Magical weevils and Amaryllis:

The *Brachycerus ornatus* beetle and *Boophone disticha* plant in the southern African ritual landscapes

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Abstract

This multi-species, multi-ethnic ethnography explores aspects of southern African regional culture through the analysis of material culture, historical records, and contemporary ethnographic observation involving the use of a large beetle (*Brachycerus ornatus,* Red-spotted Lily Weevil), and the beetle's food plant, the poisonous bulb known as 'Bushman's poison bulb' (*Boophone disticha* or *Ammocharis coranica*). The cultural objects discussed here come from nineteenth-century collections of Henry Wellcome (London), The British Museum (London) and the Naprstek Ethnological Museum, Prague. These 'magic bundles' incorporate plant and animal materials in the context of cultural meanings of landscapes in order to offer protection against witches and evil, and in hunting, trance, and healing. It is argued that these practices are regional rather than 'ethnic' or 'tribal', spanning across San (Bushman), Khoe, Bantu and Afrikaans cultures. These practices integrate nature and culture through specifying sets of relations that link human, plant, animal and mineral elements in what has been called 'natureculture' and 'human-animal collectivities'. Exploitation of the 'healing' and magical herbs is conducted today, as in the past, with stone tools made from large stone flakes of local dolerite (diabase). They are made opportunistically on the spot—a contemporary reinvention, or in continuity with ancient lithic technologies—thus linking the mineral with plant and animal parts of the landscape. Landscape and culture are seen to be mutually productive of each other. This article offers new insight into the history and material culture of traditional healing in this regional context.

[Keywords: multispecies ethnography; natureculture; material culture, landscape, African traditional medicine; traditional healers; southern Africa; lithic technologies; stone tools; *Boophone disticha*; *Ammocharis coranica*; *Brachycerus ornatus*]

When I found a set of six dried beetles strung together on a leather thong in the Naprstek Ethnological Museum in Prague in 2011, I was intrigued. Some years earlier, I had begun to try to piece together a history of what is called 'traditional healing' in southern Africa. From the healer's own perspective this effort is meaningless, since healing knowledge comes always from dreams, the ancestors, the bush, and from the landscape itself. Knowledge and practices thus have no history: from the *sangoma*'s perspective, they are always already there. From my anthropological perspective,

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however, a complex history certainly existed, but without archives or texts, it was going to be difficult to recover. Archaeology, and the study of material culture were the only options. Since healers have and use large collections of material culture, especially strings of beads and other objects, examination of these provided one way to solve the problem.

Items of material culture belonging to this tradition have mostly disappeared in southern Africa itself, partly because plastic or manufactured goods have replaced earlier materials, and partly because a healer's kit is buried with the healer at her death. Missionaries, travellers, hunters, explorers, soldiers, police, and civil officials collected many elements of this cultural heritage, however, during the eighteenth and nineteenth centuries. These items were 'collected'—that is, purchased, purloined, or taken by force or persuasion—because healers, indigenous doctors, and 'witchdoctors' were a threat to Christianity, sometime also to secular power, and above all to 'modern' medicine, or even to 'modernity' itself. Today, early examples remain primarily in European collections.[2] That is where I found the beetle 'amulet'.

This article, then, makes a small contribution to the history of traditional healing in the region. The role of insects in traditional healing has, to my knowledge, never been explored.[3] Here I attempt not only to address the meaning of the beetle in what appears to be an ornament with beads, but also to place this usage in a landscape, and in relation to shared elements of a regional healing culture.

Glass beads have been used in southern Africa for well over 1000 years (Wood 2000) and bead-like objects (small round objects with holes in them) appear in the archaeological record approximately 42,000 years ago, and possibly as long ago as 75,000 years (d'Errico, et al. 2012). These form a large part of some of the earliest archaeological finds and are made of stone, shell, bone, teeth, ivory, and probably other more perishable materials. They appear to have been strung together. Placing these in an interpretive context of southern African modes of healing and ritual protection, these assemblages or bundles of objects seem to be stable over a very long period of southern African history.

But beads and beaded objects are generally included in catchall categories of objects without obvious utility or nutritional use. Although they are usually labelled as 'decorative', 'ornament', 'jewelry', or as 'ritual objects', in southern Africa, they usually belong instead to the healing cults of the region and have many functions including apotropaic magic, control of flows of 'energy' in healing, or as gifts and objects of value in exchanges.

Writing about minimally-modified bead-like items of this sort in the archaeological record, d'Errico and Vanhaeren remark that 'ornaments made of slightly modified natural objects' establish a powerful symbolic link between the natural and cultural worlds in which humans lived and continue to live in southern Africa' (2009:16055). These objects are often also intrinsically beautiful, attractive, colourful, crafted, and made of unusual materials, but they not merely decorative. These represent 'entanglements across [animal and human] species.' (Porter 2013:144)

The beetle amulet was a case in point. It had been collected between 1875-1879 in what is today Botswana by Dr Emil Holub, a Czech medical doctor who made extensive, even exhaustive collections of Tswana material culture. He attributed it to the *region* of the

[2] There are many instances, of course, from southern African archaeology, but these are beyond the scope of this discussion.

[3] The only other use of insects in healing is the use of large cocoons, dried, filled with seeds and used as rattles in dancing associated with trance and healing. This usage is treated as a mere utilitarian fact in the literature, and no further discussion of this usage exists.

'Bamangwato', the Tswana paramountcy under the chief Khama.

But why did people put dead beetles on a string?

In my work on traditional healing, I have come to understand that parts of plants and animals, and materials such as ochre, when used in healing work are seen as intrinsically active agents. The African healer feels—dreams (*-phupha* [Zulu], *-toro* [Sotho-Tswana]), senses, or 'hears', (*-zwa* [Zulu], *-kwa* [Sotho-Tswana]—that things like animals, plants, stones, and other parts of nature, including the landscape, have agency: they act and can be guided, but are not inert 'ingredients' or tools. By contrast, most writers on 'muti' or 'medicine' see herbs and animal parts as inert substances, or materials, that healers use as a medical doctor uses pharmacological chemicals or prosthetic devices. Instead, for African healers, these items *speak directly to the healer and her patients* not through a biological or physiological process, but as intangible presence. This is what connects the healer, his patient, and nature together, and what leads them to the therapeutic process. Parts of plants and animals used in healing act directly not only as symbols standing for something else, but as agents in and of themselves. Only if the patient and healer is open to these forces, as an 'exposed being', can therapy be effective (Thornton 2012). This is why a beetle protects, why the holes from which herbs are dug are left open, why effective therapy must be dreamed, and why hallucinations induced by plants such as *Boophone disticha (L. f.)* [4] allow one to 'see' witches in their own landscapes, among other things.

Three of the beetle amulets in the museum collections are strung together with glass beads. Archaeological, historical and anthropological analysis of objects like glass beads often considers each element separately as a 'type' of artfact. Such approaches neglect the whole object of which beads are a part. Even considering the whole object is insufficient, since the object only has effect when it is part of a much larger social and natural context. This is why, for instance, most contemporary black African users of *muti* are very sceptical about whether such things 'work' on white people *out of context*, and why magical items lose their effectiveness once 'collected' by police, or others including anthropologists and museum collectors. It is worthwhile, then, to understand the objects not merely as wholes, but as parts of a living space, or, in short, a landscape.

Beads are almost always parts of other objects such as necklaces, dolls, dress, ritual regalia, votive, religious, or other ritual objects. It is the whole object—the bundle, string, or 'decorated' object—that has cultural significance, although each bead also carries meaning and value based on size and colour, among other features. Beads are also parts of strings of relationships, exchanges, and healing interventions involving complex social networks. They, in some ways, like cattle when they are used to mediate marriage exchanges and political alliances. In the cases considered here, the beetles are part of assemblages or cultural 'bundles' that are, in turn, parts of much larger social and physical 'objects'.

Beads and beaded strings/things/bundles mediate social relations as they are given and received in reciprocal relations involving love, marriage, healing, and protection. They participate in exchanges across generations and between men and women, and are given to the 'ancestors' or 'spirits'. The latter beings constitute a category of intangible persons, or agents, and involves a bundle of concepts including *umdlozi, ithongo, isthunzi, umoya* [Zulu]; *moya, modimo, seriti* [Sotho/Tswana], among others, terms which are usually translated as 'ancestor', 'spirit', 'shadow' or 'god'. In contemporary contexts, cultural

[4] Accepted name; http://www.catalogueoflife.org/annual-checklist/2012/details/species/id/9765593 accessed 25 Jan 2013. The taxonym is credited to 'L. f.' (Linnaeus fils, Carl von Linnae's son).

specialists—often called 'healers' or 'shamans'—create assemblages containing beads for many reasons, but rarely as for what might be considered 'pure' aesthetic or 'decorative' reasons. This is likely to have been true in the past as the archaeological record seems to show tremendously conservative patterns, colour palettes, and materials in beads and bead-like objects (that is, small things with holes in them) over thousands—or even tens of thousands—of years.

Here I attempt to show the place of the beetle-bead bundles in regional ritual practices and their 'landscapes' or land-spaces (Thornton 2000; Thornton 1998). These 'bundles' (or 'amulets') are part of broadly regional healing/medical and other social practices that link the social exchanges involving beads and *muti* ('medicine', especially that composed of parts of animals and plant) with landscapes.

