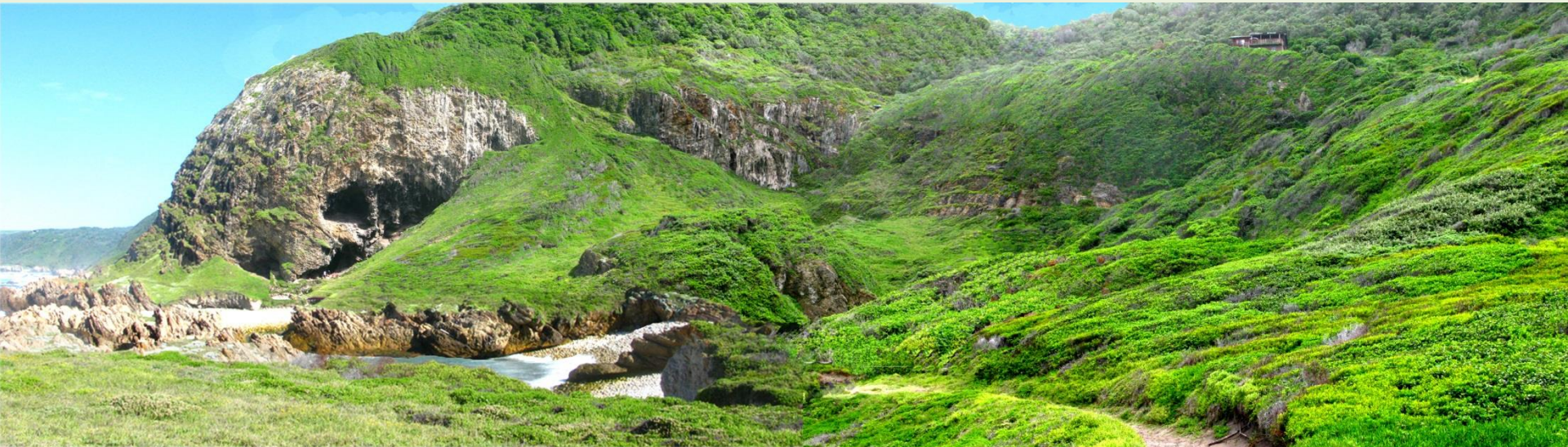


Gatherers at Klasies River, Tsitsikamma coast, South Africa;

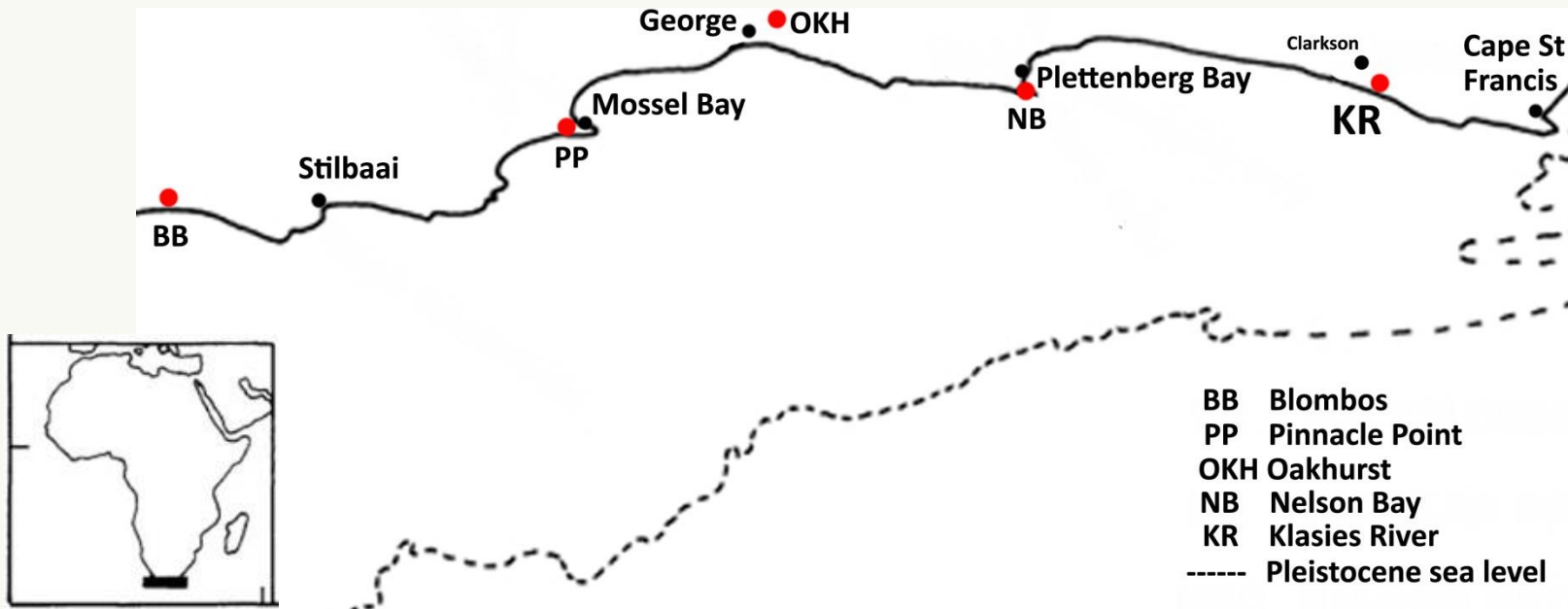
Ethnobotanical research linking past, present, and future.



