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Rock art in context:

Theoretical aspects of pragmatic data collections

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CONTEXT AND BASIC HUMAN NEEDS

This contribution aims at describing a theoretical basis for a pragmatic approach to collecting contextual data relevant to rock art. The approach presented here tries to include "the totality of the relevant environment" (Hodder 1992: 14) as far as is pragmatically possible, bearing in mind that the selection of what is to be considered as context is biased and, for the purpose of scientific rigour, needs to be made explicit by elaborating its theoretical foundations (for example Lewis-Williams 1995; Bednarik 2001).

The term 'context' has many colloquial uses, but when it comes to archaeology it is a more or less firm concept, albeit a diffuse one. Ian Hodder (1986) established the concept of 'Contextual Archaeology', but even in his theoretically and methodologically well-founded study, the concept necessarily remains vague, based on the definition that the "context of an archaeological 'object' (including a trait, a site, a culture) is all those associations which are relevant to its meaning. This totality is of course not fixed in any way…" (Hodder 1992: 14). In order to handle this totality, Hodder (1992: 15) sees "thick description" (after Geertz) as a prerequisite of Contextual Archaeology, where the "aim is to draw large conclusions from small, but very densely textured facts" (Geertz 1973: 27).

In order to get to grips with the elusiveness of the concept of 'context', Figure 5.2. presents a model that provides structure for the concept in an operational scheme. It avoids establishing any theoretically loaded categories, instead focusing on the degree of integrity of phenomena, distinguishing them according to how

reliably we can recognise them today in comparison to their original state or shape. While it is problematic to collect data on the dynamic/transient context in relation to prehistoric rock art since it has to be entirely (re-)constructed, the static/durable context, by contrast, is of a character that usually persists in its original configuration. However, not all details of this context will be equally relevant for the understanding of the meaning of prehistoric art. The advantage of rock art as a category of archaeological information is that, as a rule, it is largely subject to taphonomic processes which are more easily recognisable than those of other kinds of archaeological sources. For example, with rock art, dislocation is normally not a problem since the place of production and the place of final 'consumption' is unambiguously fixed.

Analysis and interpretation of prehistoric rock art is inevitably by means of etic perspectives, since the creators of the art have long since disappeared. But focusing research on those issues which are of a persistent character (the static/durable context) can reveal relevant information about the art and its creators, as it concentrates on part of the materiality of living conditions.

Even in the dynamic/transient sphere, there are issues which are of a stable character and therefore can be extrapolated from the present into the prehistoric past. This certainly pertains to basic human needs which people will always try to satisfy, starting with the somatic functions. Of course needs can be variable, but the priority with which specific needs are satisfied at a given moment in history also allows hypotheses as to the motivation behind the actions of people. The motivation for doing something is the key to the meaning of an action and may allow us to assess the choice which an actor made from amongst the options he or she would have had.

From the perspective of psychology, Abraham Maslow (1970)[1] has laid theoretical foundations for the study of motivation and basic needs, and he has suggested a (flexible) hierarchy of human needs (Fig. 5.2.). Despite being relatively outdated (it was first published in 1954), his model cannot usefully be replaced with a modern derivation of it, for example, the spiral dynamics model (Beck & Cowan 1996), as this lacks the pragmatic aspects which allow unproblematic transfer to archaeology. Maslow established his hierarchy in order to better understand the motivations that determine human behaviour, together with the forces of the surroundings (Maslow 1981: 571), and he asserted that human motivation will hardly ever be realised in behaviour beyond the given situation and beyond other humans. That is to say that behaviour is usually meaningfully linked to

