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ORIGINAL ARTICLE

The African Dragon Stones: Geomyths About Snakes and the Origin of Diamonds in South Africa

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Abstract
Geomyths of snakes guarding treasures or bearing head gems are widespread in Eurasia and the northern half of Africa, but are rare in sub-saharan Africa. This contribution reports the earliest written evidence of the existence of versions of this geomyth in at least two cultures: the IsiXhosa and San indigenous inhabitants of South Africa. The myths are about the origin of diamonds, and how snakes were believed to be the creator of diamonds and carried the precious gem on their head. These would have accounted for the diamond rush in southern Africa in the late 1800s. It is possible that these geomyths in southern Africa resulted from the mixing between local folklore and the Dragon stone myths imported from Eurasia. The possibility that the South African versions of the myth may be related to vertebrate fossils (with braincase infilled with crystals) is also discussed.

Keywords Geomythology · Indigenous knowledge · Snake · Diamond · South Africa · Fossils

Introduction

The "Hermit-Naturalist" Alfred 'Gogga' Brown (1834–1920), from Aliwal North, was a pioneer of palaeontology in the former Cape Colony (now in South Africa), and passionate about modern and fossil reptiles (Drennan 1938; MacRae 1999). Between 1867 and 1920, he recorded his discoveries, meteorological, herpetological, archaeological, geological and palaeontological observations, and correspondence with some of the greatest minds of his time in 21 volumes of hand-written notes that constitutes a formidable resource for documenting the history of science in southern Africa (Drennan 1938). It is a treasure trove of unpublished data that, up until today, has enabled breakthroughs in the fields of geomythology, palaeontontology, and palaeoanthropology (Kammerer 2018; Masters 2019; Wolvaadrt et al. 2023; Benoit 2023; Benoit et al. 2023; Benoit and Steininger 2024).

As they record the initial discovery of almost 30 Karoo-aged therapsids and reptiles, Brown's notebooks are now kept in the holotype vault of the Karoo Palaeontology Collections of the Iziko Museum of Natural History (Cape Town, South Africa). Brown was also interested in anthropology and history, and as such, he recorded local folktales, particularly those relating to mysterious animals such as the Dassie-Adder, Sea Serpent, Giant Humans, and Lightening Bird, which, in some cases, are the only written records of this folklore (Drennan 1938).

In 1871, he dedicated two pages of his notes to some southern African geomyths about how snakes were believed to be the producer and bearer of diamonds. Geomyths about snakes guarding jewels or bearing a gem or a pearl on their forehead or within their braincase are commonly encountered in Eurasia, whereas they are rare in sub-Saharan Africa (Bleek and Lloyd 1911; Ingersoll 1928; Hambly 1929, 1931; Jeffreys 1942; Savory 1974; Miller 1979; Whitfield 2010; Lynch 2010; Alcock 2014; Berezkin 2015; Pymm 2017; d'Huy 2016; Hollmann 2022). Stories and beliefs about snakes sporting a light source or a stone on their forehead have been reported from various Khoisan cultures (Hoff 1997; Schmidt 2013, pp. 769–774), but so far, none were known to have existed in other southern African indigenous cultures. Additionally, the oldest of these accounts are no older than the 1920s.

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The following excerpts, taken from Alfred Brown's notebooks, date from 1871, and therefore represent the oldest written evidence of this geomyth in Africa. They are also the first report of the existence of this myth among the IsiXhosa and possibly IsiZulu cultures of southern Africa.