Authors - Yvette van Wijk, Renee Rust, Olive Uithaler

Location

Klasies River is a prominent site among a number of important sites along the Cape south coast with evidence for the presence of earliest Modern Humans (*Homo sapiens*) from about 140,000 years before present (ybp). The convergence of rich natural resources and the relatively narrow and fractured continental shelf at Klasies, allowed for a unique and continuous occupation spanning the Middle and Late Pleistocene into the Holocene.



Map after - Van Andel T H, 1989

The Klasies River caves are situated on the coast 40km South-west of Humansdorp and 50km West of Cape St Francis. Our ethnobotanical research forms part of the ongoing Klasies Landscape Project headed by Sarah Wurz.

Aims

- To demonstrate the relevance of ethnobotany to archaeological research allowing for **robust ethnographic extrapolation**, and **identification of macro- and micro-botanicals excavated**.
- To seek insights into the role of gathering and foraging for plants in the development of **modern cognition in Homo sapiens**.

The gathering of plants for food, medicine etc. is inextricably linked with the development of human cognition. Traits ensuring successful plant foraging and gathering are also those that signal modern human cognition.

Spatial memory - Causal reasoning – Selection - Imitation – Copying – Gaze following

Dexterous hands – Skills - Tool use – Cutting – Digging – Picking – Food processing

Transmission - Gesture - Vocalisation - Language

Co-operation – Altruism - Food and tool sharing – Carrying – **Storage** – **Swapping** – **Bartering**

Experience – Cultural inheritance – Environmental awareness – Empirical knowledge

Cumulative change - Adaptation – Invention - **Modification**

Natural selection – transmittable cultural- and gene-evolution

Methods

- Identify and interact with modern inhabitants of the area with recognised knowledge of local plant use, and links to past autochthonous inhabitants.
- Gather data through walks-in-the-veld and directly proffered information in semi-structured interviews (Ask NO leading questions, use NO written questionnaires).
- Ensure transparency by obtaining prior informed consent, make aims and context clear to participants, report research results and conclusions to communities.
- Consider the way in which local people interact with their landscape and value their plant knowledge and folklore today.
- Essential to recognise intricately interwoven cross-cultural histories of the local people by collating information from KhoeSan, Mfengu (Fingo), and local European farming families.
- Impossible to be certain how archaeobotanical remains might have been used in the past. So we recorded ethnobotanical data for a wide range of uses - food, medicine, fuel, and other utilitarian plant uses.



Lycium ferocissimum



Rubus pinnantus



Rhoicissus digitata



Diospyros dichrophylla



Capparis sepiaria

The Genus as terminal taxa (although all specimens were identified to species level)

Indigenous / traditional taxonomy shows that generic classification is more common than specific allocation (Berlin B, 1990).

This is the reason behind the common substitution of morphologically and chemically similar related species or sister genera, with similar properties (Hather, 1994; Bonzani 1996).

Chemotaxonomy and Phylogenetic research supports the scientific validity of the substitution of species (Yessoufou K, Daru B H, Muasya A M, 2015; etc.).

Insistence on Identification to the species level while ignoring species and genera substitution by traditional / indigenous users in ecological, ethnobotanical, and archaeobotanical research, is counter-intuitive.

