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## FLUTE PLAYING IN THE ROCK ART OF THE KLEIN KAROO AND CEDERBERG, SOUTH AFRICA — A POTENTIAL LINK TO ANCIENT SOUND

Renee Rust, Joshua Kumbani, Neil Rusch and Sarah Wurz

**Abstract.** Even though music is inextricably part of the social fabric of past and present societies, it has not received in-depth attention in the archaeological literature from South Africa. This topic received the most attention in rock art studies, where images are mainly discussed concerning the trance dance and musical bow playing. Here we focus on flute playing in rock art depictions from the Cape region. To contextualise our data on flute playing in the rock art imagery, we discuss South African ethnographic instances of reed flute playing. We describe four rock art scenes, from the Attakwas and Ezeljagdspoor sites in the Klein Karoo, and Zimri Shelter and the Procession Shelter in the Cederberg, with figures that are playing what is highly likely to be flutes.

### Introduction

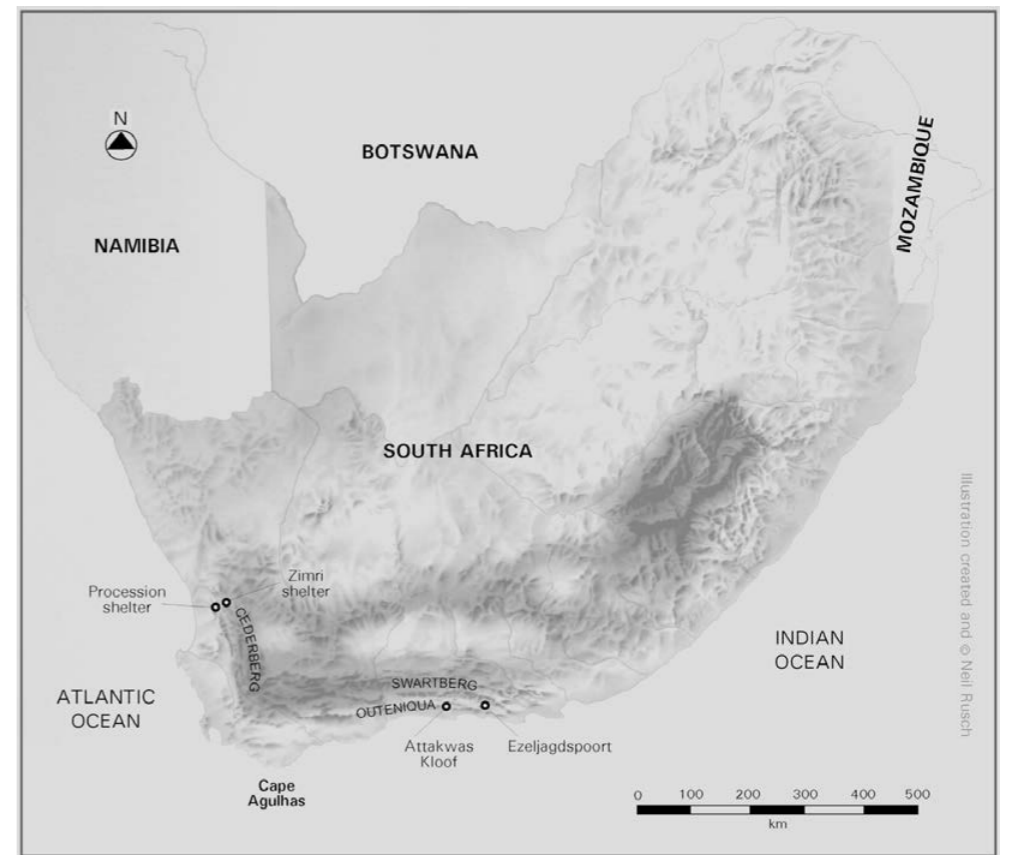
Musical aspects of rock art images in South Africa are frequently addressed through discussion of shamanism (Lewis-Williams 1981a; Lee 1987). There has also been discussion on musical bows in rock art (Lee and Woodhouse 1970; Lewis-Williams 1981a, 1990; Lee 1987; Lewis-Williams and Challis 2010, 2011; Vogels 2012; Vogels and Lenssen-Erz 2017), but thus far flute playing has received little attention. Flutes are aerophones, wind instruments proper, that confine the vibrating air in their body (Von Hornbostel and Sachs 1961: 23). In this paper, we focus on one type of flute, edge-blown aerophones, where a stream of air is directed against an edge into a hollow tube (Von Hornbostel and Sachs 1961; Knight 2015). In end-blown flutes, a sub-category of edge-blown flutes, the air is blown into the instrument against the sharp rim of the upper end of the tube or pipe. End-blown flutes can be open or closed (stopped) and occur with or without finger holes. These flutes can be combined into sets of flutes, varying from double, triple to multiple sets of pipes (Kirby 1933). Such flutes from the South African ethnographic record are described in bone, wood and reed (Kirby 2013). Whistles are close cousins of flutes, and the distinction between flutes and whistles is a grey area (Montagu 2001; Morley 2013). A whistle is usually a shorter pipe, for example, 'a short, usually high-pitched flute ('edge aerophone') with or without fingerholes (Montagu 2001: 1), made in material such as wood or bone (Morley 2013; Atema 2014). We cannot identify whether the implements that we discuss may

