

**Des Moines Camera Club**

**03/14/2017**

**Alternative Printing - ZIATYPE**

**Printing with the Sun (And Palladium)**

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# Alternative Photographic Printing Processes

- Time line (abbreviated)
- What do you mean, Alternative???
- List of types and processes
- “argument philosophicle” from C. James
- Pick one – Ziatype
- List of Equipment and materials
- Step by step ( the long boring part )
- Bibliography, references, web links, etc. / Q&A

# Time line (abbreviated)

- **1793**                      **Niepce (Camera Obscura – Pin hole camera)**
- **1840-60's**                **Paper Negatives / Salted paper prints**
- **1851-1890**                **Wet plate collodion**
- **1850-1895**                **Albumen print**
- **1880-1900's**              **Gelatin dry plate**
- **1880-1920's**              **Cyanotype**
- **1887**                        **Giuseppe Pizzighelli (printing out process)**

# What do you mean, Alternative???

- In this digital age, even the traditional silver gelatin prints
- Pin hole, 'camera obscura', Niepce
- Cyanotype, Van Dyke, Wet plate collodion, etc.

# List of the possible types ...

- **Anthotype**
- **Argyrotypes**
- **Athenatypes**
- **Calotypes**

## List of the possible types ... (cont.)

- **Chrysotype**
- **Cyanotype**
- **Kallitype**
- **Ziatype**

# And processes

- |                            |         |
|----------------------------|---------|
| • Albumen                  | process |
| • Bayard's Direct Positive | process |
| • Chlorophyll              | process |
| • Platinum/Palladium       | process |
| • Salted Paper             | process |
| • Wet Plate Collodion      | process |
| • Whey                     | process |

**“argument philosophicle”**

**“The more you render an imperfect thing,  
the more inevitable the imperfections of that thing  
must be acknowledged.**

**In the case of photography, where the primary  
intention was to reflect the perfection of nature,  
it is a feeble endeavor.” - Christopher James**



# Pick one – Ziatype

- **‘zia’ is an ancient Native American word for ‘sun’**
- **Does not require a darkroom**
- **Does not require specific, accurate timing for each step**
- **May use analog or digital image negatives**

# List of Materials and Equipment

- **Pictorico, overhead projector film, inkjet printable.**
- **Canon PRO-100 inkjet printer**
- **Split back contact print frame**
- **A couple of trays for washing the print**

## List of Materials and Equipment (cont.)

- **Arches Platine paper**
- **Distilled water**
- **2” water color brush, or Hake brush, or foam brush**
- **Bostick & Sullivan Ziatype kit**

