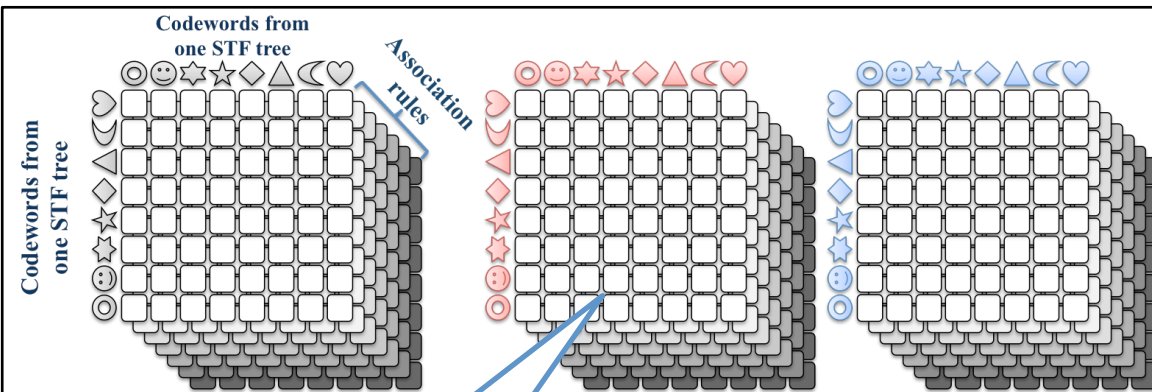
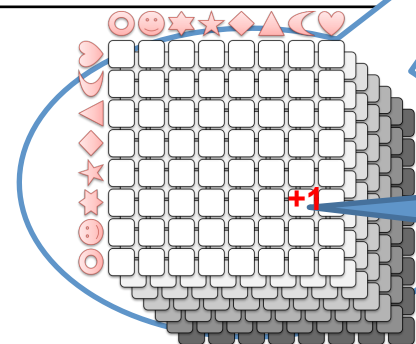


A semantic texton forest (STF) contains multiple decision trees. Each decision tree translates a spatiotemporal cuboid to a visual codeword.



3-D histograms are constructed from the codewords. Each histogram corresponds to one decision tree in the STF.

A histogram bin is associated with a pair of codewords and an association rule in equation 4.4. The size of a histogram is  $L_m \times L_m \times |R|$ .



The bin ( $\star$ ,  $\text{crescent}$ ,  $r_1$ ) is increased by one when a feature pair ( $\star$ ,  $\text{crescent}$ ) follows the association rule  $r_1$ .

Every possible pair of codewords is tested with respect to the association rules; if a codeword pair follows one of the association rules, the corresponding histogram bin is increased by one.