

# Marlene MacCallum

Creating the visual book through the integration  
of the divergent technologies of photogravure  
and digital processes – or – what happens  
when photogravure collides with digital  
technology

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What happens when photogravure collides with digital technology?

1839: Daguerre announced the Daguerrotype producing one-of-a-kind fragile photographic images and then inventors proceeded to search for ways to create durable photographs that could be produced in multiples.

What happens when photogravure collides with digital technology?

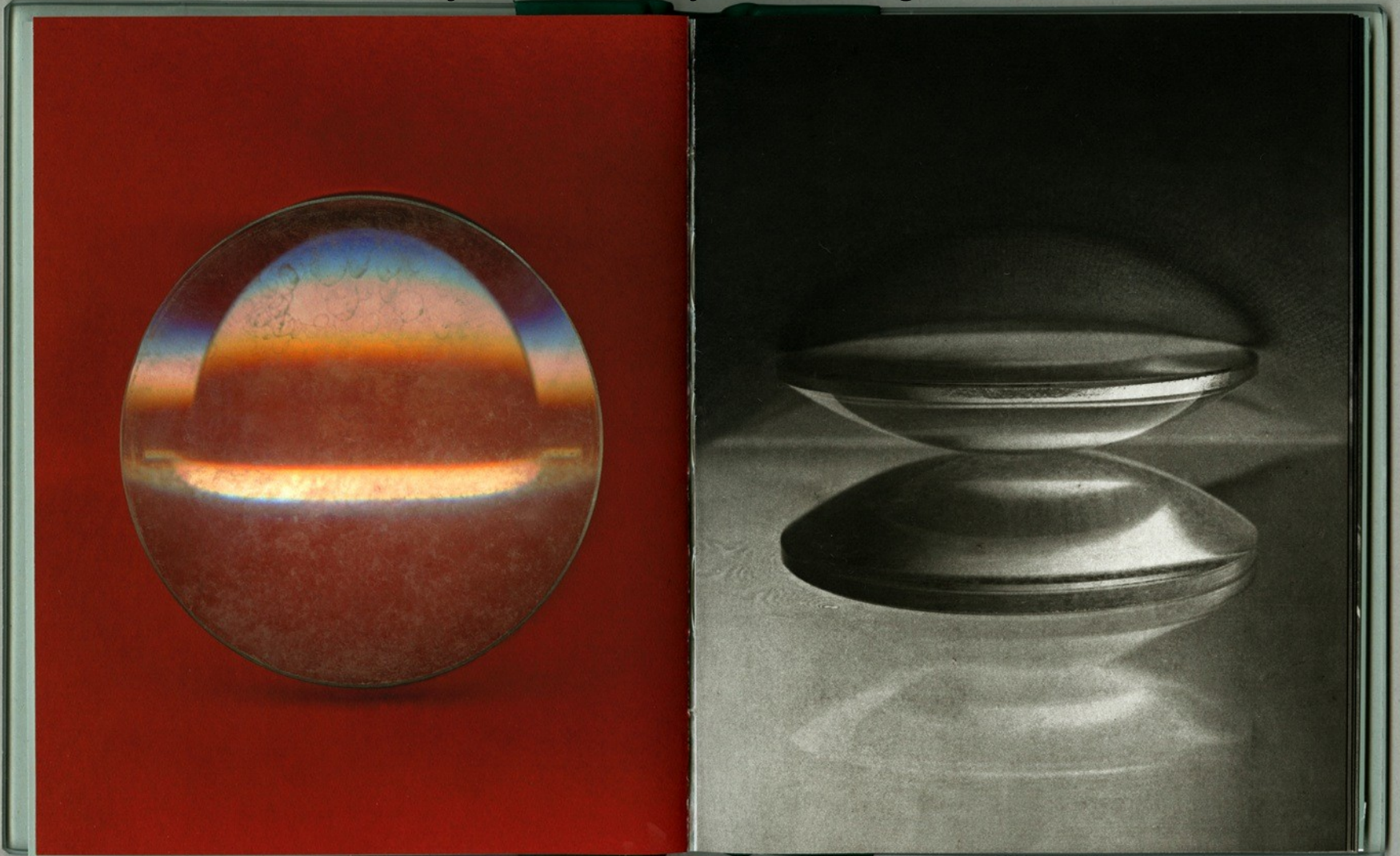
1879: Karl Klic perfected one solution, photogravure, a hybrid method that combined traditional copper etching with the new photographic technology.