# **Bostick & Sullivan Ziatype kit**

**25ml Ferric Ammonium Oxalate 40% Solution #1**

**25ml Lithium Chloropalladite Solution #3**

**25ml Ammonium Dichromate 5% Solution #2**

**25ml Sodium Tungstate 40% Solution #4**

**250 g Citric Acid Power**

**Solutions #1 and #3 mixed together make the sensitizer**

**A Ziatype image**

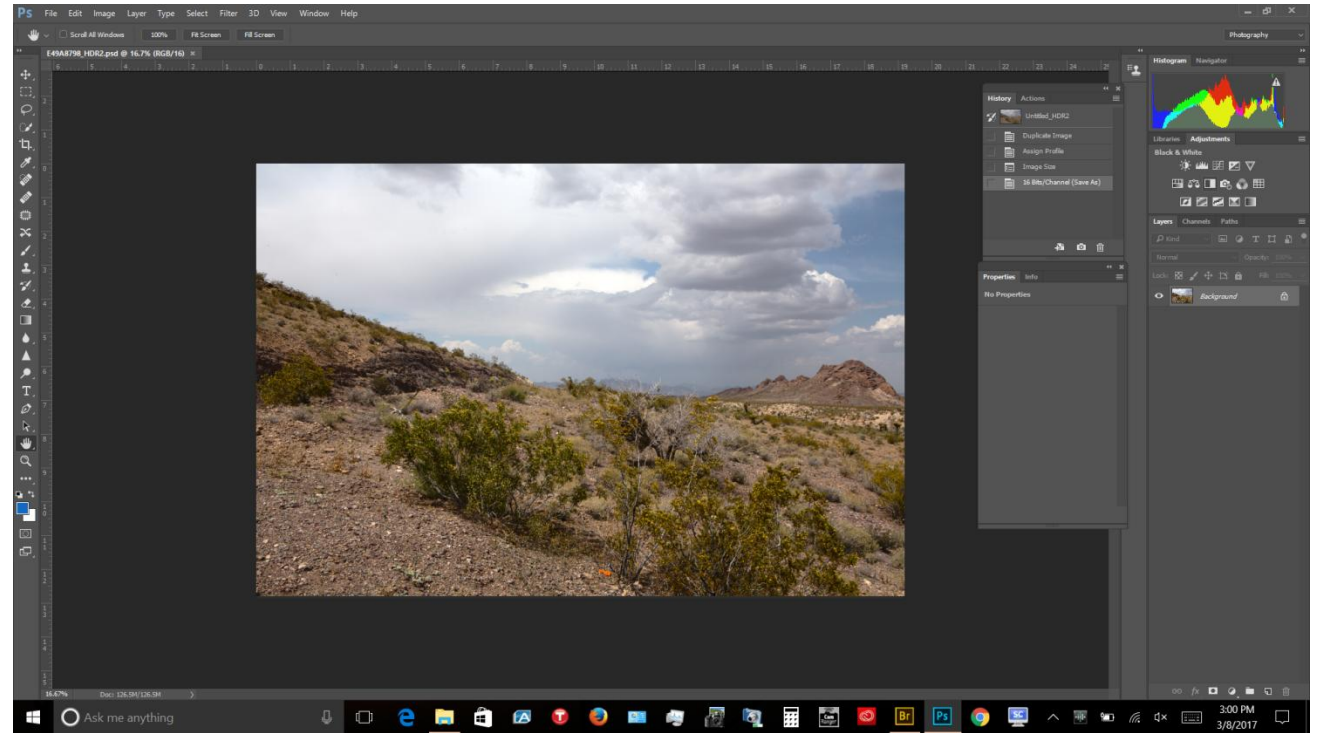
**Looks like a photograph**

**Not perfect**

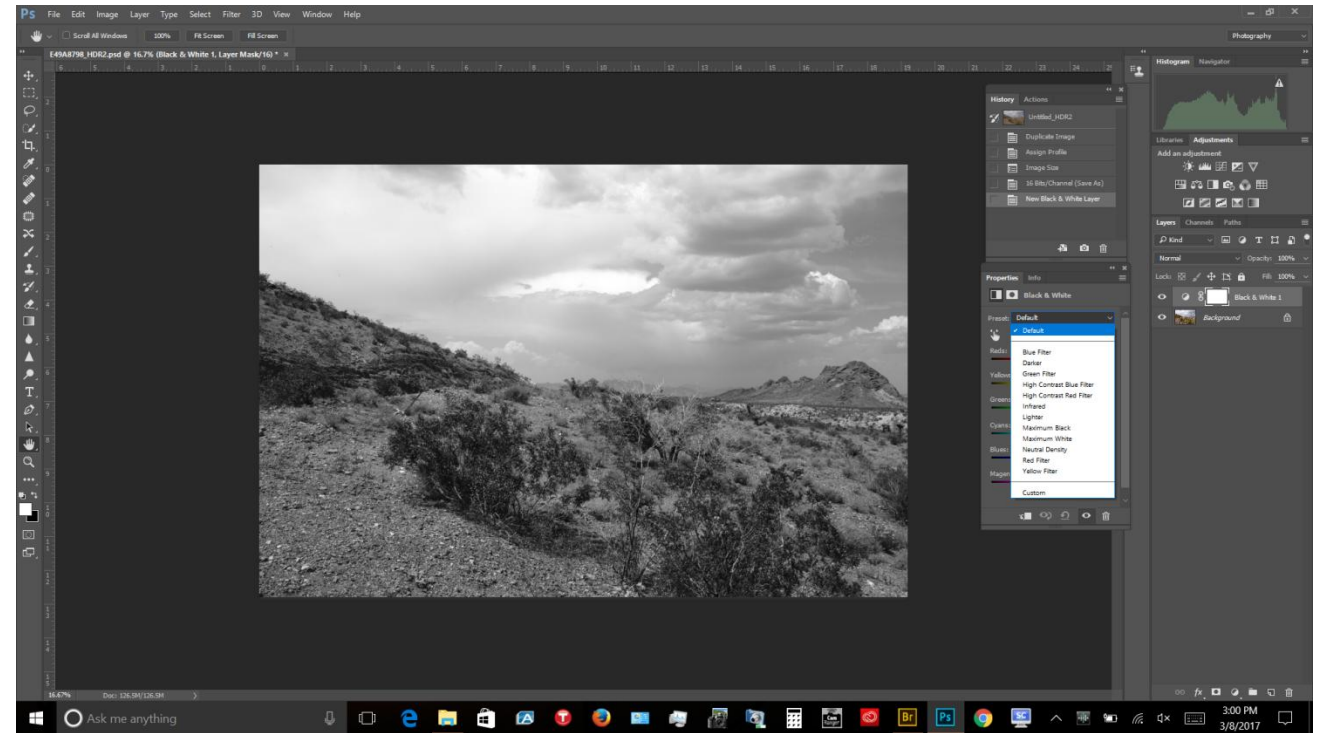
