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TRACTS: for PICTORIAL PHOTOGRAPHERS

Nº 3 THE ART OF PIGMENTING

by

BERTRAM COX
and F.C. TILNEY F.R.P.S.

*Illustrated
One Shilling Nett*

LONDON
HENRY GREENWOOD & CO^{LD}
24 Wellington St. W.C. 2

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of
TRACTS
for Pictorial Photographers

will deal with

**EXPRESSION
IN PIGMENTING**

and will be written
by

F. C. TILNEY

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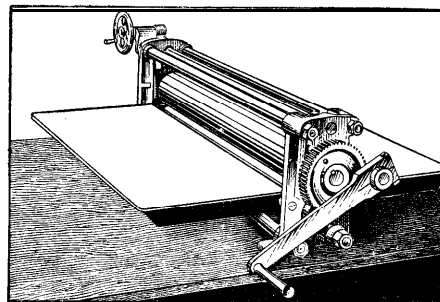
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THE ART OF PIGMENTING

Being the Third of a Series
of TRACTS for
PICTORIAL PHOTOGRAPHERS

by
BERTRAM COX
F.R.P.S.
and
F. C. TILNEY

With four illustrations

LONDON
HENRY GREENWOOD & CO. LTD.
24 Wellington Street, Strand, W.C.2.

PREFACE

SCIENCE rightly demands the unimpeachable authority of natural law which automatic processes secure. Art likewise always has received and always will receive with satisfaction certain beautiful results achieved by the agency of natural law working in the hands of Science automatically-the laws of chemistry and of optics. But in the course of three-quarters of a century it has been left to the last lustrum to show that the possibilities of making pictures by photography do not end at the literal transcripts of material objects which scientific photography at its best can offer.

Picture-making in any medium involves art, and the essence of art is the human equation-the very thing that science mistrusts and endeavours at all times to eliminate. But after all, the human equation is nothing more nor less than Individuality; and it is in Individuality that Art finds the most congenial soil for the culture of beauty interpretation. The human equation, therefore,

is the factor, wayward and irresponsible as it may be, by which Art carries the possibilities of picture-making beyond the point where Science drops them. For Science fetters itself to physical facts ; and Art concerns itself only with psychological facts. Science feels her way step by step upon the crutches of human knowledge ; whilst Art flies upon the wings of human feeling, which is at all times sufficient unto its day.

The kindness of Mr Bertram Cox in supplying succinct instructions upon the various printing processes that entail manual work, ensures practical value to this little book ; and I offer his views as those of one whose experience and authority in these matters, no less than his masterly achievements, are universally acknowledged and esteemed.

Mr Cox's recommendations will be found to follow logically and usefully upon those of Mr Fred Judge who, in the Second Tract, expressly serves those to whom Oil, Bromoil, and Transfer is still undiscovered country.

F.C.T.

Cheam, February, 1924.

THE ART OF PIGMENTING

A gerund, formed from the present participle of the verb To pigment-with the accent on the last syllable. Is there such a verb ? If there is not, there should be ; for although the verb " to paint," or " to colour " may have served the purposes of the English speaking races up to the introduction of photographic printing, yet those words cannot be used to describe that process without involving certain associations that are undesirable. There is ample authority for canonising the new verb " to pigment," without claiming any immediate relationship with the latin *pingo*, *I paint*. For probably half-a-century its past participle, " pigmented " has been a recognised adjective in biological study for the coloration of organisms. The implication is, therefore, that a passive verb exists, namely, " to be pigmented " ; and this we are entitled to appropriate in speaking of oil and bromoil prints, whilst adopting, as active form, " to pigment " for our own operations in the matter.

If the grammatical justification of pigmenting may be so soon disposed of, its technical justification bids fair to be a work of years. Yet that ultimate achievement I feel to be certain, simply because the process holds more of the human factor than does the perfected automatism of

photography that is the ideal of the scientist. The brush in the hand waits on the judgments of the mind, and these judgments rest upon the response that has been made to the retina reports. No longer is the production of a picture a matter of the inexorable factors of physics : it has become a matter of psychology.

In another place I ventured to crystalise a definition of graphic art into a phrase of three words :-Impression, Compression, Expression. When these three functions are a harmonious and direct result of human relationship with the objective world they produce something which is a synthesis, a single idea, a selection, ensuring that *oneness* which is the sign-manual of a work of art. Pictures produced by photography rarely show this synthesis, this idiosyncratic selection, unless they are pigmented prints ; for in that case it has been possible for the human equation to assert itself.

