The rock carvings in Scandinavia and Northern Russia are predominantly located in the shore area. It is argued that this location is connected with a basic cosmology where the cosmos is divided into an upper (in the sky), a middle (on earth) and a lower (under the ground/water) world. It is argued that the shore is the only landscape where the three cosmic worlds and natural zones water, earth, sky meet and, as such, the rock carvings signify liminal places where communication between the human and the three spirit worlds of the cosmos was made. The ‘interaction’ of some compositions of carved figures with structures in the rock surface both illustrate the tripartite division of the cosmos and indicate that the carvings and the rock surface together depict a cosmic landscape, that they in fact represent a cosmic map and a cosmological story or stories.

The rock carvings of northern Scandinavia and Karelia in Russia (Fig. 1) were made in the shore zone, the area from the low-tide limit to the first vegetated beach ridges (e.g. Savvatejev 1977, 1984, Simonsen 1979, Helskog 1989, Ramqvist 1989, Hesjedal 1990). In rivers and lakes where there are no tidal changes, the shore is the zone between the water level and the shore vegetation. For example, at Chalmi Varre on the Kola Peninsula (Gurina 1980, Shumkin 1990) and Lake Onega (Fig. 2) in Karelia (Ravdonikas 1936) carvings were made close to the water level for thousands of years. At some of these locations, winds cause water to wash over the carvings, and at others the carvings are submerged by an increase in the water level. In all these cases rock surfaces are available for making carvings at higher altitudes, yet they do not seem to have been used.

A practical reason for selecting certain rock surfaces might be their location close to settlements, most of which are in the coastal areas. On the Kola Peninsula, sites have been specifically searched for adjacent to rock carving surfaces without any being found (Shumkin, pers. comm.), while in other areas sites have been found (Ravdonikas 1936, Helskog 1988, Savvatejev 1977, 1984).

A good example is the Stone Age sites at Hellefjord (Simonsen 1979) and Slettnes (Hesjedal et al. 1996) on the island of Sørøy in Arctic Norway, where boulders with carvings are located inside the settlement itself; the sites adjacent to the rock carvings in Alta (Helskog 1988) are another example. However, as the literature clearly demonstrates, there are areas with rock carvings without adjacent sites, and there are thousands of sites without adjacent carvings. Although it might be argued that there has been a lack of planned systematic research...
of rock surfaces adjacent to sites, one could assume that some carvings would have been found when members of a crew, in their free time, restlessly explore the area, a common enough practice on archaeological digs. So far, no general pattern of association between rock carvings and habitation sites has been distinguished.

A common explanation for the location of the rock carvings in the shore zone is a need to have rock surfaces where the carvings were clearly visible (e.g. Bakka 1979, Helskog 1988) and not covered by vegetation. The rock surfaces in the shore were smooth and clean as long as the vegetation was washed or sprayed away by water. This functional explanation neither explains why carvings are found at specific places rather than scattered throughout the shore zone, nor why they are not found on clean rock surfaces far away from the water’s edge, such as steep cliffs, in overhangs or in caves. What appears to be the case is that the surfaces with rock carvings are associated with water, and water should therefore be part of the explanation.

One such explanation is a possible connection between fertility and the reproduction of resources. Gjessing (1945:302) suggests an association between water and fertility, thus the location adjacent to water. An association with fertility might explain the location of some rock carvings — animal and anthropomorphic figures — while it is less likely to explain the multitude of different images. Should all the dots, geometric patterns, anthropomorphs, scenes, dances, and so on, be associated with fertility? This

Fig. 1. Map of northernmost Europe with places mentioned in the text.
is unlikely. Judging from the interpretations given to images, the reason for the location of these varied images should be broader, such as an idea that connects the variety of meanings to one place.

Another explanation is that the pictures of animals were carved to attract or lure the animals into a trap where water is a part of it. The carvings and their location were an element in hunting magic rituals. As most recently expressed by A. B. Johansen (1991:24): ‘the picture of the elk on the slippery surfaces by the waterfall was made to lure the animal over the cliff. Thereafter it was simply to collect the animal below the waterfall’ (transl. mine). As in the example of fertility, the association with hunting magic might explain some but not why all rock carving are located adjacent to water, and often at places where there are no obvious natural traps beyond that provided by the water itself.

An explanation should include all carvings, not just some of them as in the case of those related to hunting magic. It should be more general yet fundamental for different populations over a wide geographic area. The shore zone is physically where water and land and sky meet. In a cosmological perspective among the aboriginal populations in the Arctic the world is divided into three: the upper world is in the sky; the middle world is on earth; and the lower world, under the water and the ground. The rough correspondence between the cosmological worlds and the natural zones led me to the idea that the location of the rock carvings in the border between physical and cosmological worlds might signify places of communication between these worlds; that is, places of transition from one world to another. This brought the concept of liminality into the discussion, a concept that might explain the variety of locations adjacent to the shore in all the northern regions. If so, the reason that rock carvings were located along the

Fig. 2. Rock carvings at the panel Peri No. 6 on the east shore of Lake Onega, Karelia, Russia.
The shore might be connected to a common fundamental concept in all northern belief systems and practice. The liminality argument might connect the carvings to cosmology, shamanism and shamanic practices over northern Scandinavian as well as those on the Kola Peninsula and in Karelia, and probably far beyond. In a case study of the carvings at Nämfor in northern Sweden, Tilley (1991:139–148) associates the location adjacent to the waterfall with liminality and the Evenki belief that the shamans made contact between different cosmological worlds through whirlpools.