This discussion spans several sub-fields in anthropology—ecological, archaeological, cultural, environmental and medical—as well as entomology, botany, and geography. These cultural practices link a species of beetle, a plant, and specialised healing practices that, I argue, transcend ethnic, political, racial, and linguistic boundaries of San (|Xam, among others), Khoe ('Koranna', 'Hottentot'), Bantu-speaking peoples and even southern Africans of European ancestry (See Watt and Breyer-Brandwijk 1962b for the variety of plants used across all ethnic groups). These relationships extend over considerable historical time, and are embedded in a landscape that they help to shape, and which, in turn, presents possibilities and constraints for human dwelling in this landscape (Ingold 2011; Ingold 2012). It exemplifies what has recently been called nature-culture in anthropology (Society for Cultural Anthropology 2010), and opens a chapter in what is being called the new 'multispecies ethnography' (Kirksey 2010; Kirksey and Helmreich 2010) that constitutes 'a growing body of research pointing to the importance of animals in processes of knowledge formation, social organisation, and bodily regulation' (Porter 2013:133)

The land and landscape play a central role in southern African healing traditions. The distinction between settled ground or homestead (*Umuzi/-sendle*, *hlathi* [Zulu, Nguni]; *motse/naga* [Tswana]), and the 'bush' or the 'wild' is fundamental (Comaroff and Comaroff 1990:198). People—and intangible persons called 'ancestors', among others—exercise power over one another in the settled area, while the power of earth and plant and animal life provide energies of a different kind. Often, the power of earth, plants and animal parts to heal is called 'medicinal', or magical, or simply 'witchcraft'. Their power, however, derives from the fact that they are not part of people's powers over each other. They are not, and cannot be witches, or any other kind of person, tangible and living, or intangible. These persons and presences inhabit the house, village or town. The power of plants to 'heal' depends first of all on their being from the wild, and their ability to connect living persons to their own *impersonal* power, that is, a power that is not connected to the power of other people, a power to heal or harm, or to influence one another in other ways. Since most of the work and healing methods of southern Africa's healers concerns management of relationships, the use of elements of the bush—types of earth, plant and animal parts—play a very large role.

Another important element of medical beliefs in the regional culture is the idea that what can heal can also kill, and vice versa. This applies to persons as well. Those persons—tangible and intangible—who are closest to you can give you life or kill you. Similarly, *muti*, or 'medicine' from natural sources, can also kill or heal. The difference inheres in the relationships between persons and other persons, and between them and the natural world. For this reason, too, medicines are always mixed: earth, plant, animal, and human are combined. Powdered herbs (plant) are combined with ochres (earth) and fats

(animal); powerful objects are strung and worn with other but different objects. Shell and stone beads are strung with wood, glass and metal on sinew, for instance. This achieves a balance that is not available in any other way.

Most accounts of healing (*bungoma*) in southern Africa place their emphasis on either the (supposed) pharmacological action of decoctions of herbs taken internally, or on the power of 'trance' achieved through dance, drumming and/or hallucinogenic herbs. This forms only a small part of the work of sangomas (and 'shamans'), however, who are primarily concerned with protection from evil, the malign influence of others, or 'bad luck'. Management of relations with intangible or 'spiritual' influences is also paramount. It is only when protection fails, that sangomas/shamans are called to treat illness, or to rectify one's fortune, or to realign a failed or failing relationship with a lover, spouse, kin, work-mate, boss or subordinate. The process and technology of protection, then, is a fundamental aspect of the healer's art. Just as we might say 'prevention is better than cure', the southern African healer tries first of all to protect, and then to heal. Their clients consult them primarily to protect against witches, bad luck, and other forms of harm, illness or misfortune. The plant and beetle discussed here have this role, among others. *Brachycerus,* for instance, is also used to cure, as we shall see in the case of 19th century |Xam (Bushman) healers collected by W. H. I. Bleek and his family (Centre for Curating the Archive 2010).

Figure 1. Specimen A, *Brachycerus ornatus*. This specimen has a smoother shell and more clearly defined red spots. It was collected at 'Louw's Creek' in Umjindi Municipality, Mpumalanga. University of Witwatersrand entomological collection. Photo: 2013 Robert Thornton.

Figure 2. Specimen B, *Brachycerus ornatus*. This local variant has a rougher shell and variably shaped red spots. Univ. of Witwatersrand collection. Photo: 2013 R. Thornton

In the case explored here, a beetle and plant are used to provide protection from evil and malign influence. The beetle was used in the form of a beaded amulet, while the plant provides protection through a similar magic. The flightless weevil, *Brachycarus ornatus*

(Westood 1837)[5] and several closely related plants of the Amarayllis family provide examples of elements of the 'bush' used to protect people from the evil influence they may have on each other.

The use of the beetle in what appears to be a beaded necklace is deceptive. Beads are fundamental elements of protective magic in southern African traditional health practices. Unlike their use in Mediterranean and Indo-European cultures (d'Errico and Stringer 2011), beads do not signify wealth, status, or power. Instead, they mark the wearer as vulnerable and exposed to danger. Women and children are the primary users of beads for this reason, but above all they are used by *sangomas* ('healer' [Zulu]) themselves to protect them from the special dangers they face in the realm of spirit, as they attempt to counter the influence of witches, sorcerers and other intangible 'spiritual' agents. Kings, chiefs and people of wealth or status wear beads only to provide protection from these sources and not to signify power, prestige, or office.

The use of *B. ornatus* reveals the unstable interface between the human and the animal, and between the settled zone of dwellings, and the 'bush'. This relationship has been extensively explored first by the San (Bushman) artists in the rock art (Rock Art Research Unit 2012), and then re-explored by David Lewis-Williams, Thomas Dowson and others who have revolutionised the study of rock art since the 1980s (Clottes and Lewis-Williams 1996; Dowson, et al. 1994; Lewis-Williams 1981; Lewis-Williams 2002; Lewis-Williams and Challis 2011). They have been able to show that southern African rock art reveals a 'spiritual' (intangible, imaginative, healing) world in which 'shamans' change into animals and back again in order to harness their powers for healing. Drawing specifically on analogies with Siberian shamans they call southern African healers 'shamans', and link these practices specifically to the 'San' or Bushmen'. As Willerslev shows for the Siberian shamans of the Yukaghirs, 'animals, plants and humans are endless mimetic doubles of one another' (Kirksey and Helmreich 2010; Willerslev 2007). This appears to be the way in which the creators of southern African rock art see the plane on which this art is created: as a landscape in which human-animal mimetic doubles create and harness a space of powerful healing energies. In fact, most southern African healers share a similar set of concepts and practices.

The beetle's food plants have been recorded since the eighteenth century as powerful poisons, medicines, and charms against witchcraft among Bushman, Korana, Trekboere, and among Bantu-speaking peoples. Use and knowledge of the plant extends across all southern African cultures over several centuries, revealing a long-standing cultural ecology involving humans, insects, and plants.

The beetle is *Brachycerus ornatus* (Red-spotted Lily Weevil), a large, glossy, black beetle with red spots. The plants are *Boophone disticha* and *Ammocharis coranica.* The beetle-plant-human nexus points to a close relationship between African indigenous knowledge systems—traditional healing and witchcraft, in particular—and southern African bio-geographies and bio-diversity. The plants are widely distributed across southern Africa, but populations are small and very local. Similarly, because the beetle is flightless and dependent on the plants, it is also regionally widespread, but only locally prevalent. The specific protective magic involved is therefore specific to a locale, but also pervasive across a variegated regional landscape.

A landscape is far more than just the surface properties of land. What this study shows is a layer of a rarely-seen landscape that involves 'relations between people, animals, and

[5] Listed as provisionally accepted name, Catalogue of Life: 2012 Annual Checklist, http://www.catalogueoflife.org/annual-checklist/2012/details/species/id/7793556

plants—ultimately between beings and ways of being—in a variety of locales' (Áronson, et al. 2012; Thornton 1996; Thornton 2000). The uses of the beetle and plants reveal a ritual practice that relies on a set of relationship between the beetle and the plant, between humans and these other life forms, and between humans and the world of intangible persons (ancestors, witches, and others) and incorporeal dangers in the landscape. With the editors of the recent *Landscapes beyond land* (Áronson, et al. 2012:5) I maintain that this is 'not a disentangling of the symbolic from the physical aspects of place, or the subjective from the objective, but an inquiry into how … paths of relations serve to open up the complexity of landscape'. The beetle and plants inhabit a landscape in which they are woven into culture, medicine, magic and dress. As Tim Ingold remarks,

> We should not necessarily assume that the relation between land and scapes, identified as optical, is confined to the sensory modality of vision, nor conversely that the contrasting relation identified as haptic [touch, tangible] is confined to the modality of touch. … In recent years it has become fashionable to multiply sensory scapes. Thus we have soundscapes, touchscapes and smellscapes … In every case, the scape is a formal mapping, in the mind, of the material of the world of sensory experiences. (Ingold 2012:206-207)

In this way, the beetles become 'good to string', linking landscape and patient, nature and culture: natureculture in healing bundles. This is a landscape that is visible only to those within it, and whose plants bring specific vision of its possibilities, and dangers. By 'mapping' these points, the healer connects the patient to earth and nation (*umhlaba* [Zulu], *sechaba* [Sotho-Tswana]) and creates a 'healing scape'.

James du G. Harrison, an entomologist at my university was able to identify the beetle. Remarkably, Catherine Elliot of the British Museum had discovered the same beetle in three items in the British Museum collection, and had also asked James Harrison for help in identification, so four specimens in three different collections were brought together. After the beetle was identified, I realized then that I had observed the beetle's food plant in healers' gardens, and in their collections of herbal materials in the Umjindi Municipality in Eastern Mpumalanga Province, South Africa.

Two of the original collectors were medical doctors. Emil Holub, a Czech national who travelled in and wrote about southern Africa in the 1870s, made his living as a medical doctor in southern Africa. Henry Solomon Wellcome who collected one of the items in the British Museum collection was a highly successful British-American pharmaceutical entrepreneur who assembled perhaps the world's greatest collections of medical and healing artefacts in the late nineteenth century.

The Naprstek Museum item consists of 6 beetle exoskeletons strung onto a strip of leather. The Czech medical doctor and traveller, Emil Holub, collected it among the 'Bamangwato' in 1877. The accession description (in Czech, translated by Prof Petr Skalnik) reads :

> "The card depicts an amulet made of dark beetle husks connected by leather ropes which make up a bracelet. Brought by Dr. Emil Holub from the Bamangwato, the museum bought for 12 [Austro-Hungarian] Florins.
>
> Josef Kandert made the description" (museum accession card dated 1977).

The heads of all six beetles are missing, and the leather string is strung through the opening created by the excised head and tied off on the inside of the beetle so that the beetle hangs from the end of the leather thong.

Figure 3. Naprstek Museum, acquisition card.

