

# PLATINOTYPE PRINTMAKING

Gary Auerbach recounts the personal journey that led to his discovery of the platinotype printmaking process 20 years ago, and outlines a simple technique for making your own prints using this archival and very beautiful process



**Above:** Gary shooting a portrait on the 10x8 camera that he takes with him on his travels.

**Right:** One of the portraits resulting from the session above.

**Far right:** Notre Dame de Paris. Platinotype print.



A pivotal moment in my photographic life occurred in 1989 when, having been a serious photographer for over 20 years, I took a long hard look at the work I had produced to that point. I was disillusioned to discover that, despite having been printed on fibre based paper, selenium toned, and stored in archival conditions, many of my prints were showing signs of deterioration. I realised that, no matter how good my photographs might be, I was working in a medium that was destined to self-destruct.

Distressed, I started to search for ways to make images that would be more permanent. The Center for Creative Photography, at the University of Arizona, Tucson, houses one of the finest collections of photography in the world. There, I found early platinotype images by Steichen and Weston, as well as

more recent images by Dick Arentz. Not only were these photographs magnificent, with a very special look, but they were truly archivally permanent.

Of course, in the intervening 20 years, we've moved a very long way, with photographic technology probably undergoing a greater transformation between then and now than in the whole of the previous century and a half of its history. But the kernel of the discovery I made then still holds true: no matter what claims are made for different inkjet inks and papers and other digital photographic technologies, not one of them has yet been tested over time. We cannot truly know that a process is archival until its artefacts have survived the centuries, like those prints by Steichen and Weston, undimmed and undiminished.

Touched by the greatness of the work I had encountered, and fired with enthusiasm, I determined that I too would undertake work in the medium of platinotype. My reading led me to believe that the process was complicated and difficult. However, I have found that, by adhering to several easy steps, platinotype printmaking can be relatively simple and very rewarding.

Platinotype is an iron process, which uses ferric oxalate in combination with the metal salts of platinum and palladium to create the image. Unlike in a silver print, where metallic silver lies in a gelatine emulsion that coats the paper, platinum and palladium lie on the paper surface. As a result, the image is absolutely matte, with a deposit of the metal used absorbed slightly into the paper.

