

The Pipette-Design in Desert Andes Rock Art

Introduction

It is understandable that - in general - the design of the 'pipette' in the rock art of North and South America will at first sight be described as a non-figurative figure. It is a typically stacked design comprising (near) rectangular boxes, joined by a narrow passage (Russell and Wright 2008: Fig. 4n). However, there are several instances where such pipettes clearly appear to have been anthropomorphised (by the same hand at the same time, or possibly [much] later); at least to our western minds. This may have been achieved rather subtly by adding just two dots or small circles for eyes and in some cases a nose and a mouth (Russell and Wright 2008: Fig. 5o), or more unequivocally by - for instance - adding arms and legs or feet. In my opinion some (but definitely not all) of those anthropomorphised pipettes should be admitted as true anthropomorphic figures as well. However, there is much confusion as to what to accept as a pipette.

It proves that much depends on the way the pipette-design is defined. Although a problematic design to define indeed, the pipette still has a most characteristic and conspicuous shape. Golio *et al.* (1995: 97) define the basic shape of the pipette as follows: a design composed of multiple rectangular enclosures that are linearly and symmetrically linked with multiple pairs of narrow parallel lines (often called 'passages' by others). They further argue that the pipette is typically vertically orientated and additionally may be decorated with abstract elements such as circles. The design may have mul-

tiples outlines. Moreover, in my opinion pipettes always should be *outlined* figures. It should not be fully pecked or fully painted in. For that reason the example at Symbol Bridge in the north of California (Russell and Wright 2008: Fig. 1, Table 1 - Site 37) is not considered to represent a pipette by me (there is a similar design at Three Finger Canyon, Utah). It may equally represent a plant.

Furthermore, I for one do not admit anthropomorphic figures with only one horizontally arranged rectangular head and one vertically arranged rectangular body, like the purported example from Caborca, Mexico (Russell and Wright 2008: Fig. 8a, after Slifer 2000: Fig. 20b), to be pipette-related, as those anthropomorphs are not even stacked figures. For the same reason, several other anthropomorphic figures (Russell and Wright 2008: Figs 5e, h, l, m and n) and single 'boxes' (Russell and Wright 2008: Figs 2d, 3e and j, 4e and for example 5k) are not considered in this study, although some of them may be related (or may represent unfinished examples).

It proves that - despite this rather unambiguous definition - there are many forms and exceptions that some researchers still consider to involve pipettes (sometimes referred to as pseudo-pipettes or pipette-like figures) or even to be (distantly) related to pipettes. In this study I will focus on several, largely unknown pipette-designs in Andean rock art.

Distribution

The - at that time - most up-to-date distribution of the pipette-design in the Americas was comprehensively discussed by Will Russell and Aaron Wright in a paper published in 2008. Although the major concentrations are indeed found in the Southwest of North America (2008: Fig. 1), they also included several examples from South America as well; ten from central Chile and one from Brazil (2008: Table 1).

However, I question those Chilean examples they refer to. In my opinion they are not pipettes and I will explain my reservations further on. Yet, even when allowing questionable examples to be considered, the area in which the pipette has been recorded in rock art is remarkably big. The northernmost example of a (doubtful!) pipette that I could find is located on Meadow Island off the coast of British Columbia, Canada (Hill and Hill 1974: 279). About 11.380 km further SE is Cueva Huenul in Neuquén, Patagonia, Argentina, where Anahí Re and Guadalupe Romero recorded at least two rock paintings (Romero and Re 2014: Fig. 6) that could be interpreted as pipettes. One doubtful example is vertically orientated; the less irregular example (Figure 1.12) is horizontally arranged. Conversely, both designs are still too irregular to be accepted as true pipettes by me.

Obviously, I do not regard every shape that roughly looks like a pipette to be a true example. Often also the graphical context of the rock art of the area argues against accepting several arrangements as pipettes. My reservations also concern the Chilean examples discussed by Russell and Wright (2008: Fig. 8c to f). Those petroglyphs are found at La Silla and (214 km further south) at Combarbalá, all in Norte Chico, Chile. In all cases however those purported pipettes are composed of more or less (accidentally?) symmetrical and parallel arranged *serpentine* grooves (Ballereau 1981: Figs 43k and 47j; Niemeyer and Ballereau 1996: Figs 23a to g, 24a to g and 26a and b) in a context where also several isolated serpentine grooves occur (Niemeyer and Ballereau

1996: Figs 9a, 14, 22f and 26c and d) and no true pipettes. Many examples of those purported pipettes are too much distorted to be acceptable, while others are simply single-line serpentine grooves that in some cases together seemingly form a *serpentine*-pipette. Moreover, in none of the Norte Chico cases there is question of a clearly vertically arranged pipette-shaped petroglyph, as most of the Norte Chico examples occur on low boulders, resulting in many random orientations. Furthermore, *rows* of vertically arranged pipettes do not occur in Norte Chico, as far as I know.

