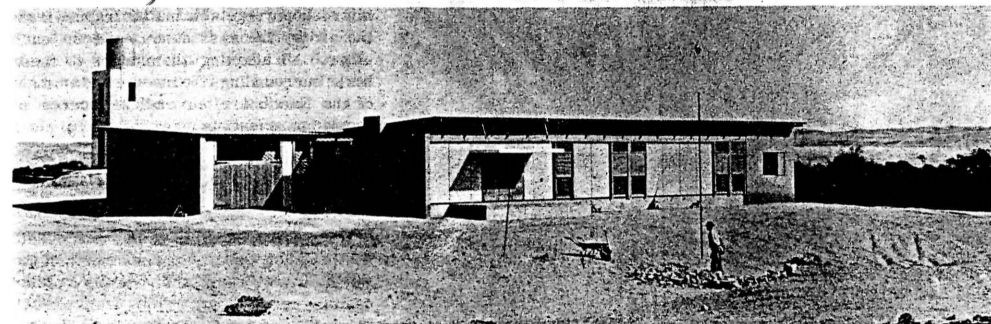


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Research in pictures

The Namib desert: Time in suspension



For a thousand generations time has been the measure of our world. Like a sword it has ravaged the old forms and totems, reducing whole civilizations to nothing. But like the plough it turns up what is spent and decayed, using it to nourish the next aeon. Time is a paradox of sword and plough, death and birth, walking the earth like lovers. Strange passions beyond comprehension because the images which have come down to us are broken and incomplete.

In some forgotten corners of the earth, the elements of paradox are at peace. Here there is neither renewal nor decay, but a static infertility lingering with the centuries. Here the winds of time have lost their venom and their warmth, and a barren compromise results.

Primeval

Such a region is the Namib desert, one of the world's oldest wastelands, strung along the west coast of southern Africa for over a thousand miles: from the Orange River in the south to Angola in the north.

At a point in the desert where three primeval landscapes meet in a mystic pact of quietude, the Transvaal Museum has supervised the erection of a small research station under the auspices of the Namib

Desert Research Association. The spot is known as "Gobabeb", 70 miles south-east of Walvis Bay. Below the station runs the Kuiseb River, dry on the surface for periods of up to 40 years, but supporting profuse vegetation. The river bed is soggy now after the floods of last January.

The Kuiseb is compressed in the vice-grip of two vast wildernesses: to the north miles of dry stone and gravel crust with stark outcrops of jagged rock; to the south a pulsating sea of mighty sand dunes.

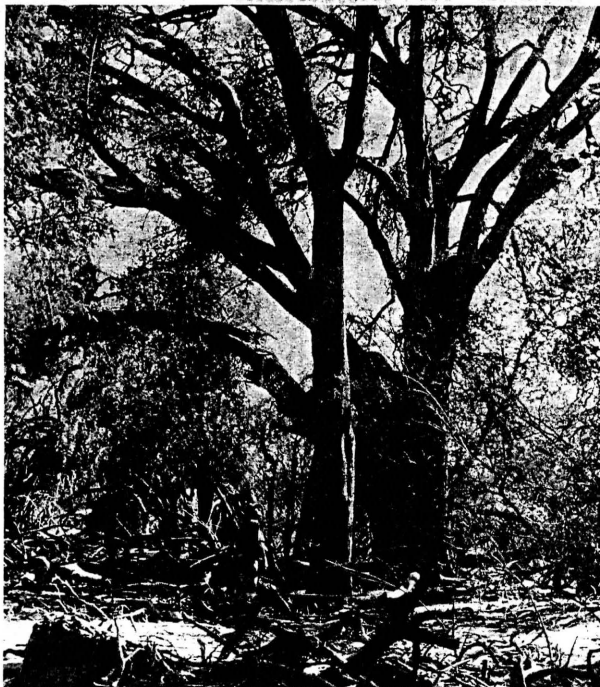
Caught in a vacuum while the rest of the earth grew and proliferated, the desert has learned to survive on its own. It has no surface water, no rain to speak of, yet

The Namib Desert Research Station, built at a cost of R30,000.

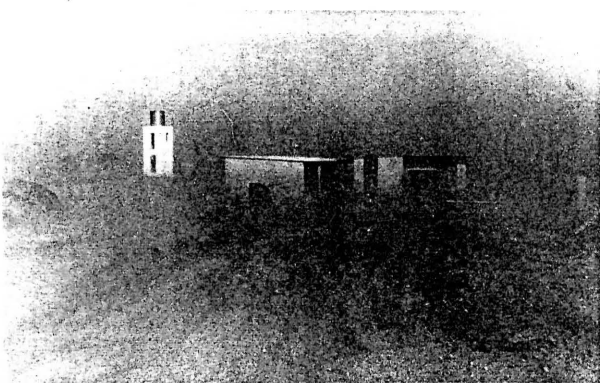
By
A. C. Papageorge,
Editor,
Scientiae

Sprawling over the desert is a *welwitschia bainesii*, a "prehistoric" plant found only in the Namib and its immediate environs. The men are looking for lizards.