Figure 4. The 'Bamangwato beetle amulet' consisting of six beetle exoskeletons on a leather thong. Naprstek Museum, Prague, Czech Republic. Photographed by R. Thornton, October 2012

Figure 5. single *Brachycerus ornatus* beetle from the Naprstek museum amulet, Prague, Czech Republic. © Robert Thornton

According to Holub, the item originates from the Ngwato 'tribe', one of the sections ('tribes') of the Tswana people that has since the nineteenth century held the paramountcy in what was then the Bechuanaland Protectorate. The centre of the Ngwato polity is the town of Seroe in Botswana, 260 km north of Gabarone, the country's capital. Isaac Schepera's *Handbook of Tswana Law and Custom* is based almost entirely on the 'law and custom' of the Ngwato and their neighbours, the Kgatla. Holub's designation of this as 'Ngwato', however, designates a region more than an ethnic group, since it included people living in the Ngwato territory under the Ngwato paramount chief, including those who married in, were adopted, or captured. The San ('Bushman' or 'Basarwa' people), who were noted for the power of their healing rituals and protective magic, and the 'Koranna' (Khoe) were part of this polity. Contrary to widely held notions—both popular and academic—that southern Africans were 'perennial tribesmen', Paul Landau shows convincingly that 'hybridity lay at the core of [Tswana and other] sub-continental political traditions' (Landau 2010:xi). This interpretation of the historical record in increasingly accepted (Morris 2002).

The beetle 'amulet' is included among a large number of other artefacts collected by

Holub in the 1870s. Holub's collection of Tswana artefacts eventually formed one of the core collections of the Naprstek Ethnological Museum in Prague, although many other items of collection were dispersed to other museums. (Jiroušková, et al. 2011)

There are also three similar items in the British Museum, one consisting of a beaded necklace with a single beetle exoskeleton in the centre ((Figure 7, Figure 8), and the other two items consisting of single beetle exoskeletons with two short strings of beads (Figure 7). One of these strings is made of blue and white beads, while the other is made up of white and pink beads.[6]

Figure 6. Two beetle amulets from the British Museum.

(Figure 7. *Brachycerus ornatus* exoskeleton incorporated into a necklace/amulet from the Henry Wellcome Medical History collection, now in the British Museum.

[6] In the distinctive colour palettes of southern African beads and beadwork, pink is distinguished from red and usually carries other meanings concerning identity, or the desires of a spirit.

Figure 8. *Brachycerus ornatus* exoskeleton in amulet, obverse veiw (see previous figure); British Museum, Henry Wellcome Collection

Among the earliest records of beetles involved in healing is Robert Jacob Gordon's description of 'beetles' taken out of the leg of a patient, which Gordon observed during travels in what is now Northern Cape in 1777. Gordon, then Governor of the Cape under the Dutch East India Company, described a healing ritual that would be familiar today among most southern African healers. It is known as *kufemba* ('smelling out) among Nguni-speakers, and is 'barely distinguishable from those carried out by Khoisan in contemporary Namibia' (Low 2004:68). In the case, Gordon reported that an 'old Hottentot [Khoe] witchdoctor'

> made the youth [the patient] come naked into his hut in the twilight […] we went to sit beside the youth, who had a pain in his foot. He rubbed his thigh and his leg, and, holding his foot against his head, roared and growled like a lion and tiger. He then held his hands against the youth's head and heart and did this a few times, after which he sneezed three or four times in succession and, opening his hand, displayed some beetles which he said he had taken from the leg (Gordon 1988 in Low 2004:68)

In this description, beetles represent an illness or pain that has been identified by the healer and removed.

In the nineteenth century use of the beetle in healing is attested in the records of Xam Bushman collected by Wilhelm Bleek and Lucy Lloyd in the late 1860s and early 1870s.

> We do this, to a very little child, we take an African ground weevil [!nu!nurru-ssi][p. 5832 *verso*] A black little handsome thing, rather round … shaped more like the shell of a tortoise. … [T]hey do (thus) to the little child, that the weevil may take out from [5839] it convulsions … . (Bleek Lloyd Collection, LL.VIII.21; |han≠kass'o)[7]

And

> [7822] !nu !nurusi, *Brachycerus* [7821 verso] tied on the throat of a little child when

[7] Original material is in the Archives of the University of Cape Town, but is available online at http://lloydbleekcollection.cs.uct.ac.za/books/BC_151_A2_1_096/A2_1_96_07822.html]

> the latter is ill with a cold, or with another illness[8]] The *Brachycerus* used as a means of cure for little children [7821' |han≠kass'o from his mother |xabbi-an, and personal observation] the *Brachycerus* [7821' (very hard back to pierce)] is the one on account of whom a little child recovers; while it (the *Brachycerus*) is the one who eats the illness. [9]

The beaded objects in (Figure 7 and Figure 8 would indeed hold the beetle at the throat of the person who wore it. It is very likely that in this case the beetle 'eats the illness' when used in the context of the beads and stringing sinews that hold it in place, and help to constitute its ability to heal. The strings of beetles from the Naprstek Museum object may well be 'spares' for a similar purpose. Elsewhere in the archive, |han≠kass'o remarks that only one beetle is used for each application. Each beetle's ability to eat the illness, then, is individualised.

Khoe and San communities used a considerable number of plant, animal, and insect species in healing rituals (Prada-Samper 2007; Watt and Breyer-Brandwijk 1962a). The !nu !nurussi, however, is explicitly defined in the Bleek-Lloyd archive as *Brachycerus (see* Figure 9).

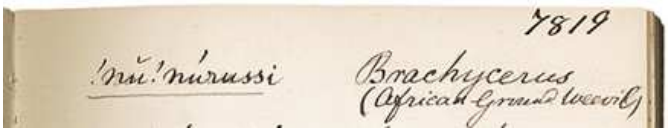


Figure 9. Definition of |Xam term !nu !nurussi as 'Brachycerus (African ground weevil)'

The significance of the beetle in 'Bushman' culture is also indicated by a rock engraving of what appears to be a *B. ornatus* beetle. George Stow, a Victorian polymath, recorded the engraving during the 1870s in a pencil drawing. Stow recorded these and other rock art and petroglyphs as 'Bushman' art (Stow and Bleek 1930; Stow and Theal 1905; Stow 1875; Woodhouse and Lee 1976)(Rock Art Research Unit), and called them 'mystic symbols' of an ancient race whose 'ancient myths of times yet more remote, when, as they believed, men and animals consorted on more equal terms than they themselves, and used a kindred speech understood by all!" (Morris 2002:60; Stow and Theal 1905:398) Authorship is most often ascribed to 'Khoekhoe' (Smith and Ouzman 2004) or 'Bushman' but these labels are unlikely to have been meaningful 1000 to 2500 years ago when the engravings may have been made (Morris 2002).

[8] |han‡kass'o later applies this term to *Brachycerus obesus* (LL.VIII.31.8790'), presumably after being shown a specimen; this identification retained by D. Bleek in the Bushman Dictionary (pg. 486) as 'the' meaning of the term (though |Xam insect categorisation generally more generic than species level—Personal communication from Dr. Mark McGranaghan, Rock Art Research Unit, University of the Witwatersrand; 8 Jan 2013.

[9] Bleek-Lloyd Collection; online at http://lloydbleekcollection.cs.uct.ac.za/books/BC_151_A2_1_044/A2_1_44_03479.html

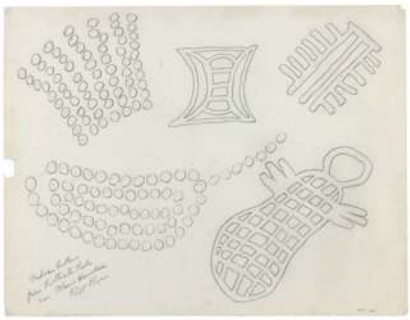


Figure 10. Drawing (ca. 1870s) by George Stow of 'Bushman' rock engravings showing a six-legged spotted creature that may represent *B. ornatus* (lower right), with other unidentified images—possibly patterns of beads and magical bundles.

George Stow found and drew these images in what is today Northern Cape Province, on the Riet River some 75 km south of Kimberley, and over 500 km to the east of where the |Xam texts were collected by Bleek and Lloyd. The site, now known as Driekopseiland, is a South African National Heritage Site (http://www.driekopseiland.itgo.com). Over 3500 engravings are pecked into the surface of a glaciated andesite pavement lying in the bed of the river. Although the 'geometric' engravings in Stow's drawing Figure 10 are still visible at the site today (2013), the possible *B. ornatus* figure has been covered since Stow's time by the drifting sediments of the river and is no longer visible[10].

If the image does represent *B. ornatus,* then the rock engraving further demonstrates regional significance and historical depth for the beetle's magic and healing power. Stow's drawing Figure 10, together with others like it, show patterns of circles representing the original works that are composed of small cupules chipped into the rock. These patterns are strongly suggestive of the patterns of beads and objects that we see in the beaded magical bundles and amulets, although they have been previously described as either 'geometric' (90% of them) or 'representational'. In his drawings, Stow extracted what he believed to be individual symbols or 'devices' from the dense mass of engravings that cover the surface of the glacier-smoothed rock. Seen in aggregate, however, these appear more like the bundles of 'medicine' and muti that are used in healing and protection throughout the region.

The beetle bundles

The Naprstek museum piece does not include beads. There are many examples of other San material that uses shells or horns as containers to hold 'cosmetic' powders—more likely to be protective than cosmetic—although there is no evidence that these *B. ornatus* shells held any other material. The fact that they are strung loosely on a leather thong in an even number, six, also suggests that they may have been used in divination. Divination pieces across southern Africa are all directionally orientable with a head/tail, right/left, top/bottom orientation so that they can be seen to be 'active' (when the top is showing), cancelled or inactive (bottom up), or to be directing their action to other elements of the divination patterns. Beetle shells, like other shells, and goat astralagus bones all have these properties. These pieces are usually paired, too, with a male and female part of each pair. Sets of astralagus bones, widely used in divination sets also have different roles or 'generations', with each pair representing youth, middle age, and elders. This is certainly possible with beetle shells of this sort, and the set may have been used in divination.

[10] David Morris, Kimberley Museum, Kimberley, Northern Cape Province, South Africa; personal communication 9 February 2013.

Divining pieces—seashells such as cowrie and *Conus*, dominos, dice, ivory and bone pieces—all also have dots, like the beetles. These are interpreted both as numbers and as patterns, in different ways according to context. A large part of a typical full set of divining 'bones' (*amathambo,* [Zulu]) has dots or markings like these.