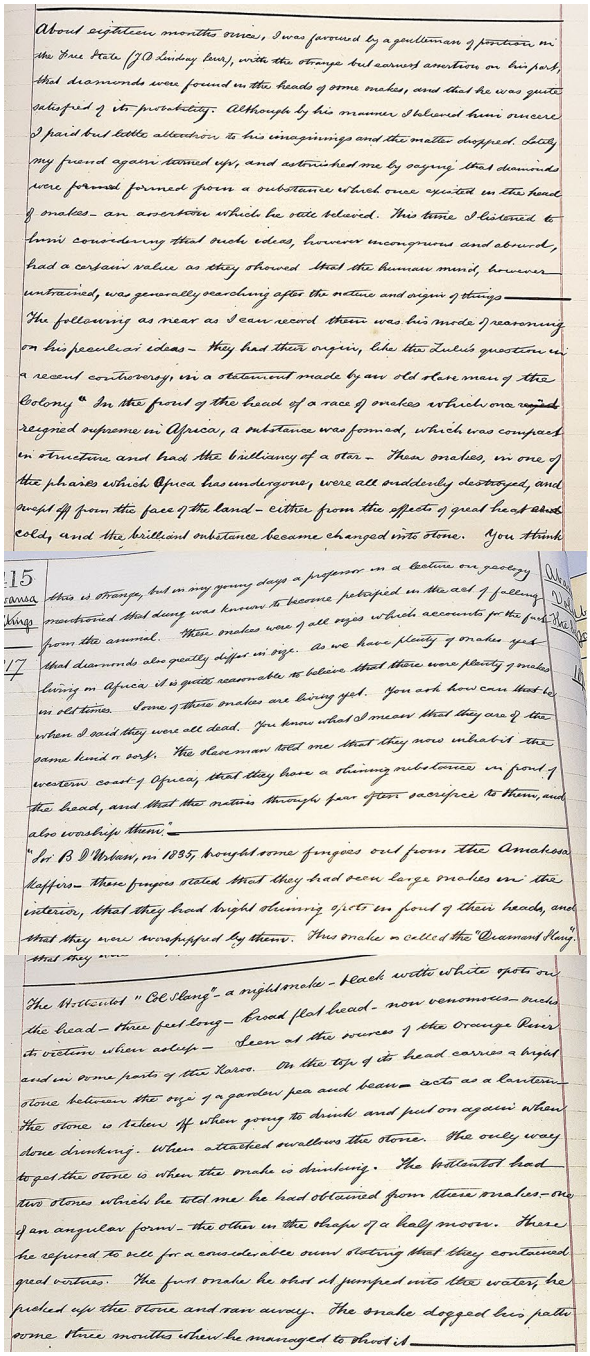

Fig. 1 Excerpts from Alfred Brown's notes, pages 414–415, Volume 2, dated from 1871, about the diamond snakes of South Africa

Results

The following paragraphs are transcriptions of Brown's notes, pages 414–415, Volume 2, dated from 1871 (Fig. 1):

About eighteen months since, I was favoured by a gentlemen of position in the Free State (J.D. Lindsay Lenr.), with the strange but earnest assertion on his part, that diamonds were found in the heads of some snakes, and that he was quite satisfied of its probability. Although by his manner I believed him sincere, I paid but little attention to his imaginings and the matter dropped. Lately my friend again turned up, and astonished me by saying that diamonds were formed from a substance which once existed in the head of snakes - an assertion which he still believed. This time I listened to him considering that such ideas, however incongruous and absurd, had a certain value as they showed that the human mind, however untrained, was generally searching after the nature and origin of things.

The following as near as I can record them was his mode of reasoning on his peculiar ideas. They had their origin, like the Zulu's question in a recent controversy, in a statement made by an old slave man of the Colony "In the front of the head of a race of snakes which once reigned supreme in Africa, a substance was formed, which was compact in structure and has the brilliancy of a star. These snakes, in one of the phases which Africa has undergone, were all suddenly destroyed, and swept off from the face of land - either from the effects of great heat or cold, and the brilliant substance changed into stone. You think this strange, but in my young days a professor in a lecture on geology mentioned that dung was known to become petrified in the act of falling from the animal. These snakes were of all sizes which accounts for the fact that diamonds also greatly differ in size. As we have plenty of snakes yet living in Africa it is quite reasonable to believe that there were plenty of snakes in old times. Some of these snakes are living yet. You ask how can that be when I said they were all dead. You know what I mean that they are of the same kind or sort. The slave man told me that they now inhabit the western coast of Africa, that they have a shiny substance in front of the head, and that the natives through fear often sacrifice to them, and worship them".

Sir B d'Urban, in 1835, brought some fingoes out from the Amakosa kaffirs. These fingoes stated that they had seen large snakes in the interior, that they had bright shiny spots in front of their heads, and that they were worshipped by them. This snake is called the "Diamond Slang".

The Hottentot "col slang" - a night snake - black with white spots on the head - three feet long - broad flat head - non venomous - sucks its victim when asleep - See at the sources of the Orange River and in some parts of the Karoo. On the top of its head carries a bright stone between the size

of a garden pea and bean - acts as a lantern - The stone is taken off when going to drink and put on again when done drinking. When attacked, swallows the stone. The only way to get the stone is when the snake is drinking. The hottentot had two stones which he told me he had obtained from these snakes - one of an angular form - the other in the shape of a half moon. These he refrained to sell for a considerable sum stating that they contained great virtues. The first snake he shot at jumped into the water, he picked up the stone and ran away. The snake dogged his path some three months when he managed to shoot it.

Discussion

Myths about snakes or dragons guarding a treasure or sporting a gem, jewel, or pearl on their head or within their braincase are very common in Eurasia (Ingersoll 1928; Whitfield 2010; d'Huy 2016), but not on the African continent. In Africa, evidence of similar myths, such as the stone bearing python of the Ibirio people, is found in Ethiopia and Nigeria (Hambly 1929, 1931; Jeffreys 1942), whereas in southern Africa, myths and beliefs concerning snakes are instead related to water (snakes forming rainbows, or guarding wells or fountains), rain-making, and lightning (Bleek and Lloyd 1911; Hambly 1929, 1931; Jeffreys 1942; Miller 1979; Woodhouse 1992; Lynch 2010; Schmidt 2013; Alcock 2014; Berezkin 2015; d'Huy 2016; Hollmann 2022).