But it is not just the Evenkis who associate contact between worlds through water. An examination of the ethnographic record in the European and Siberian Arctic shows that water is associated with the cosmic worlds, especially the lower world, among several ethnic groups. For example, among the Sami (Vorren & Manker 1958), the Nentsy (Prokofyeva 1956:565), the Chukchi (Bogoraz 1909), the lower world is associated with or can be accessed through water. But, as Vasilevich (1963:59) says, for the Evenkis there was a concept of three identical worlds and that passages from the middle to the other two worlds were through openings in the sky and the earth.

To explore further a possible association of the images carved into the rock surfaces with cosmology and communication, I have searched for clues within the ethnographic record from the arctic zone, and especially from northernmost Europe and Siberia. It is among the aboriginal populations in this zone that the largest probability of a direct survival of ideas associated with the symbolism of images and landscape in the northernmost part of Europe might be found. It is not improbable that there is some continuity in ideas among hunting–gathering–pastoral populations in the north from prehistory into history (Hultkrantz 1986:60). Recent documented ideas might retain parts of old beliefs and practice. The reason for this choice of focus is also partly because northern Eurasia and Siberia are geographically the closest regions where information on the symbolism of images and landscape is found among aboriginal cultures. This does not in any way mean that examples from cultures, and analyses thereof, in other regions of the earth are not useful. Indeed, data in far-away regions — Australia and South Africa — have formed the basis for studies of rock carving in recent years. For example, explanations of European Palaeolithic rock carvings and their relationship to belief systems are based upon Australian and South African research. No one who has studied the carvings (e.g. Murphy 1989, Lewis-Williams 1981) of these continents has seriously reached outside these regions to search for explanations. There is a need to search through the circumpolar data, those that are local to our study-region, with associated theories and explanations. On the other hand, studies of space and rituals from any area are undoubtedly important to a theory for understanding the reason behind the shore association of the rock carvings.

THE SHORE CONNECTION

The shore is where land meets water. It is a zone that stretches from the dry land immediately above the high-tide mark and into the ocean at the lowest tide mark. It is the area that is the last to be covered by snow when winter returns. In the spring the shore is the first area where the snow disappears and where life associated with land first reappears. As such, the shore (associated with any body of water) connects not only land and water but also the life therein.

The cosmology of the populations in the European and Siberian arctic recognizes three basic worlds — the upper, the middle and the lower, each with its own characteristics located in the sky, on land and an underworld beneath water and ground. Life in the upper and the lower world is a copy of the middle world where the people and animals live (Anisimov 1963, Chernetsov 1963:9,
Vasilevich 1963: 53–55). That is, the spirits and the dead live a life similar to that in the human world. We do not know the antiquity of these cosmological beliefs. Some continuity between prehistoric and historic populations have been suggested (e.g. Okladnikov 1956) although continuity is always difficult to prove, even though expected. But, if the carvings are associated with the much later recorded ethnographic cosmology, then they are also a mirror of aspects of the human world and human life. And, quite clearly, the animals, the anthropomorphs, other figures, and compositions in the carvings are recognizable as imitations/copies of the life and features on the world we know today. In essence, they can, among other things, be interpreted in this light. And is it not likely that if the world of the living and the dead were to be given a content, then this content would be coloured by the world in which the human populations lived?

A main aim in rituals is to communicate with spirits and souls in the different worlds. And when spirits and gods are as much a part of everyday life as eating, walking, fishing and hunting, then this communication is essential for life itself. In the shore oppositions — the masters of the forest versus water, spirits of animals such as reindeer versus whale, land versus water, sky versus land, people versus fish, and so on, all meet. The point is that the life and the boundaries of the three natural zones and the three cosmological worlds meet at the shore. In this sense the shore is a contact zone between the worlds of the universe and could thereby contain an especially strong place for ritual communication.

Life on land, in water and in the sky, in the different cosmological worlds is not to be regarded as separate and independent. Even among the Inuit (Point Hope and Point Barrow) where land animals are repulsive to sea animals (and associated with taboos), the dichotomous land–sea relationship is a primary point in the definition of the animal world, ritually as well as practically (Spencer 1959:264). Spirits lived in different ‘worlds’ where they were contacted through ceremonies and rituals. Among the Sami, the cosmos was divided into four regions, from the upper sky to under the earth. In Siberia, among the Chukchi (Bogoraz 1909) there could be as many as nine worlds, and among the Okothsk Tungus there were five (Tugolokov 1978). Communication to the spirits of these worlds was conducted with the aid of guardian spirits and sacrifices. The Chukchi believed that a person passed from one world to another through an entrance under the Polar Star when it was in zenith (Bogoraz 1909:307). There also existed a world under the water access to which was through a whirlpool (Bogoraz 1909, Shirokogoroff 1935). Among the Sami the entrance to the realm of the dead in the lower bottom of the holy Savio lake was through a hole in the upper bottom (Vorren & Manker 1958:148). The Evenki (Anisimov 1963:202–204, Vasilevich 1963:56–60;) considered that the boundary between the upper and the lower worlds is along the river — Endekit — of the shamans. The river flows from the upper to the lower worlds and the entrances to the river are located under the rapids/whirlpools on the rivers on earth. Vasilevich (1963:60) also states that the concept of the shaman river, Endekit, was introduced later than the concept that the upper and lower worlds were reached through openings in the sky and the ground. So it appears that there are special entrances, some connected with water as well as special rituals, places and times associated with contact and communication with special spirits and worlds. There is an association between place and ritual, and also with time.

