## Use Dynamic Programming:

Let a(x,y) be the wasted area for a rectangle (x,y),  $1 \le x \le W$ ,  $1 \le y \le H$ . Initially, put a(x,y) = xy, for all (x,y) except for the ones corresponding to needed plates, e.g.  $x = w_i$  and  $y = h_i$ ,  $1 \le i \le N$ , for which we put a(x,y) = 0. For a plate (x,y) consider all vertical cuts c = 1, 2, ..., x - 1 and all horizontal cuts c = 1, 2, ..., y - 1 and chose the cut producing the minimum wasted area a(x,y) = a(c,y) + (x-c,y) or a(x,c) + a(x,y-c) for some c.