include them in the tour, asking them about horse's body language. Including the pupils, like the 'horse girls', the 'bilateral boy' and the girl who got a fictive fossil named after herself, might reduce the respectful fright one might feel while visiting an old, large, silent museum, especially if one doesn't visit such places very often.

### 8.1 Evolution – a delicate subject

At one tour at Naturhistoriska, the guide explains the development from amphibian to reptile, and why the egg is a good feature for land-living animals. This visualizes evolution since she explained the whole chain of development, from primitive to more advanced levels. The guide at my first tour at Ditsong talked about eggs as well, how eggs occur in many animal orders, like frogs, butterflies and chickens. Eggs seem to be a worldwide subject and an important evolutionary feature. The transformation within the egg, from single cell to live animal, is well known. It is easy to accept, but not always to understand; that something is happening inside the eggshell. Eggs also have great symbolic value in many cultures. Thus including it in the guided tour may be a multicultural strategy that will appeal to most pupils. However, I do believe it is equally important for the understanding of natural history, and thus is why guides talk about eggs at present.

In Sweden evolution is not regarded as just a theory amongst others, but as a reliable fact that is seldom questioned, even though many people believe in God in one way or another. It is therefore easy for the guides to give a tour about development based on evolution and

selection. The Bible is much more a book of facts in South Africa and religion is much more present in daily life. Ditsong has a poster about evolution, trying to explain that it may not be just a theory among others, and the head of the guides told me that this is a subject for supplementary training and that evolution will be given a more central part of the exhibition in the future. Although the guides must still be careful what they say, and have developed strategies to be able to talk about this subject.

In one tour at Ditsong, the guide emphasizes that the exhibitions *Genesis I* and *II* rely on facts, but the facts are only valid today, and science will change. To illustrate he makes a simile to the development of cell phones, showing with his whole body how heavy they were 20 years ago, and how they are like small computers today. The theory of evolution may be easier to accept if it is regarded as a dynamic theory that may change, and thus make it easier to for pupils of different religious beliefs to keep interest for the guide. Later on, he talked about cousins, and the way he argued, took away the drama from the subject. He was mixing English with a traditional language (Sesotho), which makes it difficult to quote. The implication was “you all have this cousin, who is not like everyone else. He might walk a bit funny, or think a bit slow”, and when the pupils nodded their heads in agree, the guide continued: “*You belong to a group of animals that are called apes. Basically you are an ape. Do you understand that? But the question is... Because your cousin does such things, is he no longer you cousin?*” The pupils said “of course he is” and the guide answered: “*Because he is not like a monkey or a gorilla, but that doesn’t mean that you are not evolving from the same animal.*” He talked about a delicate subject in a way that made everyone agree with the possibility of evolution, and made the pupils laugh a little. I regard the use of humour and the clever way to talk around the subject to be a multicultural skill.

The guide at Maropeng had a different strategy, and specifically said, “*If there is anyone I offended during the tour, it was not my intention, this is the right time for me to say sorry. Right. For those guys who’ve got a different belief about evolution, guys it is not a matter of believing, simply understand the theory.*” Both humour and humbleness are ways to approach people without offending them, respecting different beliefs and opinions, and thus may be multicultural strategies. Both strategies works, which one is best depends on the person guiding. It is not a working strategy if one is not comfortable with it.

## [8.2 Fossils and early humans](#)

All guides at all three museums base their facts on fossils and use fossils as proof of the evolutionary theory. Naturhistoriska and Maropeng display fossils in separate display cases

next to dioramas and models, while Ditsong shows fossils side by side with present-living species. Either way is abstract, but time and evolution *are* abstract and difficult to imagine. The exhibitions are even based on the same fossils, since there aren't terribly many in the world. During one tour at Naturhistoriska, the guide specifically said that all fossils in the exhibition (*The human journey*) origin in Africa. No fossils of early (or late) hominids are found in Sweden, for example, but many are found in the Cradle of human-kind area, "thousands" according to the Maropeng website. At my first visit at Ditsong National Museum the head of the guides apologised for their exhibition being Africa centred. At Maropeng the guide greeted me "*Welcome home*". Naturhistoriska has been criticised for being Euro-centred, regarding the models skin colour for example. Each museum tends to put the exhibition in the present context, showing life as it might have been in a way that a "typical visitor" can relate to. The very same fossil can be interpreted in many ways.