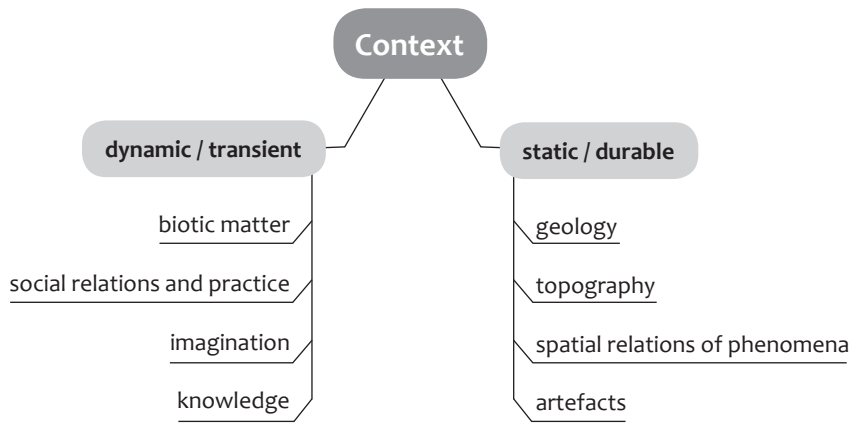
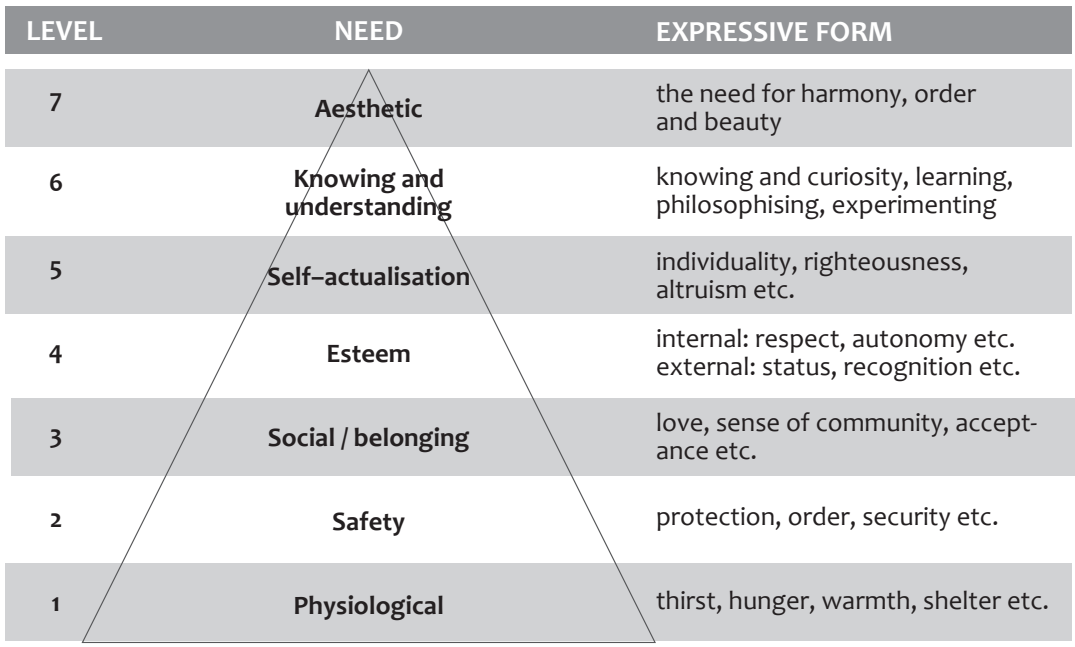


FIGURE 5.2. Structure of context as defined for this study.



LEVEL	NEED	EXPRESSIVE FORM
7	**Aesthetic**	the need for harmony, order and beauty
6	**Knowing and understanding**	knowing and curiosity, learning, philosophising, experimenting
5	**Self–actualisation**	individuality, righteousness, altruism etc.
4	**Esteem**	internal: respect, autonomy etc. external: status, recognition etc.
3	**Social / belonging**	love, sense of community, acceptance etc.
2	**Safety**	protection, order, security etc.
1	**Physiological**	thirst, hunger, warmth, shelter etc.

FIGURE 5.3. The Abraham Maslow pyramid of human needs (after Maslow 1970).

temporal, spatial and social configurations. Therefore he also acknowledges the role of cultural determination in the environment as well as within the 'human organism' itself (*ibid.*: 56). However, as a psychologist dealing with individuals and not with social psychology, he warns that we should not concentrate too much on culture and environment (*ibid.*), but this does not weaken the assertion that motivation is an essential component of social interaction. Maslow also warns against a deterministic or mono-causal understanding of motivation (1981: 83), pointing out that behaviour is mostly over-determined and multi-motivated in as much as there are cultural differences in conscious needs (as opposed to the sub-conscious ones). Moreover, in what is probably a realistic view of human nature, he concedes that behaviour can also be either un-motivated or based on aspects of laziness and leisure (1981: 267), even though these will always be peripheral issues. The needs denominated in abstract terms in Figure 5.3. are expressed in feelings, behaviour and desires that give a concrete name to the respective motivation.