Much published research is not reliable due to the difficulty of identification to species level, or is not published at all although identifications to genus level are possible.



Agathosma apiculata



Withania somnifera



Cyperus rotundus



Asparagus densiflorus

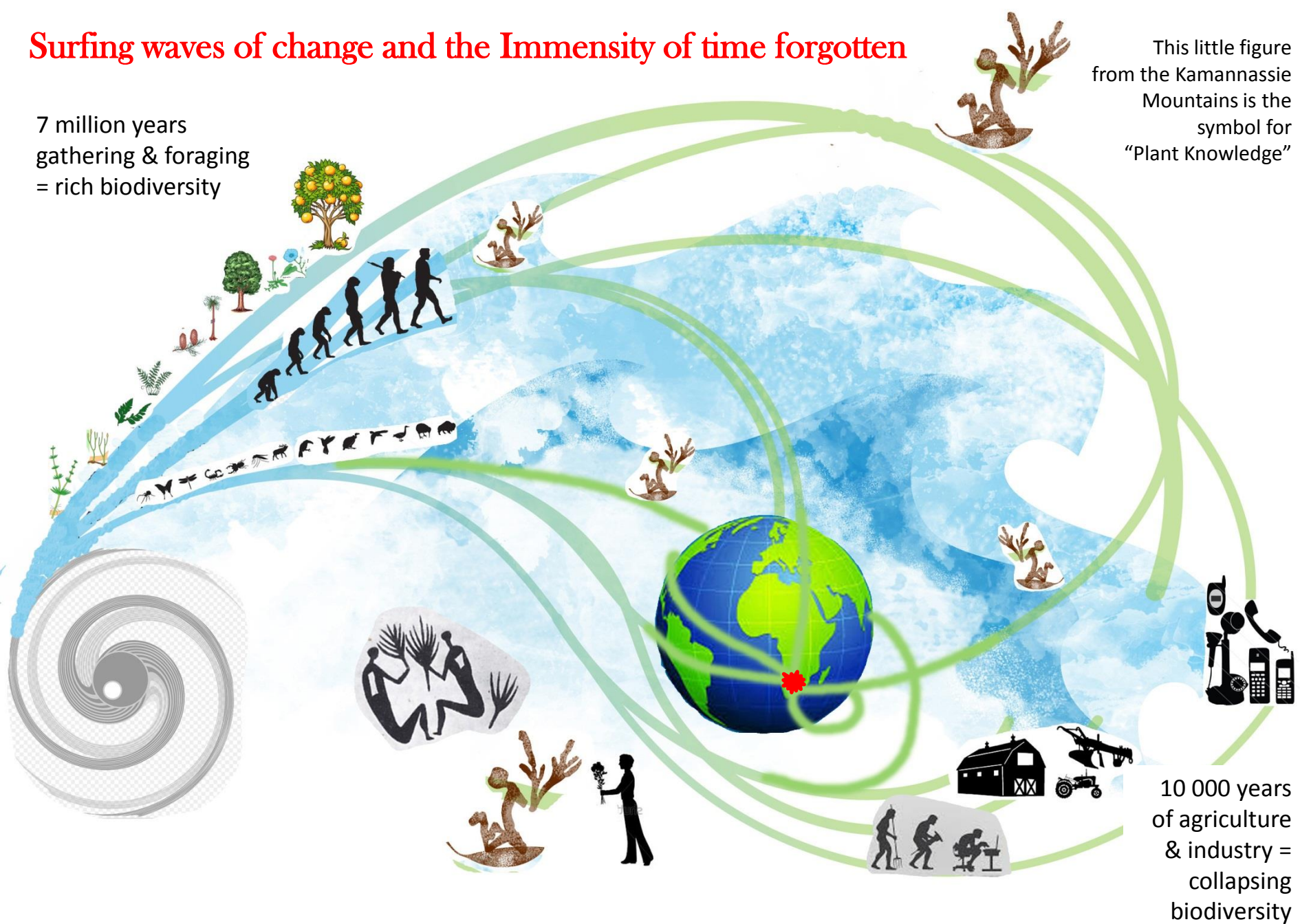


Kedrostis nana

Surfing waves of change and the Immensity of time forgotten

7 million years
gathering & foraging
= rich biodiversity

This little figure
from the Kamannassie
Mountains is the
symbol for
“Plant Knowledge”



Gatherer-forager knowledge retains its value & validity by surfing & adapting to waves of climate & cultural change

