

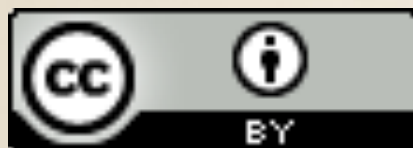
# EXPLORING THE SKYLORE OF THE KAROO: THE SKA *SHARED* *SKY* ART PROJECT



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A place of quality,  
a place to grow, from hope  
to action through knowledge



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# Outline

- 1. The Square Kilometre Array
- 2. The *Shared Sky* Project
- 3. Filming in the Karoo
- 4. Cultural Astronomy Content
- 5. Conclusions





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# The Square Kilometre Array

- When completed will be the largest Radio Telescope ever built
- 20 years to build, will operate for 50 years
- One part across Africa, the other across Western Australia in Radio Quiet areas
- Headquarters are in the United Kingdom





## The *Shared Sky* Exhibit

“Australian and South African artists in a collaborative exhibition celebrating humanity's ancient cultural wisdom. Embodies the spirit of an international science and engineering collaboration - SKA; bringing together many nations around the two sites in Australia and South Africa to study the same sky.”

- Unify after competition
- Exhibition opened in Perth - Curtain Gallery (Nov 2014), then Cape Town - National Gallery (Feb - June 2015), Jodrell Bank Discovery Centre (July 2015).
- Into the future - travel through all SKA Partner. countries



# Filming in the Karoo

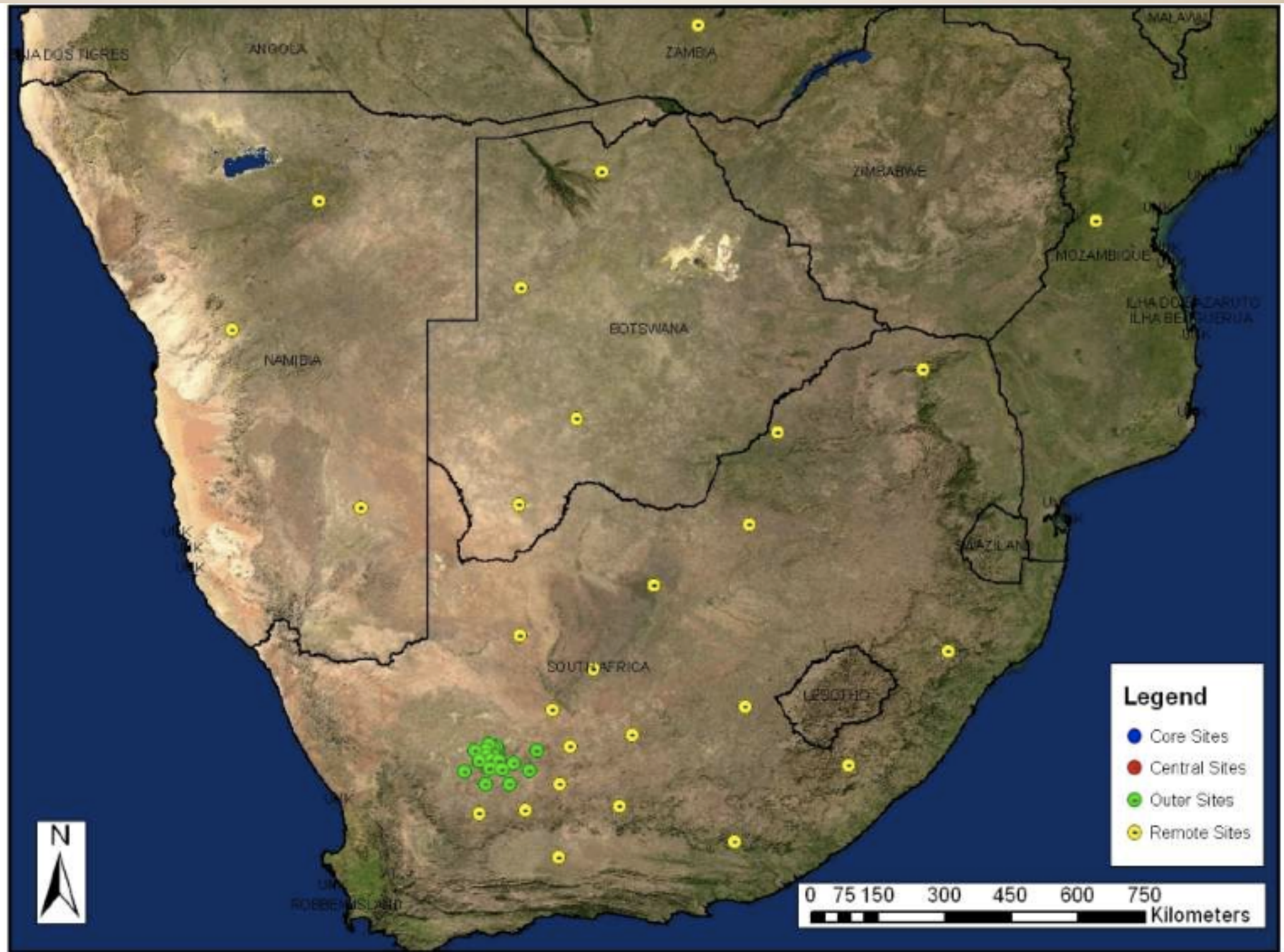
- SKA Africa - Headquarters Cape Town, SKA Site near Carnarvon in the Karoo Desert
- SKA Africa focus history of technology in South Africa and the Karoo region specifically, as well as the living astronomy folklore of the Karoo.
- Archeology, Folklore, & Filming - John Parkington, Jarita Holbrook, Jose de Prada, Niel Rusch, Simon Hall, Nick Zachariou







