BLEN D HITS: Rebuilding Printmaking’s Muscle Car
Presented at Mid American Print Council Conference, 2014, Detroit, MI

The content of the demonstration and this supplemental document combine two distinct processes, which may be used in combination (or not), but together form a meaningful structural method for my personal image making: reduction stencil drawing on lithographic limestone using starting from a gum flat and blended (split fountain) color application. I will explain both from a technical standpoint and recommend a color pacing strategy which will maximize your effort and help to control the add mixture of your final prints. If you wish to see the result of this process in finished form please visit nicksatinover.com, or to view process photos from the demonstration print made for MAPC please visit blendhits.tumblr.com.

Specific materials related to this process (other than typical litho/printshop stuff):
- Regular sharpie markers
- CLEAR adhesive shelving (contact) paper
- Pins and registration punch
- Solvent resistant tape
- Old litho plates (ball grained or photo)
- Foam brush

Registration & Sharpie Drawing ‘Key’ on Stone:
Because reduction process is predicated on precise registration I recommend the following:
- Pin registration with calendared paper (or eastern paper without sizing)
- A key image be drawn on the clean stone with a non-printing material so that you may keep the drawing/reduction layers precise while minimizing retracing and repetitive drawing.

Pin Registration on Stone:
1. Grain a stone to the finish you desire (220 is sufficient for gum flats)
2. Using an old photo litho plate/ball grain plate, cut a thin strip which you will punch in order to insert registration pins (1 inch wide by slightly less than your stone’s width)
3. Measure your stone and punch your strip strategically to get pins to fit near the edges of your paper/image size—I’d recommend trying to use at least three holes/pins
4. Once your strip in punched, insert your pins – keeping track of the orientation, making sure to place the edge of the strip which was at the back of the punch to the back of your stone
5. Lightly dust the pins/strip with spray mount (or a strip of double sized tape)
6. Attach pins/strip to leading edge of stone, keeping it centered
7. Cover pins/strip with solvent resistant tape (or strapping tape)
8. Tape your paper, putting a coated tape on the side that will touch the stone and a piece of masking tape of the top.
9. Mark the center, and punch the paper so it correlates to your pins/strip. Make sure you punch your paper good side down so it relates to the pins/strip. **If using western paper with sizing be sure to calendar the paper ahead of punching, lest you stretch the holes!**
   (information on calendaring paper can be found in a variety of other sources)

Key Image with Sharpie on Stone, Gum Flat Set up:
1. Gum out the borders of your stone and let dry
2. Draw as detailed an image as needed with a regular sharpie marker, get it all in there! This will remain until you grain the stone again, but will not be affected by your reduction process.
3. Apply denatured alcohol to your sharpie drawing using a clean shop towel (or paper towel). This will remove the majority of the sharpie material, leaving only a stain on the stone which will not be seen in the final print
4. Repeat the alcohol removal process until no sharpie releases.
5. Using a brush, apply gum (or junk etch!) anywhere you wish to remain paper color. You have now established the initial layer of printing with gum, this is your drawing (shape) which will be subsequently reduced to create color reduction layers. LET DRY
6. Under good ventilation, wearing solvent resistant gloves, apply a thin coat of asphaltum with a rag or shop towel. LET DRY
   a. At this point you have created the negative stencil (gum areas) and the printing area (asphaulum)
   b. You will now roll up this flat to establish the image in ink; I recommend shop mix with a leather roller
7. Roll out a thin slab of ink
8. Wash your stone with water and a shop towel until clean
9. Sponge and roll up the stone until it is flat black, no more asphaltum is visible.
10. Dry stone
11. Apply rosin with a brush, remove excess
12. Apply talc with a brush, remove excess
13. Buff a thin coat of gum into stone – this is essentially a ‘second etch’, stabilizing the gum flat image.
14. Once stone rests you may begin printing; see following section for blend roll set up and color printing