**A good start**



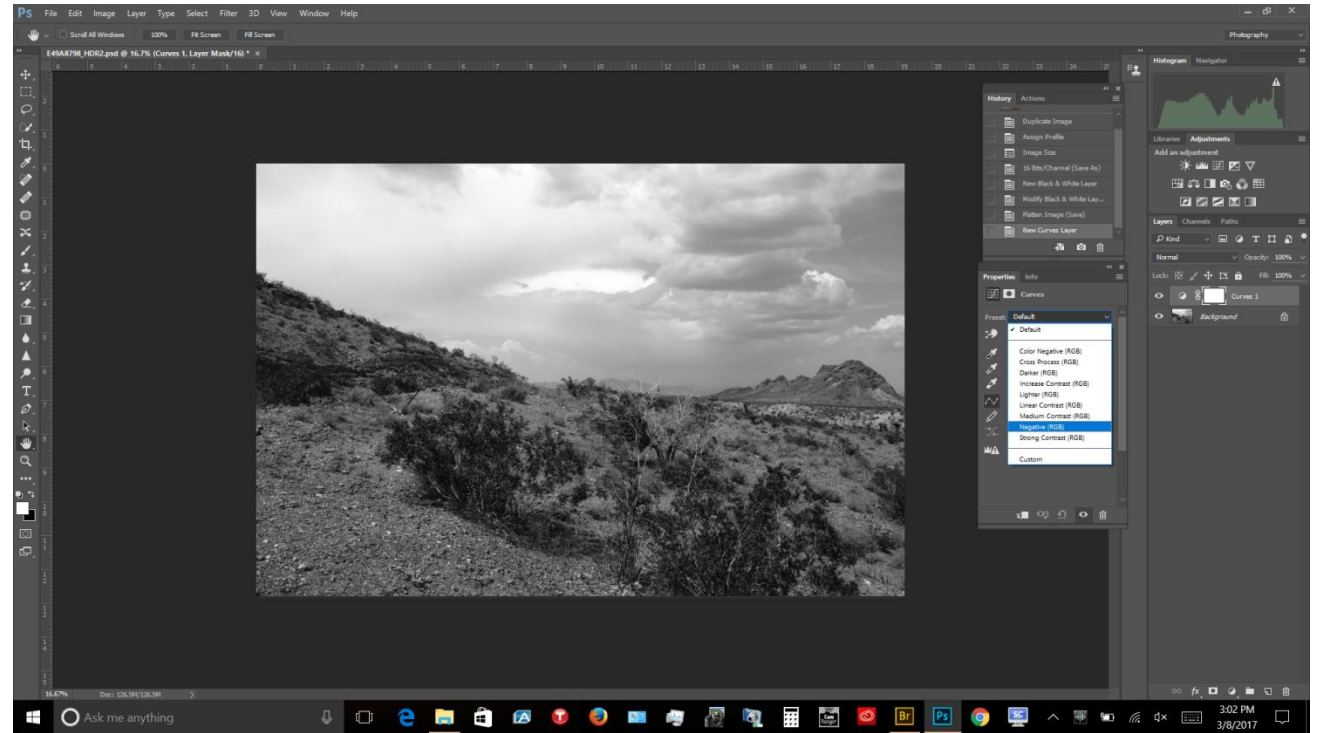
# Select an image



# Convert to monochrome

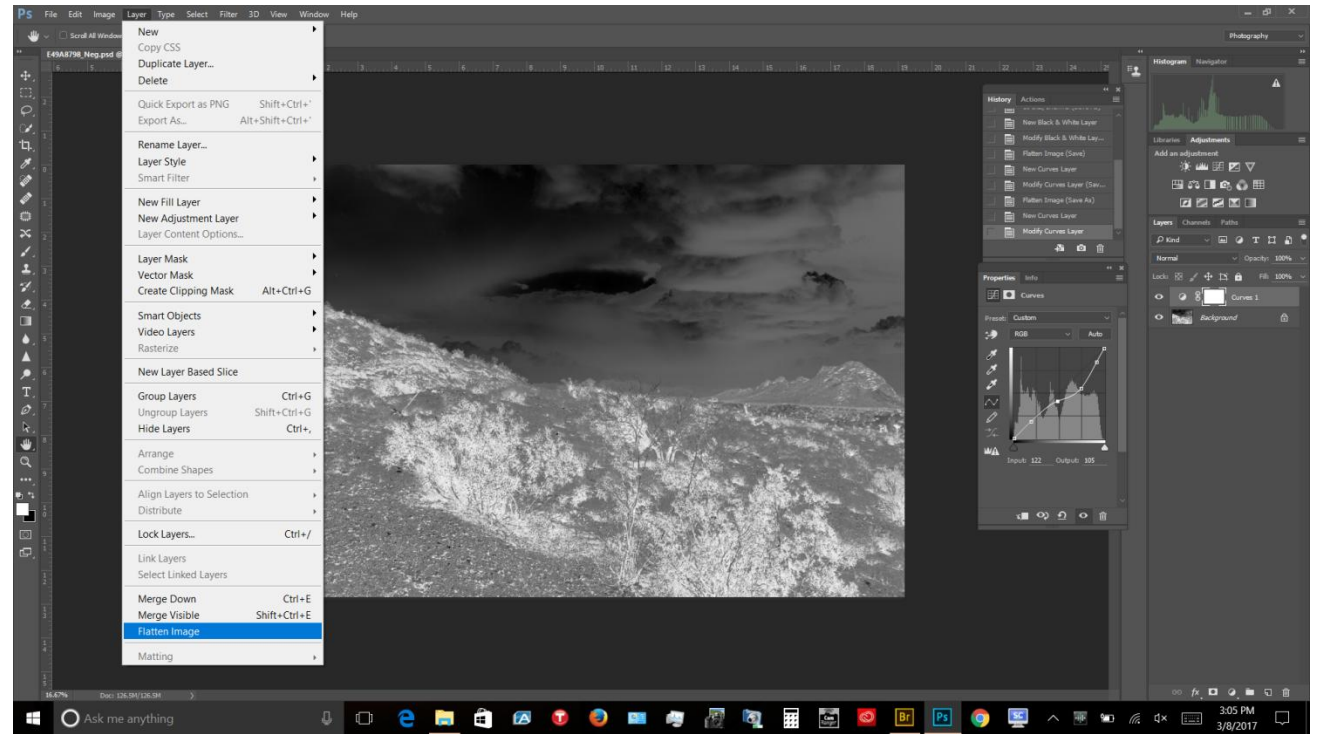


# Select 'Negative' Curve

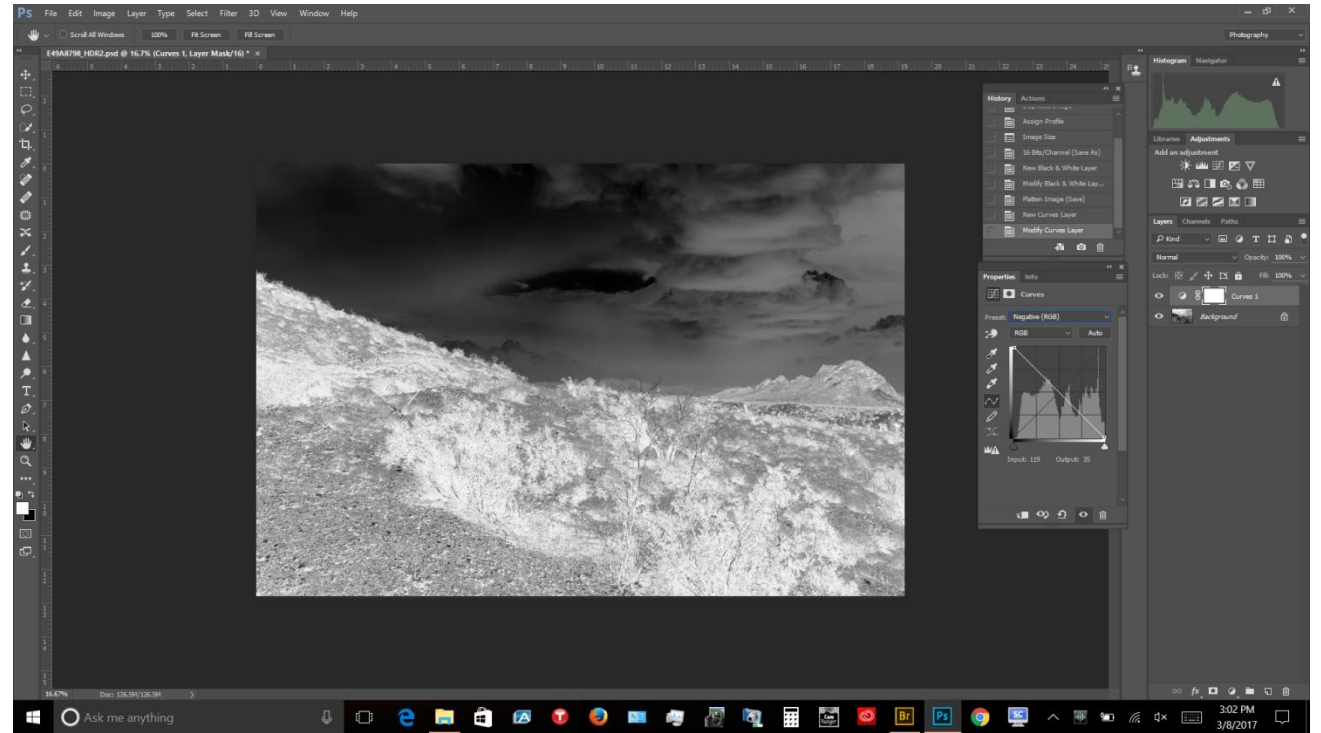




# Flatten the Layers



Save the image  
