



Figure 8-14

**Galina Manikova, Kallitype on Ceramic, 1999**

Galina Manikova is a Russian artist who lives in Denmark and whose eclectic, experimental, and curious nature has resulted in a vast menu of alternative options; specifically with how different surfaces can be used as substrates for photographic images. This is an example of one of her Kallitypes on ceramic.

*(Courtesy of the artist)*





Figure 14-8

**Galina Manikova, *Foto på alluminium*, 1997**

This is another fine example of Galina's work in alternative processes on alternative substrates, in this case aluminum. See Figure 14-9 and Figure 14-10 for examples on clay and glass.

(Courtesy of the artist)

humidified following the exposure. Printed without any postexposure pigment application, exposure of the sensitizer will result in a chromium dioxide sepia colored image. This type of image is essentially Mongo Ponton's Pontotype technique using potassium dichromate as the sensitizer; left alone, unwashed, the image turns a pale green within a few months.

There have been a few variations of this process over the years. Johann Baptist Obernetter's (who manufactured the first commercial POP papers in Munich in 1844) formula used dextrin, sugar, and glycerin with ammonium dichromate, while the Woodbury formula employed gum arabic, glucose, and glycerin with a potassium dichromate sensitizer. The most bizarre variation that I've heard of is attributed to one of the several books by Frapie and Woodbury

entitled *Photographic Amusements: Including Tricks and Unusual or Novel Effects Obtainable with the Camera*. I located, and bought, one of their 1931 version books hoping to find the exact description of the following Dusting-On technique (facing page), but it wasn't the right edition.

Originally, the Dusting-On technique was almost always done on glass plates, and quite often the process was extended by coating the pigmented image with a collodion solution (gun cotton soaked in a solvent to make cellulose nitrate). The plate was then washed well to remove an unexposed/unhardened dichromate. Finally, the image that had become exposed in the collodion film was lifted from the glass and transferred to an alternative support such as wood. Collodion was used because it had legendary poor adhesion qualities when applied to glass without a gelatin substrate. This adhesion problem bedeviled wet plate photographers, who invented a host of different formulas to ensure that their collodion would stick to a glass plate.

The Dusting-On process can be used on a variety of surfaces, including paper, glass, prepared metal (see liquid emulsions on metal), and canvas. The best rule for this technique is to have a good time with it and not expect too much until you modify it to suit your working style.

## Contemporary Dusting-On Process

In Norway, Russian artist Galina Manikova has been working since the 1980s on a contemporized Dusting-On process with ceramics. Her technique is a variation of a classic ceramist procedure and is so mercurial that she describes it as being one that is performed by a mixture of intuition, experience, and science. This way of working is quite like a chef in a kitchen, where a basic recipe is only the beginning of the cooking adventure.


Galina begins by spraying a layer of gum arabic on either a bisque-fired piece of ceramic or a metal plate. Bisque firing is the first kiln firing of a ceramic work and is done to prepare the piece for glazing. The sprayer is a standard ceramic spraying gun used to apply glazes, and the gum arabic can either be a standard gum bichromate formula or one that has been diluted somewhat. If you were going to mix a powdered gum arabic with water you would make this mix with 70 g of gum arabic in 200 ml of distilled water. In effect, the purpose of this step is to



## Dusting-On for the Deceased

In the Frapie and Woodbury book I couldn't find, there is a Dusting-On technique that calls for the use of a dead person's cremated ashes for the pigment! The general idea was that you would take a picture of the recently deceased, make a transparent *positive* of it, and place the positive in contact with a gelatin-sized paper coated with a dichromated sensitizer and bee's honey. Following a UV exposure of the film positive, in contact with the coated paper, one would gently sprinkle the ashes of the recently cremated being over the humidified dichromate parts that had not been hardened by light. The excess ashes were then brushed away, leaving an image of the departed in his, or her, very own ashes! Since reading about this process I have this vision—I see the bereaved family sitting in a circle, each holding an edge of the exposed bichromated image of the deceased, straws between the lips, all gently blowing on the paper, humidifying the portrait so that it will accept the ashes.

create a smooth surface so that the pigments do not hang themselves on the printing surface during the pigment dusting stage. Once this step has been performed, a solution of dichromated gelatin and sugar is applied and allowed to dry overnight.

 **NOTE:** Spraying a dichromate is considered a dangerous activity! Do not perform this technique without using a ceramic spraying box, working in a room with excellent ventilation, and wearing a dual-filter mask, safety goggles, and gloves.