A horizontally orientated pipette petroglyph has been recorded at Suri Potrero, 340 km to the NE of La Silla, across the Andes in NW Argentina (Basile and Ratto. 2015: Fig. 3a). However, Mostny and Niemeyer (1983: Figs 93 and 97) illustrate pipette designs from the Guaiquivilo region in central Chile; 760 km *south* of La Silla, and although some may better be interpreted as stacked outlined crosses, a few designs seem to represent true pipettes. I therefore regard this area to be the southernmost region where true pipettes occur. If we take Grapevine Canyon in Nevada, USA, as the northernmost site - with (according to Russell and Wright 2008: Table 1) no less than 24 examples of pipettes - then the overall distance is about 9100 km, a respectable distance. The biggest concentration of pipettes in the Americas however is found in the South Mountains, just south of Phoenix, Arizona, where no less than 61 examples have been recorded (Russell and Wright 2008: Table 1). In the whole of the Americas Russell and Wright (2011: 362) recorded more than 270 pipettes (including - in my opinion - several possible and sometimes very doubtful examples).

The Desert Andes

Although the examples from Brazil and Norte Chico illustrated by Russell and Wright (2008: Fig. 8) all are considered to represent doubtful pipettes by me, South America, and especially the Desert Andes, proves to have several other sites with

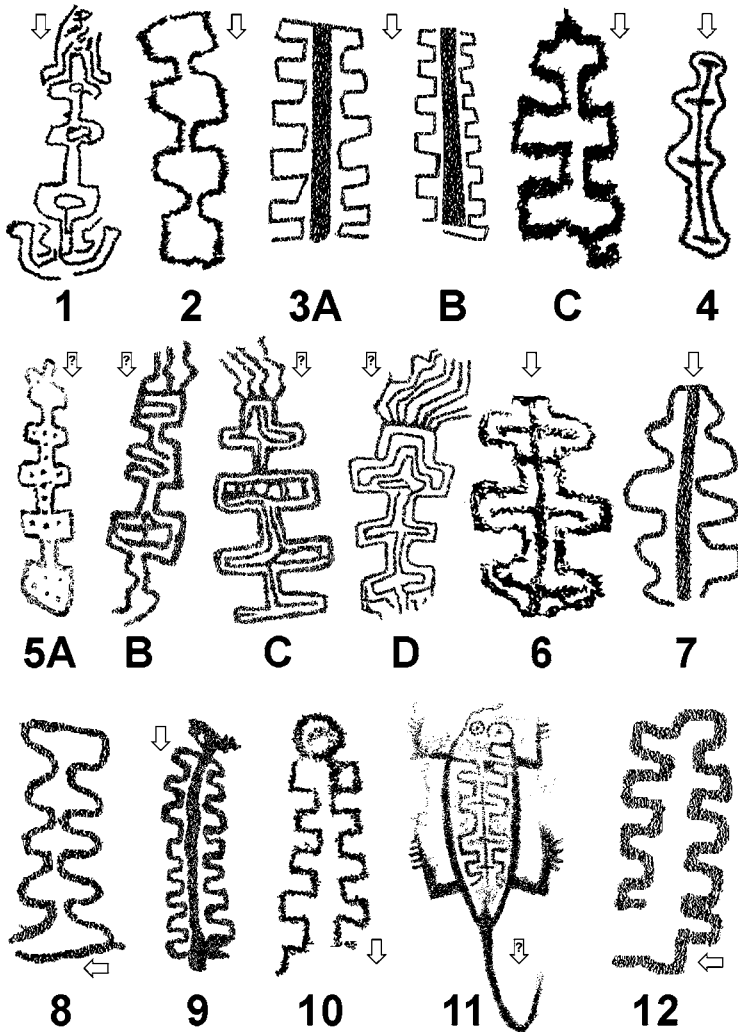


Figure 1: Collage of pipette designs (including doubtful examples) from the Desert Andes. The open arrows indicate the downward orientation of the rock surface. Different scales. All drawings by Maarten van Hoek, based on various sources (see text).

pseudo-pipettes, but also sites with true pipettes that have never been considered. One special rock art site in the Desert Andes even has at least seven, perhaps nine examples, involving a surprising sequence of anthropomorphic manifestations, yielding a fascinating interpretation. The focus of this study is on that very rock art site.

It proves that north of Norte Chico several rock art sites occur where pseudo-pipettes as well as true pipettes have been recorded.

