

Weave >> Scan to Wve or Crd Img... converts a gray-scale scan of a weave draft into a useable weave.

This weave draft was scanned at 300 dpi in gray scale from page 151 of Oelsner's 1915 "A Handbook of Weaves". The basic weave repeat is 16x16 so the Spatial Sampler was set for 16 *Ends* and 16 *Picks*.

The sampling grid was aligned as follows:

- Click on upper left end of weave - this moves the entire grid to align its ULC to that location
- Opt-click on upper right end of weave - this adjusts the grid to align its URC
- Ctrl+Opt-click on lower right end - this adjusts the grid to align its LRC.

Then make small adjustments as needed to get the best possible overall alignment of the sample boxes with the weave marks. Inaccuracies in the originals, or in printing, can make this a balancing act - just try to get the best average centering.

Using the Arrow keys is often the quickest approach - ctrl-Arrow to jog the grid's ULC, opt-Arrow to jog the URC, ctrl+opt-Arrow to jog the LRC, plain-Arrow to jog the whole grid.

With **Preview** checked (the normal setting), each sample will be evaluated against the Thresholding value; if less the box will be an open box, if equal or greater a solid box will be drawn. If **Preview** is unchecked then all boxes are drawn open. Cmd-V is a shortcut for switching **Preview** on and off.

The Threshold value (under the Threshold check box) defines the cutoff between Black (Cut) and White (Miss). This example has good contrast so a cutoff of 128 (half-way between 0 and 255) works well. Darker scans need a higher threshold.

Sampled pixels: lets you choose between sampling only a single pixel, or averaging either 9 pixels (3x3) or 25 pixels (5x5) centered around the sample point. If the scan is "grainy" then larger sampling areas can reduce the noise.

Save copies the results to the Clipboard for subsequent Pasting into a window. If [X] **Thresholding** is checked (the normal setting) the results will consist of only colors 0 or 255; if UNchecked the actual sampled values will be saved to the Clipboard as a gray image.

In this example, Pasting into a new window created the pattern shown at the right. We can then use **Select All** followed by **Weave >> Convert Select to Weave...** to convert this into Weave format.

Recommended scan resolution is at least 10X the resolution of the weave draft,

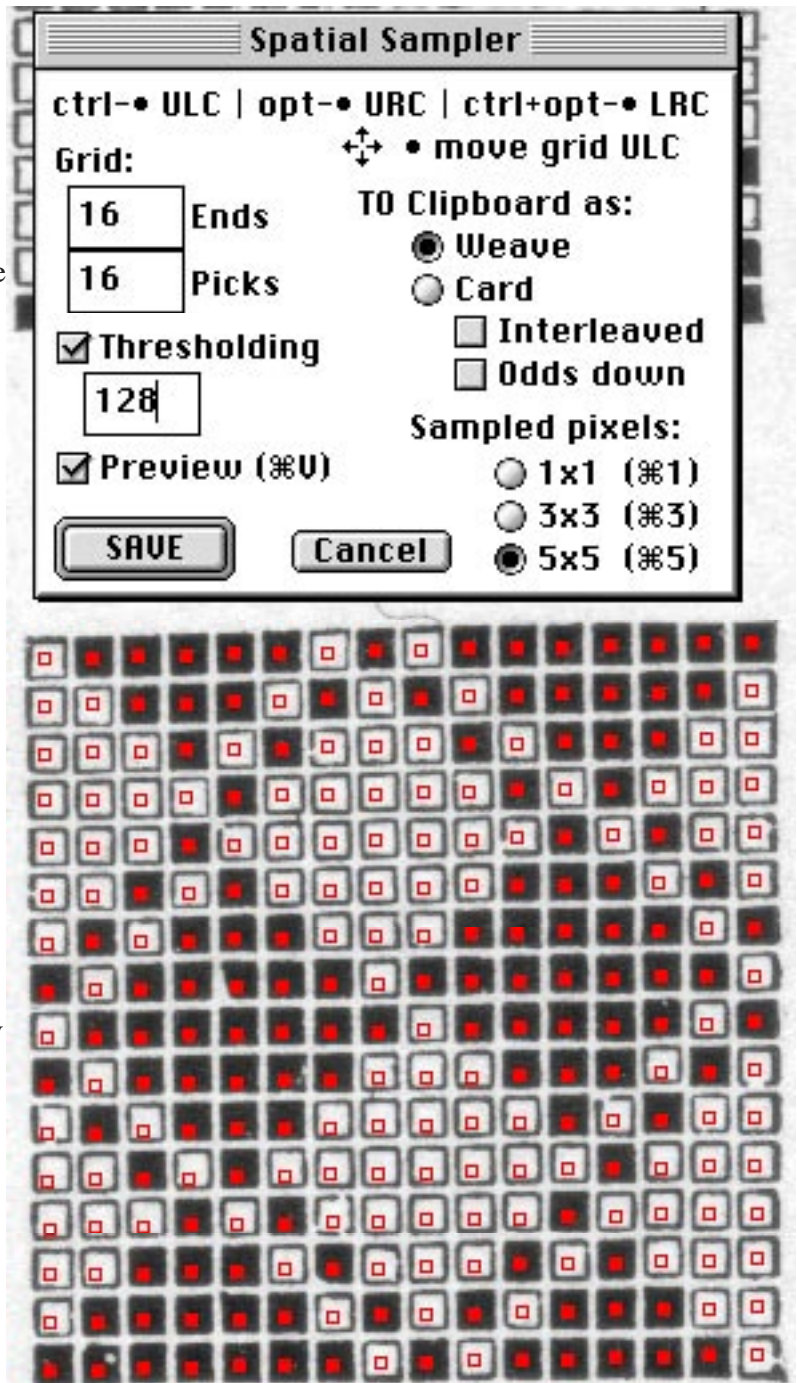
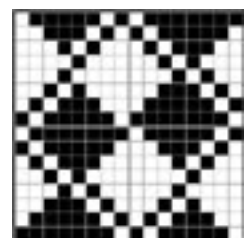