The type of beads, or, in the Prague example, absence of beads, is indicative of 'Tswana' (Sotho-Tswana, or better, 'highveld') cultural usage in the nineteenth century when these items were collected. While Zulu and other Nguni groups used small 'seed' beads extensively from 1800 or so, Tswana and people in northern Limpopo and southern Zimbabwe areas where these items are likely to have been collected used glass beads. The beads they did use generally display a different gamut of colour, like the beads here, than the beads used further south in Nguni contexts.

People in this region strung many types of materials together, to heal or protect. Ostrich eggshell, other shells (land and marine molluscs), metals, wood, stone, bone, teeth, and glass were all used. They occur in limited numbers from 20,000 years ago, and are very numerous from 800 CE to the present. Zulu use of small 'trade' or 'seed' beads is more recent, with similarities and differences. The colour palette of the beads here, however, compares with the colour palette from much earlier sites of K2, Mapungubwe, Toutswe and other sites in northern Botswana and along the Limpopo dating from 1000-1400 AD. Beads found in these archaeological settings are larger than the 'seed' beads of the Zulu/Nguni areas, and of similar size to those in the beetle amulet. Since healers and healing travelled over the entire area, it is difficult to assign more than a general sub-region, in this case, the northern Highveld of Limpopo Province and northern Botswana.

Since these were collected as 'amulets' by Holub and by Henry Wellcome as part of his collection of medical artifacts, we may conclude that they were used for healing and protection. Although it is tempting to assign these pieces to a specific 'ethnic', 'tribal' or linguistic category, the healing cultures that they represent was not restricted to ethnic, linguistic or kinship groupings. This cultural knowledge belonged to specialized healers There is, however, no single or integrated 'culture' or tradition of so-called 'traditional' healing in southern Africa. Many different schools, regional differences, and individual interpretations exist, and it can best be described as a continuum.

Uses of both the beetle and the plants were similarly distributed across ethnic or cultural groups, linked by common healing practices and spiritual ideas. I have seen *B. disticha* in healers' gardens, and collected it in the field with them (see Figure 15 and Figure 16).

The beetle *Brachycerus ornatus*

The beetle belongs to the sub-order Polyphaga ('eat anything') of the Coleoptera ('covered wing') Order of insects. This sub-order of beetles contains by far the largest number of species of Coleoptera, and the *Curculionides* Family of weevils, to which *Brachycerus ornatus* belongs, is one of the largest families within this grouping. The *Brachycerus* genus as a whole is widely distributed throughout Africa, the Mediterranean-Palaearctic and Madagascan ecozones. There are around 500 named and identified species, almost all of which are closely associated with particular food plants, and are often endophytic. *B. ornatus* feeds exclusively on *B. disticha* and *A. coranica* (where 'coranica' refers to the Korana ethnic group of the Khoe peoples). The *B. ornatus* and its food-plants are highly distinctive, prominent within short seasonal periods, endemic to the southern African region, and widely distributed in specific ecological niches.

B. ornatus, is an extremely large beetle, with a hard-shelled body that reaches 4.5 cm.. The dried exoskeleton survives handling and can therefore be used in amulets. Though locally

conspicuous and large, it appears to have attracted little scientific attention (Louw 1990a; Picker, et al. 2004). It lives in burrows associated with one or two species of the Amaryllis family, and feeds exclusively on these plants. Describing it for the first time in 1887, Pascoe noted that

> the number of described species of *Brachycerus* is about 260, by far the greater part being from South Africa and apparently south of the Tugela River. (Pascoe 1887)

Specimens in the Transvaal Museum collection were collected from 1889 to 2005 from all over South Africa.

B. ornatus appears to have a limited local prevalence but a wide regional distribution. Forty-one specimens exist in the collection of the Transvaal Museum in Pretoria. There are 8 specimens in the collection of the University of the Witwatersrand. [11] Specimens in the Transvaal Museum collection come from Mozambique (including two collected by the Swiss missionary and ethnographer of the Tsonga/Shangaan people, Henri-Alexandre Junod; see below), and others from Mozambique, Botswana (including the Kgalagadi/Kalahari region), Namibia, South Africa, Zimbabwe. Since the beetle is flightless, however, it is likely that all populations are local, perhaps limited to a few concentrations of *B disticha* or *A. coranica*, its food plant.

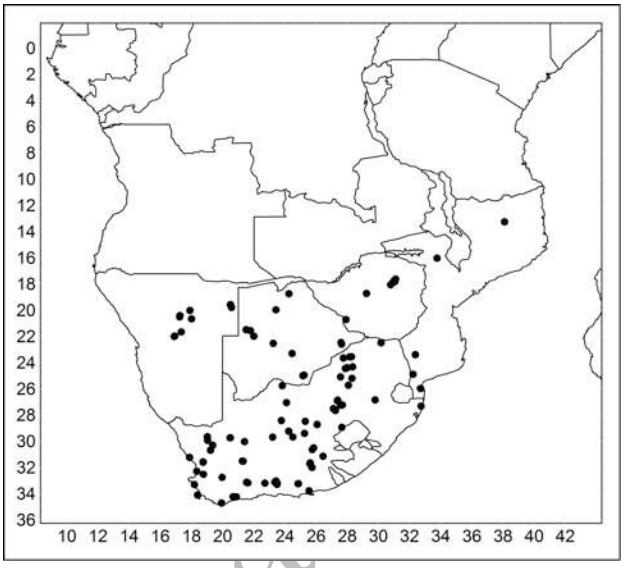


Figure 11. Approximate distribution of *Brachycerus ornatus*; data from collections in the Transvaal Museum, and University of the Witwatersrand collections. Map compiled by James du G. Harrison, U of the Witwatersrand, 2012.

This beetle is aposematically coloured, with bright red to red-ochre spots on the abdomen and on a glossy black elytrons that are fused, forming a solid case. Aposematic colouring usually alerts potential predators that the insect is poisonous or at least unpalatable. In a multi-year study Louw reported no predators on the adult beetle (Louw 1990b).

It appears that its colouration wards off predators, and this may play a role in the use of the beetle in amulets intended to ward off witchcraft (*ubuthakati*) and 'bad luck' (*umkhwazi*), or to bring 'luck' (*umhlanhla*). Black (*-mnyama.* [Zulu]) and red (*-mbomvu* [Zulu]) colours are also two of the most significant colours in healing practice, in addition to white (*-mhlope* [Zulu]).

[11] The counts of specimens, and distribution map, is based on research by James Harrison of Wits University's Animal, Plant and Environmental Sciences School.

It is not known whether the beetles are actually toxic, as their food plant, size and colour suggest. Toxins, if present in the beetles, may be acquired from the food plant since these contain poisons that are lethal to humans and cattle, and probably others species.

The beetle's food plants, *Ammocharis coranica* and *Boophone disticha*

Boophone disticha and the closely related *Ammocharis coranica* figure prominently in all indigenous pharmacopoeias (San, Afrikaans/Boer, Khoe, Nguni, Sotho-Tswana, etc.), and are used in protective magic against witches, among many other uses. The foliage of the plants, like the flowers, are conspicuous in certain veld environments (see Figure 12 to Figure 17). They are also highly poisonous, producing large numbers of physiologically harmful and psycho-active chemicals, including alkaloids, terpines, phytosteroids and other complex phyto-compounds. Naturalists, missionaries and travellers from the seventeenth to the twentieth century have commented on these plants, often in considerable detail, for both their beauty and their poisonous effect. Robert Jacob Gordon, drew the plant he called *Boophone Haemanthoides* around 1777, which is perhaps the first record of it.

Southern Africa's vast botanical endowment includes many species of the Amaryllis family. Examples of these plants were grown in European gardens at least 100 years before be publication of Linnaeus's *Species Plantarum* of 1753 (Milne-Redhead and Schweickerdt 1939:265), the book on which all of modern botanical taxonomy is based. *Ammocharis coranica* and *Boophone disticha*[12] are closely related members of the Amaryllidaceae (Nordal 1982). They are widely distributed in relatively isolated open veld, often near rock outcrops in clay soils.[13]. Since the weevil that feeds on these plants, *B. ornatus,* is flightless and does not travel far, populations may be isolated from each other.

The bulbs are very large, usually 15 cm or larger, and sometimes up to 40 cm in isolated areas or as described in historical records (see below. The flower head typically spans half a meter. The leaves of *A. coranica* form an unusual horizontal spiral with the large, dark green, strap-like leaves lying directly on the ground, while the leaves of *B disticha* form a vertical fan with the erect blue-green leaves standing up from the bulb [disticha means 'two rows' (Cunliffe and Teicher 2005)]. Much of *B disticha* lies above the ground; the bulbs are covered in thick paper-like scales from the desiccated leaf bases forming the bulb's tunic. The flowers, and inflorescence of many pink to mauve florets bloom directly from the bulb before the leaves fully appear in Spring to mid Summer. In veld environment where fire is frequent, the papery covering of the bulb chars, leaving a hard black covering on the above-ground bulb. The flowers are especially dramatic in the spring when the rest of the veld may be burnt black. The large desiccated flower heads detach from the stem in summer and roll across the veld with the wind as they deposit already-sprouting seeds.

Boophone disticha has been given other names that are now regarded as no longer legitimate by taxonomists.[14] It has been assigned to several genera including *Amaryllis*, *Brunsvigia*,

[12] *Boophone disticha* (L.f.) Herb., Bot. Mag. 52: t. 2578 (1825). (Accepted name WCSP)

[13] . *WCSP (2012). 'World Checklist of Selected Plant Families.* Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; http://apps.kew.org/wcsp/ Retrieved 1 November 2012.' http://apps.kew.org/wcsp/namedetail.do?name_id=300915

[14] Including: *Amaryllis disticha* L.f.; *Amaryllis toxicaria* (L.f. ex Aiton) D.Dietr.; *Boophone intermedia* M.Roem.; *Boophone longipedicellata* Pax; *Boophone toxicaria* (L.f. ex Aiton) Herb.; *Brunsvigia ciliaris* (L.) Ker Gawl.; *Brunsvigia disticha* (L.f.) Sweet; *Brunsvigia rautanenii* Baker; *Brunsvigia toxicaria* (L.f. ex Aiton) Ker Gawl.; *Haemanthus ciliaris* L. ; *Haemanthus distichus* (L.f.) L.f. ex Savage; *Haemanthus lemairei* De Wild.; *Haemanthus robustus* Pax; *Haemanthus sinuatus* Schult. & Schult.f. [Invalid]; *Haemanthus toxicarius* L.f. ex Aiton

Haemanthus, and has a long list of synonyms. Only one other species, the visually-identical *Boophone haemanthoides* F M Leight., is accepted today, however. [15]

Similarly, *Ammocharis coranica* (Ker-Gawl.). is also an accepted name according to the WCSP[16]. Several synonyms for the plant exist, including three synonyms in the genus *Ammocharis,* and several species of *Amaryllis, Brunsvigia, Crinum*, and *Palinetes.*[17]

All southern African ethnic/linguistic groups have used several different genera and species of amaryllis family of flowering plants for 'medicinal' purposes (Githens 1949; Mason, et al. 1955; Watt and Breyer-Brandwijk 1962b). Bushman usage of what is probably *B disticha* or *A coranica* was recorded by Lucy Lloyd in January 1878, for instance.