Our knowledge of the ethnographic record (e.g. Lillienksjold 1648, Leem 1767, Bogoraz 1909, Shirokogoroff 1935, Jochelson 1909) shows how the beliefs of the arctic peoples (The Sami, and the Nenets (Samoyed) and Siberian peoples such as the Tungus, Chukchi, Koryak) were connected...
with animism. Phenomena — mountains, stones, lakes, trees, animals, and so on — had spirits or were spirits in physical form: they had a soul of their own (Levin & Potapov 1956:10). The landscape can be said to consist of physical and spiritual phenomena where the spiritual inhabits the physical (Vasiljev 1978). Among, the Sami, for example, spirits ruled all the important places in nature, and animals, plants, and even dead ‘things’ had a soul. The spirit world of the Sami, like that of any of the other arctic hunters-fishers and gathers, was as real as the material world (Vorren & Manker 1958:144–146). In essence, there was not a sharp delineation between people and the spiritual world; they were integrated. The world is given a ‘human face’, where the physical features have a meaning that makes them part of the associational as well as the perceptual world. They exist in symbolic and sacred places as well as in physical space (such as is also the case with the Australian Aborigines (Rapoport 1975:44)). Contact with the spirit world in rituals and ceremonies was made at special places, and at special times, where the mythical and the physical landscape coincided at special features. One way this was done among the Sami was by recognizing the special seide stone — a stone with an unusual shape indicating that it represents a spirit — or by making constructions such as seide of wood.

In Eastern Finnmark, North Norway, at the top of the holy Sami mountain, Aldon, there are rock carvings which might be of medieval origin (Simonsen 1979:481); it appears that the carving might be a way of designating the mountain as a specific holy place, as a place where communication with other dimensions and spirits is made. The Savio lakes and mountains among the Sami where the dead lived are examples of such cognitive holy landscapes. Often ceremonial sites are located on the shore, such as in the Kemi area in northern Finland and Torneträsk in northern Sweden (Shefferus 1664:126–136). A similar phenomenon is found among the Australian Aborigines, where the use of rock art is a means by which myths and ritual orientation and physical landscapes are associated and connected (Rapoport 1975). An example is the perhaps 6000 year-old myth of the Rainbow Serpent, represented by paintings throughout Australia as a symbol of the creative and destructive powers of nature, and often associated with water and believed to reside in waterholes (Taçon et al. 1996:120–121). So, landscape and features can have status as a special ritual place — a lake, a mountain, a canyon in which there live spirits. They were holy places, and places where rituals and ceremonies were performed, where contacts with the spirits and with other worlds were made. That landscapes are ritualized is a common phenomenon among aboriginal populations throughout the world and it seems highly likely that the idea of associating natural phenomena such as specific parts of the landscape with spirits and ritual practice is old and common.

Having myself experienced how the water sprays over the rock carvings on the shore of Lake Onega, accompanied by the sounds of rumbling stones and timber and howling winds, it is not difficult to suggest that sound as well as the water washing over or spraying the carvings is a reason for carving on the shore. Another example is that of Vingen on the west coast of Norway, located in a bay, almost a cauldron, where the sounds are amplified by the surrounding steep rock surfaces. A thunderstorm in this place is described as a particularly noisy experience. These strange and strong sounds not only might connect the rock carvings with the dimension of sounds voiced by nature, but the sounds might also signify symbolic meanings. Sounds penetrating the nervous system are recognized as good or bad or frightening, happy or sad, and so on. I will not engage in a discussion on the impact of sounds on the nervous system and the physiological and cultural reactions and interpretations of sounds. I merely point out
that sounds also bring a dimension of emotion and feeling that according to some (Maquet 1986) are associated with the signification of symbols. The shore is not only an area where the sounds of nature are strong, but where the sounds of different dimensions meet (like the howling winds, rolling waves, sound of rivers, the sound from trees blowing in the wind) and where new sounds are created (such as from stones moving in a foreshore or produced by ritual performances). In this respect the shore is a place of creation as well as a place of transition and connection of sounds.

Spirits in other dimensions are ‘contacted’ by people in order to gain control over animals, resources, diseases, people, spirits, life, or the spirits themselves initiate the contact. It seems that some places are more appropriate than others in enhancing that communication — on holy mountains, in caves, and in culturally made structures. Could, then, the shore or the part of the shore with rock carvings represent the appropriate place for rituals that connected people with the worlds of the spirits? Clearly it seems so, judging from the rock carvings themselves. In other words, it is both the rock carvings and the area in-between land–water–sky that defines this as a place for ritual. Each is important in itself; together they have an accumulative strength.

**Liminality**

When a person becomes transformed from one state to another in any ritual that requires moving from one place to another through an intermediary form at a specific place, this person goes through what Victor Turner (1969) terms the liminal state. The idea of liminality was launched by van Gennep in 1909 and is associated with *rites de passage*. Liminality marks changes in an individual’s, or a group’s social status and/or cultural or psychological state in many societies past and present. It signifies the great importance of real or symbolic thresholds at this middle period of the rites, though circular, ‘being in a tunnel’, would in many cases better describe the quality of this phase, with its hidden nature, and its sometimes mysterious darkness (Turner 1974: 231–32). Furthermore, being in between is not only associated with *rites de passage* but is, for example, a state in rituals where an individual, such as a shaman, ‘travels’ between his/her world — the middle world — and the worlds of the spirits.