Prior to the current work, the earliest report of a myth about snake stones dated from 1921. It mentions a San myth about the Watersnake holding up water supplies after its head stone had been stolen (Schmidt 2013). The stone is said to have brough luck upon the thief, which is reminiscent of its healing properties reported in other versions of the myth (Hoff 1997; Schmidt 2013), including the above.

Alfred Brown's notes are 50 years older and thus constitute the earliest report of this myth in Africa. The three versions of the myth are presented by Brown as attempts to account for the origin of diamonds, which had been discovered in abundance during two diamond rushes in southern Africa (Davenport 2013).

In the first version, apparently heard from a former slave of the Cape Colony by one of Brown's friends from the Free State, some snakes (now extinct) secreted a dense and shiny substance that turned into diamonds a long time after the species disappeared. The identity of the informant is not known. The Free State encompasses areas that were historically occupied by many indigenous cultures (Stow and Theal 1905), but Brown interestingly mentions the "Zulu's question" at the beginning of the report, which leaves open the possibility that this came from an IsiZulu person.

The second version is about the "Diamond Slang" (slang means snake in Afrikaans), a snake sporting a diamond on its forehead. The informant is designated as an "Amakosa", a person from the IsiXhosa nation. The term "fingoes" is also used, but it probably does not refer to the amaMfengu themselves (a population from the Kwazulu-Natal, Stow and Theal 1905). It is rather used here as a derogatory term to talk about the indigenous people of Nguni origin, like the way Brown unfortunately uses the word "kaffirs". If, however, Brown was indeed referring to the amaMfengu people, this would support that the diamond-snake geomyth existed in Kwazulu-Natal, as hypothesised above.

The third version of the myth reported by Brown is from "The Hottentot", an obsolete term that may refer either to the Khoikhoi herders or to the San hunter-gatherers (Barnard 2019). The /Xam who populated the area around Aliwal North belong to the latter and thus, it is likely that the person who tried to sell the snake stones to Brown and told him about this myth was a San rather than a Khoikhoi person. This version of the myth is about a snake identified as the "Col Slang" that sports a gem on its forehead. The snake is said to leave its gem on riverbanks when drinking, where it can be collected. Judging from Brown's lack of comment about the geological nature of the stones presented to him by the San person, it is unlikely that they were actual diamonds. Perhaps the snake stones were waterworn agates, which are locally common on the banks of the Caledon and Orange rivers (Fig. 2).

This last version of the myth is similar to the versions reported by! Korana and Cape Khoikhoi informants in the 1920s in which the snake is said to have left its stone while taking a bath (Schmidt 2013). As for Brown's version of the story, the connection between the snake and water is preserved, which is consistent with the Khoisan belief that snakes are rain animals (Bleek and Lloyd 1911; Hambly 1929, 1931; Jeffreys 1942; Willcox 1963; Miller 1979; Woodhouse 1992). A Cape Khoikhoi version from 1928 states that the shiny stone is so bright that it must be covered with cow dung to be stolen. This curious element is reportedly maintained in many subsequent versions of the myth from different Khoisan cultures (Hoff 1997; Schmidt 2013). Dung is brought up in Alfred Brown's first story, but in a very different context that is probably not related. The testimony by J.D. Lindsay mentions dung getting petrified, which is reminiscent of another geomyth about petrified lynx urine, the lynx stone, which is also said to have had healing powers (Duffin 2008).

Intriguingly, very few of the reported versions of the myth involve a diamond namely, but rather shiny stones, stones that produce light, white or shiny spots, mirrors, stars, or even an unspecified source of light on the serpent's forehead (Hoff 1997; Schmidt 2013). Besides Alfred

Fig. 2 Two agate pebbles found by the Caledon river (Bethulie District, Free State)

Brown's versions from 1871, the only other know versions that refer specifically to diamonds are from 1955 to 1987, and, strangely, they say that the snake acquired its diamond after an encounter with a diamond miner (Schmidt 2013). This is the opposite of what Alfred Brown advocates in his report: here, the diamonds did not originate from the snake, but the snake got its diamond from a human. The involvement of an English miner and, in another snake stone story, of a geologist (Schmidt 2013), demonstrates some late, western influences and additions to the myth.