> [6088] [The substance with which the pieces of glass are made into arrow heads] It is |*kwae*; it is ||*huanni* juice. It resembles a pumpkin; it is round. Its juice is white; it resembles water; its [6089] juice is not a little white; its whiteness resembles milk. It is poison. We cut it and set it down open, then we hold under it a tortoise shell [6090] because we wish its juice to be in the tortoise shell; that we may make |*kwae* of it. And we warming it, making it hot; and we heat it, when it feels hot. Then we [6091] beat cooling it. And we take it up like this with a driedoorn stick, we do this to it with the Driedoorn[18] stick, [imitating meanwhile taking it up by rolling it upon a stick] as we make it round [?cool], because we think that we mean to make little springbok arrows. [Numbers in square brackets refer to page numbers in the original manuscript sources, while comments in square brackets are those of Lucy Lloyd, not the direct speech of her informant.] [19]

The bulb seems to have produced both mastic and a poison that were used throughout the region for different purposes.

In my research experience, they are used in eastern Mpumalanga traditional medical practices as hallucinogens and for treating a range of other symptoms and complaints, but are also widely known to be poisonous in larger doses. *Boophane disticha*, also known as 'bushman poison' or *bosiesman se gif'* (Afrikaans), and *incotho* (Zulu) (Koorbanally, et al. 2000), is widely grown in small gardens often kept by healers of many sorts, including sangomas, herbalists and 'prophets' who use it to induce trance and –trance-like states. The Zulu term is applied to both species, *Boophane disticha* and to *Ammocharis coranica*, and is used in the same way.

[Illegitimate] from http://www.theplantlist.org/tpl/record/kew-300915 viewed 14 November 2012.

[15] The plant list [under Boophone haemanthoides]. http://www.theplantlist.org/tpl/record/kew-300919 viewed 14 November 2012.

[16] http://www.theplantlist.org/tpl/record/kew-299002

[17] Including: *Amaryllis coranica* Ker Gawl.; *Amaryllis coranica* var. *pallida* Lindl.; *Ammocharis coccinea* Pax; *Ammocharis coranica* var. *pallida* (Lindl.) Herb.; *Ammocharis taveliana* Schinz; *Brunsvigia coranica* (Ker Gawl.) Ker Gawl.; *Crinum coccineum* (Pax) Fritsch; *Crinum tavelianum* (Schinz) Fritsch; *Palinetes coranica* (Ker Gawl.) Salisb. [Invalid] Synonym

[18] Driedoorn (?Driedoring [Afrikaans], 'three thorn') probably refers to the shrub *Rhigozum trichotomum*, of the *Bignoniaceae* Family, a common dry land shrub in the Karoo where the originator of this text comes from. The common name Driedoorn, in Dutch, refers to the Honey Locust, *Gleditsia triacanthos*, a European species.

[19] Lucy Lloyd's Book VIII-1, catalogue BC 151 A2 1 076. 10-28 January 1878; http://lloydbleekcollection.cs.uct.ac.za/books/BC_151_A2_1_076/A2_1_76_06088.html

Figure 12. Boophane disticha, photographed in the field approximately 12.5 km south southwest of Machadodorp town, Mpumalanga. Photo: R. Thornton, November 26 2012

These plants are often found in close association with the man-made features on the landscape that are often called 'stone circles'. This specimen was in highveld grassland vegetation.[20]

Figure 13. Site of Boophone disticha speciment in previous figure. Note the presence of large 'stone circles' in the vicinity. The green arrow marks the location of one of the *B. disticha* specimens shown here. Picture is a screen capture from Google Earth.

The large bulb *in situ*, growing naturally in the veld, holds great potency. The specimen in Figure 12 is about 15 cm in diameter, and located in unused wild veld near many loose stone-built ancient structures that are typical of the area. Such plants are usually avoided by people walking in the veld unless it is specifically being sought for use in witch-finding procedures, or to replant as protection on the margins of homesteads or in association with dwellings.

[20] GPS location is 25° 47.085'S 30° 13.433' E elevation 1680 m

Figure 14. Inflorescence of Boophone disticha from same ecological environment as previous image. Note that the flowering head is nearly 0.5 m across. Photograph Robert Thornton, November 2012.

The size of the *B. disticha* inflorescence is over 50 cm in Figure 14. As these flower heads mature, they break off and are seen to 'walk' across the veld on their own, with maturing seeds at the tips that seem to plant themselves. In fact, they are blown by the wind, and seeds sprout quickly, sometimes even before leaving the flower head. Thus, the plant seems to have some agency, a power of its own.

Figure 15. A sangoma's herbal medicine garden, Barberton, Extension 11. The garden was planted and tended by Magodweni, a sangoma. (c) Photo Robert Thornton.

In addition to being sought out in the wild, *B. disticha* is often planted by healers either inside the circle of their 'surgery' or 'spirit house' (*indumba*), or in a stone circle with other important herbs. In Figure 15 a sangoma near Barberton (Fani Nkosi, known as Magodweni) has planted *B. disticha* together with an *Erithrina caffra* (Thunb.) tree in the centre of a stone circle, together with *Hypoxis hemerocallidea* [star flower, African potato [Eng], *gifbol* [Afr], *inkomfi* [Zulu]) and a few maize plants (outer circle). *Erythrina caffra* ('lucky bean', Coast Coral Tree [Eng.], Kuskoraalboom, Kafferboom [Afr], *umsinsi* [Zulu]) is known throughout southern Africa as the one of the most ritually significant of all plants. In Afrikaans, as in Linnaean Latin taxonomy, it is called Kafferboom ('Kaffer tree' 'African tree' or 'Caffra,' in Latin) since this was the name by which the southern coast of South Africa was known in 17th century Europe where the species acquired its Latin name. It is the 'Spirit tree' where African ancestors (*madlozi* [Zulu], *madimo* [Sotho-Tswana]) and spirits are known to sit. The English name, 'Luckybean tree' also points to its well-known role in ensuring health and protecting from misfortune. Like *B. disticha* and *Hypoxis*, it is poisonous, but nevertheless used cautiously in indigenous medical applications. *Hypoxis hemerocallidea*, today known widely as 'African potato,' and formerly as 'poison bulb' (*gifbol,*) like *B. disticha,* has acquired a strong but undeserved reputation as a cure for HIV and AIDS.

Planting all of these together within a stone circle provides powerful magic, and echoes the form of many much larger stone circles—often believed to be 'cattle kraals—that are found all over the southern African landscape. The garden in Figure 15 is a model of the

earlier ritual circles in South Africa that are often sought out by people searching for medicinal herbs since they host many such plants and are held to be especially powerful sites in the landscape.

Figure 16. Habitat of *Boophone disticha*, in high montane environment, Three Sisters Mountain, eastern Mpumalanga. © Photo Robert Thornton 2008

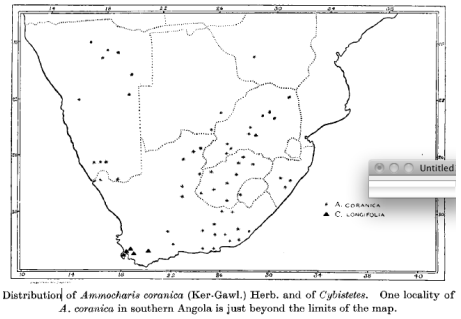
Domsticated, *B. disticha* is part of the establishment of many sangomas throughout eastern southern Africa, but in nature it prefers undisturbed, often quite remote locations such as the slopes of high mountains . This is possibly because it is heavily exploited when found closer to habitation, but its power is associated with its remoteness, too.

Figure 17 *Boophone disticha* in natural habitat, on a high north slope of Three Sisters Mountain, near Louisville and Louws Creek, eastern Mpumalanga. © photo R. Thornton, 2008.

Figure 18. Ammocharis coranica, in situ, near Belfast Dam, Belfast, Mpumalanga. The dried flower head, much smaller than B. disticha, is visible. Photo R. Thornton, April 2013.

I have not seen A coranica planted domestically, but it is also widely used and gathered. The specimen in Figure 18 was photographed in a Highveld grassland environment at 1800 m above sea level. It was locally fairly plentiful, but generally rare.[21]

[21] GPS location is 25°39'57" S 29°59'32" E at 1840.4 m.



Distribution of *Ammocharis coranica* (Ker-Gawl.) Herb. and of *Cybistetes*. One locality of *A. coranica* in southern Angola is just beyond the limits of the map.

Figure 19 Distribution of *Ammocharis coranica* (compare with very similar, and necessarily identical, distribution of *B. ornatus* Figure 11

Both *A. coranica* and *B. disticha* have a number of alkaloids that are poisonous in some dose, including Acytylcaranine, Ambelline, Caranine, Crinamine, Lycorine, and many others (Bay-Smidt, et al. 2011; Hutchings 1996; Koorbanally, et al. 2000; Mason, et al. 1955; van Wyk and Gericke 2007:156).[22]

The plant is used to treat "mentally ill patients', hysteria, and 'unspecified afflictions resulting from witchcraft' (Koorbanally, et al. 2000:93; Watt 1967). The bulb scales yield a plastic-like pitch when heated, and are used to form the torus-shaped head ring, *incotho* (or *incoco*) often worn by chiefs and *indunas* (headmen) among the Swazi and Zulu. As we have seen this same substance is also used by the |Xam Bushmen (and probably others) as a mastic for fixing arrowheads to shafts (Koorbanally, et al. 2000; Pole-Evans 1938).