In our correspondence Galina and I discussed using alternatives to sugar, principally substituting the sugar with a thin dilution of noncrystallizing bee's honey. If you are using sugar, dilute approximately 20 g in 100 ml of water. The purpose of the sugar is to keep the surface emulsion slightly tacky. Note: if the emulsion is too tacky then the entire surface will accept the pigment—if the surface is too dry, the pigment will not attach to any part of it. To sensitize the plate, a solution of stock saturated (10% to 13%) potassium dichromate is mixed with the gelatin and sugar (honey) solution in a ratio of approximately 1:1.

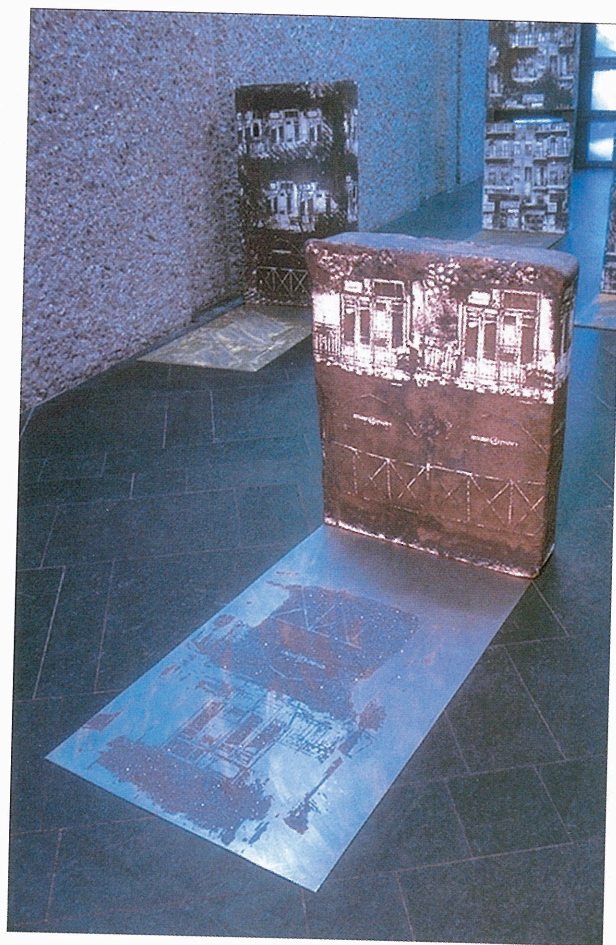


Figure 14-9  
Galina Manikova, *Dusting-On Process on Clay*, 1989  
(Courtesy of the artist)

The image is exposed using a slide projector and a 250-watt quartz light bulb at about 6 feet from anywhere between 30 minutes and 3 hours, depending on the density of the positive transparency. The positive is most successful if it is high in contrast. After the exposure, brush fine ceramic or enamel powders over the surface to bring up the image. The powders will stick to the unexposed areas, while the areas that have been hardened by the UV light during the exposure will remain nonsticky and clear. Galina likes to use very finely ground pigment powders such as cobalt oxide or a mixture of cobalt pigment and iron oxide. When the application of the pigments is done, the ceramic pieces are fired at a high stoneware temperature in a kiln. The metal surfaces are fired at a lower temperature than stoneware to get the iron powders to stick and are then refired at a stoneware temperature.



## Working on Glass

Another substrate that has all sorts of creative possibilities is glass, and in recent years many artists have turned to glass as a substrate for their work. Students tend to take the liquid emulsion route while artists such as Sally Mann, Mark Osterman, and France Scully-Osterman are exploring wet collodion emulsions and Ambrotypes (see Chapter 17, “Hand-Applied Emulsions”). The process that Manikova has developed utilizes a hardened/gelatin coating to prepare a surface for any number of applications, including cyanotype, gum, and Van Dyke. To use glass as the substrate requires a slightly different strategy than ceramic, metal, or other nonporous surface.

First the glass must be thoroughly cleaned and free of any oils, solvents, or impurities (see the section on wet collodion for more information regarding cleaning). When the glass is dry, lay it on top of a smaller tray with hot water in order to warm the glass and prevent the gelatin from setting up too quickly. A portable hot air heater may also be used to warm the glass. Galina points out that this option is a good one in winter because it heats her room in Norway at the same time. When the glass is warm, apply the first of 3 light coatings of combined mix of 3% solutions of gelatin and formalin by pouring it into the middle of the glass surface and gracefully moving the glass plate around until the coating is smooth. Do not mix up more solution than is necessary to coat the glass plate, because any leftover solution has to be discarded. A new mix has to be made for each of the 3 separate coatings.