be whistles or flutes, but we use 'flutes' here without attributing any definitive classification to the depicted implements.

We have been inspired by the presence of a 'flute player' in a rock painting from Lake McIlwane (now Lake Chivero), 40 km west of the capital Harare. This image featured on the cover of *The South African Archaeological Society, 'Rock-paintings in Africa' Vol. XII (47)*, Cape Town: Rustica Press. The image shows a maroon-kilted 'flautist' in an upright posture holding a pipe-like object with both hands and with the head slightly bending downwards. The description accompanying this particular cover image refers to the 'flute' as a reed or buck pipe similar to the reed flutes described by early travellers that we discuss in this paper. The existence of this image perhaps indicates that there could be more such paintings in the southern African region that are yet to be 'rediscovered' and analysed in detail, an endeavour pursued in this paper. Here rock art depictions involving possible flute players are presented from two areas, the Klein Karoo, from the Attakwas Kloof and Ezeljagdspoor sites, and the Cederberg, from the Procession and Zimri's Shelters (Fig. 1).

Geographically, the Klein Karoo is a 300 km long valley, 80–100 km wide, formed by two parallel Cape Fold Mountain ranges, the Swartberg to the north, and the continuous Langeberg-Outeniqua range to the south. The Cederberg occurs inland, and its mountains stretch about 50 km parallel to the west coast of the Western Cape. The sites in both areas

are located in ravines and rockshelters in the mountainous areas, either on designated reserves managed by CapeNature or on private land (Rust 2008; Deacon et al. 2018). The painted images occurring in the Klein Karoo and Cederberg are regionally variable, but there are discernable similarities. The parallels in depictions in the Klein Karoo and Cederberg rock art are apparent in the prominence of human figures, frequently in the context of 'processions' and 'group scenes', as well as depictions of 'elephants' and 'eland'. Images of 'fat-tailed sheep' indicate temporal shifts in the painting tradition of the region (Deacon 1998; Rust 2008; Parkington 2013; Deacon et al. 2018; Swart 2020). Hand-prints, finger dots and geometric images juxtapose or superimpose older paintings and are part of more recent rock art renderings, although the tradition of hand-painted images may be older (Rust 2008). Therianthrope figures occur, most usually as an amalgamation of human and other animal elements. Notable examples are a procession of elephant-headed human figures (Parkington 2013, Figs 70a and b) and the unusual pictorial hybridisation of 'dragonflies' and 'humans' (Mguni 2013). More subtle but no less ambiguous are ichthyoidal and avian featured figures (Hollmann 2005a; Rust 2008; Rust and Van der Poll 2011). These images convey a sense of human-animal continuity and are indicative of an embodied experience of spiritual envelopment and transformation (Guenther 2020: 247–258). Depictions of 'hand-clapping women' and lines of 'dancing women' (Parkington 2013, Figs 95a, b and 97; Rust 2019) represent occasions at which sound-making is likely to have occurred, for example, first menstruation ceremonies. Denticulations, crenulations and zig-zags interspersed between the women in a painting of this kind have been suggested as possible attempts to represent vibration and sound produced at these occasions (Rusch 2017: 209 and Fig. 10). These activities indicative of a ritual nature are illustrated on the rock face in groupings of 'human' figures, 'walking, moving in a procession', sometimes individually depicted, some with elaborate