Those South American examples have been recorded in the Atacama Desert, west of the High Andes in the area that I prefer to call the Desert Andes. Actually, the Desert Andes stretches from the Sechura Desert in northern Peru to and inclusive of the Salar de San Pedro de Atacama in Chile, but this time our Study Area only takes in the area from the Majes Valley in southern Peru to the Loa Valley in northern Chile (thus excluding Norte Chico). The goal of this study is to examine the pipettes from the Desert

Andes. These South American examples will now be described from north to south.

Pipettes of the Desert Andes

The northernmost site in our Study Area is the petroglyph site of Socospampa in the Caravelí Valley of southern Peru. On a vertical rock wall is the rather idiosyncratic petroglyph of a pipette-like figure that is directly associated with complex grooves at the top and bottom (Figure 1.1; based on a photograph by Mario Antonio Casas Berdejo). Further east, at Chillihuay in the Ocoña drainage, Rainer Hostnig recorded in 2008 one clear example of a true pipette on the smooth surface of an outcrop (Panel CHY-D-019). It is an empty and plain example (Figure 1.2; based on a photograph by Rainer Hostnig). On nearby Panel CHY-B-007 a much distorted and most ambiguous example occurs. Although it is not accepted as a pipette in this study, I still mention it here as it possibly represents a snake. This example may demonstrate that (especially serpentine) pipettes in the Desert Andes could have developed from biomorphic elements, such as snakes.

In the Majes Valley, further SE in southern Peru, is the huge site of Toro Muerto where several petroglyphs of possible pipettes occur. The problem is that most of the examples at Toro Muerto are not symmetrical. Two asymmetrical examples are shown in Figure 1.3A and 3B (based on photographs by Maarten van Hoek), while only one petroglyph - on Boulder TM-Dx-049 - may be admitted as a true pipette (Figure 1.3C; based on a photograph by Maarten van Hoek).

Much further SE is the petroglyph site of Miculla in the Caplina drainage, where again some designs may represent pseudo-pipettes. One example - on Boulder MIN-071 - has triangular 'boxes' (not admitted as a pipette design in this study), while another petroglyph - on Boulder MIM-015 - may be more related to the outlined cross design (Figure 1.4; based on a photograph by Maarten van Hoek). Is it possible that

the pipette and the outlined cross in the rock art of the Desert Andes are distantly related?

We now cross the incidentally irrelevant border into northern Chile. In the Lluta Valley just across the border are many rock art sites, several of which have extensively been described by Daniela Valenzuela of the University of Tarapacá in Arica. Three petroglyphs illustrated by Valenzuela (2013: Fig. 6.49) - on Boulders LI-43-12, 17 and 18 at the site of Cruces de Molinos - may be considered to be pipettes, although all three are somewhat irregular and possibly more related to the outlined cross (Figure 1.5B, C and D; based on drawings by Daniela Valenzuela). Furthermore she mentions that there are seven examples of such designs, called '*composición geométrica con eje central*' (geometric configuration with central axis) in her thesis, but in her statistics she does not distinguish between 'simple' examples (that are not even regarded as pseudo-pipettes by me) and complex examples. An on-line documentation of the archaeology of the Lluta Valley by the University of Tarapacá includes photos of two rock surfaces, both labelled Cruces de Molinos. One photo shows one true pipette that is filled with small dots and the other photo features two complex pipettes on a flat rock surface. The latter photo concerns Boulder LI-43-12.

In her thesis Valenzuela also refers to sites with similar designs in Peru (for instance Chillihuay), but simultaneously states that this type of design is very rare in northern Chile. This is strange as she does not mention the petroglyph site of Chapisca - located only 5.5 km further NE in the same valley - where a similar complex design is found very high up a vertical cliff face next to a multiple outlined cross. Also, the (many!) examples that are found further south in the Desert Andes of Chile are not mentioned in the study by Daniela Valenzuela.

Further south are four valleys with one or two possible pipettes each. At Cerro

Chuño in the Azapa Valley is one complex petroglyph that probably is more related to the outlined cross (Figure 1.6; based on a photograph by Maarten van Hoek). At Cerro Blanco in the Codpa Valley is at least one curvilinear arrangement (Figure 1.7; based on a photograph by Renata Aguirre Bianchi) that is similar to pseudo-pipettes at Toro Muerto in southern Peru, but - again - it is not perfectly symmetrical. Further south still is the petroglyph site of Huancarane in the Camarones Valley where one horizontally orientated set of two serpentine grooves - on Boulder HUA-010 - only seemingly depicts a pipette (Figure 1.8; based on a drawing by Niemeyer and Schiappacasse), while at the same site is another very irregular set - on Boulder HUA-020 - that might be intended to be a pipette as well (Niemeyer and Schiappacasse 1981). On Boulder HUA-006 at Huancarane are two large stacked designs that are definitely more related to the outlined cross.

