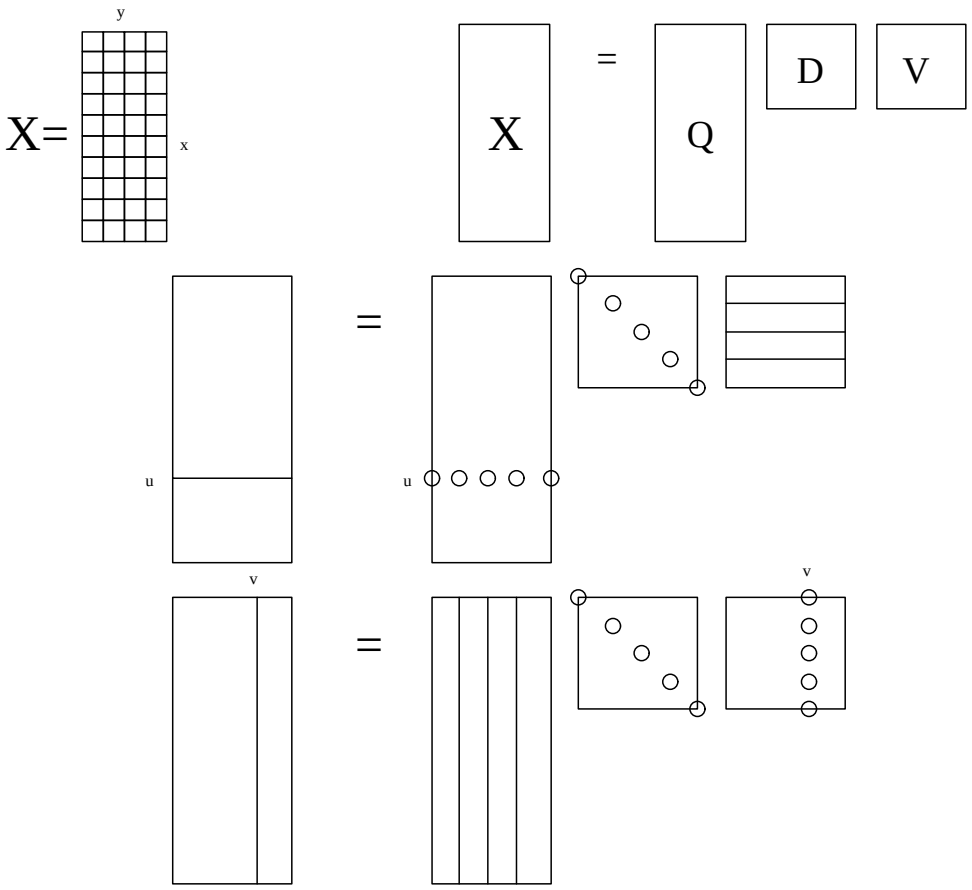


Figure 2.3, The SVD Interpolation Scheme: a grid is turned into two finite sets of functions, whose outer-products form functions of two variables. "Rows" (tracks running left to right) of the interpolating function are gotten by taking sums of the interpolated rows of $V$; "columns" by taking sums of interpolated columns of $Q$.

(If the vector constituents of $Q_1$ and $Q_2$ had been merely estimated, then one would have estimated, rather than interpolated, $X$.)

In order to get an estimate of a row off of "the beaten tracks", at $x_0$ say, use the function

$$X(x_0, y) = Q_1(x_0)\Lambda Q_2(y)^T$$

sketched in Figure (2.3). The entries of $Q_1$ at $x_0$ are computed, then one treats