History of the Klasies area – complex multicultural interactions

- **200 000 to 150 000 ybp** - Acheulian stone tool scatters in the dunes. Evidence of Homo sapiens from 120,000 ybp.
- **22 000 ybp** - San or Bushman hunter-gatherers known to have inhabited the area.
- **2000 ybp** (or less) - Khoekhoen herders entered the area with cattle, chased away, killed, or integrated with San.
- **1700's** - Earliest European adventurers and travellers passed through area – Thunberg 1772, Sparrman 1775, etc.
- **1800's** - Adam Kok camped briefly in a spot called subsequently called Koksbosch, 14 km inland from Klasies River.
- **1830's** - Queen Victoria gave land held in trust by the state to (Mfengu) Fingo families, for their help in the Frontier Wars. They farmed land south of Koksbosch with the right to bequeath their land use to descendants.
- **1838** - Thomas Clarkson, friend of William Wilberforce (campaigner to end slavery), donated £200 to the restoration and outfitting of the Koksbosch settlement on condition it be named Clarkson.
- **1839** - Moravian Mission village initiated at Koksbosch. Five founding families moved from Enon Moravian Mission near Port Elizabeth to become the first inhabitants. Descendants still live there, including our key-participants.
- **1977** - The Apartheid government removed the Mfengu and sent them to Keiskammahoek in the Ciskei.
- **1983** – Mfengu land transformed from subsistence cultivation to forestry and dairy farming. 19 European farmers supported by government subsidies.
- **1995** - 6000 ha of agricultural land returned to the Tsitsikamma Mfengu community (hailed as victory, in fact farmers sold to the state, then rehired their land from Mfengu, who no longer had means to farm it).
- **1995 onwards** - Mfengu with no access to farming land instituted a land claim against Clarkson Moravian Mission for township land-rights.
- **1996** –Clarkson and Mfengu residents formed a joint management committee. The Mission village became the rural town of Clarkson.
- **2017** - Nothing as yet addresses the invisibility and increasing demands of the 20,000 year Khoe-San for First People's rights (Mfengu (Fingo) land-grants were pre-1913 Land Act).

Making connections between modern plant use and the distant past, is challenging due to this convoluted history

Clarkson – Finding and meeting the Uithaler Family



We fondly remember William, who was recognised as the historian of Clarkson. He was passionate about sharing history and knowledge with younger generations. Thanks to his wife Olive, who continues to help us with information, and by introducing us to other “plantekenners”. Thanks also to their son Eldrid, whose Master’s thesis on the Ethnobotany of the Clarkson area was a great inspiration to us.

William died in 2015.

Olive Uithaler, descendant of one of the founder families of Clarkson, the Lewis’s (now Louis), and co-author on this presentation.

Talking about plants - gathering the data



Yvette, William, Olive and Renee – using a rainy day for getting to know each other during discussions about Clarkson and local plant use



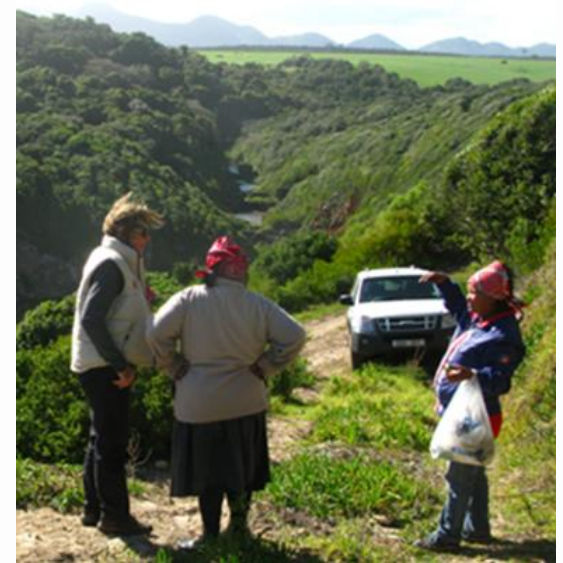
Janie and Yvette gathering plants & information



Tant Soekie talking about Withania



Janie and Olive walking-in-the-veld just above the Klasies River



Overlooking Klasies River – Renee and Olive with Janie telling a Mermaid story



Ethnobotany, Tant Soekie dancing the reel 27,02,2015 Compressed and Shortened.mp4



Singer and Wymer



Their guitars

In Memory of Soekie Kees, for her indomitable spirit, deep knowledge and attachment to the plants she knew and used from the area near the sites. We will not forget her spirited dancing ability at over 80 years old as she demonstrated “Die Riel”. She vividly remembered dancing hidden behind the bushes as a child, to the guitar music of Singer and Wymer. They excavated at Klasies in the 1967, 1968. Soekie passed away before our return in 2016.