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Map showing the locations of the SKA radio dishes. The concentration is near Carnarvon.



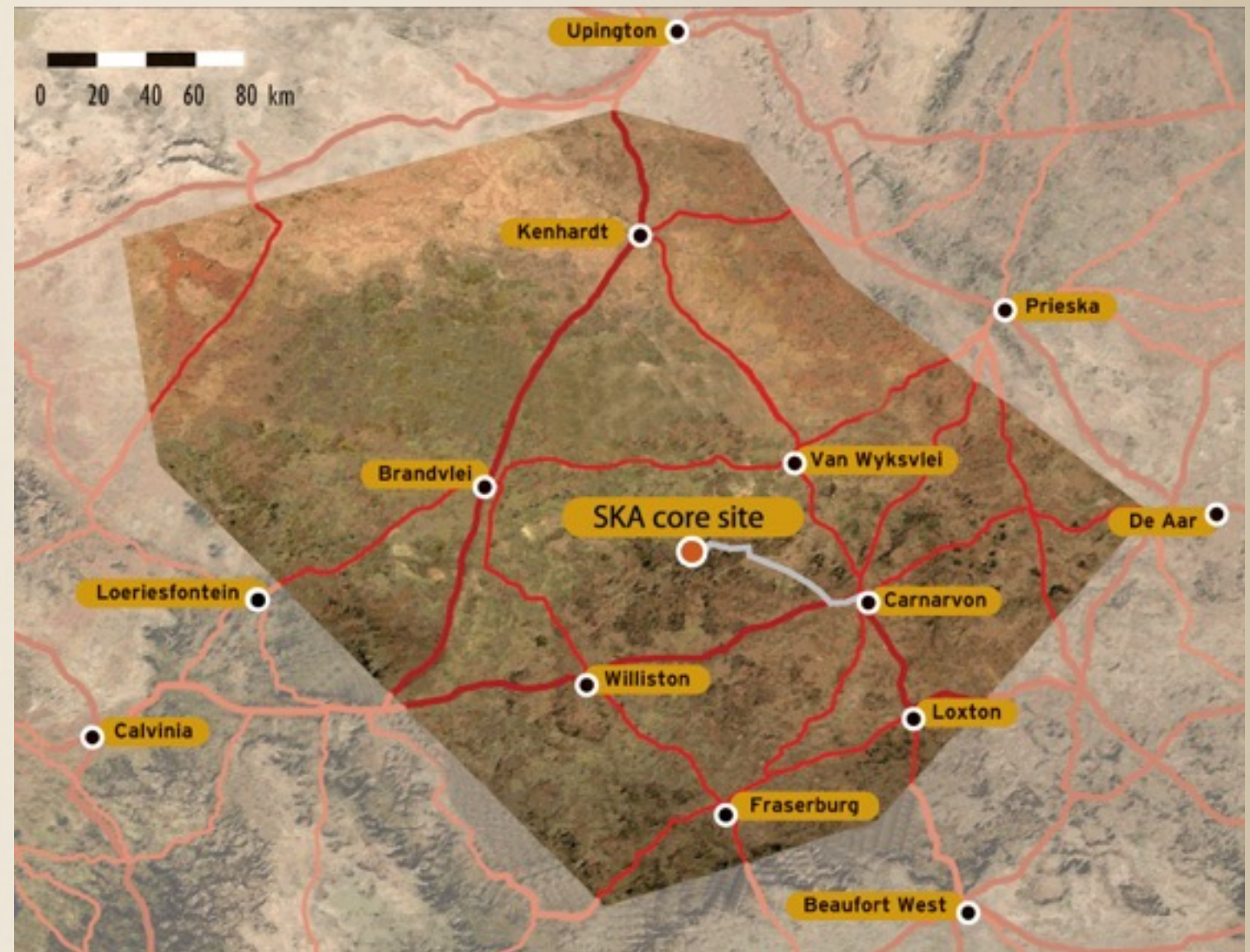




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# Karoo: Astronomy Geographical Advantage Act

Interviews  
were  
conducted  
in Brandvlei  
and  
Van Wyksvlei







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# The Interviews with Storytellers

- **Klaas Preiga**
- **Klaas Mouton**
- **Greit Skei**
- **Kapololo Mahlongo**



Klaas Preiga  
is pictured







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# The Milky Way