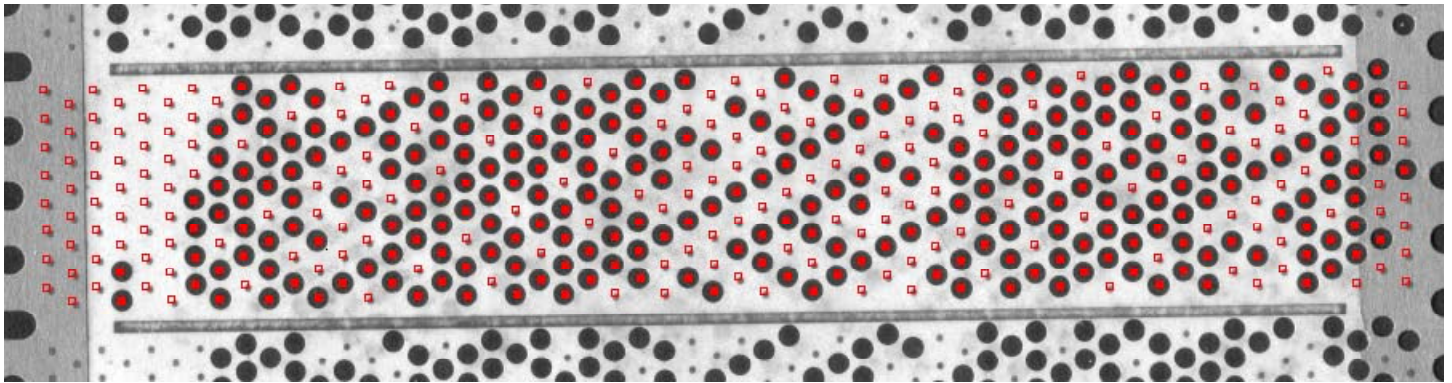
FIG. 748.



By the way, the museum's ancient 20-card deck turned out to contain the following design:



The *Interleaved* and *Odds down* checkboxes are used with images of cards which use offset rows, such as Verdol 1344 hook continuous cards:



In this usage checking *Interleaved* causes alternating vertical offsetting of the columns while *Odds down* controls which columns are offset downwards.

Using 5x5 sampling was also important - because the blank Verdol paper is printed with small black marks at each hole position. If only 1x1 sampling were used, when the sample point happened to fall on one of those small printed marks it could be mis-interpreted as a hole. By averaging 25 pixels (5x5) around the sample point, the effect of any printed mark is diluted (averaged out).

Each card results in a "line" of 448 x 1. Note that we are working only on 1/3 of a full card - the cards are too wide (18") to scan and the columns of 448 hooks are separated by columns reserved for sprocket holes.

One could finish converting each column of cards into separate 448 x Length files and then cut/paste to merge them into a 1344 wide finished product. This is probably easier and more reliable than Pasting each 1/3 into a full width window.

Of course the right way to read Verdol cards is to find someone with a proper card reader... The example above is included just to explain the use of the *Interleaved* checkbox.