Maslow was convinced that there is enough anthropological evidence to show that the deep, elementary needs of all humans are more similar than the daily, conscious needs (1981: 49). According to him the Level 1, physiological needs "are the most prepotent of all needs. What this means specifically is that in the human being who is missing everything in life in an extreme fashion, it is most likely that the major motivation would be the physiological needs rather than any others" (*ibid.*: 63). He was, however, cautious enough to deny its generality, since such motivation mainly pertains to emergency conditions (*ibid.*: 64).

The safety needs (Level 2) are explained as needs for "security; stability; dependency; protection; freedom from fear, from anxiety and chaos; need for structure, order, law, limits; strength in the protector" (*ibid.*: 66). It is quite obvious that these needs are typically satisfied through living together in a

social group, and that much of human behaviour is aimed at maintaining this kind of psychological stabilisation. Parkington and Mills (1991: 362), for example, see "socially informed pictures" at a site as a means of communicating the concepts of "harmony, belonging, and origins". This motivational background continues into the next level of needs (Level 3) which is best understood through the negative definition that Maslow provides, listing "the pangs of loneliness, of ostracism, of rejection, of friendlessness, of rootlessness" (*ibid.*: 71) as those phenomena against which the need for "belongingness and love" seek support. Notwithstanding these expressions, which are chosen to fit western psychological understanding, there can be no doubt that throughout the ontogenesis of humankind, living in social groups not only provided physical, but also mental security.

Maslow's reasoning related to the relevance of the esteem level (Level 4) is based on the following argument: "All people in our society (with a few pathological exceptions) have a need or desire for a stable, firmly based, usually high evaluation of themselves, for self-respect, or self-esteem, and for the esteem of others. These needs may therefore be classified into two subsidiary sets. These are, first, the desire for strength, for achievement, for adequacy, for mastery and competence, for confidence in the face of the world, and for independence and freedom. […] Second, we have what we may call the desire for reputation or prestige (defining it as respect or esteem from other people), status, fame and glory, dominance, recognition, attention, importance, dignity, or appreciation" (*ibid.*: 72). Even though he builds his argument on "people in our society", his second subset of needs comprises many concepts which are relevant in non-western societies as well and therefore may motivate behaviour universally. For Maslow, Level 5, or "self-actualisation", is a stage which not everybody will reach, due to personal inclination or due to circumstances – some cannot reach it and some do not strive to reach it. It is "the desire to become more and more what one idiosyncratically is, to become everything that one is capable of becoming" (*ibid.*: 74). Accordingly, this is the level where individual differences are greatest. In traditional societies, such as that of the southern African San, this may pertain to people becoming healers or among Zulu-speakers, to becoming *sangomas* who, admittedly, are sometimes more driven by a forceful inner mission than by a dearly held desire.

The "desires to know and to understand", as Maslow has labelled Level 6, in contrast to the 'needs' of other levels, are defined as a "desire to understand, to systematise, to organise, to analyse, to look for relations and meanings, to construct a system of values" (*ibid.*: 78). These desires in themselves form a small hierarchy in which, for example, the desire to know is 'prepotent' over the desire to understand. And he explains furthermore: "We must guard ourselves against the too easy tendency to separate these desires from the basic needs (…), i.e., to make a sharp dichotomy between cognitive and conative needs. The desire to know and to understand are themselves conative, i.e., having a striving character, and are as much personality needs as the basic needs we have already discussed" (*ibid.*). It is certainly this level where the practice of religion in the widest sense would be located even in a non-western society, as this usually provides people with a cosmological understanding of the world and of human nature.

Finally, Maslow himself did not feel very confident about the highest level of 'aesthetics'; he admitted that we know very little about it, and that this is a field which is uncomfortable for the scientist, yet he asserts that "some evidence of such an impulse is found in every culture and in every age as far back as the cavemen" (*ibid.*: 79). For him, these desires may be assigned to more than just this highest level of needs: "Much overlapping with conative and cognitive needs makes it impossible to separate them sharply. The needs for order, for symmetry, for closure, for completion of the act, for system, and for structure may be indiscriminately assigned to either cognitive, conative, or aesthetic, or even to neurotic needs" (*ibid.*). The relevance of this highest level may be disputable, but it can hardly be denied that throughout modern human evolution phenomena were produced whose properties can be grasped precisely in relation to a concept of aesthetics (cf. Heyd & Clegg 2005).