as a different  
name



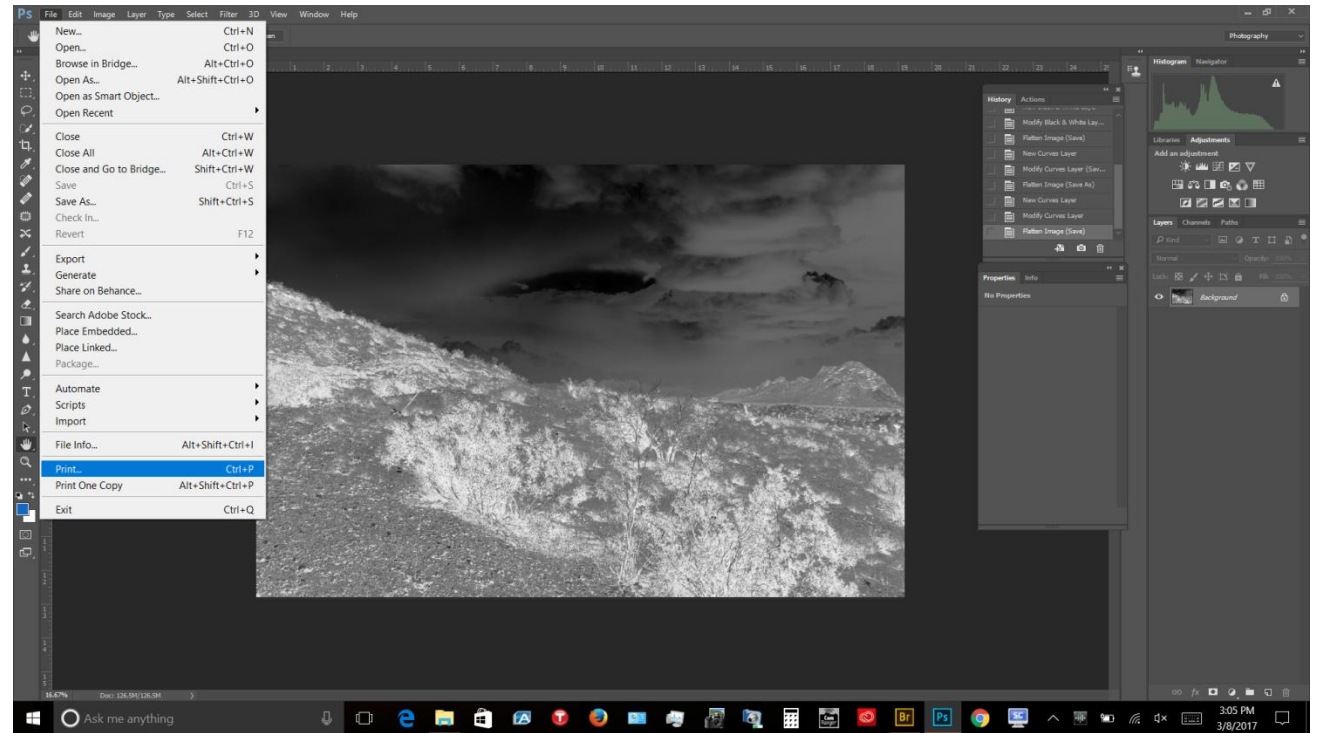
# Overhead Projector Film



Load with notch  
corner upper right



# Print the negative



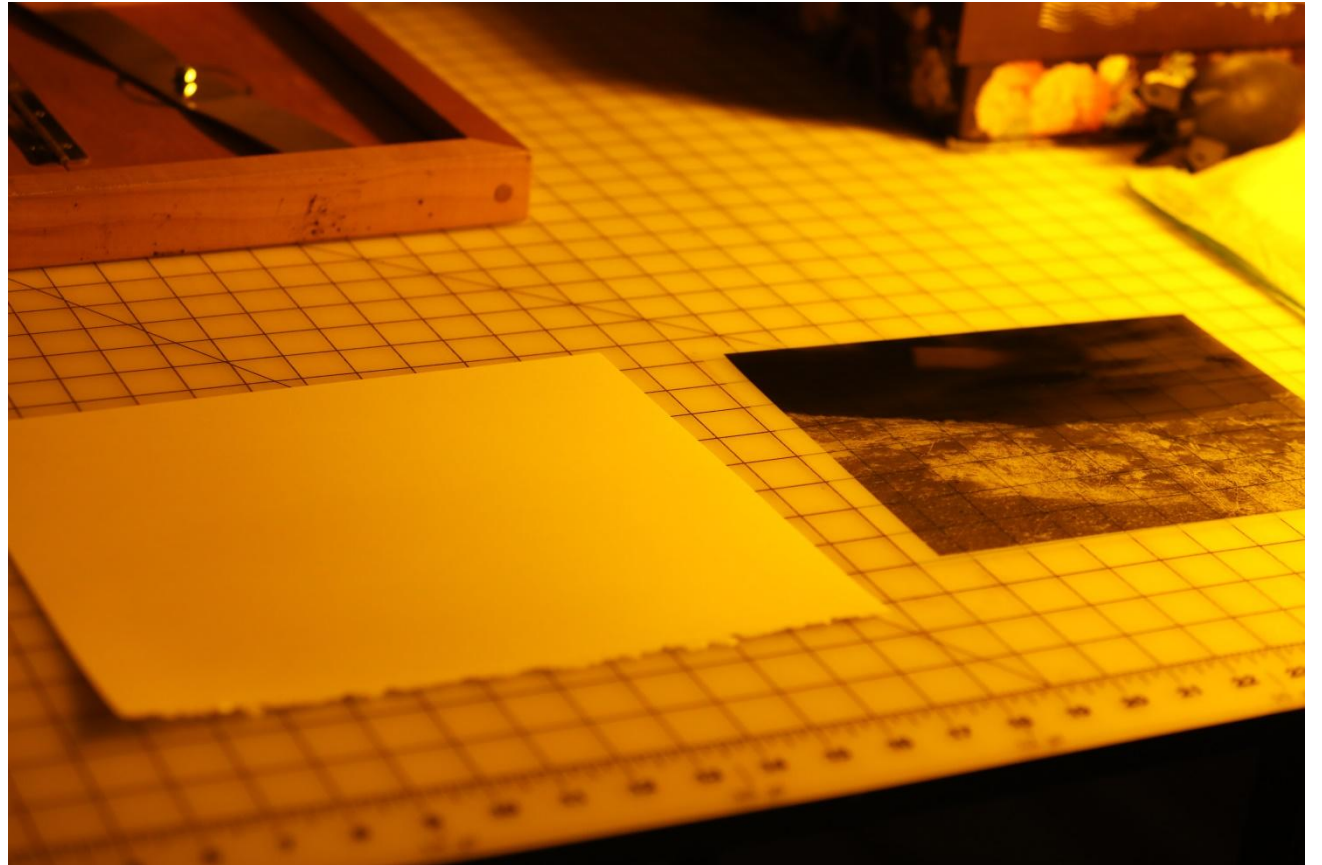
Yeah!

But we're not done yet!