Conveniently skipping for the moment the enormous and enormously important rock art site of Ariqueilda in the Quebrada de Aroma, the next configuration of a pipette has been recorded on a boulder at Chusmiza, a petroglyph complex in the Quebrada de Ocharaza (a tributary of the Río Tarapacá). Although it is not perfectly symmetrical, it is more or less vertically arranged (Figure 1.9; based on a drawing by Paulina Chávez). Remarkably however, the petroglyph has been classified by Vilches and Cabello as zoomorphic; namely as a possible centipede (2011: 45; Fig. 5.D5).

Further downstream - at Tarapacá-47 - is a boulder with a petroglyph of a vertically orientated pipette (Figure 1.10; based on a photograph by Maarten van Hoek), which, despite the extensive survey by Lautaro Núñez and Luis Briones (1967-68), seems not to have been reported before. Much further south are the three rock art sites at Tamentica where Mostny and Niemeyer (1983: Fig. 47) recorded the petroglyph of a lizard, which body is adorned with a pipette-like figure that, however, is possibly more related to the outlined cross

(Figure 1.11; based on a drawing by Mostny and Niemeyer). Much further south, and outside the Study Area, are the pipettes of Guaiquivilo in central Chile Mostny and Niemeyer (1983: Fig. 93) that are not discussed here.

Ariqueilda

The reason to skip the important petroglyph site of Ariqueilda is that - except for Cruses de Molinos - all sites so far mentioned only have one or two (possible) examples of pipettes. In contrast, Ariqueilda proved to have (besides many other exceptional images, like the [Avian] Staff Bearer) a relatively high number of pseudo-pipettes and true pipettes, including some examples of images that I have labelled the Ariqueilda Anthropomorphised Pipette (AAP). Most importantly, some of the anthropomorphised pipettes seem to be - distantly - related to the (Avian) Staff Bearer; another hallmark of the rock art repertoire of Ariqueilda. The (Avian) Staff Bearer is an important mythical Andean personage that has been fully described by me earlier (Van Hoek 2016).

The petroglyph site of Ariqueilda (at about 1720 m O.D. and 73 km inland) comprises a roughly two kilometre long stretch in the Quebrada de Aroma with numerous decorated cliffs and boulders that are found at both sides of the valley, thus yielding a course of more than four kilometres with petroglyph panels. The rather soft, pink-red volcanic rock is very suitable to create petroglyphs upon. Yet, the prehistoric manufacturers clearly favoured the more deeply patinated surfaces. Juan Chacama (2000) states that Ariqueilda has 323 *Bloques* with 3623 individual petroglyphs, but probably there are (many) more panels with petroglyphs.

Although some petroglyphs of pipettes occur on panels of the northern wall, including a partially pecked-in example (labelled Petroglyph L in this study) and a completely horizontal example (Petroglyph M), the majority of the altogether ten examples are found on the southern cliffs. All relevant

petroglyphs at Ariquilda - at least those known to me (as there are probably more pipettes at this site) - will now be briefly discussed. There are more comparable petroglyphs at Ariquilda that are, however, more serpentine-shaped than pipette-shaped. The order in which the petroglyphs will be discussed, serves to reveal a *possible* sequence in the development of the AAP, starting with the purported 'first' (?) stage.

Petroglyph A:

On a small vertical panel on the south side and directly overlooking the valley floor is an inverted U-shaped serpentine groove of four curves that is too irregular to be admitted as a true pipette and not even as a pseudo-pipette. There are however three interesting details (Figure 2.A). Firstly, the lower ends of the serpentine groove are forked, suggesting digits. Secondly, the 'head' of the serpentine groove is irregular and seems to mimic the shape of a raptor's beak (there are many bird petroglyphs with 'similar' pronouncedly open beaks in this area). Finally, a much fainter anthropomorphic figure seems to 'offer' or to present a circular 'object' to the 'open mouth' of Petroglyph A. Those three properties of the scene may indicate that the manufacturer of the serpentine groove regarded the whole to symbolise a bird or a snake, or even an idol. I regard this petroglyph to be the prototype in the sequence of the Anthropomorphised Pipettes at Ariquilda (AAPs).

Petroglyph B:

About 300 m to the SW of Petroglyph A is a large, vertical outcrop panel, also overlooking the valley floor. It is covered with numerous images, including 'flute-playing' zoomorphs (Van Hoek 2013: Fig. 7). Among the petroglyphs is one serpentine groove, again of four curves (Figure 2.B). It is more regular than Petroglyph A, but still more serpentine than pipette-shaped. Most interesting however are three short, parallel grooves ending in a dot emerging from the 'head' of the inverted U-shaped serpentine groove. These short grooves most likely represent some kind of headgear, as will become evident further on. Because of the 'headgear' I regard this petroglyph to represent the second stage in the sequence of petroglyphs that ultimately will evolve into the most sophisticated examples of the Anthropomorphised Pipette at Ariquilda (AAP).