The hierarchy established with this pyramid was subdivided by Maslow into the four lower D-needs, or 'deficiency needs' and the three higher B-needs, or 'being needs', indicating that the lower needs necessarily have to be satisfied, whereas higher needs may not even appear in every individual (Maslow 1981: 102,

BASIC NEEDS	Maslow's levels						
	1	2	3	4	5	6	7
Religion, symbolism			●	●	●		●
Exchange, communication			●	●		●	?
Identity			●	●	●		?
Mobility		●	●				
Tool production	●	●		●			
Dwelling	●	●	●				
Subsistence, nourishment	●	●					

FIGURE 5.4. Maslow's levels 1-7 correlated with concepts considered relevant for the contextual study of rock art.

128f.). On the other hand, once someone has reached the upper levels, he or she may – at least temporarily – dispose of the satisfaction of the lower ones (*ibid.*: 79, 102). This model of needs should, therefore, be understood as flexible, with permeable levels which provide a framework for the motivations according to which people may act in any given situation.

In order to adapt Maslow's hierarchy of needs and its partly psychology-loaded terminology to the conventions of archaeology, Figure 5.4. provides a correlation of Maslow's levels with terms which are in use in archaeology. The composition of this list of terms is based on a landscape-archaeological assessment of the epistemological potential of an analysis that combines resources and use-potential with basic needs (Lenssen-Erz & Linstädter 2009).

The correlation between archaeology and Maslow's hierarchy of needs in Figure 5.4. is an approximation of the categories and should be seen as being without fixed limits. The overlapping of categories is not in contradiction to Maslow's approach since he, as already mentioned, saw the levels of needs as flexible (Maslow 1981: 79ff.). Obviously, single concepts which are current in archaeology meet with more than one level in Maslow's scheme, which shows that all spheres of motivation in human action are quite safely included in this approach. Only the sphere of aesthetics remains somewhat unclear, as Maslow has already determined, and the relevance of this issue has recently re-surfaced in rock art research (Heyd & Clegg 2005; Lenssen-Erz 2012).

Once the basic needs have been established, the next step is to list those assets which are indispensable to satisfying at least the four lower D-needs, as they require physical resources. Figure 5.5. is a structuring model for resources (after Lenssen-Erz & Linstädter 2009), which would be relevant for prehistoric societies such as the ones from which most of the known rock art originates. These are resources of a universal character, meaning that throughout the history of modern human beings, all societies exploited these resources, and human skills and cognition have always been appropriate to make use of them.

The four resources listed on the left in Figure 5.5. can be seen as part of the natural infrastructure and which underlie universal rationality and causalities because their availability and exploitability cannot be influenced by mental cultural techniques such as trancing, hallucinating or dreaming. This is not to deny that there are culture-specific techniques in manipulating

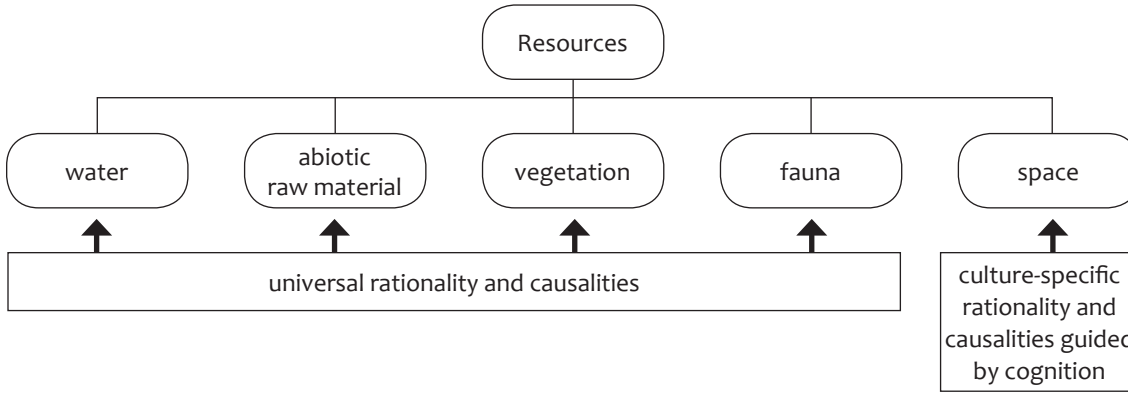


FIGURE 5.5. Resources necessarily available for a prehistoric society to satisfy their basic needs[2].

and exploiting these resources, but water, for example, becomes available on the scale of an entire landscape or a lifeworld only through the circulation of water in the atmosphere and geosphere which follows laws independent of any culture-specific perception or ritual resource management. Space, by contrast, is always relational and imaginary (e.g. Swartz & Hurlbutt 1994) since the acceptance of certain limits is the precondition for any space to become perceptible. These limits can be and are being constantly negotiated among people; space is closely linked to various kinds of discourse and thus is an important source of culture-specific information (Lenssen-Erz 2008).

