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## THE PETROGLYPHS OF CARSCHENNA, SWITZERLAND

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**Abstract.** The major rock art site of Switzerland is named Carschenna. It has a rich display of motifs: geometric 'signs', cupules, often combined with concentric rings, spirals and a few anthropomorphic and zoomorphic figures, and was discovered in 1965. The petroglyphs on the surfaces of naturally occurring rock panels inspired some researchers to present astronomical theories and interpretations.

### The Carschenna site complex

The beautiful Domleschg valley (Kanton Graubünden) is famous for several tourist attractions, for example the painted ceiling in the church of Zilles from medieval times or the precipitous canyon of the Via Mala ('bad road'). In the vicinity of the valley, near the small town of Sils, the most important rock art site of Switzerland is situated.

The Carschenna site has an altitude of 1090 m above sea level and is located about 400 m above the valley ground. Standing at the rim of a steep slope looking to the north, visitors have a beautiful view over the whole region (Fig. 1). This could be one reason for choosing this site to create petroglyphs. Another factor might have been the fact that, in pre-Historic times, the canyon of the Via Mala was impassable and the Alp Carschenna was probably a pass to enter the next valley. We assume it to be a trading route, which in the Bronze Age perhaps served to transport ore from an area of copper mining (Carschenna means 'rising moon' in Romansh, the fourth official language of Switzerland).

The petroglyphs were accidentally discovered in 1965 when workers erected a pole for a power line. After removing the covering soil from some rocks, initial scientific research has been made by the Swiss archaeologist Zindel in 1966 (Zindel 1967). In 1972 a joint research project between the Archaeological Heritage Administration of the Kanton Graubünden, the Swiss National Museum in Zürich and the Museum of Ethnology

in Basel was founded to clean all the known rocks with petroglyphs and to make silicone replicas from them (Schwegler 1997). Twelve years later (1984), near Badugnas, another boulder with rock art was discovered within sight of the original ten rocks. In 1996 the total number of petroglyph rocks grew to twelve, when at the Alp Viaplana (400 m to the north) the last currently known boulder was unearthed (Rageth 1997a).

The site complex thus consists of twelve isolated rocks of sandy Bündnerschiefer (the geological term for the local schist), polished by the former



**Figure 1.** View from Alp Carschenna into the Domleschg valley. All photographs by Heinz Diethelm.



*Figure 2. Cups with rings on Rock 2.*

glacier. Because the Bündnerschiefer is not very stable and because of costs and the risk of weathering, archaeologists removed the soil carefully from the rocks, documented their finds and re-covered the rocks — at least most of them.

The rock art shows mainly geometric motifs, which recur on several rocks. The most common motif is the cupule (n = 300), often combined with (two to nine) concentric circles around them (n = 100). A second geometric motif is the spiral, which occurs only twice at Carschenna. Besides the group of geometric motifs, the site complex comprises twenty-five zoomorphic and five anthropomorphic images (Schwegler 1992).

The next comparable site within a distance of around twenty kilometres is Senslas (Oberhalbstein). The petroglyphs there also consist of cupules and concentric circles (Rageth 1997b). The dating of the petroglyphs of Carschenna is difficult and different opinions exist, varying the chronological positioning from the late Neolithic to the early Iron Age. Excavations in the nearby area provided no archaeological clues. The rocks are situated just above a steep slope, therefore it is nearly impossible to find datable objects. Thus typological and technological comparisons with dated sites are useful.

In Senslas, the site with comparable cupules, a settlement from the Bronze Age, Padnal, is located only 400 metres distance from the rock art. The probability that both feature are related is very high



*Figure 3. Rock 2, the composition in which Liniger saw a calendar, displaying four solar years.*

(Rageth 1997b).

The nearest concentrations of petroglyphs in Italy were discovered in Val Tellina, not far from Carschenna at 70 kilometres distance, and perhaps some socio-cultural links could have existed. At this site complex, also an assemblage of schist rocks, a few petroglyphs have been dated, one of them to the late Neolithic (Bednarik 1997).

The result of a technical approach supports the dating made by stylistic arguments. Observing the cupules to reconstruct the technique of their creation, Schwegler drew the conclusion that they have been made with metal tools, because of their sharp edges and their depth of one to two centimetres (Schwegler 1992: 64).

Similar petroglyphs have also been found in Ireland and Galicia, dated into a time span between 2300 to 1930 B.C.E. (late Neolithic to early Bronze Age [Schwegler 1992: 64]).

### **The history of interpretation**

The Carschenna images aroused people's fantasy, and several interpretations were presented, though none of them was proved. Some thought the site was a place to worship the Moon or the Sun or to be a calendar in an archaeoastronomical sense.

The scientific report by Zindel on the petroglyphs of Carschenna gave no interpretation of the 'signs' (Zindel 1967: 16–19), however, opening the door

for others to enter the field. Over a dozen researchers have offered their theories. We will focus on one of them, the geologist Liniger and his astronomical theories (Liniger 1970). Liniger was the first who offered an interpretation of the rock art from Carschenna and up to now it is still the most comprehensive endeavour on this subject. He had already studied rocks with cupules before the discovery of Carschenna. His method was to search for two or three of them, which he felt would form a line to the horizon, where a solar or lunar event would take place. He most eagerly looked for lines, which to him indicated solstice or equinox sunrises or sunsets.