It is noteworthy that these southern African myths echo the widespread European belief that a precious stone, the Dragon stones (Draconites), could be collected from the head of a dragon (dragons, serpents, and snakes have long been regarded has interchangeable motives in mythologies, Ingersoll 1928; Whitfield 2010; d'Huy 2016). Like the Eurasian Dragon stones, Serpent stones, and Snake crowns, which were used against venom poisoning (Majewski 1893; Ganszyniec 1922; Duffin 2008; Geer and Dermitzakis 2008; Pymm 2017, 2020; Pymm and Duffin 2020), the "Col Slang" stone is said to have "contained great virtues". They were used as lucky charms, and their healing properties are

Fig. 3 "Offering the corpse of a dead buck to a rain snake". Rock art from Fouriesburg (South Africa) interpreted as the depiction of a stone bearing serpent by Hoff (1997).
Courtesy of South Africa, WWW.SARADA.CO.ZA, The African Rock Art Digital Archive (SARADA), Rock Art Research Institute, University of the Witwatersrand

often praised by informants, although seldom explained (Hoff 1997; Schmidt 2013).

These similarities could be taken as evidence that the southern African snake stone myths may have been inspired by the ones from Europe, which great antiquity has long been established (Pymm 2017, 2020; Pymm and Duffin 2020). However, it is more likely that the existence of myths about the Watersnake bearing a shiny spot or star on its forehead pre-dated the arrival of western settlers in southern Africa. This is supported by the wide geographical range and cultural occurrence of the snake-stone motive in the Nama, Cape Khoikhoi,!Korana, /Xam, Hai||om, Griqua, Herero, Damara, IsiXhosa, and perhaps IsiZulu and/or amaMfengu people of Namibia, Botswana, and South Africa (see above; Schmidt 2013). In addition, Hoff (1997) proposed that a painting from Fouriesburg (South Africa), which illustrates a snake with a star, may be a pictorial translation of this myth (Fig. 3). Given how fast the distribution of the Khoisan culture was shrinking in the 19th century, this painting cannot be younger than the 1860s (Willcox 1963). This would make it even older than Alfred Bown's report and support an ancient origin of the myth.

As stated above, it is undeniable that some western elements have been added to the myths. For instance, the diamond motive may not have existed in pre-colonial times but was included during the two diamond rushes in the late 1800s, perhaps as a mean to account for the sudden and recent discovery of numerous and very rich diamond mines in southern Africa. When indigenous people's curiosity about the diamond rush settled, the diamond motive reverted back into the usual snake stone, shiny spot, light, star, or mirror in the early 1900s. In the second half of the 20th century, the diamond motive would occasionally

re-appear, but this time to account for the origin of the shiny stone on the snake's forehead.

Final Remarks

An alternative interpretation of these myths is available in Mayor (2000, 2011), who suggested that stories about gem-bearing dragons in India could have been inspired to local inhabitants by the discovery of fossil skulls that were infilled with shiny crystals, such as calcite. Fossils are abundant in southern Africa, as demonstrated by the extensive palaeontological work of Alfred Brown and others (Drennan 1938; MacRae 1999), and fossil bones and braincases infilled with various types of crystals do occur (Fig. 4). That the first version of the myth reported by Brown attributes the diamonds to a kind of snakes that is extinct may be significant in that respect. Watersnakes were sometimes considered an extinct species by the /Xam (Stow and Theal 1905; Benoit 2024), which would be consistent with the notion that some beliefs attached to them were inspired (or at least partly reinforced) by the discovery of fossils by local inhabitants. This would also be consistent with currently documented cases of indigenous knowledge of vertebrate fossils in local communities living in the Karoo (Ellenberger et al. 2005; Helm et al. 2019; Benoit et al. 2023). For example, in 1987, a Nama person reported he once saw a Great Snake vertebra that was so heavy that he dropped it (Schmidt 2013, p. 770). This was, maybe, a fossilised vertebra.

The three versions of the diamond-bearing snake myth presented above refer directly to the origin of diamonds; they are presented as such by Brown, and they are contemporaneous with the two South African diamond rushes. Accordingly, they are better interpreted as geomyths relating, at least in part, to the discovery of diamonds. Nevertheless, the interpretation that they may also (or alternatively) refer to fossils is intriguing as it would provide further evidence for indigenous palaeontology in southern Africa (Fig. 5).

Fig. 4 South African fossil bones with conspicuous crystals. Top, calcite infilling the braincase of the 2.5 million years old Taung Child (*Australopithecus africanus*); Bottom, fragment of an unidentified tibia from the Abrahamskraal Formation of the Karoo Basin showing goethite crystals on its surface

Fig. 5 Map of southern Africa. White square: towns; stars: southern African diamond rushes; underlined names: rivers; italicised names: populations. Colours: Red, Former Cape Colony; Green, Former Orange Free State. Abbreviations: E, East; S, South. Map: JRC, European Commission, CC BY 4.0, creative commons, via Wikimedia Commons

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Declarations

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