THE CONTEXT OF ROCK ART

When focusing on rock art, it has to be emphasised that, by its nature, collecting contextual data means looking beyond the artefacts, namely the pictures themselves. They have to be seen as a whole with common properties of a different nature to that of those usually studied in pictures, such as motifs and styles (although it should not be denied or even questioned that both also constitute part of the context). The phenomena to be looked at more closely as spheres of context can be divided into two main categories: first is the *Gestaltung* (Lenssen-Erz 2004) which people attached to places, and by which they turned a natural place or landscape into a cultural or sacred place or landscape (e.g. Arsenault 2004). The second category is the natural infrastructure (Fig. 5.6.), the two categories playing different roles in the range of needs they can satisfy. The pictures, as the most relevant item of *Gestaltung* in the present consideration, are a source for metaphysical forces and potency, and serve to satisfy mainly the three upper 'Being-needs'. The natural infrastructure, on the other hand, is indispensable to satisfy the lower 'Deficiency-needs' by providing food, shelter, raw material and other tangible assets – notwithstanding their capacity to also serve higher needs.

In the pictures, absolute number is a very simple and basic feature, as is the variety which refers to the variety of motifs at a site. Of course, sites with many pictures will have a far greater chance of producing a wider variety of motifs than those with only a few paintings. However, in reality (for example in the 20 largest rock art sites in the Brandberg/Daureb) there is no cogent correlation between number of pictures and variety of motifs (Lenssen-Erz 2001: 303). Evidently the variety of motifs is less a result of the intensity of painting activities than being prompted by the character of a site.

The visibility of pictures can be gauged by a measure of distance and openness to view which ultimately allows us to divide the pictures into a 'private' versus a 'public' category (Lenssen-Erz 2004:

139-140). This goes together with the classification of the 'painting location' which is classified according to a model of an idealised, prototypical site-setup (*ibid.*). This allows us to accommodate any painting location within a structure of 12 prototypical positions. 'Private presentation' of pictures means that the display is in a secluded configuration which does not allow many people to see it at one time; sometimes pictures may even be so hidden that it is impossible even for a single person to see them properly. For such pictures, a different kind of use and function can be assumed to have existed, as opposed to the 'public' ones which are openly displayed in places where crowds of people could gather to view them.

The final criterion "action index" is a complex classification of the activities displayed by the rock art figures (Lenssen-Erz 2001: 65-72), expressed in values between 1 and 16. The more complex the activity of a figure, the higher the index is. From the indices of all figures of a site, a median can be calculated which indicates the complexity of all activities displayed in the paintings of the site. This implies the tacit assumption that the activity of any one figure is related to the activities of all other figures at the site, as though all figures were acting together irrespective of any visible links. Of course this is purely theoretical and is only used as a heuristic device: it helps to establish the action index of a place represented by all its figures.

Since patterns of activity are linked to motifs (women have different patterns from men and animals have different patterns from humans) the action index provides a means of understanding the motifs via their activities. Through the calculation of the median – how else should one calculate the 'average' of different motifs? – sites with many figures do not have any advantage over the ones with few figures. Thus, the complexity as constituted by the motifs becomes measurable beyond the mere quantitative variety of motifs and allows us to compare sites at the level of meaning.

Data on the natural infrastructure (Fig. 5.6.) can be collected by measurement in metres, for example in the distance to the next open area, the next water source or the next rock art sites (Lenssen-Erz 2004). Habitability is classified according to shelter capacity (roofed area and number of potential sleeping places) while 'compass' categorises the cardinal point towards which a site is oriented. With 'accent of landscape', a fixed list of typical positions in the landscape, is set up, such as 'top of a hill', 'foot of mountain' or 'narrow valley outlet' (*ibid.*: 137). Such spots add significance to the location simply by their nature, since they form breaks or accents within the continuum of the landscape (*cf.* Steinbring 1992), and they may be of rather unspectacular character, such as water-sculpted features. Accordingly, Smith and Blundell's (2004: 245) critique of the focus on "macro-topographical features" does not apply.