**Figure 1.** Map showing the rock art sites with flute players from the Cederberg and Outeniqua mountains.

'headdresses' and 'adornments' on arms and legs, or grouped near 'power animals' like the eland, the elephant and other animal species. They wear 'karosses, carry fly whisks, sticks' that may be used during the dance ritual, 'rattles, bags, spears, bows and arrows'. In many instances, the human figures are grouped in 'convoluted dance postures', bent forward, their bodies 'thrown into antics' possibly to illustrate the energy of the dance ritual (Rust 2008). These 'group scenes' are a feature of the rock paintings throughout southern Africa and identify 'healing dances' and the 'ritual of altered states' (Lewis-Williams and Dowson 1989) and 'initiation' (Parkington 2013; Rust 2019). Sound and music-making is and will have been, integral at many, if not all such group gatherings, as it still is practised today (Katz et al. 1997). Among the San Bushmen musical instruments were important in ritual activities, especially the dance (Bleek and Lloyd 1911). Music and sound were endowed with power. For example, the playing of a musical instrument, a *goura*, averted the destructive forces of the rain (Bleek and Lloyd 1911: 321). Likewise, working with rain was facilitated by playing an instrument known to the !xam-speaking San as a *!goin !goin* (Rusch and Wurz 2020), technically categorised as a free aerophone or bullroarer. Here we explore the relationship between rock art and one particular type of musical instrument, the flute. Where ethnographic data shed light on flutes and flute playing, we discuss this infor-

mation to identify music production in the paintings.

### Ethnography of reed flute players in South Africa

The use of flutes in South Africa is well documented ethnographically, and a wide diversity of flutes and whistles have been recorded by Kirby (2013). In this paper, we focus on end-blown flutes made of reed, the first musical instruments recorded by early travellers, as these most closely resemble the objects occurring in the rock art that we discuss. When Vasco da Gama and his entourage landed at Cape St Blaize near Mossel Bay in 1497 they met a group that '... started playing four to five flutes, some high, some low, so that they sounded together marvellously well ...' (Kirby 1933: 134). Reed flutes were frequently made from river reed, and consisted of a simple pipe without finger holes. The top end of the flute was placed above the hollowed tongue (Kirby 1932). Kirby (1965: Pls 47A and B; 48B) illustrates various examples and individuals playing such end-blown flutes. These flutes are edge-blown and should be distinguished from reed instruments such as the modern clarinet, in which the air stream is directed at a lamella such as a reed, that interrupts the stream intermittently (Wachsmann 1980). Such instruments rarely occurred in South Africa south of the Limpopo (Kirby 2013). The reed flutes were frequently plugged with movable fibre plugs that could be adjusted by twigs or tuning-sticks to tune the sound (Kirby 1965: Pl. 47A). The Kora and KhoeSan click-languages provide an informative insight into how flute aerophones were constructed and played.

The word *!āb* is a word that was spoken in Kora, a KhoeSan language of the early Cape that is now extinct. What *!āb* refers to is 'a plug used to tune reed flute'.

Reed flutes are most frequently associated with the Khoe or Hottentots (Kirby 1932), but they were also used by the San Bushmen (Stow 1905) and other groups (Kirby 2013). Mans and Olivier (2005) recorded the recent use of flutes by Nama and Damara groups in Sesfontein, Namibia. Their flutes are also called by various names, and they come in various lengths. The Nama and Damara use the term *≠āb* to refer to larger flutes and male figures, and they have the term *≠āgu* which denotes female and smaller flutes. Some of the flutes are made using papaya tree leaf stem and reeds. These flutes are used in various social contexts, for example, during designation of a new chief, at weddings, funeral anniversaries and for entertainment purposes (Mans and Olivier 2005: 58). Reed flutes are also still used by some cultural groups; for example, the Venda (Kumbani 2020).

Reed flutes are perhaps best known for their use in ensembles. Early travellers, since the 15th century, observed reed flute ensembles in certain parts of South Africa (Kirby 1932, 1933, 2013). One example is the Nama Hottentot reed flute ensemble from Namaqualand observed by Peter van Meerhoff in 1661. There were between one and two hundred flute players, each with a hollow reed in their hand, and they danced in a

circle whilst playing the flutes. In the centre, a man was holding a long stick, a 'musical director' who always controlled these ensembles (Kirby 1933: 316). Among the Korana, another Hottentot group, the reed flute was the most important musical instrument in that it brought many performers and people together and it was part of their social life (Kirby 2013: 202). The Korana called their reed flute *a ≠adi* and the flutes were kept by the leader of the music group. Kirby observed the Korana Hottentots at Bloemhof at the Vaal River playing reed flutes whilst dancing and mentions that the flutes were sounded in succession, beginning with the highest pitch, which was played by the leader. The men's dance steps involved a leaping movement. The women formed a larger circle outside that of the men, and moved in the opposite direction, clapping their hands (*inna // am*) and shaking their buttocks (*!harekhwedi*) (Kirby 2013: 205).