## Getting started

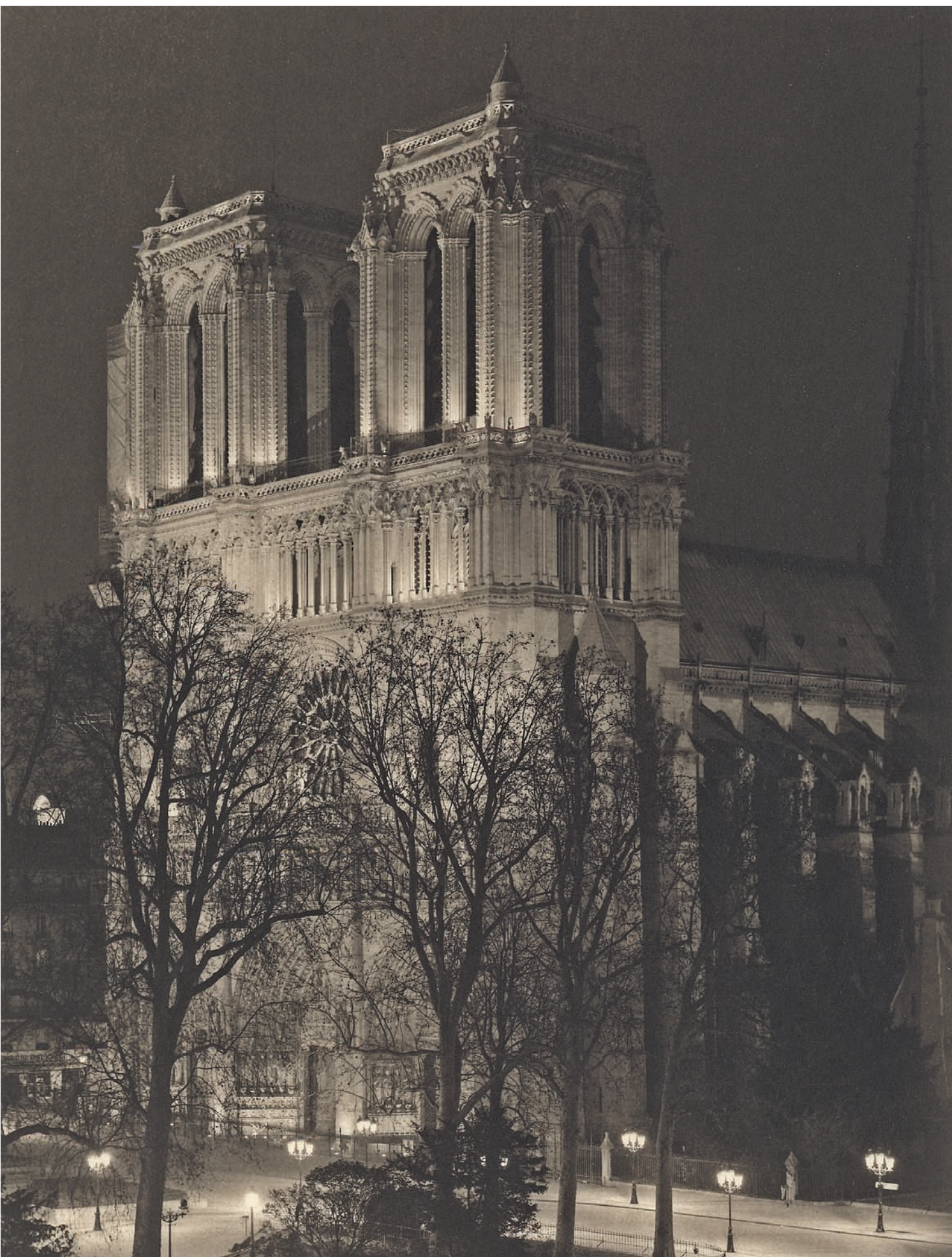
The basic chemicals required for the platinotype process are: ferric oxalate, palladium chloride, potassium chloroplatinite, ammonium citrate and EDTA (a chelating agent to clear ferrous oxalate from the print). In addition, you will need a dropper or pipette, a contact printing frame large enough to hold your negative and paper in contact (or a clean, sturdy, sheet of flat clear glass), watercolour paper (I initially tried, and still like, Crane's Ecu paper), a coating rod or brush, developing (or cat litter) trays, print tongs, sugar paper, coloured masking film, masking tape, blotting paper, a pencil, and a shot glass!

No need for any acids to clear prints, and no more hypo. In fact, no more darkrooms! This process can be undertaken in tungsten light. And since you work on watercolour paper, no more photographic paper.

Platinotype is a contact printing process, meaning that your image is as large as your negative. The easiest light source to use is the sun. If you are in Northern Europe, where the sun is in short supply however, an old sun lamp will work just fine for small format images.

## The negative

You can print a much wider density range with the platinotype process than you can with silver, so start out with negatives that are very dense.





**Above:** From the series **The Drawing Studio**.  
**Right:** Hoskie Benally, Navajo spiritual leader, from the series **We Walk in Beauty**. Both platinotype prints.

**Contrast**

The platinotype process offers great control over contrast. Two separate solutions of ferric oxalate will be mixed - the one that has chlorate added to it will effect contrast. There are essentially 13 grades of contrast that can be achieved.

EMULSION CONTRAST CHART			
Solution no	Part A	Part B	Part C
1	12	0	12
2	11	1	12
3	10	2	12
4	9	3	12
5	8	4	12
6	7	5	12
7	6	6	12
8	5	7	12
9	4	8	12
10	3	9	12
11	2	10	12
12	1	11	12
13	0	12	12

*Part A: ferric oxalate; Part B: ferric oxalate with chlorate; Part C: platinum and palladium*

**Making your emulsion**

Using eyedroppers, mix the specified number of drops of the two ferric oxalate (part A and B) solutions with the specified amount of platinum and palladium. A whiskey shot glass is just the right size for your drops. The drops of metal solution (C) will always be equal to the number of drops of solutions A + B.