In order to allow the quantification of these features, each of them is classified according to several

PICTURES	NATURAL INFRASTRUCTURE
Number	Open field
Variety	Water access
Visibility	Proximity of other sites
Painting location	Habitability
Action index	Compass
	Accent of landscape
Help to satisfy only higher basic needs	**Helps to satisfy mainly lower basic needs**

FIGURE 5.6. Contextual rock art data can be found in the spheres of the pictures and in the natural infrastructure.

categories, such as the five categories of distance to water or open area (from 1 = 'adjacent' to 5 = 'more than 300 m away'). The number of classes attributed to the features varies from 3 (habitability, context and action index) to 12 (painting positions). Figure 5.7. shows the features with the number of classes in a column for each feature. In the analysis a special pattern of features, such as a particular distance to water, certain habitability and specific painting locations (together with the other features being likewise specified), defines the particular function of a site. In other words: an aggregation camp will need wide space and good natural infrastructure; accordingly, it will not be found in a small shelter on a rugged slope far away from the nearest water source.

To give an example, in Figure 5.7. a certain pattern of features is marked in dark grey representing the features which identify a site as a 'short-term living site'. Based on the hypothetico-deductive method (Bernbeck 1997: 51-55), such patterns are pre-defined for the different types of site classes, based largely on the ethnography of the San of southern Africa (Lenssen-Erz 2001, 2004). In this particular example the following criteria are defined to characterise a 'short-term living site':

- direct access to open area
- water in mid distance (less than 300 m)
- rather spacious shelter
- nearness to other sites (next sites to be reached within less than 5 minutes)
- located at or near any of the following accents of landscape: a water-sculpted rock formation; a narrow passage; a terrace; a cave-like configuration
- open side of shelter to the sunny side
- small to medium quantity of artefacts (between 10 and 100)
- paintings located only on the ceiling or the back wall of the shelter
- visibility of pictures from near to mid range (approximately a maximum of 15 m)
- number of painted figures between 5 and 60
- action index of figures low to medium (indicating that only few complex paintings can be found here but likely a mixture of ordinary human and animal motifs).

Analogous definitions with, of course, different emphases in the features, have been put down for the seven site classes which are:

A Landmark site
B Short-term living site
C Long-term living site
D Aggregation camp
E Casual ritual site
F Deliberate ritual site
G Sanctuary, hermitage

Once a site has been recorded in the field, all its specific features are checked against the pre-defined patterns of all these classes. Eventually, the best fit with a particular pattern will indicate the primary use and function of this site. The variety of functions listed here indicates which kind of basic needs may have been satisfied with priority at a place. Living sites, whether short or long-term, will mainly have played a role in relation to lower basic needs, whereas the ritual sites were important for the satisfaction of higher basic needs. By contrast, a landmark site (or sometimes waymarks) may have been an articulation of the basic needs in the middle of Maslow's hierarchy, namely mobility and identity.

It should be emphasised here that sites will hardly ever have been mono-functional, and accordingly the classification in any one of the seven classes cannot be more than an indication of a likely primary function. Nevertheless, despite the indisputable biases and pitfalls of such a hypothetical-deductive approach (Bernbeck 1997), this categorisation of sites allows us to find a certain structure in the multitude and variety of sites, taking into account that there are vast and tangible differences between a site which, for example, is labelled a 'landmark' from another labelled 'aggregation camp'. Even though the patterns of behaviour which are hypothetically linked to these concepts might be mistaken, they are nonetheless expressions of restricted options of what prehistoric people could have done at a specific place. The model allows us to accommodate all sites of an area in a consistent framework of understanding to which art, sites and landscape contribute equally significant information (Lenssen-Erz 2008).