### Flutes in the archaeological record

Flutes constitute the earliest undisputed musical instruments in the archaeological record (Morley 2003, 2013; Conard et al. 2009; Atema 2014). Archaeological implements, referred to as flutes, with and without finger holes, occur in the Upper Palaeolithic of Europe. These archaeological flutes are in bone, ivory (Cornard et al. 2009; Morley 2013; Atema 2014) and sometimes clay (Pomberger et al. 2018). In later periods rare wooden flutes also occur, for example, two flutes made in elder wood (Benito 2018). One is from Charavines in France, associated with the Neolithic period, dating to c. 2600 BCE. The other is a Bronze Age wooden pipe from Hagnau-Burg in Germany dated to c. 1050 BCE (Benito 2018: 26).

The oldest bone flute might be from a Neanderthal site of Divje Babe in western Slovenia (Turk et al. 1997; Atema 2004; Turk et al. 2018). This is widely known as the 'Neanderthal flute' and has attracted much publicity and controversy (Morley 2006; Atema 2014). The implement is made from a femur of a juvenile cave bear and is believed to date to c. 60 000 years BP (Turk et al. 2018). It has two holes and possibly a third, that may be an incidental fracture (Atema 2004). There are indications that the holes are the result of carnivore activity (d'Errico et al. 1998; 2003), but experimental and computed tomography studies point to some form of human agency (Turk et al. 2018).

Some tubular artefacts from the archaeological record, mostly in bone, have been referred to as whistles and in most cases have blow holes (Megaw 1960; Payne 1991; Atema, 2014). For example, Megaw (1960) describes an archaeological whistle from Pekárna cave in Moravia, Czech Republic. This piece has a blowhole and is open on both ends (Megaw 1960). Similar artefacts are also described by Payne (1991) from Marsh Pass, Basketmaker caves in Arizona, United States of America. In southern Africa, bone pipes that may have been used as flutes were recovered from Later Stone Age, Early Iron Age and historical contexts

(Kumbani 2020). Later Stone Age sites that yielded bone tubes occur in the southern and western Cape of South Africa (Inskip 1987). Some of the Later Stone Age archaeological sites that have yielded bone tubes include Matjes River, Nelson Bay Cave, Boomplaas, Die Kelders and Bonteberg Shelter (Kumbani 2020). Most of these tubes are in bird bone (Ludwig 2005: 46). Decorations occur on some of the pipes, and none have holes.

### Methods

Aside from the extensive literature review conducted, research methodology entailed four main field survey activities. These are field location of the rock art site(s), visiting the site with the appropriate permission from nature reserve managers, custodians or farm owner of private land, filling out field descriptive recording forms, image recording through digital photography and tracing of imagery, and applying non-static photographic polyester film over the paintings on the rock face. In applying the tracing film to the rock surface, care was taken when taping the corners to the rock face to avoid areas of paint. Tracing the images can cause damaging markings on the surface of the painted areas (Parkington 2002). Little pressure was applied onto the film while tracing to avoid direct contact on the images. Any contact with the surface of the rock face was minimised and where possible avoided altogether. The images were traced to actual size and position on the rock face. Desk work entailed filling-in of images on the tracing film, using techniques commonly known as redrawing. Thus stippling was used to indicate variation in colour, fading, and the shading of one colour into or over another. Lighter areas of stippling (dots further apart) were applied to show where the images had faded and become indistinct. Permanent markers of appropriate colour were used in applying stippling on the film. Visually advanced digital images on a computer were used to assimilate imagery and combine this with the traced images on the polyester film to check detail, colour and so forth. The contrast and sharpness of digital images were enhanced for greater definition and accuracy. The completed tracings were scanned as an assemblage of these traced panels to produce holistic representations of the images. The tracing and documentation during this survey were done with the essential respect for and care of the site and the rock paintings.