Van Gennep (1960) recognized the importance of physical movement through ritual space when transferring from one condition to another. As such, all or parts of these rituals are conducted at special places. The area where rituals are performed when making symbolic connections seems a unique spatial attribute. Leach (1976:52) considers that material topographical features as well as cultural features constitute a set of indices for metaphysical discriminations as this world/other world, secular/sacred, low status/high status, normal/abnormal, living/dead, impotent/potent. In effect, material features, space and objects are essential in rituals and Doxtater (1984:1–10) suggests that the socioterritorial process will in effect organize symbolic objects and ritual positions. Doxtater (1984) finds that a relatively complex organization of ritual space, structured as spatial oppositions, seems important in producing some affective state of belief by its expression in carving, architecture, myth, and particular ritual. Turner (1969) describes spatial oppositions, mostly in natural landscapes, in discussing connections between ritual and symbols. Complex symbolism assembles associational structures, the meaning of which is less logical or ‘discursive’ than evocative. Sometimes these external symbolic expressions might reflect relatively unconscious patterns of connections in the mind, as is seen in Bourdieu’s (1977) analysis of symbolic spatial oppositions in the Berber house. That is, liminality might not only be associated with a special place but with places of unique spatial attri-
butes, such as the shore, where the metaphysical and cosmological worlds have a possible counterpart in nature, and where they meet in spatial as well as in cosmological oppositions.

Returning to the rock carvings, the shore location places them on the border between different landscapes — sky–land–water. These landscapes are also represented by figures/compositions of figures in the carvings. As such, carvings in themselves might illustrate main ritual oppositions and the ‘real’ physical and ritual differences associated with these landscapes. For example, differences such as those between land and sea animals, birds and fish, birds and land mammals, young and old animals, hunters and fishers, dancers and fishers, dancers and hunters, and so on, are illustrated in the carvings. In addition, the variety of interpretations of identification and meanings might create an almost infinite number of differences such as, for example, between elk clan versus swan clan, reindeer clan versus bear clan, and so on, and cosmological stories associated with the different dimensions of life. A variety of differences can be observed and regarded as significant — all negotiated in the shore zone. Regarding specific panels (as in Gjessing 1932, 1936, Hallström 1938, 1960, Simonsen 1958, Gurina 1980, Helskog 1988, Shumkin 1990, Tilley 1991), in many cases there is an obvious focus on specific classes or types of figures.

There is considerable variation in the compositions, in the figures within and between areas and in the images and the symbols chosen to be used in representation and in communication. For example, in Alta (Norway) the reindeer is the most frequently depicted animal (Helskog 1988), in Nämforssen (Sweden) it is the elk (Hallström 1960), at Stornorrfors (Ramqvist et al. 1985, Ramqvist 1990) the focus is on elk, at Chalmy Varre (Kola Peninsula) (Gurina 1980, Shumkin 1990) there is a focus on reindeer/elk and anthropomorphs, in Zalavruga (Karelia) the beluga and the elk (Savvatejev 1970), and at Onega (Karelia) the swan (Ravdonikas 1936, Savvatejev 1984, Pokkalainen & Ernits 1998). Notably, there is also considerable variation between the panels at each of these places, from those with many to a single type of figure. Yet, the general goal of communication in the different regions was probably the same, the difference being partly, at least, in the symbols chosen to represent this communication.

The figures depicted can demonstrate different oppositions. For example, the reindeer (land), birds (sky) and fish (water) can signify the main dimensions of nature and oppositions and communication between them. This can be the same for the activities depicted relating to hunting, fishing or boating. Furthermore, most of the fauna depicted signals seasonality and place simply because it is migratory. Terrestrial mammals are not present during winter and most birds have migrated southwards to return in the spring. The bear hibernates during winter, while it is present during the summer. The selection of wildlife and activities depicted in general represents land, sea and the sky. Moreover, there seems to be a focus on the wild above the domestic (Helskog 1987), and a changing focus in land–water-based activities can be demonstrated (Helskog 1983). As such, contrasts between water and land and sky, between coast and fjord and inland, between summer and winter and seasonal organization of time and between the wild and the domestic are depicted and, probably, recognized.

Furthermore, timing is of the utmost importance within rites of passage (van Gennep 1960). In the Arctic north, rites connected with the transition from winter to summer were performed when the signals of summer came (among the Sami, the emergence of the bear after hibernation signalled the transition from winter to summer (Nordlander-Unsgaard 1987)). The shore is the landscape zone in the Arctic where the summer comes first. Rituals associated with the
reappearance of the sun in January were (and still are) performed on that day, rituals associated with the transition from life to after-life are performed immediately after death, and so on. In essence, timing is associated with transitions from one state to another, in relation both to natural phenomena and to cultural phenomena. In itself a ritual connotes the time and place of a transition from one state to another.

IMPLICATIONS

The climate of northern Eurasia makes the shore fairly inaccessible during winter, when the surfaces in the backshore are covered by snow and ice, and storms batter the shore. It is possible, therefore, that the ritual communication through rock carvings was conducted from spring into the autumn, beginning with the transition from winter to summer and ending with the transition to winter. On the other hand, the foreshore (the area between high and low tide) was accessible all the year round, though an extra effort during winter was necessary, including the use of artificial light. Carvings made in this part of the zone were clearly available also during the winter. In general, availability at higher altitudes depended greatly on the type of snow cover — from light puffy snow to wet, heavy, dense snow above a layer of thin and hard ice — and the work that the actors were willing to invest. If there was a will, then the carvings were always available, and communication through rock carvings was always possible. Furthermore, the carvings, once made, were always there; possibly it was this knowledge which was important, and if the spirits and souls travelled though the snow, then snow was no hindrance. Perhaps it was not even always necessary to be at the place of the carvings to include them in rituals. Rituals could be performed in other places — for example, inside a tent — but still refer to the rock carvings. The spirits could have travelled any distance to reach the rock carvings to enter into the different worlds. So, in a sense, there could have been ceremonies and rituals of which the carvings were a part, but where distance was not always a significant factor. I say ‘not always’ because the adjacent sites indicate that closeness and visibility on some occasions were significant.