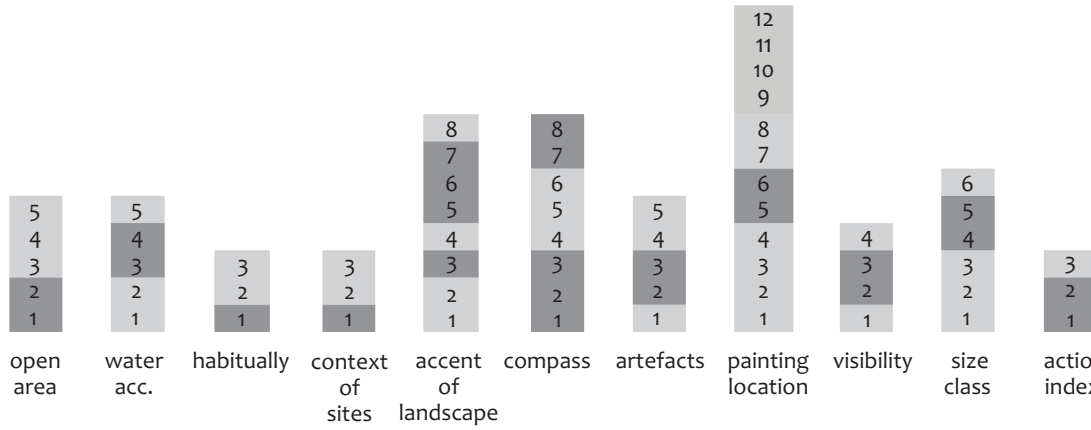


FIGURE 5.7. Contextual features of natural infrastructure and paintings are recorded in different numbers of criteria. The boxes marked dark grey here show exemplarily the range of features which allow identification of a site as a 'short-term living site' (Lenssen-Erz 2004).

THE BRANDBERG/DAUREB CASE STUDY

In the case of the Brandberg/Daureb, Namibia, the analysis of the entire corpus of 300 sites in an area of *c.* 150 sq km (Pager 1989, 1993, 1995) showed a particular pattern of site-class distribution and derived from this a pattern of use (Lenssen-Erz 2001, 2004). The seven classes of sites occurred in the following proportions (for detailed definitions of the classes, see Lenssen-Erz 2001: 285-286 and 2004: 145-146):

Class E	'casual ritual site' 33.6%
Class F	'deliberate ritual site' 21.7%
Class B	'short-term living site' 14.0%
Class G	'sanctuary, hermitage' 13.7%
Class A	'landmark site' 13.3%
Class D	'aggregation camp' 2.0%
Class C	'long-term living site' 1.7%

To enable a comprehensive interpretation of these figures, the analysis also included the determination of secondary functions (for example of the 'casual ritual sites' of Class E, some 14% had a secondary function as a 'short-term living site', namely Class B, and 4% functioned secondarily as 'landmark sites' [Lenssen-Erz 2001: 309]) or the determination of direct neighbours (for example Class E sites mainly have other sites of the same class in their neighbourhood; Class G sites 'prefer' other Class G sites in their neighbourhood, but they 'avoid' Class E neighbourhood despite the statistical probability of such neighbours [*ibid.*]). The mapping of the different classes also showed marked differences in the number of neighbouring sites for each class: while Class B, 'short-term living sites', on average have 2.6 neighbours (the highest ratio), Class G, 'sanctuary, hermitage', have either no neighbour at all (37%) or sites of the same class (46%). In total a 'sanctuary, hermitage' has the lowest ratio of 1.3 neighbours on average (which was the reason to term this class 'hermitage').

The complex pattern that emerged from these and further analyses (*cf.* Lenssen-Erz 2001: 308-312) is based on the character and function of the most frequent site Class, E, but also on properties that are typical for other classes which occur frequently. All these features (including secondary functions and 'neighbourhood'-patterns) combine into an 'idealised elementary site' (Lenssen-Erz 2004: 147) which provides the matrix characterising people's behaviour and motivation in the satisfaction of their most

urgent needs by constructing 'the average site' of the Brandberg/Daureb. This pattern shows that the satisfaction of the lower D-needs, which can be largely satisfied materially, was the usual motivation to enter the mountain area, judging from how strongly sites are linked to the natural infrastructure beneficial for nomadic hunter-gatherers. The mountain, at least seasonally, provided an autarkic lifeworld with all vital resources available, so that basic needs could be covered completely. However, groups would not stay long in a place due to restricted space and limited sustainability of resources. Moreover, they were prepared to become ritually active, with rock art production occurring at any given time, displaying religious art in a public context and interwoven with their everyday life. Thus the landscape was marked in the context of its mundane use, for which it was visited in the first place, but this always entailed ritual use. The majority of art sites were places of everyday routines so that people appropriated the landscape through use in the context of their normal livelihood. The artists normally did not have a particular configuration and symbolism of the place or the landscape in mind for the choice of a site, but rather looked for properties and natural infrastructure of a place, with its suitability for dwelling and living purposes. If these needs were met, paintings would be attributed additionally in order to complete the appropriation of the place by ritual means.