The study of ethnographic instruments informs what an investigator might 'see' when examining the painted images. The Kirby Collection of Musical Instruments, curated by the School of Music at the University of Cape Town, contains examples of the ethnographic flutes described by Kirby. This collection contains several flute types, including end- and side-blown examples, with and without fingerholes. Pipes are played singly, i.e. one person one tone (see Kirby 1965 for this mode of pipe playing, Pls 49A and B). However, pipes can be bound together, and

in combination, they form a single instrument that is played by an individual. Archaeologically an instrument like this remains indeterminate because pipes or bone tubes are invariably excavated individually, whereas they could have provided one element (tone) in a multi-tube instrument. Kirby (1965: Pl. 48A) illustrates examples of combined-pipe instruments collected from various ethnic groups in the southern Africa region. One of the painted examples from the Cederberg region, described later in this article, draws on such observations, made possible by the repository of archived ethnographic instruments. From this, we could identify what is plausibly a musical instrument depicted in the painting.

Crucial to our methods was the identification of stick-carrying painted figures. Arriving at what we consider to be painted examples of flute playing, it was first necessary to consider and eliminate the stick-carrying examples from our sample. Stick-carrying depictions are relatively unambiguous, although open to interpretation. For example, Parkington suggests that stick-carrying might be associated with herders (Parkington and Paterson 2020). One of us (NR) has photographically documented many stick-carrying paintings. Some of these images are published (Parkington 2002: 32-33, Figs 1 and 4; p. 57, Fig. 4; p. 58, Fig. 6; Parkington 2013: Figs 4, 9, 44a, 44b, 69). Sticks that include a digging-stick stone can immediately be eliminated from the flute category. Likewise, sticks held in one hand at arms-length in front of the body are unlikely to be flutes. Sticks resting on the shoulder and protruding horizontally behind and in front of the body were eliminated from the characterisation of flutes in our assessment. Instead, the critical features we considered are that the potential flutes are held close to the face or the mouth. Consideration was also given to the fact that flutes of the edge-blown aerophone type can be held and played using only one hand (Kirby 1965: Pl. 47B), or both. Sticks that are specifically used for dancing are identifiable because the dancer typically holds two long sticks, one in each hand. Jolly has identified this use of sticks (Jolly 2006), bolstering his description with ethnographic photographs. This makes it almost impossible to mistake dancing sticks with flutes. Proceeding based on what is and is not a stick we could refine our sample, finally arriving at the examples presented here, which we consider to be flutes.

### The flute players of the Klein Karoo

Two archaeological sites in the Klein Karoo/Langeberg rock art may show flute players in painted imagery on the rock face. One of the sites is in the Attakwas Kloof, Klein Karoo. The painted images on the rock face at the site show highly animated postures of human figures, and objects that can be construed as musical instruments, rattles and a flute (Fig. 2). These paintings are on a large boulder, prominent in the landscape (Rust 2008). A scan of a section of the tracing shows



**Figure 2.** A scan of a section of the tracing from the Attakwas Kloof site (cut off on the left side) of the panel showing the flute player (third figure from the left) and other figures are showing antic postures. The brown stippled markings on the left of the tracing indicates a crevice in the rock face (tracing by RR, housed at Stilbaai Museum archives, Western Cape).

five human figures (average size 75 mm in height) grouped in a row. They are depicted with tail flaps/coverings over the buttocks; they hold rattles, and one figure appears to be playing a flute. This figure holds an elongated stick-like object close to the mouth, and the right hand has curved fingers holding it in position in the manner of flute players. These features are strong indications of flute playing. The left arm of the flute player is held upward, holding an object closely resembling a rattle (e.g. Kirby 2013: 11, Fig. 1.10). There are lines present that could be interpreted as the flow of energy of a dance ritual. Ritual behaviour and spiritual significance associated with the healing/trance dance



**Figure 3.** A recent tracing at the Ezeljagdspoor site showing the frieze of painted images (Rust 2019).

appear to be present in depictions on the rock face. We underline what other researchers have inferred, that although there are regional and procedural differences in religious practices throughout time, the dance remains the fundamental religious rite among San Bushman groups and also among the southern San Bushmen, the !xam (Bleek and Lloyd 1911; Bleek 1935; Barnard 1992; Lewis-Williams and Challis 2011).

The other site is situated on the Brak River south of the Kammanasie mountain near Oudtshoorn in the Klein Karoo. Known as Ezeljagdspoor site, it has had ambiguous interest for more than 170 years (Alexander 1837: 316), partly because the figures resembled mythical beings or figures 'obviously connected with local mythology' (Rudner and Rudner 1970: 106). In 1835 these paintings were first copied by Maj. C. C. Mitchell for Sir James Alexander on a visit to the site. Set in his colonial view of the time that rock paintings were simple renderings of domesticated life, Alexander had little explanation for the figures at the Ezeljagdspoor site (Alexander 1837: 317).