In animistic and cosmological perspectives there could be a direct connection between the spirits who inhabited the rock and the spirits of the sea, the land and the sky, and the spirits of what is being depicted on the rock surface. On to this come humans who by their rituals and ceremonies try to communicate with the spirit world, and the spirits communicate with humans. The locations are made particularly alive with the rock carvings and with what they represent and symbolize. Sometimes the panels with carvings focus on a particular type(s) of carving(s)/figure(s) as if focusing on special rituals and meanings; at other times the variation of carvings suggests that there was a larger more heterogeneous set of meanings and, as such, a wider variety of spirits and worlds to communicate with through different rituals and ceremonies.

The location of the rock carvings at specific places in the transitional shore zone indicates that the shore itself could be a ritual landscape, where specific locations were considered more meaningful than others for making rock carvings, practising rituals and communicating with the spirits of the cosmological system. The shore being where the three main dimensions — sky, land and water — meet might indicate that this is also where spirits of these three dimensions meet, given that there is some structural similarity between the cosmological world and the physical world of the people.

This might mean that the shore offered more of a choice than places where only two dimensions meet. As such, the rock carvings on the top of Aldon Mountain (in Vanger, Finnmark), and the rock paintings, mainly anthropomorphic figures, in caves and shelters, signify other types of liminal places where rituals were directed towards...
connecting two dimensions rather than three, excluding water.

There are significant differences between painted and carved figures, both in the carving of the figures and in the visual result, all of which could be significant in the attachment and signalling of meanings to rituals. There is in general much less variety in painted figures than in those carved into rock surfaces. Among the painted figures there is a contrast between those painted in caves (mainly anthropomorphic figures) and those painted on open surfaces (animals and anthropomorphs). The differences indicate a different focus in the communication, while the control of meanings in rituals at the two types of places might not have been different, although certainly those inside the caves appear to be the most hidden and secret. The painted figures in hidden dark surfaces in north Norway are all found along the coast (Helberg 1997). This is also the case for the Kola Peninsula (Shumkin 1990), whereas in Finland paintings on vertical open-air surfaces predominate (Kivikas 1995). Interestingly enough, only one possible rock-carving panel has been discovered in present-day Finland, while there is a huge area where carvings for some reason were not made, or have not yet been discovered. If this void is real, then there is a wedge between Karelia and Sweden/Norway where a population for some reason chose not to carve but only to paint at the water’s edge. There could be many reasons for this choice, ranging from signalling a specific ethnic association to observing different rules associated with rituals.

The places with the carvings and paintings are, in the words of Turner, liminal places — places where specific individuals or groups of people broke with the existing state before they reappeared/reaggregated with some change of status or position, or with knowledge and information that could alter or direct cultural behaviour for the time to come. This could involve the negotiation of problems, rights or wrongdoing, coming of age; any ritual directed towards communicating with spirits. From this it also follows that the carvings probably served to signal connections between populations, such as, for example, territorial and resource rights and boundaries, and other cultural, tribal differences (Hood 1988).

The principle was that the connection of life between the main zones of the human and spirit worlds — passing from one world to another from one state to another — was where the zones physically met, and the strongest was where all three zones met. This is the common reason for the shore location of the carvings in northern Europe as well as Siberia.

But the making of rock carvings dwindled. After the early part of the second millennium BC, few rock carvings seem to have been made in the north (Savvatejev 1977, 1984, Helskog 1989:73,), whereas there was a considerable increase in the carvings associated with the Nordic Bronze Age agricultural societies further to the south. This is a time with traces of south Scandinavian influences extending into the north, seen in new technologies and tool types in the archaeological record and in the rock carvings. The concept connecting rock carvings and their meanings with the three dimensions, water, land and sky in the shore appears to have diminished. Liminal places signified by carvings in the shore zone disappear as the making of the carvings is reduced. There was a change in the location of some ritual places and, implicitly, changes in the rituals themselves and the associated framework. This break can partly be explained by influences and concepts and practices connected with the beliefs of the south Scandinavian Bronze Age and later Iron Age agricultural societies, through contacts such as trade or migration, and perhaps through the submission and exploitation of the northern populations.

In Scandinavia and Karelia as a whole most of the rock carving disappeared during the first millennium BC and perhaps for

The idea and practice of human communication through rituals with the spirits worlds of the cosmos continued among arctic populations and is documented in the ethnographic record; figurative representations lived on or continued on shamanic drums (Helskog 1987) for perhaps as much as 2000 years after figurative representations were carved into the liminal places in the shore.

A CASE STUDY

After I had researched this paper I returned, in 1997, to the rock carvings at Kåfjord in Alta, North Norway, in an attempt to discover where a particular set of bear tracks ended (Fig. 3). The reason was that the composition of which the bear track was a part appeared to illustrate a story that included the three main cosmological worlds. The bear track appeared to connect an upper and a middle world. There was a set of tracks that continued downwards: where did they end? So, I set out to uncover more of the panel. After the 1997 fieldwork I realized that there was a similar composition at Bergbukten I, and at Ole Pedersen I, both at Alta, although they had not been recognized. Chronologically, the panels are dated to between 4200 and 3600 BC, which is the earliest phase of the approximately 4000 years time-span of the carvings (Helskog 1987, 1988) The compositions appeared to illustrate some of the ideas launched in the previous pages of this article.