One guide at Naturhistoriska asked at every display case "is this us?" Does it look like us? Making the pupils constantly reflect over their own appearance and put them self in to context. The pupils would answer and the guide continued to explain why and why not. The hominid models are regarded as humans because they walked upright on two legs. "Lucy" (*Australopithecus afarensis*) looks more like a gorilla than a modern human being, and awakens questions such as "why is she covered with hair?" and "why is she shorter than the male?" The answers are "we don't know about the hair, but it is likely" and the size differences might be "because the male kept a harem with five or six females". The guide puts in a gender perspective, and adds the probability that the females made the choice to follow that strong male for protection; it was not the male's decision.

*Homo habilis* looks more like a human, and "Turcana boy" looks almost like us. The *Homo habilis* display case contains a female of approximately 24 kilograms, but with a fairly big brain for such a small body. She holds a small stone tool. The guide asked the group how she might use the tool. Together they concluded it was a weapon to get and cut meat. The guide told us *Homo habilis* lived and hunted as a team. A disadvantage of this way of living might be the urgency to share the food. This might have caused conflicts, and the ability to solve conflicts might have been an advantage for some individuals. Cooperation is good for our species, the guide concludes.

This is an example of multicultural guiding. It is a story about "us" as a team, it may be in our genes to cooperate, and it is beneficial to be nice and friendly and share. Most pupils can

relate to the benefits of living in a team, but it is multicultural to point at the benefits of being nice. It may make some pupils more open-minded.

Swedish guides talk about visual differences such as how the sun affects skin colour, and that it is essential for the ability to obtain vitamin D. We need the sun for our vitamin D production. Pale skin absorbs more sun in an environment with few hours of sun per year. Dark skin protects the skin from cancer in climates with heavy sunlight. The body size and shape is another example. A short and compact body is convenient to keep warm in a cold climate, while a tall and skinny body is more appropriate in a warm environment. Those are simple explanations of why we have pale skin far up north and why the skin colour is darker in Africa. People with dark skin living in Sweden must just be careful to receive enough vitamin D. To change skin colour from dark to pale only took about 10 000 years, which is a quick change, another guide said in his tour, and adds some excitement about people with dark skin immigrating today. How long will it take for their skin colour to fade, how many generations? Skin colour and race are subjects not spoken of at Ditsong National Museum during my study. These arguments could work in South Africa too, perhaps with a warning and recommendation to wear sun block for protection from the sun, but maybe apartheid is just too close in anyone's memory. It makes it difficult to talk about differences, even if it is visible. Still, I regard this as multicultural, visible differences may be explained by climate and environment, and every look is suited for some part of the world. It is important to talk about such subjects as well, to turn them into something less delicate. However, it is most important not to grade looks, skin colour and other visible features as better or worse, higher or lower, but to regard every physical appearance as equal. The guides at Naturhistoriska do not grade anyone.

Right after the dioramas of early hominids, Ditsong National Museum shows a large display case containing a gorilla skeleton and stuffed apes and monkeys. Next to it is a rather large mirror placed, helping the visitor to compare and discover similarities of her self and the apes. This puts evolution in perspective, and helps to explain that the modern human is part of the evolution. Maropeng has mirrors as well, hanging from the ceiling. Naturhistoriska riksmuseet had plans to include a full size mirror in the exhibition *the human journey* but decided not to. This is unfortunate since the exhibit thus distances itself from the human species living today. The exhibit does contain a large map of the world telling the story of the genetic journey of some of the co-workers at the museum, deriving us all back to Africa, but a mirror would have been nice as well. In its defence, Naturhistoriskas last hominid model is of our own species, *Homo sapiens* from Cromagnon. Hence the timeline starts at the oldest

fossil, six million years old, and ends with our own specie during the last ice age, some 100 thousand years ago, leading the visitor through history. Naturhistoriska and Maropeng have this storytelling in common.

