APPLIQUÉ WITH A DOMESTIC CUTTING MACHINE

Aim: Demonstrate how the Cricut or other domestic cutting machine assists with all types of appliqué.
These machines cut fabric, soluble interfacing or stabilizer, freezer paper, or mylar templates.

Machines: Many domestic cutting machines are on the market. All seem to work well, all have similar cutting features. The software that is used to create and edit projects differ between machine types. Some software that

Projects for this Class:
1. Hexie Garden – two of the nine blocks from the Hexie Garden pattern by Becky Goldsmith are used with her permission.
2. English Paper Piecing.

Appliqué methods possible:
1. Prepared edge using glue and interfacing/stabilizer templates)
2. Prepared using starch over freezer paper or mylar templates
3. Needle turn using mylar templates, chalk and sandboard for tracing.
4. Raw edge using fused fabric (cut with interfacing templates)

Understand your cutting machine:
1. Know which files can be used with your machine

Cutting Machine	Cricut	Silhouette	Brother
Image Files	bmp gif jpg (jpeg) png	bmp gif jpg (jpeg) tif (tiff) pdf png	bmp gif jpg (jpeg) png
Cutting files	Svg Dxf	Silhouette Studio Dxf svg (with $$upgrade)	FCM* dxf svg
Software/download link	Cricut Design Space	Silhouette Studio	Brother Canvas Workspace
*File format is proprietary to the machine			

2. Pros and Cons of Machine types

Cutting Machine	Cricut	Silhouette	Brother
Import cutting files	Yes	DXF only (free) SVG (paid)	Yes
Edit shapes	No	Yes	Yes
Resize Shapes	Yes	Yes	Yes
Preserve Size of imports	Yes	No	Yes
Preserve Color of imports	Yes	Yes	No
Upload documents larger than 11.5X11.5	Yes	No	Large mat selection
Has rotary blade	Yes* circles less than 0.75 are not perfect	Yes	Yes
Separate colors onto mats	Yes	No	No
Scans mat for placement	No - Will upload JPEG	No - Will upload JPEG	Yes

3. Understand how to use upload and cut files with your machine
   Each machine has a very different method which we will perform in class.

MAKE YOUR APPLIQUÉ WITH A CUTTING MACHINE

Steps for creating shapes for domestic cutting machine appliqué

- **Method 1: Use an image (shape) from the cutting machine software or internet**
  - Steps
    - Browse machine software for an image that you like.
    - Search the internet for vector cutting files (svg, dxf, png). Try sites like Vecteezy.com which has a large free selection of files available in various formats.
    - Save the files in a directory on your computer for the cutting machine
    - Open your machine software.
    - Upload the selected file into the cutting machine software
    - Resize to desired size for appliqué templates. Cut these as templates or raw edge appliqué
    - For fabric shapes, use the *offset* function to enlarge object by by 1/4" and cut

- **Method 2: Use your machine to trace shapes.**

  - Each machine uses a different set of steps, these will be demonstrated during class.

- **Method 2: Use a Pattern or your own original drawing**

  Must have vector drawing program. Common vector drawing programs: Mac/Windows: Adobe Illustrator, CorelDraw, Affinity. Mac only: Sketch
  - Steps
    - Scan pattern to create image, e.g., jpeg.
    - Import/open the scan with into a vector drawing program. Check the size to make sure it matches the pattern and enlarge/reduce as necessary.
    - Turn the jpeg into a vector drawing. Digitize, trace, or draw shapes with any vector drawing software. These shapes will be your templates or raw edge fabric cuts.
    - Create all shapes at *finished size*. There should be no overlap between adjoining shapes. Adding a seam allowance for overlap will be done below.
    - Save vector drawing in the format of your drawing program.

- Save drawing again in the cutting file format your machine accepts (svg, dfx).
- Create fabric shapes with seam allowance. Use the *finished size* vector that you created above. Add a seam allowance using one of several methods.
  - > CorelDraw - Select the object and create an outside 0.25" contour. Break the objects apart and keep the larger shape (the contour).
  - > Illustrator – Select the object and create a 0.25" offset path. Save as a cutting file format.
  - > Other embroidery programs that feature appliqué embroidery also have a contour or offset path feature.
  - > Other programs may not have these options. If not, simply enlarge the overall shape by 1/4" and use that.
    Save the larger shape to the cutting file (svg, dxf)
- Color your shapes. Machines separate colors into different mats.
- Upload the cutting file to the machine