Kåfjord

It was the bear that gave me the clue to the interpretation. On the left (Fig. 3) there is a bear standing in its den and facing the opening, as if it is about to leave after having walked around in the den. The footprints of the bear lead to another den 8 m to the right where a bear is facing inwards into the den. This gives a linear movement from the left to right in the panel. Furthermore, in ‘real life’ the bears in this region normally leave the den in about early May to re-enter in the late autumn. As such, the depiction illustrates two events and the time in between: the bear to the left illustrates the end of winter/beginning of spring and the bear to the right the end of autumn/beginning of winter.

There is a time-scale. The composition also illustrates the period the bear is active, not hibernating.

The two bears are morphologically different. The one to the right appears slightly stockier and has clearly depicted paws; the one to the left appears thinner and the paws are not emphasized. Perhaps it is the same bear in different contexts or two different bears (male versus female). Also, a bear that has just spent a winter’s hibernation drawing on stored body fat is bound to be thinner than a bear that has been eating all through the summer and autumn, storing fat for the next winter hibernation.

Given that the narrative progresses from left to right, with the beginning associated with spring when the bear leaves its den, the following story emerges. On the upper left are two circular symbols; the highest is totally carved out and with 11, possibly 12, fringes protruding from a fully carved-out body. The lower one consists of three circles connected with lines, which also makes the figure appear segmented. There are 12 segments between the two outermost circles and 6 segments between the second circle and the innermost circle. Altogether 19 plus 2 fringes, making a total of 21. In the centre of the innermost circle (and the figure itself) is carved out a small dot. Given that the bear leaving the den signals spring, it is not impossible that these two round figures represent the moon and the sun, a perceived difference between them, and when the sun and light dominate over the moon approximately at the time when the bear leaves the
den in ‘early spring’ (late April–early May) in this part of the world.

As such, the group of 36 anthropomorphic figures, people or as well as spirits, represents a ritual performance associated with the transition from winter to summer. Rituals marking the transition from winter to summer, as well as between any seasons, are a common cultural phenomenon, also in the European and Siberian Arctic (Anisimov 1963:165), and likely of great antiquity. The differences between the figures can represent persons and/or spirits of different status/stature, as well as men and women, male and female. At least one figure (centre top row) appears to have a penis, and one (in the upper right group) a vulva. On some figures the lower torso is round as in pregnancy, while on one figure the upper torso is rounded as if illustrating a breast. So both sexes appear to be represented. The movement can be recognized as performed by a long winding row of people/spirits starting on the upper left; or as several circles of smaller groups of five to six people.

There are also three reindeer. Given that the event illustrated was spring, the antlers indicate there is a buck, a doe (female) and a calf. To the right is a possible female elk. All four face the right.

Slightly to the right in the upper section of the composition is another 12-fringed, segmented circular figure. This one has six internal segments. (Or, there are no seg-
ments — only lines which connect the different parts of the figure.) Given the similarity in design, and given that there is a timescale from the left to the right, this figure can be interpreted as another sun later in the year, alone and without a moon — as during midsummer when the moon is difficult to see.

To the right in the composition is a reindeer corral, with reindeer and possibly also an elk, and in the innermost part a bear in a den. The large-scale co-operative reindeer hunts take place in the autumn when the reindeer migrate from the coast into the interior. This was and is the normal ethnographic pattern in northern Norway as well as among the other arctic populations who hunted or corralled reindeer in historic times. This is the time when the reindeer is the fattest, the fur thick and strong. So, both the bear and the reindeer corral place events in the right-hand part of the composition in the autumn.

The left and the right parts of the composition are connected directly by the track of the bear, and by a row of eight box-like figures with a protrusion at each end. They are all oriented in the same way. They might be an imitation of flying birds, a fur animal seen from above, or a stretched out hide.

There is a row of four reindeer oriented towards the left, all with different body patterns and size, as if signifying different animals or spirits. They are moving in the opposite direction, right to left, as if meeting, counteracting or returning to the spring.

Let me return to the bear and to the bear tracks that connect the different parts of the composition. The bear appears to have moved from an area in between the moon and the sun (i.e. in a cosmological upper world) to the den (in the cosmological world where humans and animals live) where it once walked around and then left. The bear appears to have walked in two directions; one to the den inside the fence to hibernate; that is, it disappeared simultaneously with the migrating fauna. Judging from the difference in the footprints compared with the den to the left, the bear stayed, or if it left then it was the spirit or the soul of the animal that travelled into the heavens and to the underworld during winter.

So, features of the upper and the middle world can be recognized while the lower world cannot be recognized, or it is not represented by readily recognizable figures. However, a set of bear tracks extend downwards from the den and/or from the direction of the sun and the moon. They end in a fissure, in a sort of a basin in the rock surface (Fig. 4). Water would gather in the basin when within the reach of the waves' action, in the spring with thawing snow, and when it rains. So the track of the bear ends in water; the bear is entering the lower world through water.

On the right side above this fissure/basin is a depiction of another den with another bear. From the opening, a set of bear footprints extends in a small circle, i.e. leading back into the den. The depiction might illustrate a bear briefly leaving the den during winter to soothe an upset stomach, to relieve itself. In this perspective the bear enters the fissure during early winter. It, or its soul/spirit, travels during hibernation into the lower world, from there to the upper world before it reappears, and spends summer in the middle world. Occasionally during winter the bear wakes up to relieve itself, it hibernates and its soul/spirit travels.