Accordingly, the choice of a place always included non-secular motivations, expressed in rites that were performed at the living sites. They were furthermore linked to sacred concepts through the existence of specialised ritual sites in the wider landscape. The latter were visited with a 'non-materialist' motivation, aiming at the satisfaction of the higher B-needs. The difference of ritual activities in the lower D-need sites as opposed to the B-need sites was that the former arose from the moment, as it were, without necessarily requiring a special location. Rites entailing rock art production could be realised at any time, in any place, so that people would mainly draw and rely on their own powers and on the power of the depictions, as would be likely in more or less spontaneous healing or rain-making rites. They may have served as a reassurance of (ritual) agency in situations when all pre-ritual knowledge and techniques were futile, such as problems with the material resources for which the people had come to the place (for example shortage of water in a drought leaving no better ecological refuge for hundreds of kilometres). By contrast, sites where the higher B-needs were satisfied (like 'deliberate ritual site', Class F, or 'sanctuary, hermitage', Class G) were known as places of potency, and the power of the place would add more importantly to the ritual activity. Visiting such places was a planned activity, which people already had in mind when starting to climb the mountain with the aim of going to a particular site. Sites of these classes are usually so distinctive, and readily distinguishable by painting motifs, size or location, that it would have been no problem to agree in advance upon a meeting there. Rituals at these sites would have been of a regularly repetitive character, like *rites de passage:* Class G sites, for example, would seem to be particularly suited for initiations (see Lenssen-Erz 2008: 43-45 for an elaborate argument). Their portfolio of properties includes:

- special rock formation (for example cave-like configurations)
- special location (for example vantage point)
- isolated location, often no connection to natural travel routes
- partly difficult or even dangerous to access
- unfavourable natural infrastructure
- few or no neighbouring sites
- few artefacts
- little intensity of use
- few but peculiar pictures
- room-oriented pictures (no display to the outside).

All these properties would be suited to keeping a small group of initiates in isolation, depriving them of the usual commodities of everyday life, while introducing them to the specialised knowledge they needed to know about their culture and their land. The sites mainly of Classes F and G were particularly powerful fixed points in a sacred landscape, being elevated above the 'normal' landscape; they may have been the well known and reliable gateways to other realities or other worlds (for example Taçon & Ouzman 2004).

CONCLUSION

A complex picture of the lifeworld and living practice of the people of prehistoric times emerges from allocating a classification to each site based on contextual data. This is a reconstruction of a mental landscape map with all concerns linked to basic human needs, be they mundane, religious or ritual. The background to this method of practical data collecting has links to other phenomenological approaches, but with a narrow adherence to A. Schütz's concept of *Lebenswelt* (Schütz & Luckmann 1975, "lifeworld" in Hodder and colleagues 1995: 241) in which emphasis is placed on common, everyday experiences (as opposed to the abstract concepts derived from the phenomenology of Heidegger or Merleau-Ponty, for example in Tilley 1994). This meets with a similarly pragmatic theory of basic human needs as defined by Maslow. These two approaches provide a sound theoretical foundation for fieldwork in which data are collected based on the presumed secular way of life of people in prehistoric times. In order to express features of the natural infrastructure in formats that allow the synoptic view of all sites in a region, quantifiable data on assets and resources as well as ratings of space in the context of sites are established. By linking these data to the satisfaction of basic needs, and by pinning down the underlying motivations, they provide part of the information which is needed for the reconstruction of the prehistoric mental map. Therefore, that which has been denounced as "irrelevant" and "an empiricist's backdrop context" (Lewis-Williams 1991: 48), as opposed to the relevant informing context (like ethnography; *ibid.*), has its significance restored, particularly when no pertinent ethnography is available, since categories like space, distance and numerical emphasis can be shown to be relevant for the motivations of prehistoric people. The findings thus acquired are not trivial because by integrating contextual data on assets, for the satisfaction of the lower as well as of the higher basic needs, a holistic picture of prehistoric life and of the motivations behind the actions and behaviour of people becomes discernible. Moreover, this approach enables us to do away with the dichotomy of an empirical versus a sacred landscape, since both aspects can be accommodated and contribute to the understanding of the prehistoric lifeworld and cosmology.

Notes

[1] All references relate to the German edition of Maslow's book (1981); any English citation, however, uses the wording from the English edition of 1970.

[2] The list of resources does not claim to be complete. Among the resources listed in Figure 5.5., the human resource is missing which today is particularly popular in its narrow understanding in the context of labour. However, that this resource is far more complex than that becomes evident if considering the potential of the human being with unique abilities of ratio, language, symbolic thinking, reproduction control, fine motor activity etc. – issues that would have to be dealt with in a specialised study.

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