

How to scale patterns up from books

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To scale anything is to adjust an amount according to a fixed proportion. This class will discuss three methods of scaling the patterns found in a variety of costume or theatrical texts.

1. Projection Method
2. Grid Method
3. Radial Projection

Pattern books are wonderful starting points for many different articles of clothing and time periods, but they are not meant to be 100% accurate. The sewer is trusting the author's research and interpretation of the period garment. Therefore It is up to the individual to put their own knowledge and experience into the patterns found to create the look desired.

None of the following methods will be perfect enlargements. Human error accounts for much and the scale may not be exact, the grid may not be perfect squares, nor the finished drawing precise. Even the pencil or marker used will influence the accuracy. In addition the patterns were created for a generic size and further alteration will be needed to tailor to the individual.

Sewing instructions are often limited or nonexistent. The authors assume a certain skill level when creating them. If there is question or a problem in the construction further research and investigation is always recommended.

Projection Method

This method requires an overhead projector or an opaque projector. Place copy of the pattern image on the projector and shoot the image at a wall. Attach a large sheet of paper to the wall and trace the enlarged pattern. While the simplest method it does require the most specific equipment.

The Grid Method

This is a basic artist's technique used to enlarge images. First determine the scale of the pattern in the book. Books will note the scale somewhere before the patterns. Most patterns are $\frac{1}{4}$ inch or $\frac{1}{8}$ th inch scale. If the pattern has no grid and notes to enlarge by 400% the pattern is at $\frac{1}{4}$ inch scale. If the pattern says enlarge by 800% the pattern is at $\frac{1}{8}$ inch scale.

On the original pattern image draw the appropriately sized grid. A photo copy or tracing is recommended if one does not want to deface the book. Many books have grids already printed on their patterns. If the scale is $\frac{1}{4}$ inch the photocopy paper used can be a preprinted graph paper to some success. If a commercial toner-based photocopier is used, be cautioned that not all graph paper is intended for this use. See-through quilters rulers are recommended for ease in drawing the grid.

On a corresponding one inch grid paper transfer the image square by square. The one inch grid can be either drawn or a purchased pad of paper. Pellon makes an interfacing that is pre-gridded with either lines or dots in a one inch grid can also be used, though the material may stretch or strain with repeated use.

Transfer all important information, such as grain, trim lines, and fold lines from the small version to the

large. Keep in mind these patterns will not have seam allowance, either add SA to the pattern or label accordingly.

Radial Projection Method

Photocopy or trace the image of the pattern and affix it to the bottom left hand corner of a large piece of paper. The paper will need to be at least 8 or 4 times larger than the pattern piece. If the paper is not large enough tape more paper together to increase the size.

Choose a point on the lower left side of the pattern. This point is now X. Draw a series of straight lines radiating out from the X point. Making sure to intersect with all important curves and points of the pattern. Label each point the lines intersect with the pattern as A, B, C, etc. Including a 90 degree line from point X is helpful in insuring accuracy, having a straight edge to compare to.

Measure the distance from X to each of the intersecting points. Multiply this by the corresponding enlargement number. 4 for the ¼ inch scale and 8 for the 1/8th inch scale.

Mark the distance on the same line. Point X will be the same on the small scale pattern and the newly enlarged one. Connect all the points with a ruler or by eye. A French Curve may be helpful at this point.

In Conclusion

The three steps described above, the projection, grid and radial methods are but the first step in creating a working pattern. Using the patterns found in texts can save time and effort in creating a final garment.

Taking into consideration inaccuracy of the enlargement process, the research shown and that further alterations may be needed using patterns from books often yields successful results and beautiful clothes.

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