What happens when photogravure collides with digital technology?

2007: I began my investigation into the unlikely combination of photogravure and digital processes. My first step was to explore how digital tools create a visual record that is distinct from analogue cameras.



These two images were created from the same situation. On the left, a digital scanner gives us this colour image of two lenses. The photogravure on the right presents the camera lens view of these same objects as they are being scanned.



After finding new ways to make images using digital tools, the next step was to integrate digital output into the making of four-colour photogravures.

There are six distinct steps in making a photogravure:  
create an image source -> print it  
as a transparent positive ->  
Expose this to a photosensitive  
gelatin resist layer -> adhere it to a  
prepared copper plate ->  
etch the copper plate -> ink and  
print it by hand onto paper  
When you create a four-colour  
image, you do it four times in  
perfect registration.





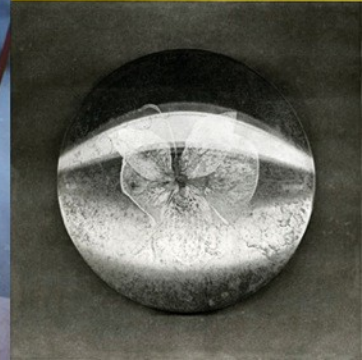
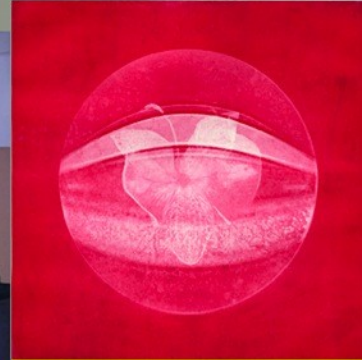
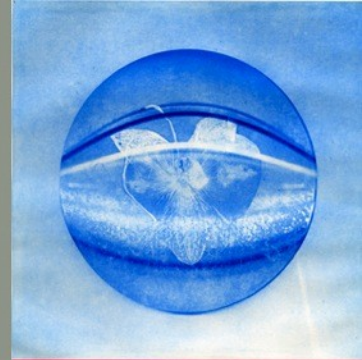
Four-colour process printing is ubiquitous, present in almost every printed colour image.

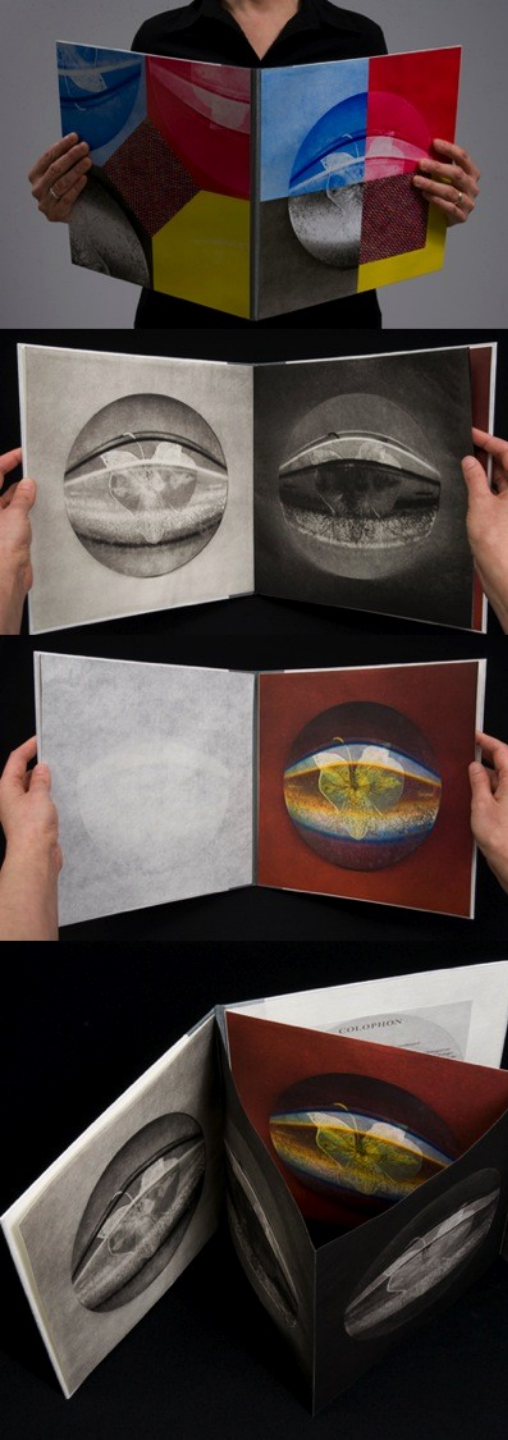
The commercial process presupposes a specific result, the reproduction of an existing image source. As an artist working with a hand-produced version, I can experiment with any aspect of the process and end up with unexpected images.