Kuper notes the use of such headrings, *inchotho*, for instance, in the Swazi king's puberty ritual (*sibimbi sokutfomba*).

> In olden times the king and a small number of selected followers would have been crowned after this ceremony with the waxen head ring which marked the age of marriage. (Kuper 1947: 77)

Although this custom was abandoned under the reign of Sobhuza II, the 'waxen headring' was most likely made of *Boophane disticha* or *Ammocharis coranica* plant, also called *incotho* (like the headring) in isiZulu and SiSwazi [Swazi]. It is copied, however, in other materials and is still used today in ritual contexts.

Figure 20. The *incotho*, a black headring, can be seen on the head of the senior representative of King Mswati

[22] Phytochemical discovered in this study include: , including "buphanisine, epibuphanisine, buphanidrine, ambelline, crinamine, 6-hydroxycrinamine, epivittatine and an uncharacterised alkaloid, coranicine", and also found eight triterpinoids, including: 24-Methylenecycloartan-3 β -ol; Cycloeucalenol; Cycloeucalenone; 24-Methylene-pollinastanone; 1-O-Acetyllycorine; Hippadine; Acetylcaranine; 1-O-Acetyl-9-O-demethylpluviine; 6 α -Hydroxypowelline.

.

of Swaziland (right front in photo), in attendance at the Chief's *ummemo*, or annual community levy, October 2009. The Chief (*inkosi*), Prince Kenneth Dlamini of Emjindini 'Royal Swazi Tribal Trust' is in the centre with Julius Matsebula, Emjindini headman (*induna*) and Senior Curator, Barberton Museum, to the Chief's right. The author is at the far left of the photo. Photo © R. Thornton 2009.

But rather than simply signaling status or 'coming of age', the significance of the ring probably had a great deal to do with its power to protect against evil, witchcraft and misfortune. That is why chiefs, and those with political power or status wore it.

Since use against witchcraft is attested in the literature on medicinal plants, and since the headring is held to be an effective protection against witchcraft, it is likely too that the *Brachycerus ornatus* beetle was also held to be protective against witchcraft. By consuming these amaryllids that contain significant amounts of alkaloids and other poisons and psychotropic agents, it is likely that the beetle also acquired some chemical protective effect against predators.

The plant has a number of other names, including *Incwadi* ('book' in isiZulu). The Zulu name, *incwadi*, 'book', may be derived from the paper-page like texture and layering of the tunic around the bulb. It is more likely, however, that both the Tswana *leshoma* ('tell', 'accuse') and the Zulu *incwadi*, 'book', refer to the use of the plant as a kind of 'truth serum'. Venda people call it *zwitungulo* where it is used, similarly, to find witches or those who have killed or caused harm. The plant is often planted in the corners of homesteads for protection against evil of all kinds.

Brachycerus and the Amaryllids in southern African history

Possibly the first mention of the 'poisonous bulbous plants' is from the records of the Swedish naturalist Carl Per Thunberg who collected and described a type specimen in 1778. He described it as a

> "Poisonous bulbous plants (*giftbolles*), *Amaryllis disticha* [*Boophane*, in this locality *B. haemanthoides*] grow commonly in several places. Hottentots use the roots for poisoning their arrows." [Thunberg, C. P. 2:163, 2 November 1778] (Skead 2009:58)

Thunberg called this plant *Amaryllis disticha*, but the following years brought much disagreement among naturalists concerning the classification of the Amarllids of southern Africa. John B. Ker-Gawler, however, is responsible for the relatively stable nomenclature of this plant for most of the nineteenth and early twentieth centuries. In 1816, he described a plant which he called *Amaryllis coranica* in the 'Botanical Register', tab 139, noting that 'This plant had been collected by Burchell in the 'Corana [Koranna] country … several days journey beyond the Orange River'.

John Barrow may have been the next to describe the Amaryllids in the Cape. Travelling in what is now the Northern Cape near Kamieskroon (30 15.925 S 17 57.114 E) in April 1798, he described with equal disgust the pendulous breasts of an "old Hottentot woman", and the 'want of points and uninterrupted rotundity' of a Dutch woman, suggesting that 'some principle … that sheds its influence on the animal and even on the vegetable part of creation' was responsible for the disproportion of both. The example he gave of 'vegetable creation' was the enormous bulbs and flowers of several of the Amaryllids, including *B. disticha*.

> Another species of Amaryllis, called by the botantists the *disticha* [identified as *Boophane disticha* by Skead (2009:61)], common on all the mountainous part of the Colony, was now on the Khamies berg throwing out its long broad leaves in opposite pairs forming the shape of a fan. Both the bulb and the leaves of this

> plant have been ascertained to be, without any preparation, the most virulent poisons that act on the animal system whether taken into it by the stomach or by the blood. The farmers pull up the root and leaves wherever they find them growing. It was said that the juice of this bulb, mixed with the mangled body of certain species of spider, furnishes the Bosjesmans with poison for their arrows more deadly than any other they are acquainted with." (Barrow 1802: v.1, 391; Skead 2009:61)

The plant also came to the attention of another traveller, German zoologist Martin H C Lichtenstein, near Kuruman in June 1804.

> [At a cattle kraal on the Kuruman River] "in the midst of the space lay an enormous bulb which must have measured nearly a foot [30 cm] in diameter, probably *Haemanthus* or *Ornithogalum* species [most likely *Boophane disticha*][23] … they were charms, he [Kok] said, by which cattle were preserved from enchanters and would not be parted with by the possessor at any price …"(Lichtenstein and Plumtre 1815:395; Skead 2009:260)

The traveller, botanist, and southern African explorer William J Burchell, noted in 1812 that

> Plants of *Amaryllis toxicaria* [*Boophane disticha*] were in many places very abundant, their bluish undulating leaves rising out of the ground and spreading in the form of a fan ... Well know to the Bushmen on account of the virulent poison contained in its bulb. It is also known to the colonists and Hottentots by the name of gift-bol [poison bulb] [1: 541, 15 February 1812] (Burchell 1822:vol. 1, 541; Burchell 1953; Skead 2009:265)

Burchell also provided a specimen of the *Amaryllis toxicaria* [classified now *Boophone disticha*] to the Royal Botanical Garden (now Kew), and several *Brachycerus* specimens that are now in the Oxford Museum collections.[24] Buchell's collections include what he called *Brachycerus imperialis*, *granosus* and *apterus*.[25] There is no '*B. ornataus'* in his collection but this appears that he used different names for this beetle.[26]

David Livingstone also noticed the flowers in the vicinity of the mission station at Kuruman in 1852 and remarked on the plant, giving yet another use of it. He reported many genera, including

> Ixias and large flowering bulbs, the *Amaryllis toxicaria* [*Boophone disticha*] and *A.* [*Amaryllis*] *brunsvigia multiflora* [either *Ammocharis coranica* or *Brunsvigia radulosa*] (the former a poisonous bulb) yields in the decayed lamellae [tunics] a soft silky down, a good material for stuffing mattresses. (Livingstone 1857:112; Skead 2009:278)

[23] Botanical identification in contemporary taxonomic nomenclature is by Skead (2009:260), here and in subsequent quotes citing Skead 2009.

[24] Filed as *Ammocharis coranica* Herb. [family AMARYLLIDACEAE], as a type specimen. Burchell £ex B-47 No. 2, collected 15-07-1821, Cape Province: Klipfontein. Identifications: *Amarillis coranica* Ker-Gawl.; *Ammocharis coranica* Herb.; *Ammocharis falcate* Herb. Information of JSTOR Plant Science, filed as *Ammocharis coranica* http://plants.jstor.org/specimen/k000365397

[25] There is a specimen labelled '*Brachycerus apterus' (Olivier 1790)* in the Musee zoologique de Strassbourg that looks identical to *B. ornatus* in online pictures: http://commons.wikimedia.org/wiki/File:Brachycerus_apterus-Musée_zoologique_de_Strasbourg.jpg accessed 25 Jan 2012. There are also a number of other specimens label *B. apterus* that are very similar. *B. granosus* (Gyllenhal 1833) is also a currently accepted name. Image on GoogleImages appear to be nearly identical with B. ornatus. Burchell's *B. imperatus* is not a currently accepted name.

[26] Personal comm. Mr James E. Hogan, Hope Entomological Collections, Oxford University Museum of Natural History, 23 January 2012.

According to some reports, it was not the 'silky' quality of the material that made it useful for mattresses, but rather that Afrikaans farmers in the Karoo used mattresses filled with the material to calm hysteria and aid sleeplessness. (Hutchings 1996) Later that year, in north-eastern Botswana, Livingstone revised and improved his description of *B disticha*

> The poison more generally employed [by Bushman] is the milky juice of the tree *Euphorbia Euphorbia aroborescens* [*Euphorbia cooperi* or *E. ingens*]. This is particularly obnoxious to the equine race. When a quantity is mixed with the water of a pond, a whole herd of zebras will fall dead from the effects of its poison before they have moved away 2 miles. It does not however kill men and oxen. On them it acts as a drastic purgative only. This substance is used all over the country, though in some places, the venom of serpents and a certain bulb, *Amaryllis toxicaria* [*Boophone disticha*] are added to increase the virulence. [Livingstone 1857:171; (Livingstone 1857:171; Skead 2009:311)

Emil Holub was perhaps the first to discover the association of the weevil, *Brachycerus ornatus*, with these plants. Holub collected the *B. ornatus* item now in the Naprstek Museum, in Prague. He kept exceptionally detailed records of insects and plants, but seems not to have included *Bracycerus ornatus* in particular.

He did make other significant observations about these weevils.

> "In the course of the march during the afternoon, I found a good many weevils under the leaves of a liliaceous plant, as well as several kinds of locusts that were new to me."(Holub 1881:242)
>
> "We lost no time in making a start the following morning, and, turning into a wide valley that ran northwards, we came in sight of a native village, consisting of about forty huts, the shape of which evidenced that they were the property of Koranna and Bechuana Barolongs (Holub 1881:246).