Petroglyph C:

Only 35 m further SW, across a dry stream and 'waterfall', is a complex of outcrop panels, again on the south bank. On a NE facing, vertical panel is the rather faint petroglyph of an inverted U-shaped serpentine groove of five curves that is similar to Petroglyph B. It is superimposed by and accompanied by several other petroglyphs. Although it is still somewhat irregular, it is more pipette-shaped (Figure 2.C). Importantly, it again has the same 'headgear' as

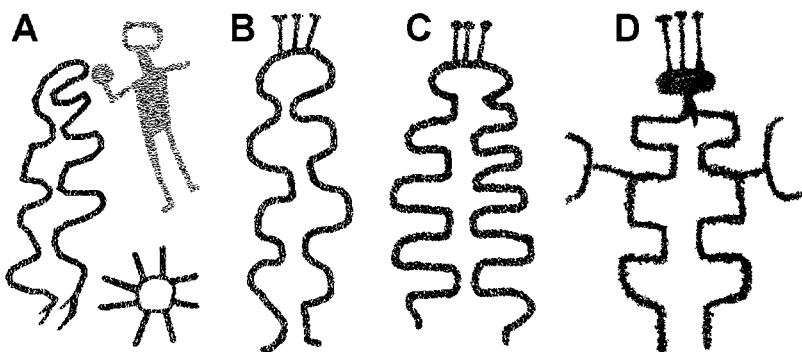


Figure 2. Pipette petroglyphs at Ariquilda (all vertically arranged on the rock panels; different scales). All drawings by Maarten van Hoek.



Figure 3. Location of the panel with Petroglyphs I and J at Ariquilda (arrow), looking NE. Photograph by Maarten van Hoek.

Petroglyph B and for that reason I regard it to be an AAP.

Petroglyph D:

About 270 m across the valley floor from Petroglyph C and thus on the north side of the gorge is a narrow cleft in the rock wall. Almost invisible from the valley floor in the narrow chasm is a large NE facing, almost vertical outcrop panel with a number of images. Petroglyph D is located rather high up (about 10 m above the valley floor, which is at 1735 m O.D.) and invisible from below as it is the petroglyph deepest inside the cleft. It is a true pipette with at least two rectangular elements and a third (lowest) less rectangular one (Figure 2.D). It has several interesting properties. It has a more distinct 'head' that (for that reason?) has been fully pecked. Moreover, the small oval head is crowned by the same 'headgear' as Petroglyphs B and C. Most importantly, from the central 'box' emerge two grooves that most likely represent arms, each holding a short and curved object in the hand (although

the hands are not indicated). Especially because of the arms I regard this petroglyph to represent a more developed example of an AAP.

The 'hidden' nature of Petroglyph D does not imply that the Ariquilda pipettes are private (as opposed to public) images. Although Petroglyph D is not visible from the valley floor and involves a rather steep climb of some 10 meters to be examined, all other pipettes at Ariquilda mentioned in this study are easily accessible and often clearly visible from below, especially the panel with Petroglyphs I and J (Figure 3). The public character of the Ariquilda pipettes is paralleled by the public character of the Avian Staff Bearer petroglyphs at this site (and other sites).

Petroglyph E:

Petroglyphs E to H all are found on the same outcrop complex as Petroglyph C, except that they are on an adjacent vertical, NW facing panel. Superimposing and

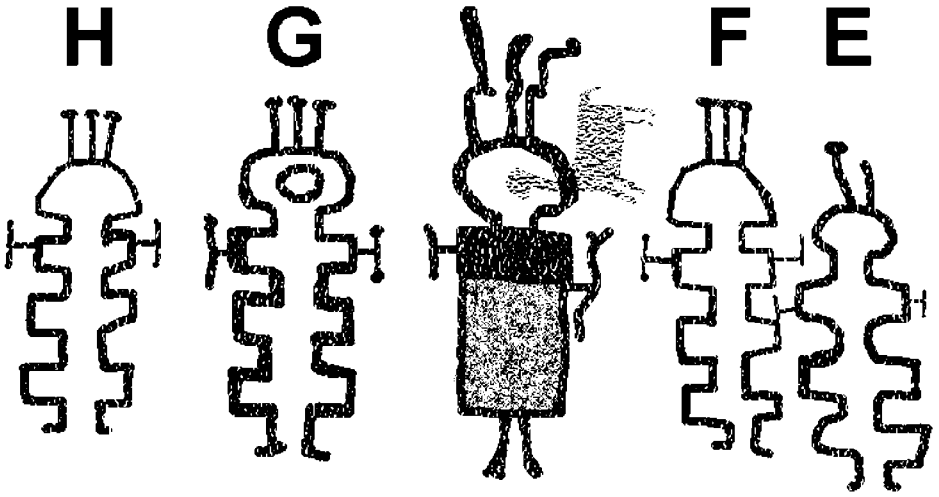


Figure 4. Row of petroglyphs on one panel at Ariquilda (all other petroglyphs have been omitted; relative positions correct). Drawing by Maarten van Hoek.