STEPS FOR DOMESTIC CUTTING MACHINE APPLIQUÉ

- **Method 1: Prepared edge (glue method)**
  - Steps
    - Cut appliqué templates from soluble or "wash-away" interfacing/stabilizer
    - Cut fabric shapes
    - Fuse/glue the stabilizer to the appliqué shape
    - Apply glue to seam allowance. Fold seam allowance over stabilizer to make a turned edge. Depending on the glue you use, you may need to iron or "heat set" the glue.
    - Pre-assemble parts of an individual image (flower, etc) with glue and secure on background fabric with glue. Alternatively, assemble your image on the background fabric with glue.
  - Supplies
    - Glue stick: water soluble, non-permanent such as Elmer's™ school glue or glue of your choice
      - > I prefer Elmer's washable school glue (cheap). Elmer's "extreme" washable glue holds the fabric in place without ironing or heat setting)
    - Turning tools: cuticle sticks (2), stiletto, or Apliquick rods™
    - Non-stick surface for applying glue
      - > 1-14" piece of: parchment or freezer or release paper from paper-backed fusibles OR
      - > Silicone mat
    - Iron
- **Method 2: Prepared edge (freezer paper method)**
  - Steps
    - Cut appliqué templates are cut from soluble or "wash-away" interfacing/stabilizer
    - Cut fabric shapes (same shape but with a ¼ seam allowance)
    - Fuse/glue the freezer paper to the appliqué shape
    - Apply liquid starch to seam allowance. Fold seam allowance over freezer paper a section at a time and iron as you go.
    - Pre-assemble parts of an individual image (flower, etc) with glue and secure on background fabric with glue. Alternatively, assemble your image on the background fabric with glue.
  - Supplies
    - Freezer paper (see sizes in description below)

- ▪ Starch
- ▪ Starch application brush
- ▪ Turning tools, stiletto, cuticle sticks, or Apliquick rods™
- ▪ Iron
- ▪ Ironing surface
- ▪ Glue
- **Method 3: Needle turn**
  - o Steps
    - ▪ Cut templates for appliqué shapes from desired material (freezer paper, mylar, poster board)
    - ▪ Cut fabric shapes (with seam allowance)
    - ▪ Mark seam allowance with desired method (pencil, chalk on sandpaper board)
  - o Supplies
    - ▪ Sandpaper board
    - ▪ Marking tools
    - ▪ Needle and thread
- **Method 4**: **Raw edge fusible**
  - o Steps
    - ▪ Apply (fuse) fusible to selected fabrics
    - ▪ Cut appliqué shapes from fused fabric
    - ▪ Fuse to background fabric
    - ▪ Secure shapes with desired stitching method
  - o Supplies
    - ▪ Paper backed fusible such as wonder under cut to size listed below in description (fusible without a paper backing will not work)
    - ▪ Travel or small iron
    - ▪ Portable (tabletop) ironing surface

GLOSSARY

FILE TYPE	DESCRIPTION
bmp	bitmap file, a **raster** file that is "device-independent," i.e., recognized by any device
CWPRJ	canvas workspace project file, a proprietary image file for use in Brother's ScanNCut Canvas workspace
dxf	drawing interchange format, a **vector** file that was developed for "autocad" purposes and is popular in architectural and design software. Commonly used as cutting files for machines
FCM	fabric cutting machine file, a proprietary **vector** image cutting file for use in Brother ScanNCut machines
gif	graphics Interchange format, a **raster** file that can be either a static or animated image
jpeg (jpg)	joint photographic expert group file, a **raster** file developed to allow lossless compression
png	portable network graphic, a **raster** file that has a transparent or semi-transparent background, commonly used on web sites
raster file	a single layer of pixels of different colors that form an image or a block of color, examples include jpgs, bmps png, tiff

Studio/Studio3	proprietary **vector** <u>cutting files</u> created by the Silhouette company for use in their cutting machine
svg	<u>scalable vector graphic</u>, a **vector** file that can be resized without losing graphic quality, e.g., doesn't become "pixelated" when enlarged. Commonly used as cutting files for machines
tif (tiff)	<u>tagged image file format</u>, a **raster** file that allows multipage storage and metadata from the image to be captured
vector file	**<u>vector</u>** files are images that are built by mathematical formulas that establish points on a grid. Used for drawing objects and can contain many layers. Vector files may contain raster areas as well.

COMMON VECTOR DRAWING PROGRAMS

Software	Description
CorelDraw	Available without a subscription. Education edition available for approximately $100.00. Included in Bernina embroidery software.
Adobe Illustrator	Available only with subscription.
Bernina Embroidery Software	Built on a CorelDraw backbone, this software package allows use of the CorelDraw as a standalone piece of vector software.
Brother PE-design	Can save designs in proprietary FCM format for the Brother ScanNCut. Does not save files as SVG or DXF formats for other cutting machines
Brother BES4 Dream Edition Embroidery	Part of Brother embroidery system. Available as an add on.
Embrilliance	Embroidery software that creates vector objects and svg files
Hatch Embroidery Digiter	Saves vectors as svg
Wilcom Studio	Embroidery Software built on CorelDraw backbone, create vector files and save as svg or dxf files
Wilcom Worksplace	Embroidery Software built on CorelDraw backbone, create vector files and save as svg or dxf files