A coating option would be to apply a standard gelatin solution of 28 g gelatin to 1,000 ml of water (see Chap-

ter 12). Then pour or spray the gelatin on the glass, allow it to dry, and then immerse the glass in a separate bath of 3% formalin. (*Don't forget your safety concerns.*) After drying, repeat the process 2 more times. When using this method you have to coat and dry your plate 6 times (3 gelatin coats and 3 hardener coats) before applying the dichromate/gelatin sensitizer. Allow each of the applications to dry thoroughly before moving on to the next one.

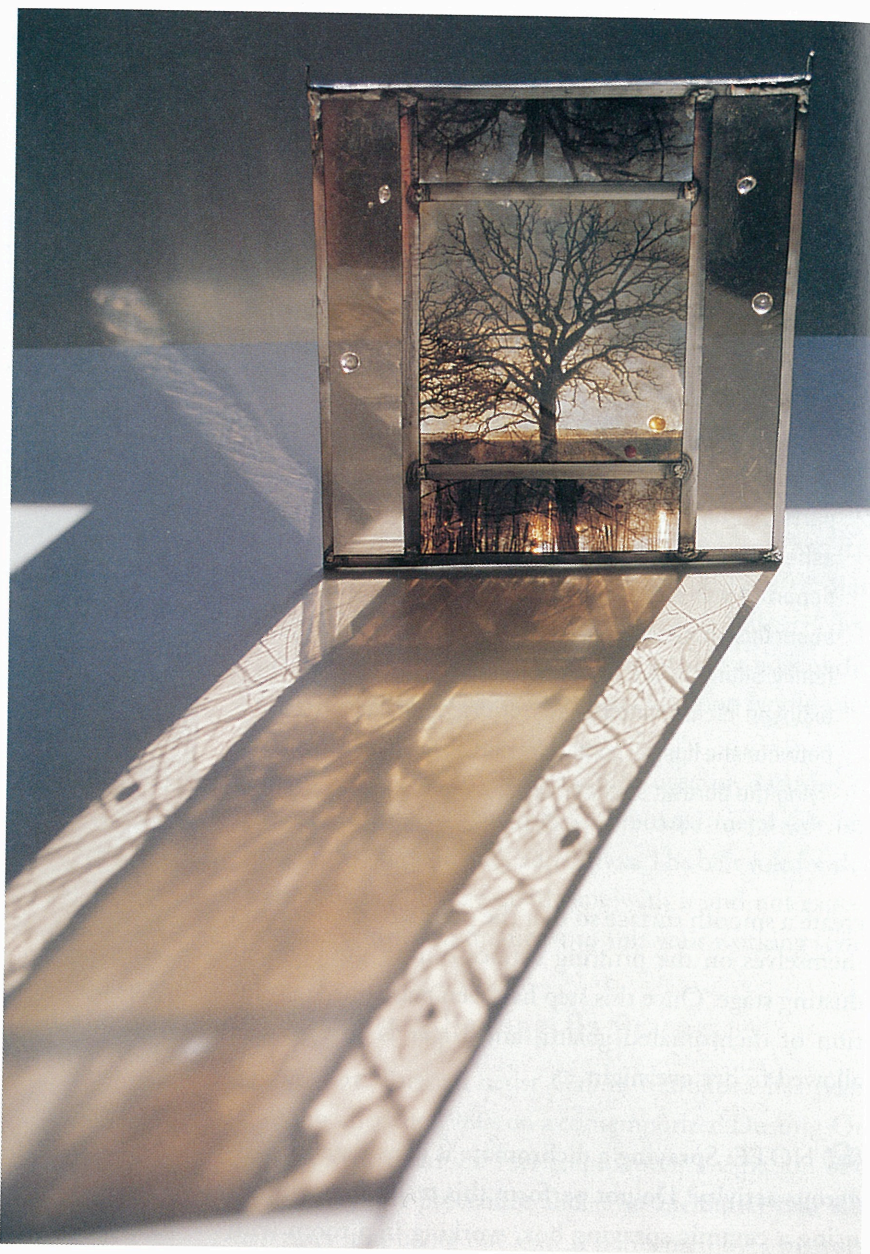


Figure 14-10

**Galina Manikova, *Foto på glass*, 1997**

(Courtesy of the artist)