being superimposed and accompanied by many other images is a horizontal row of five petroglyphs that all are clearly related. Four of them are true pipettes (of about 40 to 50 cm in height). Petroglyph E is the westernmost of the row (Figure 4.E). It is still somewhat irregular. It comprises three stacked elements crowned by a fourth, oval-shaped head-element with two appendages emerging from the top; one with a clear dot at the end. From the top-element (thus not from the head-element) are two short grooves that represent arms, each holding a short, straight stick-like object. It seems to have small feet. For all those reasons I regard this figure to represent an AAP.

Petroglyph F:

Immediately to the left of Petroglyph E is Petroglyph F (Figure 4.F). It is almost similar to Petroglyph E but it has a semi-circular head. Again three appendages emerge from the head and, importantly, the three 'dots' at the ends are connected to form a small, horizontal bar. The figure has two very short horizontal grooves (arms?) that seem to hold a small staff-like object. For those reasons I regard this example to represent a true AAP.

To the left of Petroglyph F is a clearly anthropomorphic figure that is definitely related to the pipettes at Ariquilda, especially as it is flanked by four pipettes (Figure 4). It has an oval head (superimposed onto an inverted, fully pecked camelid petroglyph) with three appendages and short arms holding 'objects' (one of those being a snake?).

Petroglyph G:

To the left of the central anthropomorph is Petroglyph G (Figure 4.G). It is similar to Petroglyph F except that its oval head encloses one rather large circle (an eye?). Again, the two very short arms holds an object each. However, the left arm holds an object that has a small knob at each end. Objects with knobs (staves!) have been reported to occur more clearly at other anthropomorphic staff-bearing figures at Ariquilda, including examples of the Avian Staff Bearer (Van Hoek 2016: Fig. 68). For that reason I regard this figure to represent an AAP as well.

Petroglyph H:

Petroglyph H (Figure 4.H) appears directly to the left of Petroglyph G. It is almost iden-

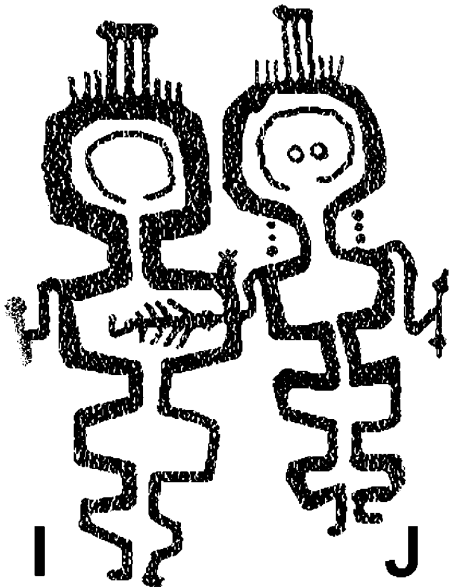


Figure 5. Row of two pipette petroglyphs on one panel at Ariqueilda (all other petroglyphs have been omitted; relative positions correct). Drawing by Maarten van Hoek.

tical to Petroglyph F and is therefore also an AAP.

Petroglyphs I and J:

About 200 m SW of Petroglyph H and still on the south bank is a large outcrop directly towering over the stream (in 2011; the course of the stream varies considerably over time). On a SW facing, rectangular panel (see Figure 3) are many petroglyphs including two large AAPs of about 70 to 85 cm in height (Figure 5). They both comprise three rectangular elements, each crowned by an almost circular head. Their headgears are more complex, but still feature the three vertical, short grooves, but this time these appendages are flanked on both sides by three much shorter grooves. Also in those two figures the longer appendages have dots at the end that are connected to form a small, horizontal bar.

The head of the each pipette encloses a ring with an opening at the bottom, while the head of Petroglyph J also features two

very small circles that most likely represent the eyes. Petroglyph J also has three small dots between the head and the 'shoulders', which might represent ear-decorations (which are extremely rare in Andean rock art). It also has two short arms emerging from the 'shoulders', one holding a staff-like object similar to the object carried by Petroglyph G.

The other arm seems to continue and seems to hold or touch a fishbone-shaped object that appears inside the chest-element of Petroglyph I. The latter figure has a right arm possibly holding a 'staff', although that part - very near the edge of the panel - has severely flaked and weathered.