Blend Roll Set up and Printing.
The following section will assume your familiarity with modifying color ink for lithography. It will also assume you know how to print a litho stone—detailed instruction on press set up/printing are available elsewhere. My philosophy of using blend rolls is to be as efficient and expansive as possible, seeking to apply as much color to an image as possible, in as few runs as possible. Thusly, I restrict my drawing and reduction of the gum flat to accommodate for the way in which a roller carries bands of ink using the blend. This is restrictive, but this restriction forces a lot of creative thinking in the image planning stage.
1. Mix all of your various inks to the same consistency, shortness and tackiness. Pick a roller that will allow for coverage of the whole image area without a lap. Make sure it is slightly larger than the stone left to right.
2. Because you will be reducing your stone’s stencil and printing on stop of the previous layer, you should mix in Setwell Compound. This is the only modifier I recommend beyond transparency.
3. Under good ventilation while wearing gloves, wash out the black ink from your stone using a shop towel or rag.
4. Now that your stone is cleaned of ink, you will see your key drawing. Being as precise as you wish—using a ruler (or your roller itself)—measure where you want colors to blend based on the actual drawing on your stone.
5. On your glass ink slab, take a sharpie marker and draw lines used on your measurements. I recommend making these line approximate 4 to 6 inches so you may roll and still leave them visible under your slab.
6. Decide which color should go where and apply a thin swipe of each within the prescribed measurements with clean ink knives.
7. Roll into your ink, stretching the ink to cover the whole face of the roller. At this point you should keep the roller moving perfectly back/forth without moving left/right.
8. Shift the roller 1/2 inch to your left, moving it back/forth without moving left/right – this has begun smoothing your blend.
9. Reset your roller to the original position and shift it ½ inch to your right, moving it back/forth without moving left/right. You have no really smoothed out the blend.
10. Reset the roller to the original position, move it back/forth without moving left/right. The blend in complete and smooth, even across the roller.
   a. You will repeat this process when you need to add ink to your slab.
   b. Make sure your sharpie lines on the slap are visible so you can control where you apply color
   c. Always reset to the middle to recharge the roller when rolling the stone in-between sets.
   d. If necessary your blend might need to be scrapped up completely and restarted if the shifts change dramatically.

Now you will rub up the stone with the lightest color in your blend and begin printing:
1. While wearing gloves, carefully swipe a line of the lightest value color to your stone
2. With ventilation on, lightly sprinkle lithotine on the stone and a bit on a shop towel or rag
3. Rub the lithotine into the ink, slowly moving the mixture into the image areas of the stone
4. Buff down ink mixture until even and fan dry
5. Using shop towel or paper towel wash out stone until clean
6. Sponge stone and bring your blended roller to the stone for rolling
7. Create a visual cue for where you are placing the roller, REMEMBER IT.
8. Roll stone back/forth without moving it left/right.
9. Recharge roller carefully and sponge/roll the stone carefully until image looks full
10. Proof up and print – keeping in mind different inks will become full faster and in some cases scum more than other.
11. Once you’ve printed all you need, roll up a final time
12. Fan the stone dry and rosin/talc
13. Buff a thin layer of gum and let the stone rest.

Reducing the Gum Flat with Shelving Paper (precision removal):
Within my image making practice I have done away with traditional drawing materials and have honed in on a method of working which allows for the creation of flat areas of distinct color. The following deletion (reduction) method is my process for building an image. It should be noted you can do reduction physical (through selective graining), scraping, acid-tinting or a variety of other methods. This method, however, is very precise and expatiates the lithography process by doing away with the necessity of spot etching and second roll up procedures. Experiment how it makes sense for you!
1. With your rolled up stone under a gum etch, wearing gloves, under a vent, wash out ink with lithotine on and shop towel or rage
2. Once image is clear of ink, dry.
3. Apply a sheet of clear contact (shelving) paper over the image area of the stone. The adhesion will be great and you will now see the sharpie drawing key image on your stone
4. While considering your first layer of printing, make decisions on what should stay and what should continue to be developed.
5. Using a blade/exacto/boxcutter lightly cut into the shelving paper, creating opening (shapes/windows) that you will delete or remove.
6. Mix a hot etch (30 drop of nitric acid to 1 oz of gum Arabic).
7. Use a foam brush to push the hot etch through the opening of the shelving paper. You should see a quick white fizzing happen – this is the acid ‘burning out’ the areas of the stone that you wish to remove.
8. Once you've applied the hot etch to all the areas you wish to delete, let the etch DRY COMPLETELY.
9. Once gum is dry, carefully remove all your shelving paper and discard
10. Your stone is now ready to be printed again.
11. Begin blend roll and printing process again, using your lightest value color as the printing base.

**Personal Thoughts on Color Strategy:**
While there is no right or wrong way in which to employ color (your image and desired content should relate to how your use color), there are some practical concerns with lithography. Because lithography operates with very thin films of color, once you print color back on top of itself, you will inevitably get a mixture of some sort. A common sense strategy would be to move from light value to dark—ensuring that you are not trying to print yellow (light value color) over red/blues/violets (medium to dark value color). I recommend starting with your most high intensity, pure color, utilizing transparency to boost these qualities. If you do this, you will ensure the color stays pure and what you desire. I proceed to print the second layer in neutrals—my thinking here is to help ‘reset’ the color world for the third layer. If the third layer lies on top of a neutral color, it has a better chance at staying purer than if lying on top of a high intensity color. Additionally I tend to work from most transparent to most opaque so that final layers become the most dense, creating a push/pull spatial effect.