In the upper right corner of the panel is a large (45 cm diameter) round white granite boulder. I think it likely that the boulder is connected in some way to the compositions/figures. The boulder is either intentionally placed, or it is the reason for locating the figures at this particular place. The round boulder does not naturally belong in an otherwise clean, red, soft slate surface. What it signifies can only be guessed at; given that the sun and the moon are the central top circular features, the stone may represent the one or the other or both.

We do not of course know if the general
idea of different worlds in the sky, on the earth and beneath the ground/lakes that is found in the traditional cosmology of the northern populations has a time depth of several thousand years. But if it does, then the bear in this composition could represent an animal that is walking between these worlds. It can be argued that there was a cosmology consisting of different worlds and that paired figures that are upside down to each other are standing in different worlds. For example, the two animals (reindeer and elk?) above the sun and the moon that are facing each other might be standing in two different worlds, in this case the upper and the middle world. The figure upside down is in the upper world. Ethnographically, life in the different worlds stands ‘feet towards feet’.

Similar paired figures can be seen in the bear-hunting scene in Fig. 6. In this case two anthropomorphic figures are paired inverse.

**Bergbukten 1**

The composition (Fig. 5) has some of the same main ingredients as the scene at Kåfjord, namely the reindeer corral, the bear and the den. In this case the bears have left the den and are hunted in front of the corral. As at Kåfjord, the time involved is from the spring when the bear leaves the den, to the autumn, associated with the communal autumn hunt. The bear tracks connect the composition in a similar way to those in the Kåfjord carvings. The tracks into/from the den extend in four directions. One set, extending towards the opening in the reindeer corral, ends with four bears — male, female and two cubs — being hunted. The bears
Fig. 5. The panel Bergbakken I, Alta, North Norway.
leaving the den and hunted might represent spring, while the direction towards the reindeer corral is towards the autumn, as with the Kåfjord corral.

The second set of tracks leads downwards to a basin-like fissure in the rock surface, a basin which, like that at Kåfjord, will gather water from wave action, from snowmelt, and rainwater (Fig. 6).

One set of tracks leads downwards to a circular-like, fringed figure. My interpretation is now coloured by the scene at Kåfjord, and I imagine the figure to be the hindquarters of a bear ready to relieve itself sometime during winter. The last set of tracks extends upwards around the den to above a boat. Perhaps again the tracks are meant to illustrate/symbolize the way to/from the different worlds such as at Kåfjord. The moon, the sun and the dancing (?) anthropomorphic figures at Kåfjord are missing. Yet, there are sufficient similar features in the two compositions to preclude the belief that this is a coincidence.

The figures in the composition around the den are all different, and it appears as if the bear can be associated with each of them. Like the composition in Kåfjord, the bear represented by its tracks connects the different forms of life as well as the dimensions represented by the other figures depicted, water (boat), the underworld (the fissure?), land (reindeer), and the sky.

On the right side of the basin there is a small circle depicting a den, from which a set of tracks leads into the fissure/basin. There are no return tracks and no bear depicted as at Kåfjord, but there is a total similarity in location and a partial similarity in depicted content.

The two reindeer corrals are somewhat similar in content and construction. Within each fence there are mainly reindeer and a few elk. None of the animals are depicted
across the fence. There is only one anthropomorphic figure in each. The torso of both these figures is depicted as relatively thick, and each holds a spear. A small herd of reindeer is entering the corral in Bergbukten, while in Kálfjord animal tracks represent the animals that have entered or are about to enter.

The similarities between the two scenes, not coincidental, suggest a repeated formal idea of the construction of the universe in three parts; communication/entrance to the lower world is through water and fissure/basin, as demonstrated by the bear tracks at both Kálfjord and Bergbukten I. Kálfjord is particularly clear in that communication in the depictions can be recognized between the three zones of the universe, and the association between water and the shore is demonstrated. In addition, the fissure in itself is an opening down into the rock surface towards the lower world; contact between the middle and the lower world, it can be argued, can also be made through these. Still, the idea remains that the only place where the three worlds can be reached is located in the shore.

How is one to explain that two similar, contemporary (based on style/morphology, content and altitude above sea level) scenes are located on different sides of a fjord, one slightly further out towards the coast. Is it simply an alternative or a change of locality? If so, for what reason? Or does the difference reflect the ritual areas of different groups of people, e.g. one from the outer coast and one from the interior, or from the west and the east of the fjord? In general, the observation of similarities and differences in content and space give room for a great number of alternative interpretations.

Ole Pedersen I
On the Ole Pedersen I panel, also in Alta,
there is a depression that collects water, adjacent to the den and the bear tracks. This scene (Fig. 7) is contemporaneous with the two described above and illustrates the hunting of the bear. There are three bears, two smaller to the right and an exceptionally large one above. As with any rock-art scene, this one can be interpreted in a variety of ways, but the hunt itself is real. Bears were hunted even though they were animals of significance in cosmology and rituals. As such, the scene portrays how bears were hunted, and the individuals who participated. Three (cosmic) bears are watching while eight persons armed with (composite) bows, arrows, and spears are facing the den. Two of the spearholders are pointing and crossing their spears in the opening, those with bows and arrows are at the ready, and the unarmed shaman/ritual leader is there to carry out his/her part. From the den, the tracks lead in three different directions — just as they do in the two previous scenes — to the three cosmic worlds? Judging from its extraordinary large size, one of the bear figures (some say it looks like a polar bear) could represent a major spirit.