Discussion

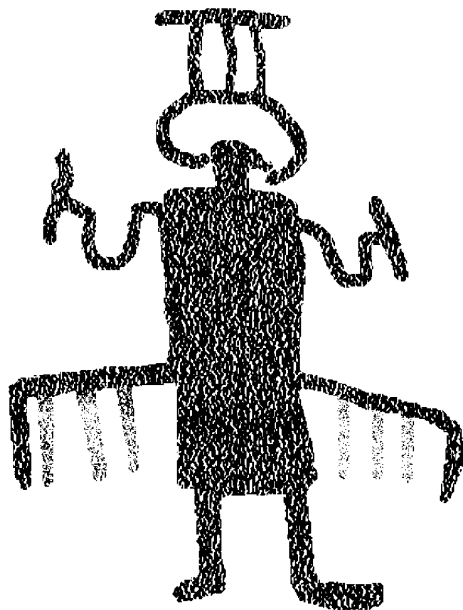
The situation regarding the interpretation of pipettes in Southwest rock art is slightly more favourable, because for that area in North America there is more informed knowledge, comprising relevant ethnographies as well as contextual and iconographic associations, which have been studied in detail for instance by Will Russell and Aaron Wright (2008; 2011). Unfortunately, informed information regarding the Desert Andes pipettes is lacking completely and contextual and iconographic associations have never been examined in any detail.

Most of the pipette petroglyphs from the Desert Andes have no contextual associations, especially as in most cases only one or two examples occur per site that moreover are often doubtful and of differing shapes. What is more, it seems that several Desert Andes 'pipettes' are more related to the outlined cross design. Only the Anthropomorphised Pipettes at Ariqueilda (AAPs) seem to have a specific contextual and iconographic association that is revealed by the 'staves' that several examples are holding. It proves that the clearly anthropomorphised nature of those AAPs clearly sets this group apart from the other pipette figures in the rock art of the Desert Andes. Importantly, other petroglyphs at Ariqueilda link the AAP with another important Andean personage.

An anthropomorphic petroglyph only a few meters east of Petroglyph B shows a remarkably long, outlined serpentine body that is crowned by an outlined head from which three parallel and vertical appendages emerge that are connected at the top by a short horizontal bar. Its short, outstretched arms do not seem to hold staffs. Yet, by the configuration of its head and serpentine body this figure is definitely related to the AAP. Nevertheless, this petroglyph does not directly provide a clue to its possible meaning, although it is placed directly below a petroglyph of an Avian Staff Bearer (Van Hoek 2016: Fig. 59). Fortunately, another petroglyph at Ariquilda offers a more informative context.

About 80 m SW of Petroglyph D at Ariquilda and also on the north wall of the gorge is an anthropomorphic petroglyph on a large, vertical outcrop panel, which towers about at least 5 meters above the valley floor (which is at 1734 m). This image, Petroglyph K (Figure 6), is not a pipette, but

Figure 6. Petroglyph on a panel at Ariquilda (all other petroglyphs have been omitted; no scale given). Drawing by Maarten van Hoek.



is of major significance in explaining the Ariquilda pipettes. First of all, it clearly has arms holding objects ('staffs') in the same way as Petroglyph J. Moreover, its strangely shaped oval and outlined head is crowned by three appendages joined at the top by a horizontal groove, similar to the appendages in Petroglyphs F, I and J. So there are two graphical links between Petroglyph K and several of the anthropomorphised pipettes that may be meaningful and explanatory; the three appendages and the arms holding staffs.

It is now most significant that Petroglyph K is an example of an enigmatic Andean personage that has been labelled the *Avian Staff Bearer* by me (2016). The *Avian* character of this Staff Bearer variant is demonstrated by the (otherwise much-weathered) wing-elements from the hips (Van Hoek 2016: Fig. 57). Therefore, so I would like to argue, Petroglyphs E to J, and most likely Petroglyph D as well, all express the same symbolism as the *Avian Staff Bearer*; an important Pan-Andean personage related to the better known Staff Bearer (or Staff 'God'), but also to the Andean Sacrificer and the Andean Decapitator (Van Hoek 2016). And although Petroglyph A seems to depict a U-shaped 'snake' at first sight, because of the idiosyncratic shape of the 'head' and the forked 'legs', I rather interpret this figure as being ornithomorphic as well. The possible bird-related character thus links Petroglyph A with the *Avian Staff Bearer* personage, which is clearly bird-related.

In conclusion, in my opinion the Ariquilda Anthropomorphised Pipettes (AAPs) express in only a graphically different way the same metaphorical symbolism and communication as the *Avian Staff Bearer*. Clearly the AAPs represent a more enigmatic version of this important Andean personage. Thus, the AAP may symbolise a divine messenger or perhaps even a deity.