More information from local inhabitants

Freddie and Marta Williams of Geelhoutboom farm shared their plant knowledge, and stories about the “water people” of Kamsedrif over the Tsitsikamma River.

Female water spirits act as keepers of water and plant resources - some are half human, half fish, and transform at times into water snakes. They live in rivers and waterholes, These beliefs are shared throughout southern Africa.



Freddie Williams graphically describing the use of *Kedrostis nana* which grows in the area And is used for stomach problems and the chest.



This elderly couple are sixth generation on the farm. They had interesting stories about the history of the area and some Boererate but little knowledge about using indigenous wild plants. The large stone tools in the foreground were collected in the early 1900's by a forester working in the forested area.



Janie walking alone with her memories across the pebbled coves below main site at Klasies.

Janie Windvogel joined us in 2016 and regaled us with stories about “watermeide”. She grew up close to the Klasies sites and had not been able to get back there for years, and she revelled in being among the “bossies en bome” that she remembers from childhood.

Her obvious love for the wild vegetation, the beach, and the river views, indicated a deeply felt topophilia that so many have lost due to their removal and exclusion from the areas where they lived for generations. *“My hart is seer dat ek so ‘n mooi plek moet weggaan”* (Janie).

Ethnobotanical results

- Archaeobotanicals reflect past selection, which is reflected in the modern vegetation
- **The composition of vegetation surrounding sites today is at least partially the result of use and selection by people in the past**
- If a particular plant proves to be good for a certain purpose it will continue to be used in that way because it works. Selection was and is a conscious choice.
- At least 75% of the plants present today at Klasies River, have traditional uses assigned to them by traditional communities (even higher elsewhere).
- Our results make a strong case for the wide use of the rich plant resources around Klasies in the past, but until many more robust identifications of seeds, phytoliths, charcoals and pollen in the sediments can be made it is difficult to quantify just how successfully or robustly modern use and presence can be used to extrapolate past use and presence.



Lycium ferocissimum



Rubus pinnatus



Rhoicissus digitata



Diospyros dichrophylla



Capparis sepiaria

Table of plant remains reported as macro- and micro-botanicals excavated at archaeological sites in the Cape Provinces + listed as useful plants by participants in the area today

Family	Taxa	Traditional Name	Archaeo Genera	Ethno Reports
Aizoaceae	Carpobrotus	Ghokum, Ghoena	1	1
Amaranthaceae (Chenopodiaceae)	Exomis	Rambossie	1	1
Anacardiaceae	Searsia	Bessieboom	1	1
Asparagaceae	Asparagus	Katdoring	1	1
Asteraceae	Artemisia	Wildeals	1	
Asteraceae	Helichrysum	Geita	1	1
Asteraceae	Osteospermum (Chrysanthemum)	Bitou	1	1
Asteraceae	Stoebe	Vaalbossie	1	1
Asteraceae	Tarchonanthus	Seesalie	1	1
Crassulaceae	Cotyledon	Kouterie	1	1
Cyperaceae	Cyperus	Watergras	1	1
Ebenaceae	Diospyros	Snotterbel	1	1
Fabaceae	Lessertia (Sutherlandia)	Gansies	1	
Lamiaceae	Salvia	Strandsalie	1	1
Malvaceae	Grewia	Koekies	1	1
Menispermaceae	Cissampelos	Dawidjieswortel	1	1
Moraceae	Ficus	Vye	1	1
Proteaceae	Leucadendron	Geelbos	1	1
Restionaceae	Restio (Ischyrolepis)	Besemgoed	1	1
Rutaceae	Agathosma	Steenbokboegoe	1	1
Rutaceae	Clausena	Perdepis	1	1
Rutaceae	Zanthoxylon	Perdepram	1	1
Santalaceae	Colpoon	Notchou	1	1
Sapotaceae	Sideroxylon	Melkhoud	1	1
Solanaceae	Solanum	Tandpynbos	1	1
Vitaceae	Rhoicissus	Wildedruwe	1	1
Total ethnobotanical list of 29 Families	Total ethnobotanical list of 48 species and 46 genera		26 56%	24 (+ 12) 75%

A database of 48 useful plant species in 46 Genera and 29 Families, with 77 uses were recorded at Klasies.