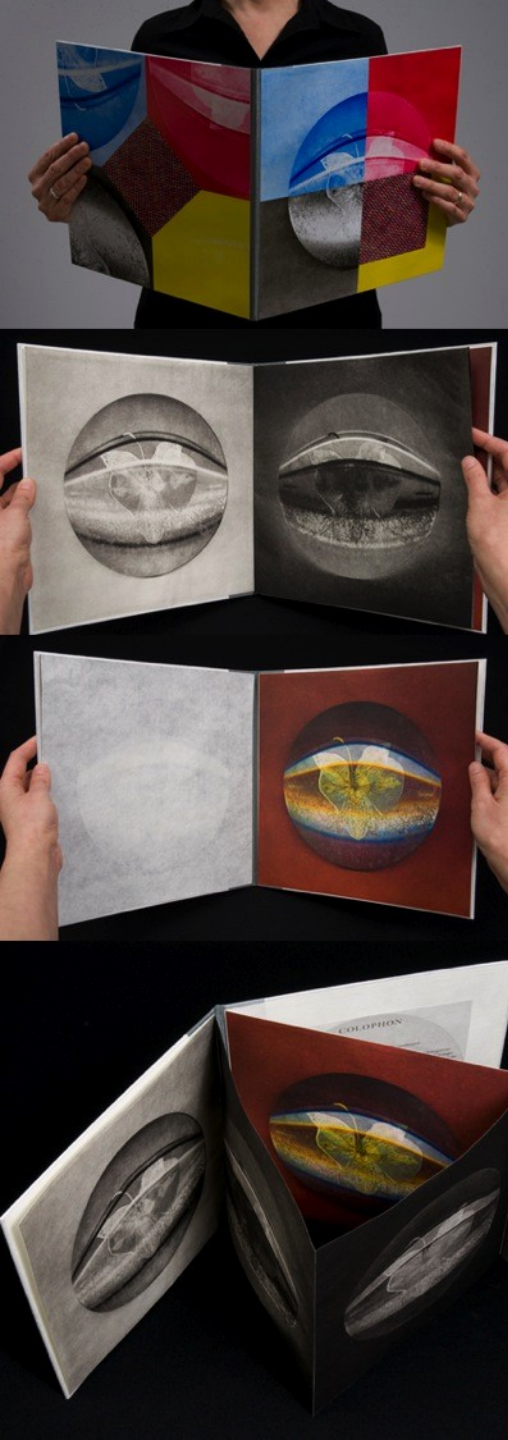
Here you see the process of printing the four plates: cyan, magenta, yellow and key-line black.





The book work *Quadrifid* is the result of the collision of gravure and digital means. I started with digital tools then resolved through analogue photogravure processes. Why would anyone use an obscure labour-intensive process when easier methods are available? The answer lies in what can be discovered in the process.





In parallel to the impulse that resulted in the invention of photogravure, the most current version of imagemaking is now being used in conjunction with a historical form of photography. Contemporary artists are motivated to make these discoveries because we are seeking ways to personalize the default surface of a digital image.



What happened  
when I combined  
two divergent  
systems?

I expanded my  
knowledge of the  
ways visual  
recording devices  
transform our  
representations of  
the physical  
world.