The tracks leading to the lower left terminate on the edge of a natural depression, a basin, where water collects (Fig. 8). Again, a repetition of entering/leaving water. Furthermore, note that the tracks immediately outside the den form a small circle, perhaps a similar circle to that made by the solitary bear on the side of the fissure in Kåfjord (Fig. 3). That is, representing the situation when a bear briefly might leave the den during winter. In essence, this third composition appears to convey the same general idea as the two previous compositions. The elaborate reindeer corral depicted in the other two panels is absent. On the
other hand, there is a thickly carved line along a part of the panel which might represent some sort of a boundary/enclosure like that signified by the two corrals. A similar line can be found on the Ole Pedersen VIII panel, in Alta (Helskog 1988:53), a panel of the same age and altitude as the previous three). There are also a bear, cub and tracks. Again, are aspects of the same story being represented here?

As has already been pointed out, the similarities between the three compositions do point towards three representations of a belief — a cosmological story — with common elements. Yet, there are also distinctive differences, the number of which differs according to what the actor regards as part of the composition, or what figures were relevant to conduct a ritual, to illustrate a story, or how many figures were available to chose one of several stories. For example, why were the bears hunted at Ole Pedersen I and at Bergbukten I and not at Kafjord. It seems that the stories have differences, while the link between the dens and tracks leading in three different directions — to three different dimensions or worlds — is a common main feature.

To me, the significance of the scenes in these panels is that not only the carvings but also the interaction between the carvings and the structure (topography, fissures/basin, cracks, pools of water, etc.) of the rock might be part of a cosmic landscape. This might in fact be what we are observing. This landscape might not only include a single panel–surface relationship but also the relationship between several panels and rock surfaces, and those in between and around. This has led me to the conclusion that I need to return to the panels and complete a more thorough topographic map than I have done up to the present, and to delete those features which occurred after the carvings were made. Only in this way can I identify possible cosmic landscapes, or maps somewhat similar to those made by recent Siberian shamans, but which were once permanently carved into rock surfaces. At this point, I am convinced that the carvings are part of a cosmic landscape whose content played a significant role in rituals and in communication between people and spirits in the different worlds of the cosmos.

SUMMARY AND CONCLUSIONS

To connect rock art with ideas drawn from the ethnographic present is problematic, often even dubious. Yet the ethnographic records of the Arctic area indicate what kind of ideas rock art might represent, whether the indication is associated with possible similarities in representations, continuity and/or structure/patterns in beliefs. I cannot argue that all ideas and beliefs from prehistoric populations in this part of the Arctic disappeared prior to the ethnographic present, especially the general fundamental ones. For example, a creation myth including the mammoth is still a part of the cosmology of Siberian populations, although the animal became extinct 8,000–10,000 years ago. The general idea of the three main cosmic worlds is likely to be another long-lived idea, although we must not forget that culture is dynamic and changing, also in beliefs, and that new cosmologies are created.

It is argued that the cosmic worlds are structured as a copy of the human world. The human world is a part of the cosmology. And indeed the figures and types of activities depicted are almost all recognizable as part of the human world. There is a human middle-world reality as well as a cosmic world reality, some of which is relatively easy to unravel (e.g. hunting of bear) on a rather general level and vastly more difficult on a deeper, more detailed level, cosmological or not. The idea that spirit worlds are a copy of the human world might be one of the keys to unravelling information in the carvings. If the cosmos was structured according to the natural world, the cosmological worlds had boundaries as real
as the observable human ‘middle’ world. They all connect in the shore zone, and within the zone where all worlds of spirits, humans and nature connect, we find strong liminal places. Certain areas are chosen as places where stories of life, events of the worlds are depicted and rituals connected. The carvings signify such places. In this sense the shores with the carvings are liminal places where people, through rituals, connect with the spirits to appease them, to seek information, to secure the transition between stages in human life and in nature, and to connect with the souls of the dead; i.e. many of those ideas that are described in the ethnographic record. This could be why the rock carvings are located in the shore area.

The three compositions from Alta appear to be an illustration of travels between the worlds of the cosmos, with the bear as a central part entering into the underworld through a fissure/basin — where water collects — on the rock surface. The time sequence, spring–autumn, is of the human world, of nature, and the world of the spirits. The compositions belong to the earliest groups of carvings in Alta, and appear not to have been repeated (copied) during the subsequent 3000 years. Yet, the compositions appear to illustrate beliefs and rituals, and hunting as known in the ethnographic record from a much later date. Despite the circularity in this argument, the compositions might illustrate a story that was referred to, in rituals, over thousands of years. It is likely that prehistoric populations living in close communion with the natural and spiritual world observed rock carvings made in earlier times and possibly used them, even without performing rituals at the place where the carvings were made. The story was known, and not dependent on the presence of rock carvings. Yet, we also know that there are fundamental changes in the carvings in Alta, which suggests substantial changes in and/or incorporation of new beliefs, especially during the late third millenium BC. In essence, the situation is complex, as expected.

The surface on which the depictions were made varies from smooth and flat to smooth, undulating and cracked. The three compositions incorporate the topography on the surfaces. A question that arises is if topography is always a part and do all the ‘stories’ in which different worlds play a part have the same basic spatial organization; from the upper world (the sky) at the highest to the middle and the lower world at progressively lower altitudes? It seems that altitude does not play a chronological role within the individual panels, and that a surface was used to depict activities/stories related to single as well as multiple worlds. But, clearly, the content, topography and spatial relationships both within and between the panels require further examination in order to determine whether they constitute cosmic landscapes.

So far, there should be little doubt that each of the three discussed compositions and rock surfaces represents a cosmic landscape, located on the boundary between the cosmic and natural landscapes.

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