The 'liliaceous plant' is *B. disticha* or *A. coranica*, probably the latter since it was in the territory of the Koranna and Barolong sub-section of the Tswana, in the neighbourhood of today's Kuruman. Further north, after having crossed eastern Botswana (then 'Bechuanaland'), and passed to the east of the Makgadikgadi [Kalahari] salt pans, he noted again the 'poisonous lily' on what he called a 'high sandy plateau' with numerous seasonal pans.[27]

> I must call attention to the fact that it is dangerous to cross this plateau from October till December on account of the growth of a poisonous lily, which kills the cattle in a few hours. After the grass has grown up the cattle do not touch this poisonous plant.(Holub 1881:174)

Holub was not able to bring back to Europe any specimens from this segment of his exploration as the canoe containing all his material and his guns capsized on the Zambezi as he was en route to the western coast at Luanda. He was forced to turn back. It is very likely that his collection of insects, which he specially mentions, would have contained instances of *B. ornatus*.

Henri-Alexandre Junod, one of the premier early ethnographers of southern African

[27] From the map published with 'Journey through central South Africa' he travelled along the still-existing road between Nata in northeaster Botswana and Pandamatenga on the Zambia-Botswana border, roughly 19° S 25° 30' E.

peoples, also collected the beetle and described episodes of 'play' among Tsonga children in southern Mozambique that appear to involve the beetle, or one like it. Like Thunburg, Barrow, Burchell, and Livingstone, Junod had extensive medical, botanical and zoological knowledge, especially in entomology. Upon arrival in South Africa as part of the Swiss Romande Mission Society, he pursued studies of indigenous insects and collected many specimens that are still in South African collections today (Michler 2003) (Harries 1981; Harries 1989; Junod 1912), including two *B. ornatus* specimens, now in the Transvaal Museum in Pretoria.

Henri-Alexandre Junod was as passionate about beetles as he was about his evangelical mission, according to his son, Henri-Phillipe Junod, who recalled in a memoir about his father that

> Evangelism journeys … are magnificent opportunities to observe, to take notes, to be instructed. School exams, sermons, collections of beetles and butterflies, study of herbs, etc. Enthusiasm grew in the heart of the young missionary who was beginning to understand the wonderful development Africa was offering to his scientific talents. (Henri-Phillipe Junod 19xx:17 in Michler 2003: 40)

Henri-Alexandre Junod worked for many years with the Tsonga peoples of southern Mozamibique and later, South Africa. He was particularly struck by the indigenous knowledge of plant and animal life in this environment.

> Having collected beetles and butterflies extensively for years, I have had the opportunity of recognizing the power of observation of these boys who were my best hunters! Of course they particularly appreciate things edible... especially the *shitambela*, a big Bupresta beetle that they roast and suck. Learning, as they do, the native names of all these creatures and their habits, they certainly acquire a great amount of knowledge during these years. (Junod 1912:67)

B. ornatus contains large fat reserves and may also have been eaten roasted by children, although it is more likely that the beetle would have been toxic to humans. 'Bupresta' is a common name in French (and Latin) for a wide range of endophytic borer beetles, so the beetle in Junod's text might have been *B. ornatus*. In any case, this illustrates how insects, like other plants and animals (and parts of these) were woven into daily practice.

Junod also described a game that children played that imitated the behavior of a beetle called '*shifufunu*'. The behavior illustrated by the children's play closely resembles the behavior of *B. ornatus*, which would have been especially prominent and noteworthy.

> The game of the beetle (*shifufunu*) is played as follows: one child is the beetle, and, as a distinguishing mark, he puts a handkerchief round his head. A hole is dug in the sand; he enters it, nestles in it as do some insects until quite covered with earth. He remains there perfectly still whilst his comrades sing to him the following song :
>
> 'Beetle of mine ...
> I will marry thee...
> Say " yes " to your brother.
> For the price of an ox...'
> (Junod :67)

In the only detailed entomological study of *B ornatus* in the Free State Province, Louw describes a similar behavior to the one the Tsonga children mime in Junod's account. After copulation, the female *B. ornatus* beetles deposit eggs under the leaves of the *A. coranica* after digging a hole and crawling into it.

> after adopting a characteristic 'head-up' position four to eight eggs (N=7) are laid with a time lapse of up to 10 minutes between each egg. Fluid is released after each egg is laid, whereafter it is covered with a layer of soil. After ovipositing, the hind legs and pygidium are used to cover the hole firmly with soil. The female then remains for up to several hours in the depression. (Louw 1990b)

The children's games seem to mimic this beetle's behavior since it is large, flightless (and therefore cannot escape human attention easily), exhibits distinctive behaviour, and is ritually important (hence being worth the 'price of an ox'). Henri-Alexandre Junod collected two specimens of the *B. ornatus* in the Transvaal Museum, Pretoria, entomological collection, one in 'Delagoa Bay' (not dated in collection records) and one in 'Lourenco Marques' (collected in 1909, now Maputo).

Contemporary use

Boophone disticha today is heavily exploited by healers and herbalists, together with *hypoxis hemerocallidea* ('African potato, popularized recently as a 'cure' for HIV/AIDS), and *euphorbia clavaroides* (Hutchings 1996; Wagner 2012), amongst others, that occurs in the same grassland habitat. One author reports that *Boophone disticha* currently (2012) sells for $1.50 for a 'large bulb' in Johannesburg's herbal medicine/magic markets (Wagner 2012).

B. disticha in particular is used in several ways by sangomas in the Swazi speaking areas near Barberton where I have done extensive fieldwork since 2000. I have seen it in almost every healer's collection I have had the chance to observe, and seen it being collected and dried.

It is best known for its use by some herbalists and sangomas who specialize in finding witches. The practice of identifying anyone as a witch is illegal in South Africa under the Witchcraft Suppression Act (1953, amended 1970 and 1997). Accordingly, the psychoactive substances in B disticha and/or A. coranica are used to induce a cataleptic visionary state in which the injured party is believed to be able to 'see' the witch for him or herself. This is known, variously, as *lispëel* [Zulu colloq. from Afrikaans *spieël,* 'mirror'], *tshivhone* [Venda, 'mirror', 'vision'], 'bioscope' or 'traditional TV', or 'security camera'(van Wyk and Gericke 2007:156, 164, 198, 240). According to healers in Barberton and the Sheba settlement near the Sheba Mine, Mpumalanga, clients who are afflicted by witchcraft, and who have so far failed to prevent its influence or to find the witch use this method as last resort. The patient consumes a part of the bulb by chewing or water decoction, and is then made to sit in front of a blank wall in a darkened room or hut. Hallucinations or visions begin to occur as a result of the herb and appear to be projected onto the blank wall in front of the patient. This gives the method its names. The patient is then expected to be able to 'see' the witch that is causing the problem. Both healers and lay people report, however, that the method is very dangerous. The patient may die of these poison-induced visions. In local belief, it is the witches and malefactors that are seen in the visions that kill, not the poison. In other words, the 'intangible persons' in the dream world kill, while the herbal concoction and the 'trance' state it induces, only makes these encounters possible. Death is attributed to the witch who, having been seen and thus found out, may take revenge by killing the patient before the patient can recover and kill the witch.

Personal accounts of this that I have heard attest to a long recovery period from the use of this plant. 'My cousin was not right for two years after doing it', says one, and other attest to death of many subjects. Whether the treatment is fatal or not, it requires a long recovery period during which the patient is comatose, sometimes for days. No healer wants to have to deal with a dead patient, and resorts to such dangerous measures only as

a last resort.

Generally, too, other herbs and remedies have been prescribed prior to and in conjunction with *B. disticha*-induced visions, or 'bioscope'. Use of emetics and steaming are also common in such cases. Resulting dehydration and the consequences of whatever presenting illness or misfortune will already have weakened most patients. It is difficult, then, to assess the virulence of the alkaloids and other psychotropic chemicals the plant may possess.

According to much other literature, the plant is also used today in many other ways. It is reported to be used to calm 'hysterical' people, and is used to stop bleeding from circumcisions and ear piercings.

Most of the related genera of the Amaryllids, including *Clivia, Scadoxus, Haemanthus, Ammocharis* and others (Hutchings 1996) have similar uses, especially in relation to protection from witches or in treatment of witchcraft, or as 'charms' and 'amulets' against witches. These are all poisonous, and all contain similar alkaloids, usually named after the plants, from which it is obtained, such as lycorine and hyocine, haemanthamine, buphanimine, etc., are judged to be responsible for fatal poisonings. (Hutchings 1996)

In the areas where I have found the plant (near Machadodorp and near Louws Creek, both in Mpumalanga), there is ample evidence that they are exploited. In late 2012, I found specimens on a derelict farm, now owned by 'community' as the result of land restitution and redistribution. Some Nguni cattle were being pastured there by herdboys in the very large unfenced area, but we did not see cattle dung in the area we walked, and only saw kudu spoor (?), and live reebok and duiker. The wild plant biodiversity was extraordinary, perhaps because of the fact that the farm has been unused for some time. This has created an important ecological and economic contradiction: the farm is no longer economically productive, but it is therefore reverting to a wild(er) state with increased biodiversity. But, that biodiversity is being exploited more heavily by medicinal plant market-gatherers and local healers (*dingaka/ligedla/tangoma)*. They were taking whole plants, but were not exploiting all plants in any area, leaving some to reproduce. They were making stone tools opportunistically in the veld to dig the plants.

There was considerable evidence of very recent chipping of the ubiquitous dolerite (diabase) rock that originates in many dykes and ridges in the immediate area. The manufacture of stone tools today is remarkable, but is probably motivated by the fact that collection of herbal materials in this way is illegal, and occasionally prosecuted. To avoid being caught with iron tools such as pangas, typically used to dig herbs in more secure locations, herb gatherers use an ancient human lithic technology. It is easy to chip large, very sharp flakes from the dolerite rock forms that litter the land surface, and there was considerable evidence of this being done in the area. Percussion points and fracture surfaces were fresh with dust still adhering to some percussion points. The flakes obtained in this way are very effective in digging and in cutting roots and stems.

Figure 21. Dolorite (diabase) rock chipped recently, probably to obtain a stone tool used for digging

medicinal herbs n the veld. Three strike points and bulb of percussion is visible in the centre of the cusp between the two faces of this core.

When *B. disticha*, like other powerful plants, is collected in the bush, the hole from which it has been taken must be left open to allow it to continue to communicate with its origin, and to convey this power to the patient. In sections of veld where this and other plants grow, then, it is common to see open holes like the one in Figure 22.