8x10 Negative,  
9x12 paper



Mark the 8x10  
corners lightly





Distilled Water, 2"  
water color brush



Add moisture to  
the paper



10 to 12 drops of each for an 8x10



Drops, drops,  
drops

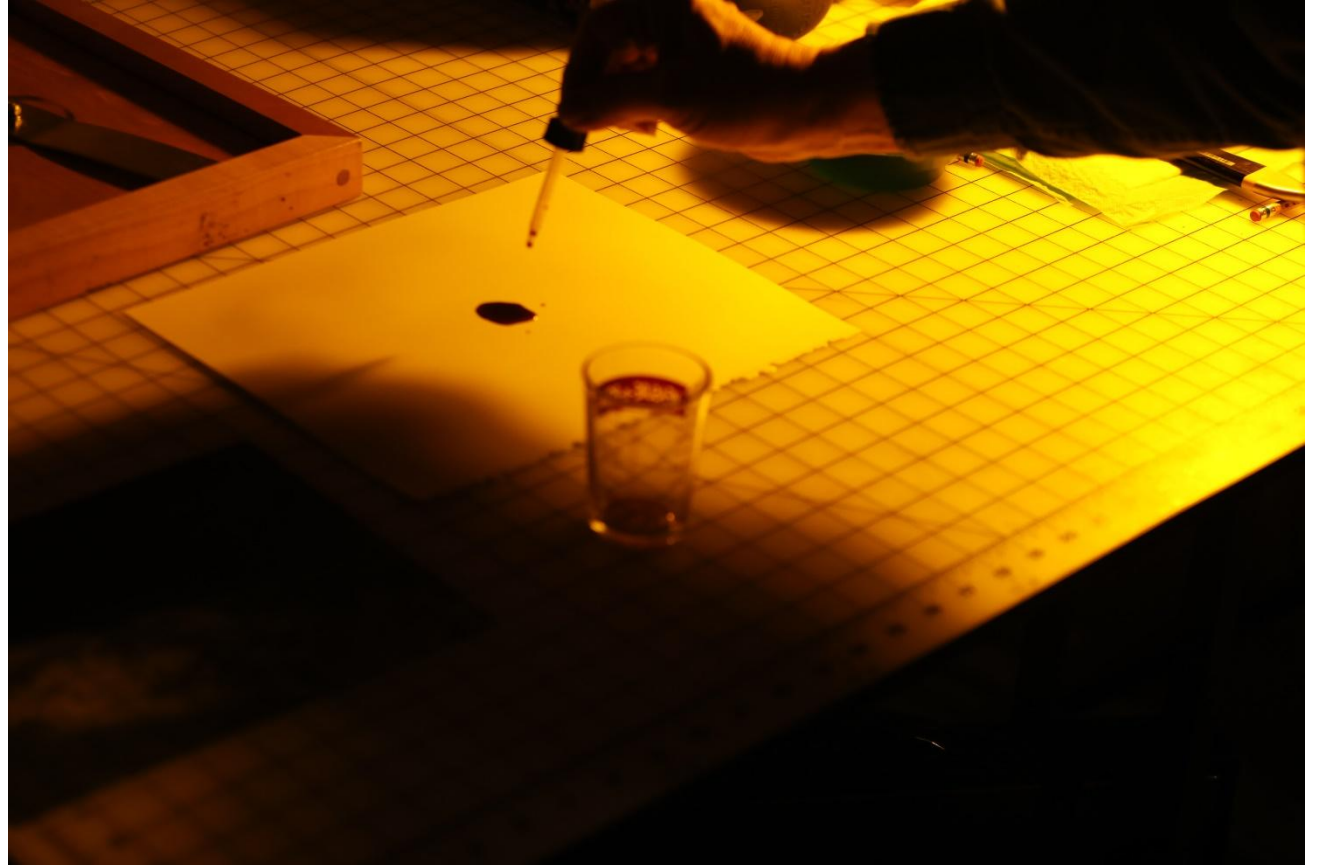
**Mix the two solutions  
together to make the  
sensitizer**