Giants of the desert (above) are these Annabome (*Acacia albida*) nourished by the subterranean water of the Kuiseb river. An idea of scale is given by the man standing beside the trees. Hot easterly sand storms blow incessantly with great force across the Namib, and the picture below shows the research station rapidly disappearing in clouds of flying sand.



sustains an astounding abundance of life, ranging from insects to reptiles, birds and mammals. These live on the moisture deposited by dense fogs which roll in from the sea towards dusk and grope inland; on microscopic vegetable matter trapped from the air by the sand dunes, and on each other. In adapting themselves to these harsh surroundings the insects and animals of the Namib are an endless source of wonder to scientists.

The desert sojourners

There is the example of the tenebrionid beetle or tok-tokkie. Species north of the Kuiseb River, range the rock-hard plains on long spindly legs, racing from shelter to shelter. South of the river, in the dunes, the tok-tokkie has learned to "swim" over the loose sand. Of the reptiles, the side-winding adder (*Bitis peringueyi*) hunts by lying under the sand, with only the top of its head exposed. Protected from extreme heat and cold, it awaits its prey. In adapting itself to the desert this snake has developed a side-winding motion by which it progresses in a series of jerks of its looped body. It can move uphill in this fashion at a pace equal to that of a man.

Numerous spiders live in the desert, the most striking being the white dancing-spider, named for its white colour and rhythmic agitation on tip-toe when disturbed. It hunts at night, and is believed to prey on nocturnal lizards.

The best represented lizard is the web-footed Gekko (*Palmatogecko rangei*) which Dr Vivian FitzSimons, Director of the Transvaal Museum, describes as "semi-transparent and incredibly beautiful". Meeting the challenge of the desert, this Gekko has developed webbing between its toes and progresses in snowshoelike fashion over the loose dunes.

Larger animals found in the Namib include rodents, hares, jackals, and largest of all, the graceful Gemsbok.

Dr FitzSimons relates that the Transvaal Museum has been fascinated by the potential of South West Africa as a zoological laboratory since 1912, when its first expedition entered the territory. The Museum is particularly interested in the Namib because virtually nothing is known about its fauna. Little could be done to penetrate the desert for any length of time on account of the hostile terrain, which tends to restrict random field expeditions.

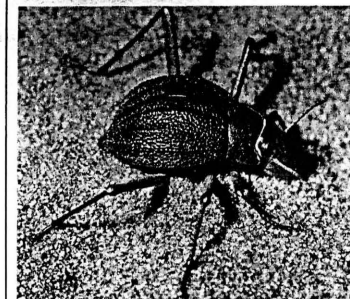
The Namib is unkind to intruders. Its weather comes in extremes. In mid-summer the heat soars to 120° F. in the shade, while in winter the desert shivers close to zero. The Namib is bedevilled by hot winds which whip up sand and pebbles, hurling them about with gale fury. Within hours the mood of the desert will temper, and a cool breeze off the sea will calm the raging sand.

For years it has been the museum's ideal to set up a permanent field station in the Namib. On its own it could not raise sufficient funds, so it instigated an independent Research Association to master-mind the raising of contributions. Now the dream is a reality in a larger sense, and the museum can claim to have set in motion a chain of events which has seen South Africa acquire a new scientific asset. The Namib Desert Research Station is available to any accredited scientist in any field of research from the Republic or overseas.

The station building is prefabricated, with glass wool insulation. Summer temperatures indoors are often 25° lower than outside. Wooden shutters protect windows from flying sand and stones. Inside, there is a courtyard, dining room, living room, two bedrooms, kitchen, bath and toilet, office space for the resident superintendent, and a large laboratory. A diesel plant has been installed to provide power.

The station is under a full-time superintendent, Mr E. von Koenen. A resident of SWA, he is familiar with all the moods

It began with a tok-tokkie



Prime mover behind the Namib Desert Research Station was Dr C. Koch, entomologist of the Transvaal Museum.