Within part C, you can mix platinum and palladium however you like (all palladium, all platinum, or a mix of each). For reasons of cost and effect, I use 3-4 parts palladium to each part platinum. While platinum is 4x the cost of palladium, platinum gives more contrast than does palladium. Palladium adds a warm tone and fine grain to the print. A small quantity of platinum will give a deeper black to your image. If you make up a solution of a total of 24 drops, as in the formula, you will be able to hand coat an image of about 5x7ins.

**The coating process**

Prepare your paper to be coated by securing it with a few small pieces of masking tape. Once the chemistry has been measured into the shot glass, swirl it, then spill it quickly onto the paper. Spread the emulsion out evenly (using a foam brush or non-metallic hake brush) covering each area of the paper three or four times.

Mark the four edges of the area you want to coat with a tiny pencil mark. Or, to create a mask for a clean edge, you can use sugar paper or coloured masking film. You might choose to overcoat the image size by an inch or two to show the negative edge. Or you might coat inside the negative edge to make the image appear to float. The latter course conserves emulsion materials.

Stop spreading once the emulsion becomes tacky. Brushing more than necessary will cause streaks, and abrade the surface of the paper.

**Drying**

Dry your paper by putting it in a dark closet for a few hours, or use a hairdryer on a warm setting to accelerate drying. To ensure that it is dry, take your hand, while dry, and run it across the paper to all corners. A paper with moist emulsion will ruin your negative, so take care on this last step.

**Printing**

Take the paper, put the negative on top of it (notches on the left for large format shooters), put it into a contact frame with clean glass, and seal it up. Using the sun or sun lamp as the light source, take a meter reading for reference. As the quantity of sunlight goes up, so printing time will shorten. As the value goes down, printing times will increase. Do a test strip, just as you would in silver printing. Let's say you estimate a starting value for exposure at eight minutes. I would test at two minute intervals from four-12mins. A slight latent image is visible after exposure.

**Developing**

To develop is simple. Density of the image is determined only by exposure, not by development. Development will be visible instantly. Dam the developer (ammonium citrate) to one end of an 8x10 developing tray, slip your print face up into the base of the dam, and drop the tray to the level.

This is a great thrill, and the moment of truth. Leave the paper in the developer for 30-40secs.

Lift the paper out. The developer becomes toxic as it builds up with platinum/palladium solids, so use tongs. Draining the developer off the sheet, and put it in the clearing agent (EDTA) for about five minutes. You will have two or three successive 8x10 trays of EDTA to remove the yellow stain from the paper. Your last tray should stay clear. After 15 minutes of EDTA clearing, wash with clear water. Depending on the paper you use, 15mins to one hour of washing should be sufficient.

After washing, lift the print with two hands (saturated paper is soft and will tear easy) and put it on blotting paper to dry, or speed dry with a hair drier.

With the print in front of you, you will notice that the final density is slightly darker than when it was wet during development. Details in the print will seem to pop in the last stages of drying as the paper stiffens.

**Gary Auerbach**

*Being based in the USA, Gary Auerbach's materials are supplied by New Mexico's www.bostick-sullivan.com Telephone number for enquiries from the UK: 020 7078 4187.*