Similarly, a beetle on a string of beads connects the veld to the victim of sorcery and protects by means of this 'magical' connection. The red spotted weevil itself is not magical, but rather the set of relations between acts, objects, places, land(scape), and meaning provides a way to manipulate the flows of 'power' or energies that can protect and heal, that can lead to trance and vision, or that can kill. Beads are often placed in the landscape as a reciprocal connection, and may be left in the holes from which powerful herbs are dug. It is 'strung' onto the land.

The beetle-as-bead ties the landscape directly to the patient and healer just as the healer goes to the land to find her herbs. In this way, 'nature' and landscape are mapped onto persons—tangible and intangible. This can only be fully understood if we see the landscape and its parts as the southern African healer does: the parts of animals, plants and minerals, including beads, are agents in an active landscape that also includes humans.

Figure 22. Exploitation by healers (herbalists & sangomas) by digging for herbs in the veld leaves characteristic holes (centre) and stone tools (bottom centre). Holes are not backfilled in order to maintain potency of the herb according to local tradition.

Things good to string: a conclusion

This effort to identify a few threads of the lived history of healing in southern Africa has nevertheless shown why practicing healers in this tradition deny historical time itself. First, parts of plants and animals—'natural' objects in the Western view—are also part of culture as non-human agents. They are viewed as agents of healing because, by virtue of their direct connection to the non-human landscape, they protect humans from other humans and from the intangible persons usually called 'spirits' and 'witches'.

Second, objects of this sort are visible in the archaeological record for 40,000 years in the past. This is also the period over which anatomically modern humans with identifiable symbolic cultures have existed, so change is not accountable in historical time. Some aspects of the regional material culture appear to have been extraordinarily stable. The natureculture nexus it embodies is powerful and—evidently—healing. This is especially true for what I have called magical bundles: things good to string.

Since the healer's magical and medicinal materials are buried with each healer at their death, they do not survive in contemporary costumes or technical kit as material 'memory' or memorials. 'History' is erased while culture endures, as each healer must

assemble their own costumes and magical regalia according to the unique direction of their 'ancestors' and their *gobela*, their spiritual guides.

Whatever guides my anthropological effort to bring this tradition into history, however, depends fully on the textual records that brought the southern African landscapes, cultures, and nature into the records of European science. This history is fully contingent on empire and its systems of representation that incorporate this same landscape into quite a different sort of powerful system through mapping, zoological and botanical collections, and not incidentally, ethnography.

This approach charts a new direction, since virtually all of the ethno-botany and ethno-zoological work in anthropology and the life sciences, however, has focused on real or supposed pharmacologically active chemicals in them. The material presented here shows that these chemicals and their effects are only relevant within the regional cultural context.

I have presented only a few spots of detail in a very broad picture, much of it still missing. Many other kinds of natural products are similarly used in magical, medicinal, ritual, healing, and religious applications and show ways in which humans understand and value their environment. Many more relationships of this kind exist in southern Africa.

I have explored these as constituents of an active landscape in which plants and insects have agency and individuality. Each plant is connected to its own place in the landscape because the hole from which it is extracted is not backfilled. Stone blades are used to harvest them. Beetles, like other animals in southern Africa as varied as crocodiles, leopards, aardvarks, and snakes, are attributed character and agency. The plant toxins are held to reveal unique personal histories of bewitchment and misfortune. The landscapes from which they come, and to which their cultural uses refer, can be seen as places and arenas of agency in which not all actors are human.

We do not know who originally made the beaded beetle amulets: evidence shows, however, that they were used throughout the region as variations of a common theme. The bundles of beads, plants, and animal parts are a universal feature of southern African healing and protective systems. They map flows of power or energy (*amandla* [Zulu]; *mathlo* [Sotho-Tswana] or *n/om* [!kung, & some other San/Bushman languages]) into other people, objects, places, and environment or landscapes. These bundles of beads and objects of natureculture make this power visible and useful. These landscapes become 'healing scapes'.

Beads, and the other elements of protective magic—especially in archaeological contexts—are made of a large range of materials: plant, animal, mineral, and manufactured substances such as metals and glass. Their significance for healing and protection is their connection to the landscape, especially to the powerful uninhabited 'bush' regions that are traversed (ideally) only by healers themselves and, of course, their enemies, the witches and other agents of misfortune. The beetle translates this power into the strings that contain it, while the plants, *B. disticha* and *A coranica,* present their powers more directly as psychotropic agents that allow the healer and patients to inhabit a magical landscape where witches and spirits can be seen walking, and can be identified.

I have also shown here how medicinal plants are dug out of the veld with stone tools that are produced on site and as needed in order to harvest them. This technology is probably partly opportunistic: it readily provides sharp stone blades of sufficient size and heft to dig effectively. It also protects healers from arrest by police since stone implements are discarded by the holes they are used to dig and do not expose the

collector to suspicion of trespass and poaching as a panga or spade would do. They also do not have to be carried very far, and are therefore energy efficient. But there is also the possibility of an historical continuity with previous lithic technologies. What has been called the 'Iron Age' in southern African archaeological context was also a 'Stone Age'. The two technologies are present in most archaeological sites of the last 1500 years or so. Iron did not exclude stone since for most of the period in which iron was known and used in southern Africa it was used to make beads and/or amulets, not hoes or spears.

These images might come from a dream: a giant, black-and-red parasitic weevil; a hallucinogenic and poisonous-though-beautiful lily; beaded amulets meant to ward off witches in a regional healing cult. They constitute a set of relationships that form a hidden landscape visible to traditional healers of southern Africa, irrespective of ethnic and linguistic boundaries. They connect humans to this landscape in ways that blend medical, psychological, neurological, and cultural systems within a greater cultural ecology of southern African grasslands and open bush.

Anthropology has long enquired into the nature of relationships between humans, plants and animals, and human-environmental interactions, but the focus has usually been domestic plants and animals such as wheat, cattle, dogs, and maize. Most such studies concern themselves with the harnessing of plants and animals in the Neolithic revolution, and with economic and productive 'natural' resources. Where the environmental issues have been explored, it is usually with respect to evolution and co-evolution of humans and other life forms, or with the 'natural' part of the environment. The maturing of fields such as ethno-botany, ethology, ethno-zoology, human ecology and environmental studies, has introduced new richness into our understanding of humanity's relationship with 'nature'. The recent development of 'multispecies ethnography' (Kirksey and Helmreich 2010; Porter 2013), and the emerging concepts around *natureculture,* however, have allowed us to see 'creatures previously appearing on the margins', and the 'host of organisms whose lives and deaths are linked to human social worlds.'

This set of relationships involves specialised exploitation of resources embedded in a landscape. This constitutes an element of a larger ecology is not simply 'ecological' Whereas ecology and 'economy' entail flows of values, nutrients and energy, in this case, life worlds or *umwelts* (Kirksey 2010) of a particular set of people, plants and insects define a unique set of entangled life-ways. Beetle and plant have meanings enabled and engaged through specialised relationships involving spatial patterns, mutual dependencies (e.g. domestication of the plant, parasitism of the beetle), and specialised needs. If these beetles were also used for divination, their spatial relationships with each other and with other divination tokens points again to their place in the landscape of healing that divination reveals.

While the relation between beetle and plant is parasitic, the plant provides an entire 'landscape' or environment for the life cycle of the beetle (Louw 1990b), while the beetle indexes the potency of plant in the veld for human healers and their patients. The beetle's colour references the symbolic black-red-white triad of colours that is central to the colour symbolism used throughout healing systems in southern Africa(Hammond-Tooke 1989; Hammond-Tooke and Institute for the Study of Man in Africa. 1981; Ngubane 1977), and is directly incorporated into material culture that is worn close to the body and that protects the patient (or healer) from ill.

The beetle's food plant holds a powerful place in the systems of healing. It grows either in the deep bush, far from human habitation where plant ecologies are not disrupted by grazing or farming, but paradoxically can also be planted in cattle enclosures and in

healer's domestic gardens to protect cattle and people. When ingested by humans it provides an imaginary or hallucinatory landscape that can be entered (at risk of death and other unwelcome revelations) in order to 'walk' with witches and other intangible persons. Healers today believe this hallucinatory landscape can be 'projected' like a movie on a blank wall, and although this TV or movie vision is internal to the user's mind, sangoma and patient alike represent it as being a real landscape in which one can move about and 'see' what afflicts one. Only initiated healers generally know where to find these plants in their own landscapes.

This is not, then, an 'ecology'—although it is that too—but rather a landscape of natureculture in which 'nature' and 'culture' merge in the most practical ways. What emerges for our analytic vision then is a mostly-hidden landscape of persons, beetles, plants, and the uses they make of each other in defining their lifeways or *umwelts*.

Overwhelmingly, southern African anthropology, archaeology, and history have focused on ethnic divisions ('tribe'), cultural territories, climate regimes and population movements. In particular, the 'divide' between the summer-rainfall areas where maize cultivation is possible, and the winter rainfall areas, where maize does not grow, has tended to correspond to earlier settlement areas of Bantu-speaking peoples in the summer-rainfall areas, and San/Bushman and Khoe peoples to the south and west of this line. Increasingly, however, it has become possible to see the continuities between these cultural and ecological zones. The ecology of this beetle-plant-human nexus, for instance, crosses this ecological and cultural boundary, as do many other cultural practices related to healing and protection. Practices and beliefs of this sort illustrate the network of relationships that spans the southern African sub-continent, linking the many local or sub-regional healing regimes together. As Paul Landau remarks, "The whole of southern Africa was an area of common learning and mutual experience" (Landau 2010:49).

Increasingly, too, African medicinal plants are now marketed globally, and there is increasing local interest in 'African cures for African problems.' With globalisation of medical belief systems, Chinese and Vietnamese beliefs about the healing properties of rhino horns, for instance, now threaten to drive this species to extinction. These plants and animals are increasingly exploited in the natural habitat. Exploitation of wild stocks is now unsustainable in many instances, and future biodiversity will be negatively affected. The relationship between African ritual and thought, the beetle *Brachycerus ornatus,* and the plant *Ammocharis coranica* and related Amaryllid species, is one example of both the threat to biodiversity and the opportunity for further research that this represents.

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