The central frieze of Ezeljagdspoor figures represent therianthrope figures in form and have been interpreted to represent 'swift-people' (Rudner and Rudner 1970; Lewis-Williams 1990; Lewis-Williams et al. 1993; Hollmann 2005a, 2005b; Lewis-Williams and Challis 2011), although recent research has interpreted these figures as having fishtails (Rust 2016). The upper parts of these figures are human with round heads, well-defined shoulders, and human arms and hands with finger-like extremities (Fig. 3). Behavioural activities such as the bending or veering of arms and holding of stick-like objects are evident in the depictions of these therianthropes. The central figure of this frieze has an upright posture with arms held upward and joined in holding a 'short stick' which we have interpreted as a possible one-tone reed flute. Fingers of both hands are depicted, with the fingers of the right extended while some curve around the instrument as if holding it in position. The figure is also shown in a forward bending position from tail upward. The particular posture of this figure is reminiscent of flute players shown in Plates XVIII and XIX of Kirby's publication on reed flute ensembles (1932), strengthening the interpretation of flute playing. The other figures in the group of therianthropes surrounding this figure suggest the ritual behaviour of the images as a long curved line intertwines them with a human head, arms and hands with extended fingers.

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### The Cederberg flute players

In the Cederberg region of southern Africa, there are two sites in which there are painted human figures holding what appear to be musical instruments, which we suggest most likely represent flutes. The Zimri Shelter was identified by Jan Zimri in the 1990s while surveying the Cederberg Wilderness Area. The survey was managed by archaeologist Janette Deacon working for the National Monuments Council (now the South African Heritage Resources Agency (SAHRA) (Swart 2020). Swart (2020) most recently analysed the complex imagery of this shelter. The human figure with an instrument in hand is one element of a large painted frieze (Fig. 4).



**Figure 4.** A male human figure holding a 'two-tube/reed flute', painted alongside a 'fat-tailed sheep' rendered in the fine-line method. Zimri Shelter, Cederberg. This image has not been subjected to digital enhancement. Photograph © Neil Rusch.

The painted figure is male as indicated by his penis and the hunting accoutrements that he is carrying. One hand holds what is likely a two-pipe flute, or possibly a whistle although this is less likely given the length of the tubes.

Kirby collected four reed flute sets from the 'Red-Dunes Bushmen' living on the western edge of the Kalahari in the vicinity of Haruchas (Kirby 2013: 154). The instruments are archived in the Kirby Collection of Musical Instruments at the University of Cape Town. These flutes deserve mention because they most closely approximate what is represented in the Zimri Shelter painting. What could be illustrated in the painting is a two-tube reed flute, similar to the ethnographic examples, which is an open, end-blown flute without finger-holes. Such flutes are made from river reeds, with the longest cut to a length of 180 mm. In the ethnographic models, the reeds are combined (tied together) in sets of 4 and 6 tubes/reeds. The other hand of the figure is raised to the forehead in a gesture which remains opaque, although not unknown because the posture is recorded elsewhere (Rusch and Parkington 2010: 60). The entire painted surface portrays what can best be described as a palimpsest that includes a multiplicity of painting events, laid down over an extended period. The 'human' figure with 'instrument' is spatially associated on the rock surface with a 'fat-tailed sheep' and two equid-like animals that are painted as if walking one behind the other towards the flute player. This might provide a relative indication of the age of within the last 2000 years, although we return to this question later.

The second site is Procession Shelter, one of several painted sites along the Jan Dissels River, near Clanwilliam in the Cederberg (Fig. 5). The shelter derives its

name from a 'procession' of painted figures, mostly 'men', wearing 'karosses'. Parkington (2002: 37-47; 2013: 91-97;) argues that cloaked (kaross-clad) human figures are 'depictions of initiated men, hunters who have killed their first eland ...' (2013: 96). To the left at the entrance of Procession Shelter there is a monochrome painting of a reclining anthropomorph. With both hands raised this figure holds to his mouth what we suggest is a flute. This may be an example of 'self-declarative' expression (England 1968), rather than an outgoing performance for others. This is suggested by the fact that the figure with 'flute' is painted on the outside wall of the rockshelter, on its own, apart from the main 'procession' and other images.