- “Hemelstraat” - The street of Heaven or Heaven’s Street
- Mentioned by Greit Skei, Klaus Preiga, and Klaus Mouton
- Greit Skei give the most details:
  - Lies East-West in Summer
  - Lies South-North in Winter
  - Brightest Winter
- Klaus Preiga - Story of the Milky Way - mixed with Christian themes





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Video Clip of Mr and Mrs Skei  
speaking about weather  
prediction using the moon



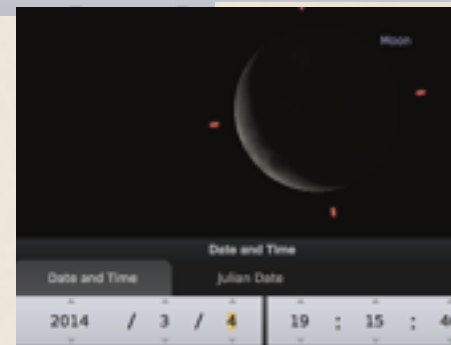
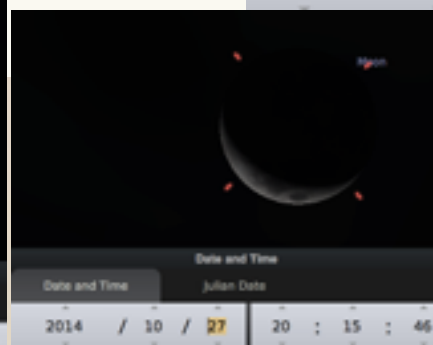
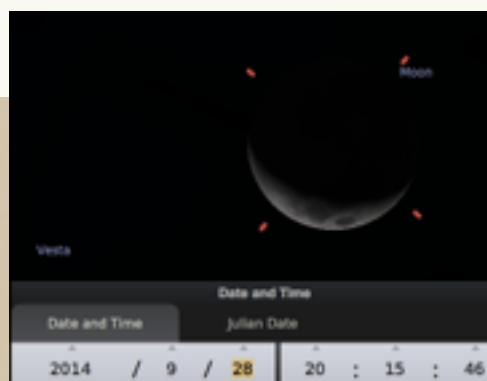
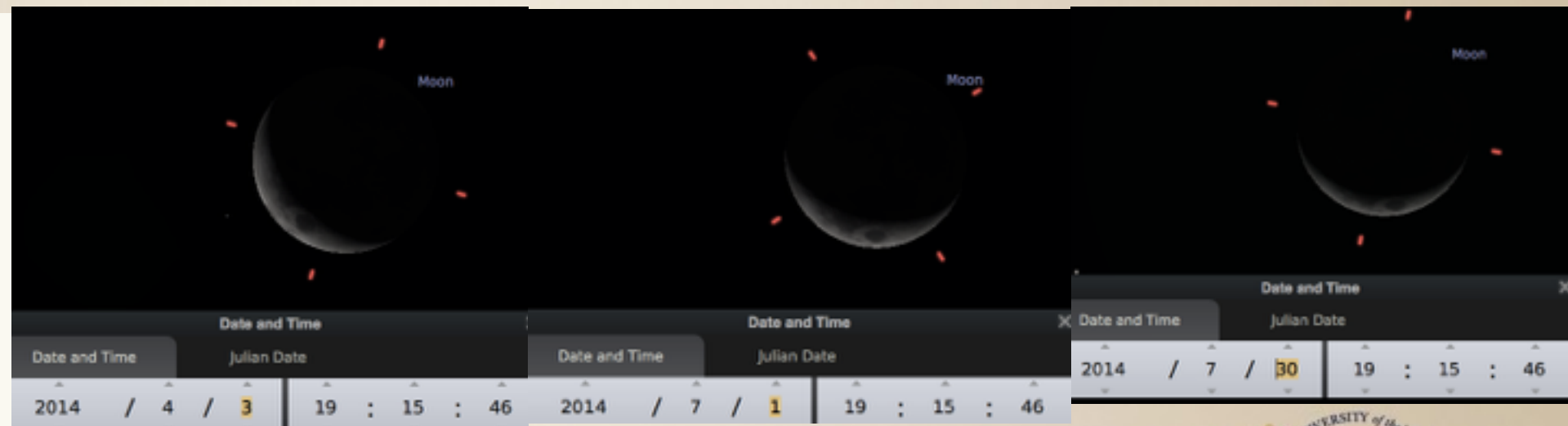
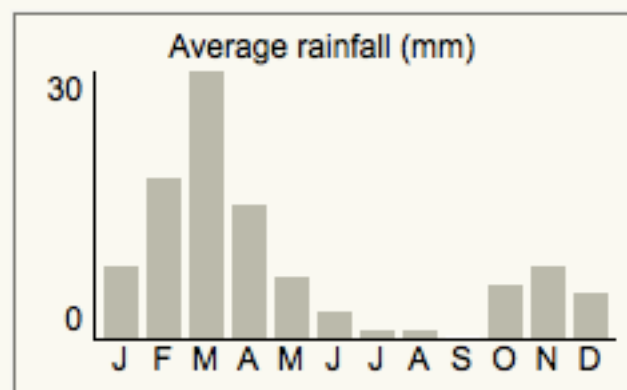