*www.garyauerbach.com www.WeWalkinBeauty.com*





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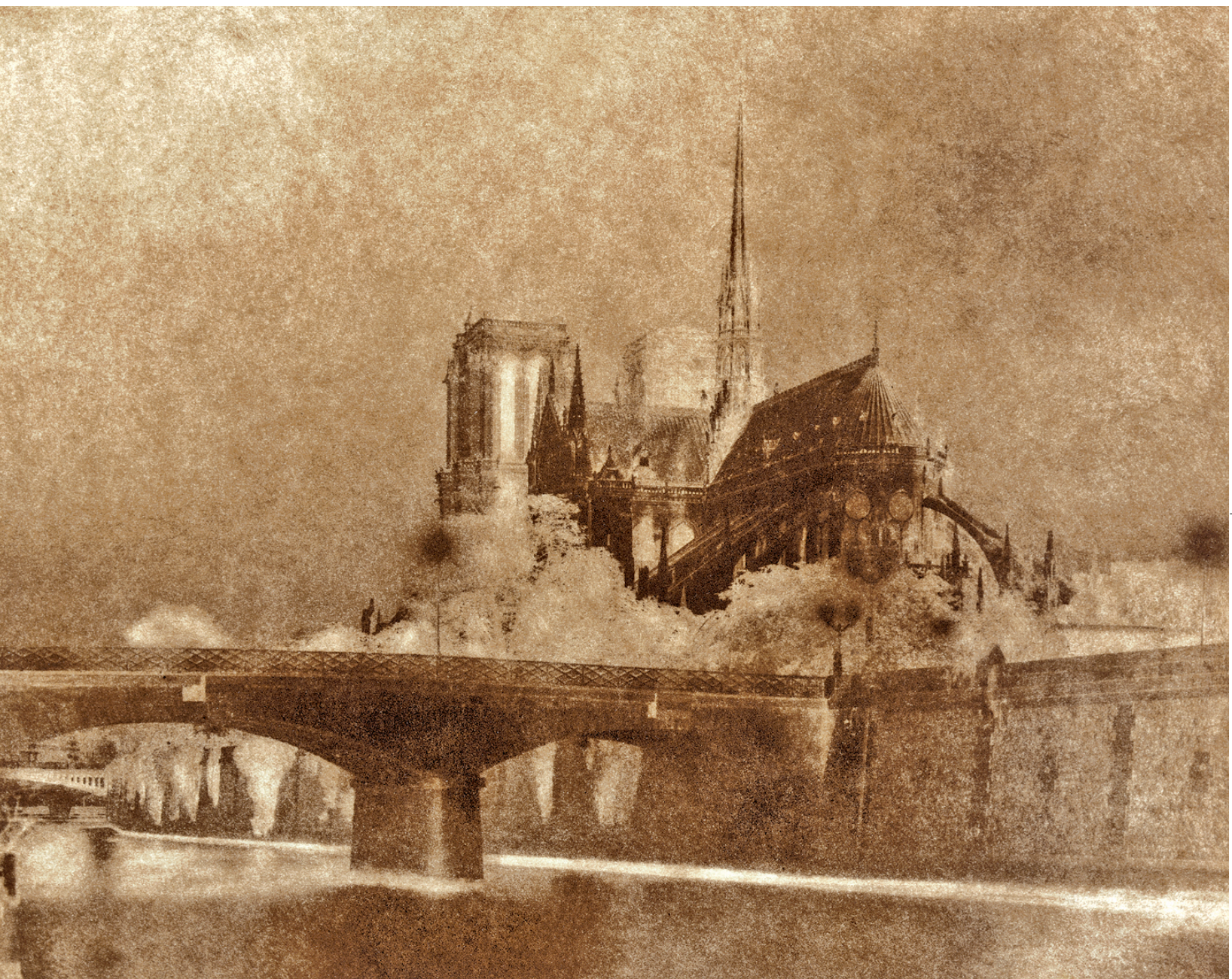
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**STEP BY STEP**

GARY AUERBACH'S  
PLATINOTYPE PRINTMAKING

**JONATHAN ROOT**

TOP LONDON-BASED PHOTOGRAPHER

**JOAN WAKELIN BURSARY**

JACKIE DEWE MATHEWS

**COMING UP FAST**

LEONORA SAUNDERS

**STUDENT FOCUS**

GIANNI FORTE ARPS

**TECHNICAL**

SIGMA 50MM F/1.4 EX DG HSM  
EPSON R2880