CHAPTER 4

The birth of a desert: the Kootwijkerzand

H. Anthonie Heidinga
The Kootwijkerzand is one of the large drift sand areas on the Veluwe, a region in the Central Netherlands. The question of when and why it developed is discussed. It is argued that intensive agrarian activities and possibly charcoal production already strongly affected the landscape in the Early Middle Ages, but that serious sand drifting did not start before the 10th century. Unprecedented climatic drought likely disturbed the delicate balance in this dry, fine sandy area. Later, from the 12th century onward, the existing drift sand nuclei were enlarged under other climatic conditions.

**Introduction**

This contribution is written by an archaeologist who was once sent into the largest desert in the Netherlands, the Kootwijkerzand, in order to detect what was hidden underneath the blanket of sand: settlements from the Roman period and – in particular – from the Early Middle Ages. This research was performed by the Institute for Pre- and Protohistory (now Amsterdam Archaeological Centre) of the University of Amsterdam. I spent many years of my life in this desert, from the early 1970s to the start of this millennium, and I experienced not only the extreme climatic conditions in such a desert, but also major changes in this drift sand during the last decades. Changes which should alarm all who cherish dynamic eolian landscapes where the wind is still playing with the sand. In 1971 everybody was convinced of the urgency to excavate all the archaeological remains still preserved in the area. Physical geographer Prof. Dr. L.J. Pons, who was sent by the State Service for Archaeological Investigations to diagnose the situation in the Kootwijkerzand, reported that we might already be too late. The desert was obviously still very alive then (see Fig. 4.1), as can be affirmed by physical geographer E.A. Koster who, not much later, started a research project in the same area as where we were excavating (see Koster 1978). In 1978, however, the Dutch State Forestry Service (which was once responsible for the afforestation of large parts of the area!) found it necessary to promote sand drifting in the vicinity by clearing woods and ploughing heath and grassland. This measure kept the drift sand alive for a while. The situation altered seriously in the 1990s and especially at the beginning of this millennium when it became obvious that the desert was shrinking at an alarmingly fast rate. Almost the whole former research area is now covered by moss, grasses and heather. Whether increased precipitation of nitrogen, climatic change, or other factors are responsible I cannot judge (the disturbance of the soil by our archaeological activities however may be excluded as a cause: see Ketner-Oostra 1996). What I learned from it is that the behaviour of drift sand is highly unpredictable. Most probably it was not predictable in the past either. The drift sand was not just an accidental setting for our investigations of past societies. Although the blown sand deposits were initially considered as something that had to be removed to reach interesting layers, soon the drift sand itself became an important subject of research, for it became obvious that drifting sand had