Solomon (2007: 155) makes the observation that rock paintings generate and create meanings rather than contain meaning. In this case, two areas of meaning and instrument playing praxis are deserving of comment. This is made possible by a supporting framework of known San cultural practices and cosmology. Care and precision were required to paint the extrusions of fine red lines 'raining down' from the horizontal painted line above the figure, and the back of the 'human' figure's head and neck. Moreover, exactitude was required to paint the two thin parallel horizontal ochre lines that are attached to the shoulders and neck of the reclining figure. Two possible interpretations can be given to these lines which are not mutually exclusive. On the one hand, they might be read as 'power lines', 'ropes to god' or lines of potency (Lewis-Williams 1981b; Lewis-Williams et al. 2000; Keeney 2003). On the other hand, the lines attached to the player may be 'thinking strings' (Bleek and Lloyd 1911: 87-89), and



**Figure 5.** Anthropomorph painted in a supine position with both hands holding a flute. Procession Shelter, Cederberg. The red/magenta elements in this image are enhanced, using Decorrelation Stretch software. Photograph © Neil Rusch.

in particular, the ones connected to the neck (Bleek 1956: 564). In whichever way these lines and threads are understood they do, however, lend metaphorical, even supernatural, significance to the activity depicted, which in this case appears to be flute playing.

### Discussion

The images with possible flute players add to the music-archaeological record of South Africa. These images are interpreted as flute players due to the postures and positioning of hands typical of whistle/flute players. The interpretation of the San rock art in South Africa is mainly centred on the ritual aspect of the medicine man and the 'power' animals like eland, elephant and the rain animal (Lewis-Williams and Challis 2011). Against this background, the 'musical' depictions in the rock art which encompass 'dancing scenes' and 'musical instrument players' are not perceived as musical scenes per se, but they are considered as part of the ritual processions that appear to be depicted in the rock art. Music and dance accompany the spiritual ritual. The Attakwas rock art site of a possible flute player (cf. Fig. 2) surrounded by other figures seems to be a vivid presentation of articulated dance postures adopted by the participants in the ritual. The spiritual energy communicated between the dancers that facilitates healing or bring rain might be shown by the lines that surround these figures (Lewis-Williams and Dowson 1989), as are present in the other examples cited.

The playing of the flute may have also played a role in rain-making, given the documented reference to sound and rain-making in the ethnographic record. In 1875, Lucy Lloyd, sister-in-law to Wilhelm Bleek, the German philologist at the Cape (deceased three years at the time), showed !hanʔkass'o the !xam San informant a copy of the Ezeljagdspooort paintings (cf. Fig. 3). In explanation, !hanʔkass'o refers to the long humanoid line as !khwa: !Nhai:n; which dwells in the water and is worm-like (Bleek and Lloyd Collection 1878: L.VIII.1.6074-6077). Lloyd translated !khwa: !Nhai:n; according to the *Bushman dictionary* (Bleek 1956: 369) as the rain's navel or caterpillar. !hanʔkass'o did not offer a full interpretation of the paintings but does refer to 'sorcery' in explanation, and he emphasised that the Ezeljagdspooort paintings represent !khwa people, the rain's people. He stated that the figures were human yet mystical. He described the figures in the Ezeljagdspooort painting as the rain's sorcerers as they were able to influence the weather. The figures also hold dancing sticks (Lewis-Williams 2002). !hanʔkass'o discusses two opposing themes: the power of the water people making rain and thwarting adverse weather conditions by addressing the rain, and on the other hand, inciting such destructive forces. The rain-makers addressed the rain formally to impede it from sending thunderstorms that may harm people (Hollmann 2004: 191). !hanʔkass'o implies that the long humanoid line !khwa: !Nhai:n; depicted in the Ezeljagdspooort paintings may indicate such division or opposing forces and

that the people in the paintings may be entreating the rain's navel in the animated ritual actions depicted, to be beneficial and not harm them. The trance dance and possible associations with rain-making and the 'rains' things' as implied by !hanʔkass'o explanations of the Ezeljagdspooort paintings are linked with pan-San traditions (Lewis-Williams and Challis 2011).

