

Probing late prehistoric Scandinavian petroglyphs  
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The Scandinavian archaeological record offers many examples of a particular kind of rock art which is generally dated from the late Bronze Age period: sets of petroglyphs which have been carved on boulders located in the midst of usually violent streams. Recurring motifs on these boulders include elks and boats, often interspersed with some geometric signs which are difficult to identify. These sets, which blend figurative and abstract petroglyphs in a manner which appears to show some degree of consistency as far as the motifs are concerned, have been variously, but inconclusively interpreted (e.g., Tilley 1991, Nilsson 2008). The purpose of this paper is to briefly review these interpretations and propose a new approach. Rather than trying to relate these petroglyphs to external objects or events to which they would be assumed to refer directly, this approach will make the heuristic assumption that they form formally consistent sets with respect to their composition and organization. The inquiry therefore consists of first intuitively probing their systematicity by using semiotic methods (e.g., Bouissac 1997) such as testing on a sample of sets the relation of types to tokens, the iteration of vectors, the use of natural irregularities in the rock morphology as bounded spaces, and the presence of recurrent associations of figures within bounded areas. The claim made by this paper is that any interpretation which bypasses this concern for the formal organization of the petroglyphs and considers them individually or as loosely associated on the surface of the boulders cannot reach any epistemologically sound conclusions regarding their interpretation. This semiotic approach is not aimed at uncovering their meaning but attempts to explore methodic ways of probing the plausibility of their communicative status as a first step toward their understanding, the next step being the construction of databases which preserve the distinctive features of the individual signs and their mutual relations within a bounded space. Only a large scale probing of these sets will show whether the distribution of the signs is random or governed by some generative algorithms.

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