### 8.3 Contemporary history

*"We are dominating the Earth, and will destroy it"* one guide at Ditsong National Museum said, and the next day he talked about global warming and the hole in the ozone layer, and concluded that we are in the middle of the fifth large mass extinction, and we are not likely to survive it. This may seem as dystopia, but at the same time he seems to be trying to make a change or at least raise an opinion? Maropeng has a board on the wall, asking with big letters *"Are we destroying ourselves?"* The need of, and the fight for, a sustainable world stretch further in South Africa than in Sweden. This could be a challenge for the guides at Naturhistoriska riksmuseet, as natural history does not have to exclude contemporary history. The museum must not be a static institution, but always develop itself, and all three museums do. As an example of development in research and interpretation, Ditsong National Museum exhibit a bust made by the same artist as Naturhistoriska riksmuseet are using, side by side with a bust of the same specie, but made in the 1960's. Naturhistoriska riksmuseet lack a diorama showing that kind of historical and museological development. Unfortunately, this display case was never part of the guided tours in which I participated.

### 8.4 Exhibitions

Regarding exhibitions of humankind. At first sight, Naturhistoriska appears as less fun than the South African museums. It is pretentious and serious and very well done. It shows plausible situations and ways of living that is easy to believe in. It has cosy and beautifully made exhibitions, but they lack the fun spark. A mirror would have been a nice start. Maybe this is the Swedish way of making an exhibition, and I just don't see it because I'm Swedish too? Maybe it is the serious way to make a diverse group of visitors happy? It isn't necessarily a bad thing.

Ditsong National Museum tells the story of humankind both by small dioramas with plastic miniatures and by full size puppets. Some of the dioramas show plausible scenarios of how the early species might have been living, but rather many dioramas shows plausible ways of dying, based on the found fossils. Though this is seldom mentioned in the tours, unless someone is asking. At first sight, it doesn't seem as controversial as I've been warned about. It's an issue, but it's not always a big issue.

The hominid models at Naturhistoriska riksmuseet are all based on specific fossils, and try to show the early humans in action or in motion. Their plausible death is sometimes mentioned in the tours, but is never as obvious as in Ditsongs exhibition. The guides mention the death of the “Turcana boy”. Usually the pupils will have a guess about his age, and then he is said to be much younger. He is about 160 cm tall, but he is still in his teens and should have grown taller if he hadn’t died. Death also comes up while talking about the “Cromagnon man”. He has a small hole in his forehead, based on a scar found on his skull, but it didn’t kill him. Though death is not very obvious if one just stroll around in the exhibition, watching the hominid models, but the guides bring up the subject during the tours. At Ditsong National Museum death is present even while walking the exhibition alone.

I think the exhibitions reflect the time and cultural context in which they were produced, and that each museum seeks to oblige. Thus I will not conclude one museum as being better, or superior than the other, neither in a multicultural nor in any other perspective.

## 9 Discussion and conclusion

The variety and diversity of the populations’ cultures and ethnicities are considered in the guided tours. The guides are aware of difficulties and have developed ways and methods to handle delicate subjects such as evolution, religion and the development of humankind. This is more obvious at both museums in South Africa than in Sweden, due to higher importance for their visitors. Even though Naturhistoriska riksmuseet does take multicultural concerns as well.