75% of plants recorded as useful are present within 5km of the Klasies River sites today (Van Wijk Y, Rust R, Tusenius M, Cowling R, Wurz S, 2017).

56% of the Genera on this list have been reported from archaeological excavations in the wider Cape, indicating use for thousands of years

(references at end).

Problems

- Paucity of published research on the history of the original San (Bushman) and later Khoekhoen of the Tsitsikamma and Eastern Cape. They are the Forgotten People (De Jongh 2016), lost in the Great Forgetting (Quin 1996).
- From the 1700's "History" was written and viewed through the lens of Western European concepts of "civilisation" versus "primitive pre-history" (Skead C J, 2009).
- Emphasis on geophytes as a major source of protein (Deacon H, 1993; Singels E, Esler K J, 2016) obscures the importance of fruits, whole plants, and leafy herbs as foods and medicines used by early humans and pre-colonial San and Khoekhoen.
- Emphasis on woody archaeobotanicals skews results by ignoring herbaceous, succulent, annual, and Bryophyte taxa.
- Research into animal (faunal) foods, and consumption of seafood at coastal sites, has been dominant in archaeology. Archaeoethnobotany only recently became a factor.
- Climate and vegetation change have generally been the main drivers of archaeobotanical research to date, yet ethnobotany and archaeobotany act as important windows into the past.
- The under-researched, mutually beneficial co-evolution between humans and plants they used and were surrounded by, is seldom recognised as being an integral part of archaeological research.

Future Research

- Preliminary insights into fascinating stories and beliefs, mainly around “Watermedie”, “Meerminne”, and “Water mense” in general, were offered during the research. These and other beliefs and stories will be explored further and similarities with other areas looked into.
- There is a need to develop methods and protocols which show that the past was shaped, not only by climate, but by adaptive and mutually beneficial human-plant interactions.
- Address the possibility that learning about and understanding past plant usage and survival during past environmental and vegetation changes, provides valuable lessons for our ability to survive Climate Change in the future.
- Research, and if possible quantification, of the long-levity and resilience of re-sprouting thicket vegetation, in soils enriched by generations of humans, over thousands of years, while continually discarding seeds from edible foods and sowing seeds in organic human waste.
- This survey clearly indicates the need for thorough and systematic collecting at archaeologically significant sites to provide further environmental proxies for the interpretation and contextualisation of the development of anatomically modern human behaviour.
- The ethnobotanical research is being integrated into the larger Klasies Landscape Heritage Project in order to illuminate the past and allow for more efficient identification of macro- and micro-botanicals found during excavation.

“With every audience and every individual, I have to begin by making them see that the cultural self-awareness we inherit from our parents and pass on to our children is squarely and solidly built on a Great Forgetting that occurred in our culture worldwide during the formative millennia of our civilization”.



“Historians wouldn’t touch this other stuff, and here’s the excuse they fashioned for themselves. They didn’t have to touch it ... because it wasn’t history. It was some newfangled thing called prehistory. . . What was forgotten in the Great Forgetting was not something important, it was just prehistory. A huge, long period of nothing happening”.

“The Great Forgetting”

By Daniel Quinn

(Excerpt from “The Story of B” 1996)

Thanks to: -

Sarah Wurz who is leading the Klasies River Heritage Landscape Project

The many other members of the Klasies Project team

The Struwig Germeshuysen Trust, owners of the land on which the Klasies sites are located for their friendliness and for allowing us to stay in the wooden house on the hill while working at Klasies.

Kobus and Maryna for their help and friendship and for also making their home available to us as well as providing delicious suppers.

Oom Carel Ferreira from the Humansdorp Museum, for his enthusiastic response to our plea for help in finding more information about the history of plant use in the area. He made the projects by the children of Stulting Primary School held by the Museum available to us, and regaled us with many tales about the area and its peoples.

And to all participants who shared so generously:

Irene Bernardo from Covie, William Uithaler, Olive Uithaler, Soekie Kees and Janie Windvogel of Clarkson, Freddie and Marta Williams of Geelhoutboom Farm.

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Milkwood forest, Klasies River at caves 3 & 4 – photo by Sarah Wurz