The thesis deals with two separate problems. In the first part we show that the regular $n \times n$ grid of points in $\mathbb{Z}^2$ cannot be recovered from an arbitrary n^2-element subset of $\mathbb{Z}^2$ using only mappings with prescribed maximum stretch independent of n. This provides a negative answer to a question of Uriel Feige from 2002. The present approach builds on the work of Burago and Kleiner and McMullen from 1998 on bilipschitz non-realisable densities and bilipschitz non-equivalence of separated nets in the plane. We describe a procedure that takes a positive, measurable function and encodes it into a sequence of discrete sets. Then we show that applying this procedure to a typical positive, continuous function on the unit square yields a counter-example to Feige's question. Along the way we provide a new proof of a result on bilipschitz decomposition for Lipschitz regular mappings, which was originally proved by Bonk and Kleiner in 2002.

In the second part we provide a constructive proof for the strong Hanani–Tutte theorem on the projective plane. In contrast to the previous proof by Pelsmajer, Schaefer and Stasi from 2009, the presented approach does not rely on characterisation of embeddability into the projective plane via forbidden minors.