All museums include certain standard display cases in their tours. All guides rely on scientific facts, and they work close together. Humour and an expressive body language are part of all tours, and the guides at all three museums generally ask more questions than the visitors do. This is a strategy to include the visitors in the tour and invite to discussion, and a method to reach out to an audience of many cultures. This method is not always successful; it depends on the group being guided. At its best, it encourages the pupils to ask questions back, and thereby increase their learning.

The guides do consider their audience; they have to, since they are meeting new pupils with different prior knowledge every day. The multicultural concern can be seen in the way the guides talk, in their body language and in their own backgrounds. It is in the way the exhibitions are designed, with or without mirrors, text information and full size models. The

guides may work with humour, with similes or with references to us, i.e. the pupils. All in all, they are providing something for everyone.

Comparing just Naturhistoriska riksmuseet and Ditsong National Museum of Natural History, as was my initial intention would have led me to the conclusion of rich and poor. I had no interest in analysing economy, and money is not necessarily an insurance of good pedagogy, but the economics may give a hint of the importance of education in a society. The Swedish exhibition *The human journey* opened 2008 and is fairly modern and well executed with realistic and advanced models of early hominids. The South African exhibition opened 1987 and is based on facts that are not necessarily valid today. The models seem out of date and don't look very realistic. The Swedish guides do not have to be as careful as the South African guides while talking about natural science, since science and religious views seldom are at conflict in Sweden. A fast conclusion would be that South Africa is a country too poor to provide decent science. However, this conclusion is not true. Visiting Maropeng, I listened to a well informed guide talking about ongoing excavations, and saw a top modern museum with very realistic models based on recent science and research based on findings from a location nearby the museum. This shows that South Africa has just as good research and scientific possibilities as Sweden, or better. Ditsong National Museum of Natural Science is just not as financially supported as Naturhistoriska riksmuseet and Maropeng visitors centre.

The museums and the nations are more alike than they are different, in spite of what I first expected.

### [9.1 Further research](#)

This study could be followed up with a quick survey. It would be exciting to study the pupils and ask them some questions before and after the tour. I would like to invite school classes from different locations in Stockholm to study if they are treated differently. Furthermore I would like to visit Museums of Natural History and participate in guided tours in other countries on all continents.

## Special thanks

I am very fortunate to have been able to do this study. I owe many thanks to some people without whom this had never happened.

Geraldine Schoeman for taking such good care of me in South Africa, I owe you everything.

Ann Werner, my excellent supervisor who made me think. It was a pleasure to work with you!

Pia Laskar for help with the scholarship application, for support and friendship.

Samantha Schoeman and Paul Nixon, for friendship, help and support in South Africa. You made life so much easier!

Erna Vermaak and the guides at Ditsong National Museum of Natural History for hospitality and service. Your museum is great, keep up the good work!

Maira Rydström and the guides at Naturhistoriska riksmuseet, you gave me so much help. It has been an honour to work at your museum. Keep up the good work!

Heike Graaf for grading my study.

Sara Lindbäck, Klara Carlsson and Mike Kushner for language help, and for outstanding friendship.

Mattias Appelberg for never ending loves and support. I could never have done it without you.

THANK YOU!