Some of the paintings provide an opportunity to comment on contact between hunter-gatherers and herders. The figure described from Zimri Shelter is associated with a depiction of a 'fat-tailed sheep'. At Ezeljagdspooort site, a figure of a 'sheep' is present to the right of the frieze (cf. Fig. 3). Domesticated fat-tailed sheep were introduced into southern Africa around 2000 years ago (Deacon et al. 2018). Rock art researchers agree that at the time of the introduction of pastoralism, the fine-line tradition of painting was compounded by finger painting and these images juxtaposed or superimposed some of the older rock art on the rock face (Manhire et al. 1986; Yates et al. 1994; Deacon et al. 2018). Finger dots over or near older paintings may have encoded a rhythmic motion on the rock face, absorbing so to speak the potency essentially suggested by the fine-line paintings (Rust 2008). Temporal and social change is thus reflected in Figure 4. If the images of the 'flute player' and 'fat-tailed sheep' are contemporaneous, which seems likely, then these particular images lend credence to the observation that 'pastoralism was not initially as extensive and/or pervasive in the interior mountains as it was on the coastal foreland. This allowed hunter-gatherers living in the mountains to paint fat-tailed sheep images before cultural change affected the praxis of painting' (Yates et al. 1994: 54, 57; Jerardino 1999: 65). What these observations suggest is that the images in Figure 4 were painted early in the pastoralism phase when the fine-line tradition had not yet been disrupted, perhaps as early as 2000 years ago. This approximate dating is important since it reflects the aural continuity of flute playing across the region, as indicated by recent ethnography (Kirby 2013) and by the painting.

Kirby argues that the type of reed flute instrument most likely held by the individual in Figure 4 was borrowed from the Hottentots by, among others, the San Bushmen. This is contra George Stow who believed the influence of diffusion went the other way (Kirby 2013: 153–154). Be this as it may, the disagreement aligns with what is depicted in the painting, namely a transitional phase in the history of the region, i.e. a time when pastoralists were moving into the territory and when the fine-line tradition of rock painting that hunter-gatherers had been practising until that time was on the cusp of disappearing. The human figure with flute is thus best described as a 'crude fine-line' painting (Swart 2020: 271; Appendix panel 24–25). This categorisation captures the betwixt and between rendition of changing realities in the region, which the fine-line fat-tailed sheep and the crude fine-line flute player painting reinforce.

The flute player from Procession Shelter (Fig. 5) is in reclining position with a flute raised to his mouth. The supine position is unusual, considered from within a Western predisposition of how a flute is or could be played. Ethnography tells us otherwise. Concerning the practice of musical bow playing, for example, the supine position is not unusual. The *gora*, another San instrument, could and was played in the same way. The practice of playing the musical bow in a reclining position was photographically recorded in the 19th century (Kirby 1965: Pl. 53b) as well as in recent times in the Kalahari (Le Roux and White 2004: 122–123). The Procession Shelter painting captures and records the same practice, as it appears to have been adopted for playing the flute. This image provides a rare, if not unique, example of this instrument playing practice.

### Conclusion

The incidence of flute players in the rock art of South Africa indicates the occurrence of sound production or music-making using flutes during possible rituals and dance activities. Four rock art 'scenes', from the Attakwas Kloof and Ezeljagdspooort sites in the Klein Karoo, and Zimri Shelter and the Procession Shelter in the Cederberg with figures that are playing what is highly likely to be flutes have been described. The Attakwas image contains animated dancing figures that include a flute and rattle player. The Ezeljagdspooort image highlights for the first time the possible role of flute playing and sound in rain-making rituals. Here the mythical figures are linked to a central flute player. A two-pipe flute, very similar to reed flute sets documented by Kirby, held by a male figure is painted at Zimri Shelter, the first time that this is recorded in the rock art record of South Africa. The 'flute player' occurs next to a 'fat-tailed sheep' and two equid-like animals that are painted as if walking one behind the other towards the flute player. We also documented the rare if not unique reclining position of the flute player from Procession Shelter. In contrast to the other sites, this flute player appears on the outside wall of the rockshelter, apart from the main 'procession' and other images within the shelter. These rock paintings add incidences of possible flute playing from the Cape region to the small repertoire of musical instruments from the archaeological record.

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Dr Renee Rust<sup>1</sup>, Dr Joshua Kumbani<sup>1</sup>, Dr Neil Rusch<sup>1</sup> and Prof. Sarah Wurz<sup>1,2\*</sup>

<sup>1</sup> School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand, Johannesburg, South Africa

<sup>2</sup> Centre for Early Sapiens Behaviour (SapienCE), Department of Archaeology, History, Cultural Studies and Religion, University of Bergen, Norway

\*Corresponding author: sarah.wurz@wits.ac.za

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