Dr Koch, an Austrian by birth, visited the Republic in 1950 with a University of California expedition. But he succumbed to the lure of our insect world, especially the exciting new species of tenebrionids (tok-tokkies) in South West Africa. He and Dr FitzSimons planned the station in the Namib. Help came from overseas and from local well-wishers, such as the CSIR which provides the salary of the resident station superintendent, Mr E. von Koenen, and assists with running costs. Expenses are R3,000 - R4,000 per year, raised by donation.

Research has been in progress for some months, yielding 13 scientific publications, five more in the press.

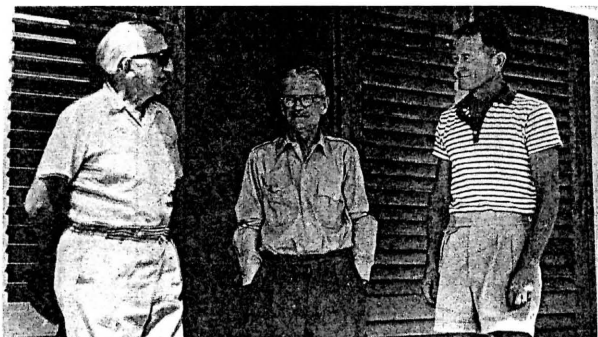
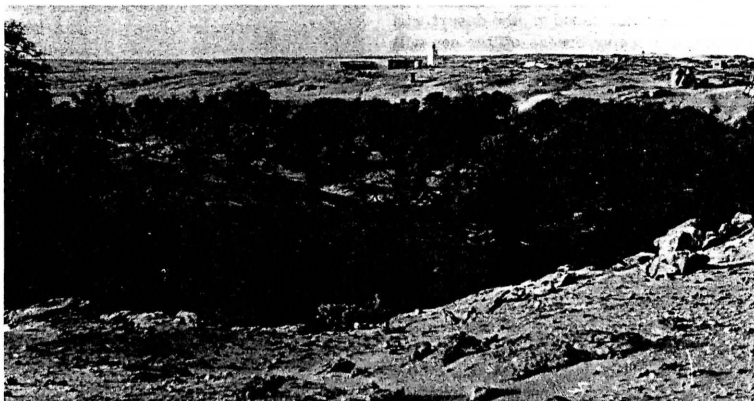
The Namib is a stepping stone for the zoologist, anthropologist, sociologist. On the Kuiseb river bed lives the Topnaar Hottentot, a nomadic hut-builder. The Topnaar is a shepherd, herding goats and cattle. He burns the wood of trees and bushes in the river, selling charcoal at Walvis Bay, 70 miles to the north-west of the station.

Enquiries for permission to use the station may be directed to: The Secretary, Namib Desert Research Association, P.O. Box 413, Pretoria.



*The Kuseb river
during a rare
flood in
January, 1963*

The Kuseb as the
desert knows it -
dry for as long as
30 years.
(Note the station
building in the
background)



On the verandah of the research
station during a recent inspec-
tion are (left to right) Dr C.
Koch, entomologist of the
Transvaal Museum; Dr V. Fitz-
Simons, Director of the museum
with Mr E von Koenen, officer-
in-charge of the desert research
station.



SCENIC SPLENDOUR

The austere grandeur of
the Kuseb river canyon
as it enters the Namib
desert.

of the desert. Besides running the station,
he operates weather apparatus installed
by the Weather Bureau, which contributes
to costs.

Mr von Koenen's knowledge of the Namib
stands visiting scientists in good stead.
He accompanies them into the desert,
which is treacherous in its capacity to
swallow up the unwary in a deceptive hori-
zon of matching sand dunes. Visitors are

not allowed to stray from the station with-
out a guide. At night a flicking light,
high above a water tower, pinpoints the
station.

In the Namib, time still hangs in sus-
pension, but with this difference: the
depth of its mysteries is now being probed
by man's inexorable will to understand,
even though the final truths will always
elude him.

Some scientific papers on the Namib desert

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|-----------------|--|
| KOCH, C. | - Some aspects of abundant life in the vegetationless sand of the Namib Desert dunes. - Positive psammotropism in Tenebrionid-beetles. |
| BRAIN, C. K. | - A review of the gecko <u>Ptenopus</u> with the description of a new species. |
| GIESS, W. | - Some notes on the vegetation of the Namib Desert, with a list of plants collected in the area visited by the Carp-Transvaal Museum expedition during May 1959. |
| FITZSIMONS, V. | - A new worm-snake (<u>Leptotyphlops</u>) from South West Africa. |
| MEESTER, J. | - Some mammals from the Namib Desert. |
| LAWRENCE, R. F. | - Spiders of the Namib Desert. |

Obtainable from:
Hon. Secretary,
Namib Desert
Res. Assoc. Ltd.,
P.O. Box 413,
Pretoria