## References

### Litterature

- Arcadius, Kerstin, *Museum på svenska – Länsmuseumerna och kulturhistorien*, Nordiska museets förlag, Stockholm, 1997
- Arvastson, Gösta och Billy Ehn, *Kulturnavigering i skolan*, Gleerups, Malmö, 2007
- Bergsland Annika, *Så mötas de två: skola och museum. En museipedagogisk diskurs* (2:a upplagan), Uppsala universitet, 2003
- Bjereld, Ulf, Marie Demker, Jonas Hinnfors, *Varför vetenskap?* (3e upplagan) Studentlitteratur, Lund, 2009
- Campbell, Neil A, Jane B. Reece and Lawrence G. Mitchell, *Biology*, (5e upplagan), Benjamin/Clummings, Menlo Park, 1999
- Dahlstedt Magnus, Hertzberg Fredrik, Urban Susanne, Ålund Aleksandra, *Utbildning, arbete, medborgarskap*, Boréa, 2007
- Djurfeldt, Göran, Rolf Larsson, Ola Stjärnhagen, *Statistisk verktyglåda* (1–2a upplagan), Studentlitteratur, Lund, 2010
- Fleminger, David, *World Heritage Sites of South Africa, The Cradle of Humankind – 30° South* Publishers Ltd, Johannesburg 2006
- Haug, Peder, *Pedagogiskt dilemma: specialundervisning*, Liber, Malmö, 1998.
- Hylland Eriksen, Thomas, *Ethnicity and Nationalism*, (2nd edition), 2002 (at book.google.com 10.08.17)
- Jovchelovitch Sandra, *Knowledge in context – representations, community and culture*, Routledge, London, 2006
- Kajiser, Lars, Magnus Öhlander, *Etnologiskt fältarbete*, Studentlitteratur, Lund, 2009
- Kvale, Steinar, Svend Brinkmann, *Den kvalitativa forskningsintervjun* – (2a upplagan), Studentlitteratur, Lund, 2009
- Lahdenperä, Pirjo (red), *Interkulturell pedagogik i teori och praktik-* (upplaga1:5), Studentlitteratur, Lund, 2004
- Lemmer, Eleanor, Corinne Meier, Noleen van Wyk, *Multicultural education – An educator's manual*, Van Schaik Publishers, Pretoria, 2006
- Lorentz Hans, Bosse Bergstedt, *Interkulturella perspektiv*, Studentlitteratur, Lund, 2006
- Lärboken – läroplaner, skollagen, policydokument*, Lärarnas riksförbund, Stockholm, 2008
- Pollock, Gisela, Joyce Zemans (red), *Museums After Modernism – Strategies of Engagement*, Blackwell Publishing, Oxford, 2007
- Stensmo, Christer, *Vetenskapsteori och metod för lärare*, Kunskapsföretaget i Uppsala AB, 2002
- Uljens, Michael (red.), *Didaktik*, Studentlitteratur, Lund, 1997

### Web sites

[http://books.google.com/books?id=BqJjAWp-82cC&printsec=frontcover&dq=Thomas+Hylland+Eriksen&hl=sv&ei=8eJoTMyTE8mk4Qahj5mZBA&sa=X&oi=book\\_result&ct=result&resnum=1&ved=OCC0Q6AEwAA#v=snip&q=race&f=false](http://books.google.com/books?id=BqJjAWp-82cC&printsec=frontcover&dq=Thomas+Hylland+Eriksen&hl=sv&ei=8eJoTMyTE8mk4Qahj5mZBA&sa=X&oi=book_result&ct=result&resnum=1&ved=OCC0Q6AEwAA#v=snip&q=race&f=false) 10.08.17 (Hylland Eriksen, Thomas, *Ethnicity and Nationalism*, 2nd edition, 2002)

[http://en.wikipedia.org/wiki/Bantu\\_Education\\_Act](http://en.wikipedia.org/wiki/Bantu_Education_Act), 10.05.10

<http://www.info.gov.za/documents/constitution/index.htm>, 09.12.19

<http://www.landguiden.se/> 10.08.06 (Utrikespolitiska institutets hemsida som i sin tryckta form heter *Länder i fickformat*)

<http://www.maropeng.co.za/index.php/education/> 10.08.06

<http://www.maropeng.co.za/index.php/about/staff/> 10.08.06

[http://www.nrm.se/download/18.494d73201246d535da7800010727/NIS\\_Utställningstxt.pdf](http://www.nrm.se/download/18.494d73201246d535da7800010727/NIS_Utställningstxt.pdf) 10.08.07

<http://www.räddabarnen.se/press/debattartiklar/Pages/Minskat-bistand-riskerar-miljoner-barns-skolgang.aspx>, 09.12.18

<http://www.un.org/en/documents/udhr/index.shtml#a24> 10-08-06