Conclusions

At first sight the pipette is a non-figurative design. Yet, several examples have a bio-

morphic appearance and seem to have been anthropomorphised by adding dots and circles for eyes and nose, like the example from Montevideo in California, USA (Russell and Wright 2008: Fig. 6d). Although such biomorphic elements may always have been added (much) later, several examples seem to represent an anthropomorphic entity created at the same time by the same hand. However, our (western) mind is biologically and culturally 'programmed' to see faces in almost everything (from patterns in wallpaper to rocks etc.). It is therefore possible that even three simple dots - arranged like two eyes and a mouth or nose - are immediately interpreted by observers as a face, especially when framed by a circle or rectangle. But this was not necessarily the intention of the manufacturer and without trustworthy informed knowledge one can never be sure about the correctness of the 'face' interpretation.

Yet, especially examples of pipettes with large (often dotted) circles in or between the 'boxes', like the example from Gold Canyon (Russell and Wright 2008: Fig. 4L), were regarded to relate to or even to represent *Tlaloc*, the goggle-eyed rain-god of Mesoamerica. However, several investigators have examined pipettes from the Southwest and most have rejected any symbolic connection between pipettes and *Tlaloc* (Golio *et al.* 1995: 105). Yet, there may still be a 'divine connection', also for the AAPs.

In a most interesting paper Aaron Wright and Will Russell (2011: 365-366) suggest that in North America the pipette materialised a shared religious structure involving a tiered cosmos (a cosmos divided into Lower, Middle, and Upper Worlds) and *axis mundi* (a pathway that connects and intersects the centres of vertically aligned worlds). They further argue that unrestricted access to this pathway is generally limited to deities, other-than-human agents, liminal animals, and, at times, ritual specialists. In their view images of the pipette thus clearly symbolised a communication between the three worlds, a communication that was restricted

to privileged messengers. In this respect the symbolism of the North American pipette may be compared with the sequence of the anthropomorphised pipette petroglyphs from Arikulda (AAPs) in South America.

If indeed the AAP represents a (completely different graphical) version of the Avian Staff Bearer, the AAP may as well have the 'same' symbolic meaning as in North America. The Avian Staff Bearer has been defined by me as a *Messenger Avian Staff Bearer* (Van Hoek 2016), which serves as an anthropomorphised bird-messenger between the Middle World (the realm of the people) and the Upper World (the residence of the deities and ancestors). Therefore the AAP may be considered to express the same communication between the Middle World and the Upper World as has been suggested by Aaron Wright and Will Russell (2011) for examples from North America. In this respect it is remarkable that the true AAPs of Arikulda (that is, the seven examples that bear 'staffs') have not only three appendages, but - besides the head - also three box-like compartments that are connected by a smaller passage, as if those three elements also symbolise the three worlds.

It remains remarkable however that the AAP has only been reported at Arikulda and not at any other rock art site where the Avian Staff Bearer has so far been reported (Van Hoek 2016). Moreover, all other pipettes in Andean rock art, described in this survey (Figure 1), seem to lack such a contextual and iconographic association.

Therefore I regard the AAPs to be a locally 'invented' icon, most likely representing or relating to the Avian Staff Bearer. All other pipettes in the Desert Andes so far recorded (Figure 1) may as well be local inventions with a similar or dissimilar meaning, although influence from outside areas may not be ruled out completely. This influence may even have come from the High Andes. Rainer Hostnig recorded several rock paintings in a large area north and west of Lago Titicaca that seem to be related to the pipette. At Chosecane, Puno, Hostnig re-

ported two pipette-like rock paintings that (like examples at Toro Muerto) are however not symmetrical (Hostnig 2014: Figs 39 and 40). At Coasa, Puno, Hostnig photographed a complex pipette-shaped rock painting that has affinities with petroglyphs from Cruce de Molinos and Cerro Chuño (Hostnig 2011: Fig. 61). Hostnig also illustrates a rock painting from Qollpapujio also in Puno (2005: Collage 4j) that may represent two pipette-like designs. Finally, a petroglyph from Hinkiori, Cusco, may be related as well (Hostnig 2009: Fig. 38).

Instances of diffusion of ideas and images are always hard to prove. The distance between Ariqueña in Chile and the South Mountains in Arizona is about 7400 km. It therefore seems to be very unlikely that there is question of any kind of diffusion, especially as the AAPs seem to be related to the *Andean* (Avian) Staff Bearer, which is unknown in North America. So we have to be careful to jump to conclusions in this respect. For instance, petroglyphs almost identical to the pseudo-pipettes from Norte Chico and Huancarane (Fig. 1.8) in Chile have been reported at Imaoun in southern Morocco, northern Africa (Searight-Martinet 2015: Fig. 1.32 and 1.33) and any cultural relationship between the two continents (areas roughly 8500 km apart) can definitely be ruled out.

Yet, I do not disbelieve that diffusion of images and ideas once may have occurred between the two Americas. There are more symbols that are found in both North and South America that suggest long distance migration of symbols and ideas (Van Hoek 2004). This most interesting issue, however, may be a subject for further investigation.

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