**Use a clean  
dropper to apply  
the sensitizer to  
the paper**





# 2 inch flat watercolor brush

Pre-wet in distilled water



Brush, brush,  
brush





The paper is  
sensitized



Into the dark box  
for a few minutes



Get the contact  
print frame ready

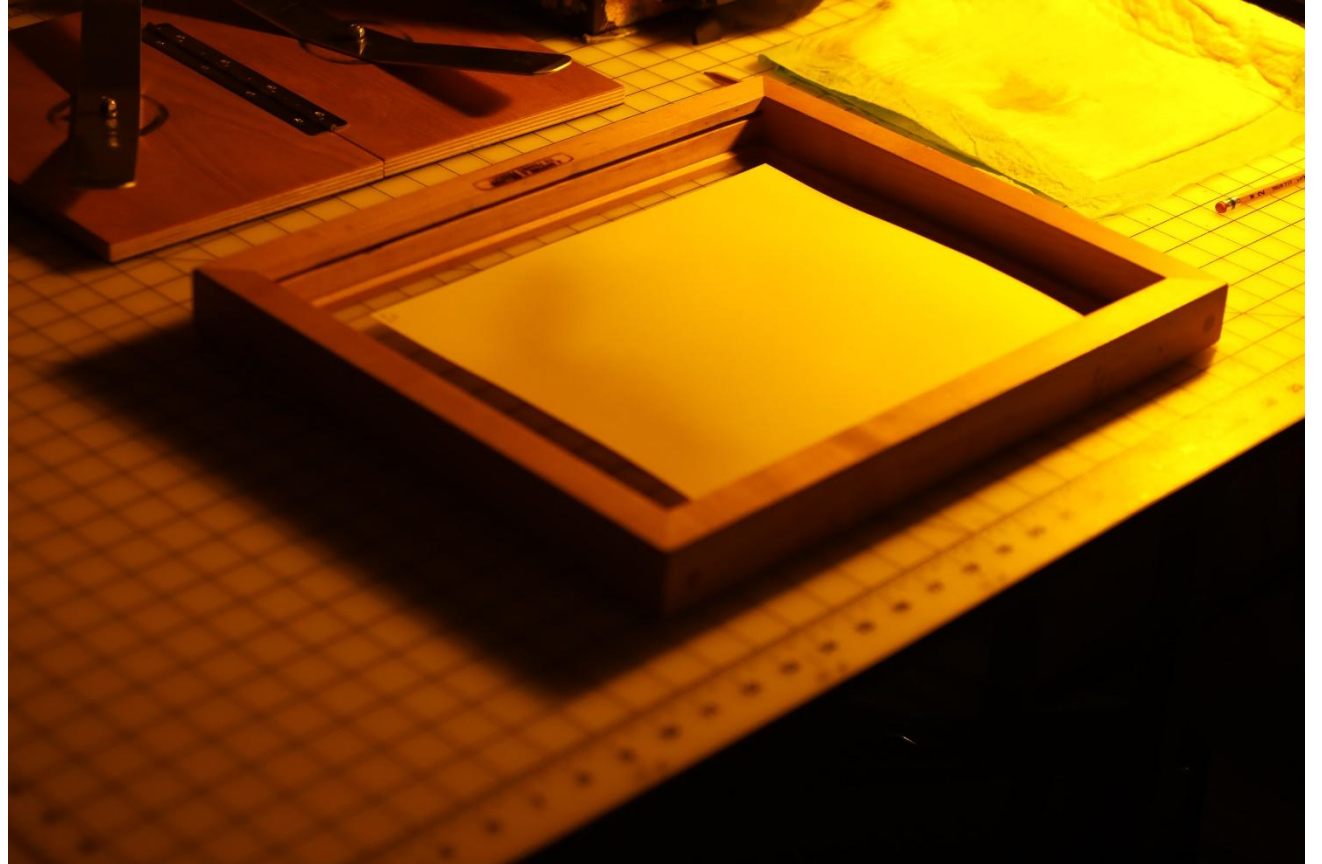


Align the negative  
on the paper





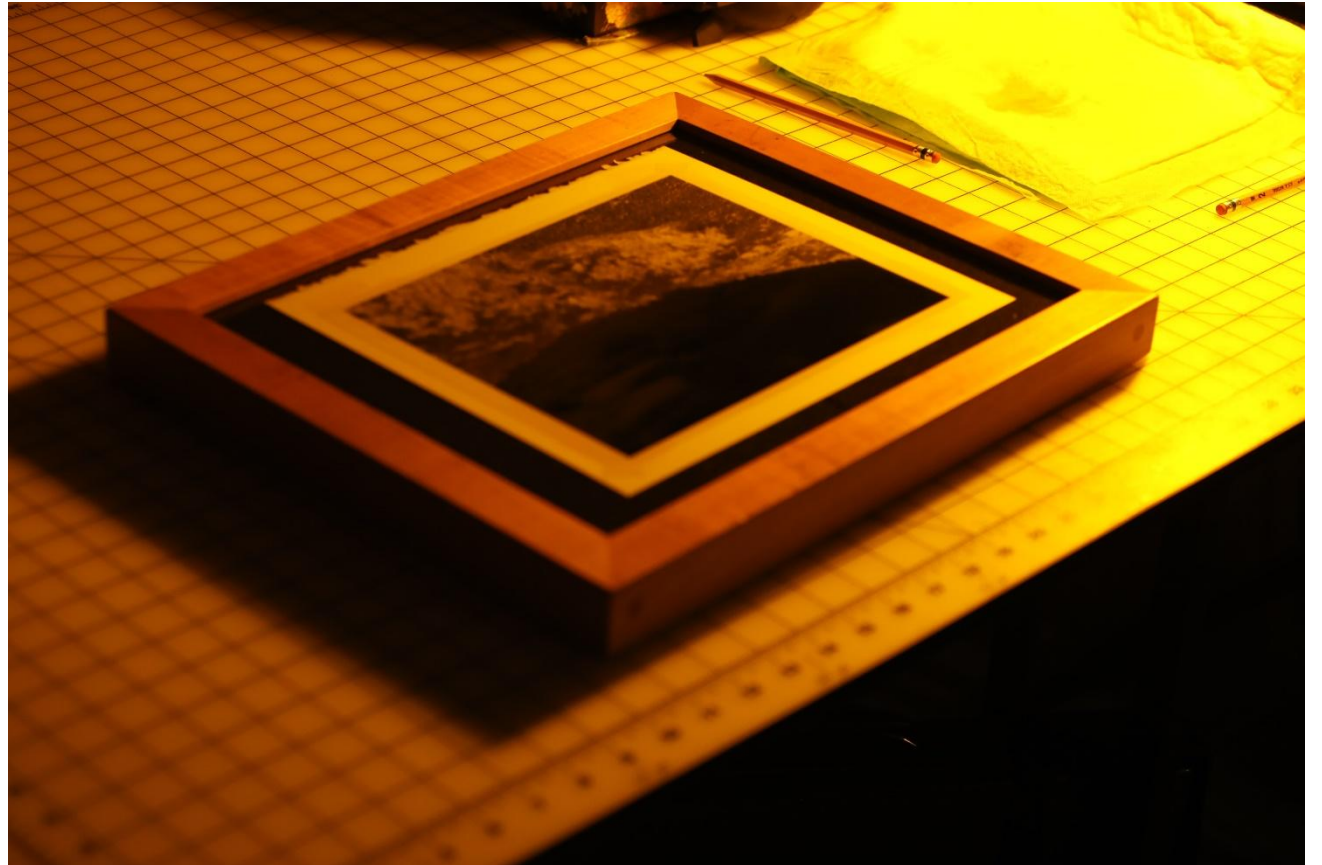
Into the print  
frame



Lock the back



Check the  
alignment



# Into the SUN





Sun light!  
(some days)



Done with the sun



Open the frame  
and set the  
negative aside



First wash,  
running water, 2  
minutes





**5 minutes in  
citric acid  
solution  
(1 Tbsp./Qt.  
warm water)**



**Third wash, slow  
running water,  
10-20 minutes**



Our print!