After the discovery of the site, Liniger extended his work to Carschenna. He perceived the clue to 'reading' all the signs there in a composition on Rock 2 (Figs 2 to 5). He interpreted the three groups of cupules on the lower part of that composition as a lunar dot count. They showed two lunar weeks with nine days and a third week with twelve days. To him this composition was a calendar-system, showing two cycles of four solar years. The resemblance with a pre-Gregorian Roman calendar led him to date this composition to the year 700 B.C.E.

Nearby occurs a composition of nine rings, divided into four quarters. The figure below shows a 'deer' with a 'rider'. The combination of these two symbols represented for him a solar year.

A few metres away, on Rock 3, there is a figure which could be the Sun, or, after Liniger's interpretation, Venus. On the bedrock surface are several cupules and cups with rings. He notes the fact that these cups with rings are similar to figures in England and Scotland, but he had no explanation for them,



Figure 5. Detail of Rock 2.



Figure 4. Rock 2, a cup with nine rings, above a 'rider' on 'deer', in which Liniger saw one solar year displayed.

so he proposed that this could be the 'practice rock' for a beginner in producing rock art.

On Rock 7, Liniger 'recognised' a second calendar, showing one solar year (Figs 6 to 8). The year begins at the bottom of the rock with a 'horse', carrying the hidden sun on its back. Several 'horses climb up' the rock, until one horse crosses the middle line, indicating 'the progress of the seasons'. This horse points to another horse with ears, carrying a 'human' figure. This symbol would mark the date of midsummer. The 'year' ends with two spirals.

Liniger published his interpretations privately (Liniger 1970) and they provoked disbelief and sceptical reactions. However, his publications stimulated others to enter the field.

Schwegler devised another approach of interpretation (1997: 123). Recognising the number of motifs and their alignment along a rock face, he supposed the rock art of Carschenna to be part of a ritual area. Like a ceremonial pathway, the petroglyphs should guide the visitors to the ritual centre, which is still undeveloped. This explanation does not deny astronomical reasons for the creation of the rock art, but tries to embed them in an extended ritual scenario.

If we assume that the site existed within the Bronze Age (see arguments for such dating above), at least partly at the same time as other sites of this period (like Falera with its megalithic structure [Zürcher 1982: 25-26] and the settlement of Padnal [see above]), an interpretation of Carschenna as a part of a local socio-cultural network is possible. Within the net, dedicated places for rituals, burials and economic



Figure 6. Carschenna Rock 7.



**Figure 7.** Rock 7. A 'horse' carrying a 'load'. In Liniger's opinion it carried the hidden Sun and marked the beginning of the year.

purposes might have existed. The connection between them, and with other local groups grounded on pathways through the mountains, were the 'nerves' of a transhumance and trading system, with probably direct contacts to northern Italy (Val Tellina). Carschenna could have many functions within such a pattern, and having been part of a ritual place, agrometeorological calendar, or resting place for people crossing the mountains might be some of them.

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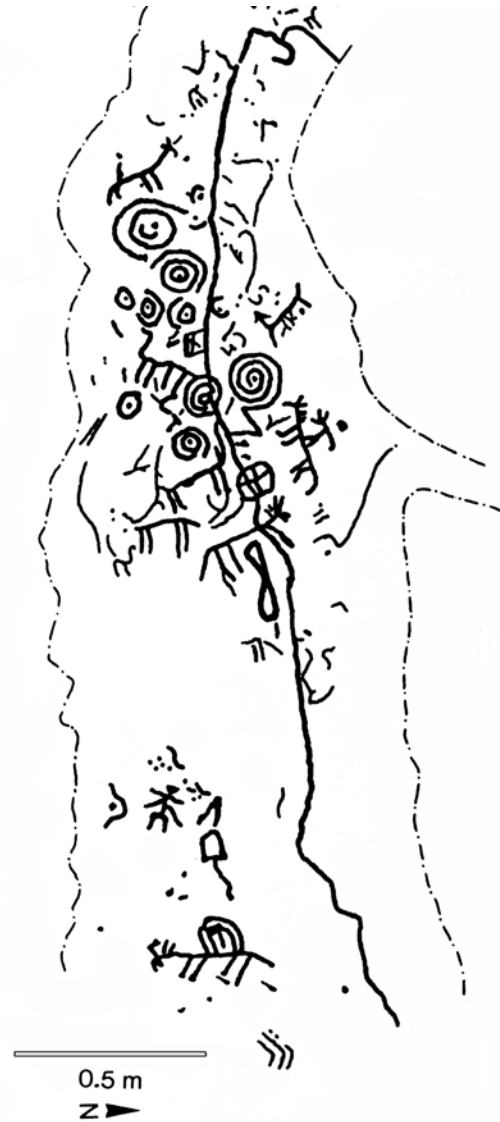
Editorial note:

**Heinz Diethelm passed away in February 2009, during the finalisation of this work, which was to be his last. We acknowledge his contribution to rock art research over many years and offer our condolences to his family.**

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**Figure 8.** Rock 7, line-drawing by Heinz Diethelm, after Schwegler 1992.

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