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# Moon and Weather

- No physical relationship between the crescent moon and rainfall. However, Anthony Aveni found that there was a correlation between first crescent moon angle and rainfall in West Africa. The correlation leads to the belief of a physical relationship.
- Klaas Mouton and Greit Skei mentioned the relationship between the first crescent moon and rainfall for the month. Is there a correlation similar to what Aveni found?
- For Carnarvon, Brandvlei, and Van Wyksvlei the maximum rainfall occurs in March and minimal in September. Keep in mind that this is in the Karoo Desert so maximum rainfall is about 28 mm per month in March. A second rain peak occurs in
- Using Stellarium I explored the 'tilt' of the moon for that region of the Karoo.





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# Pleiades

The Skeis - Called the Seven. 3 plus 4.

Raai, raai, raai – Guess, guess, guess  
Akkeldis, akkeldis is hemel toe –  
Lizard, lizard went to the heavens  
Trou jakkals op sy agterklou –  
Married Jackal on his hind claw  
My bles jou bles – My baldhead, your baldhead  
7 takke uitgeblom – Seven branches flowered







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# Pleiades Interpretation

Raai, raai, raai – Guess, guess, guess

Akkeldis, akkeldis is hemel toe –

Lizard, lizard went to the heavens

There is a lizard in the Karoo that folk wisdom says  
looks in the direction towards the coming rain

Trou jakkals op sy agterklou –

Married Jackal on his hind claw

A saying indicating rain while the sun is shining

My bles jou bles – My baldhead, your baldhead

??? (Haven't found an interpretation)

7 takke uitgeblom – Seven branches flowered

The Pleiades, it rained, fertility, flowers grew





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# Pleiades Interpretation

The saying goes from the  
anticipation of rain (lizard)

To rain plus sunshine (jackal)

? To perhaps storms (baldhead)

To having things grow and flower







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# Conclusions

- Three interviews with storytellers living in the Karoo rich in local detail
- Pleiades - The Seven
- Milky Way - The Street of Heaven
- Moon and Rainfall correlation for weather prediction
- Sadly, Klaas Mouton said that weather prediction by other means are no longer valid in the Karoo, which he attributed to global warming.





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# References Cited

**Aveni, Anthony. Ancient Astronomers.  
Exploring the Ancient World Series. St. Remy  
Press and Smithsonian Institution, 1993.**





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