**In subdued (yellow) light Mix the solution  
For an 8x10, 10 drops each of:  
Ferric ammonium oxalate, first, then  
Lithium palladium chloride, second,  
In the shot glass**

**Spread the solution evenly onto the paper,  
using either a brush or glass rod**



**Allow the solution to soak into the paper, so that only the surface is dry**

**Assemble the negative and paper in the contact print frame**

**End of steps in subdued light**

**Expose the assembly to UV light**

**Using the split back allows for checking the progress of the exposure**

**When properly exposed, remove the print from the frame**

**Wash the print:**

**2 minutes in flowing water**

**5 minutes in citric acid solution**

**(1 Tbsp./Qt. warm water)**

**20 minutes in slow flowing water**

**Remove the print from the water and lay  
out to dry**

# References

- <http://www.bostick-sullivan.com/techart.php>
- <http://www.bostick-sullivan.com/articles/davidnokai.html>
- Christopher James, *The Book of Alternative Photographic Processes*, Third Edition (Boston, MA: CENGAGE Learning, 2016)
- Jill Enfield, *Jill Enfield's Guide to Photographic Alternative Processes* (Burlington, MA: Focal Press, 2014)
- Ian Leake, *The Platinum Printing Workshop*, Second Edition (CreateSpace, 2015)
- Austin Kleon, *Steal Like an Artist* (New York, NY: Workman, 2012)
- David Bayles & Ted Orland, *Art & Fear* (Santa Cruz, CA: The Image Continuum, 1993)

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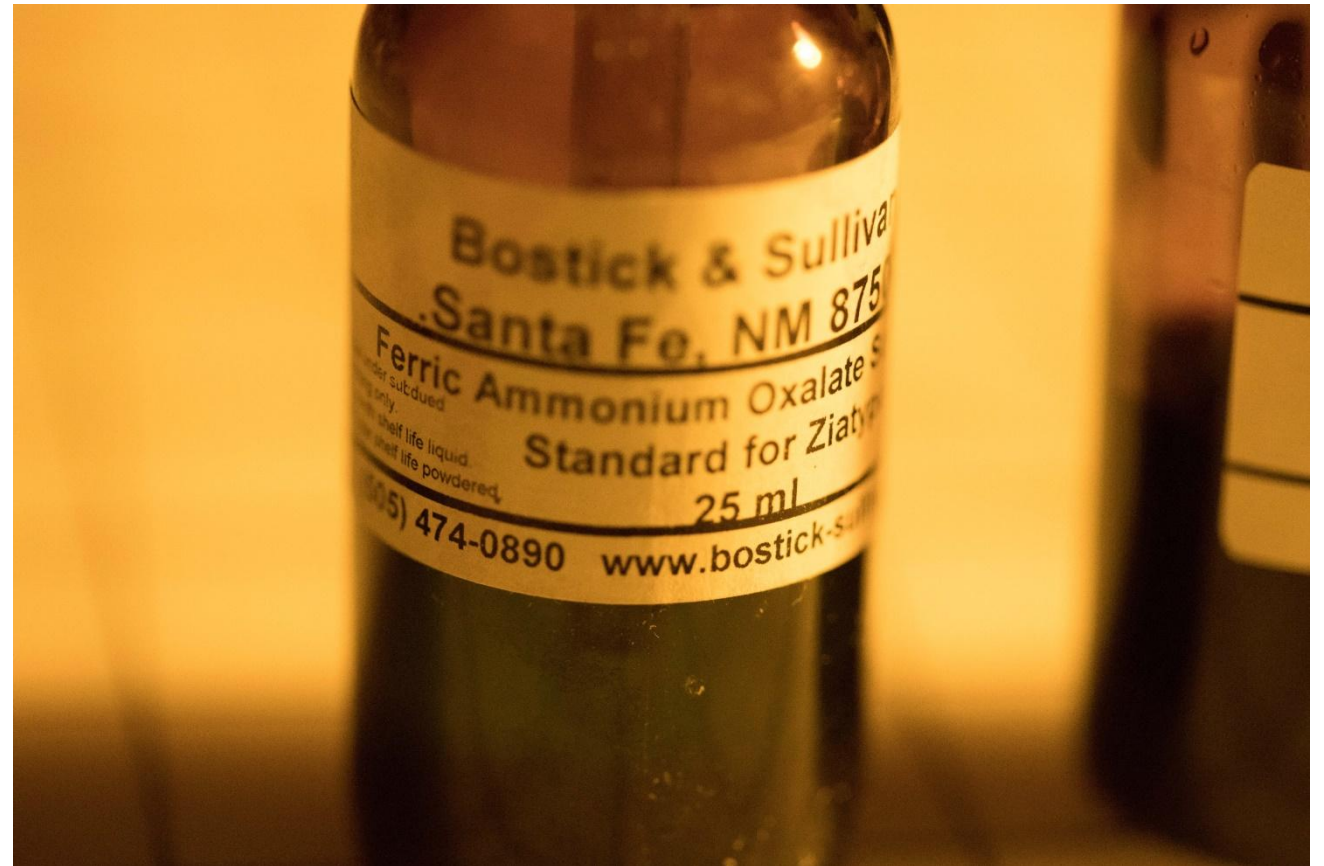
**QQQQQ's and *AAAAA's***

**Thank you!**



F A O

Stands for ferric ammonium  
oxalate



# Lithium Chloropalladite

Where the palladium comes  
from!



# Distilled Water

Does NOT have to be HyVee...