In these early days of the method the pigmenter is getting an ample measure of discouragement from those sections of the community who are earnest seekers after photographic truth, and to whom technique and perfection are synonymous terms, but whose faults are at times less venial than those of the pigmenter himself. The faults of the " bromoiler " and " oiler " arise less from ignorance and carelessness of photographic affairs than from insufficient education in the ways of Nature and of Art : for it is only by the inspiration of the one and the promptings of the other that the practice of control in printing is legitimised. Mr. Cox most wisely says it is easier to know how to control than to know when to control.

But let him speak for himself :—

PIGMENTING IN THE OIL PROCESSES.

As the inking of an oil or a bromoil print depends upon the amount of water which has been absorbed selectively by the gelatine, it follows that any consideration of pigmenting must take into account the operations which lead up to it.

Re-soakings of **Gelatine**

It should be clearly understood that if at any time the gelatine has been swelled to a certain degree and then dried, any subsequent swelling will be at least as great, even if it be done at a lower temperature.

If the temperature at which the last swelling takes place be higher than at any previous swelling, then more water is absorbed, and more resistance to greasy ink is entailed.

The Character of Stiff and Soft Inks

A stiff ink cannot be made to give a long range of tones at the top of the scale, and if such an ink be applied to the sky-tones of a picture the result is certain to be granular, and the gradations too steep for the purpose.

It follows that the lightest tones of a print must be inked with a thinner or softer ink than is used for the darker tones ; and this means that such portions must receive a correspondingly greater degree of swelling ; because a soft ink is less easily repelled by moisture than a stiff ink.

For these reasons I recommend a method of working in which the swelling is done at different stages, and at each stage a slightly thinner ink is used.

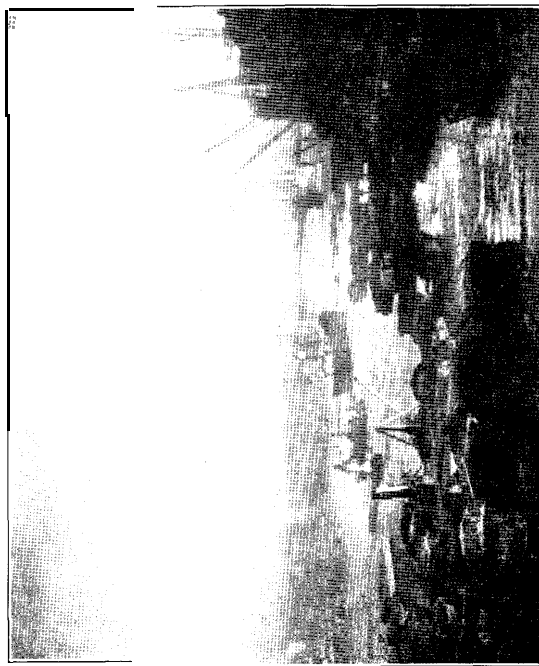
This does not mean in actual practice that a particular consistency of ink is required for each tone, or that the print is inked in any definite number of tones ; for during the inking operations there will be overlapping and merging of inks of different consistencies, in order that a full scale of tones be produced according to those of the original bromide.

Beginning with the Darks

The procedure, then, is to swell the gelatine sufficiently to differentiate between the tones at the lower end of the scale, and to use the stiffest ink that can be made to adhere. This means that the darker portions of the picture should be pigmented first. The brush should be lightly charged, and the image built up little by little ; unless it is desired to obtain the deepest dark the print is capable of giving, when a full brush may be used.

The First Stage

The print is now covered in the dark parts and in most of the middle tones. Possibly the lightest tones and the whole of the sky are still



Bertram Cox

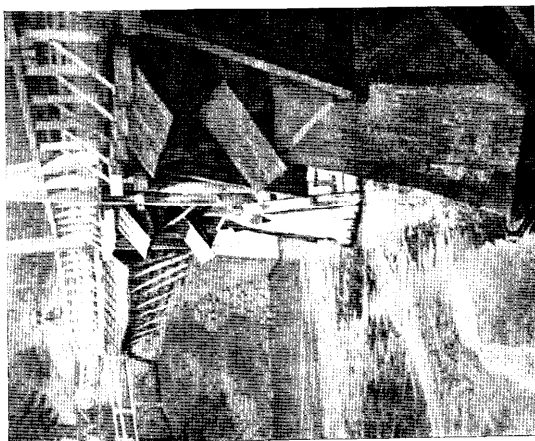
The River

untouched. If the result is flat and lacking in detail, it is not necessarily an indication that the swelling has been insufficient ; for unless the deepest darks have received their full quota of ink, they will not appear any darker than the next lightest tones which surround them, and detail will not have appeared.

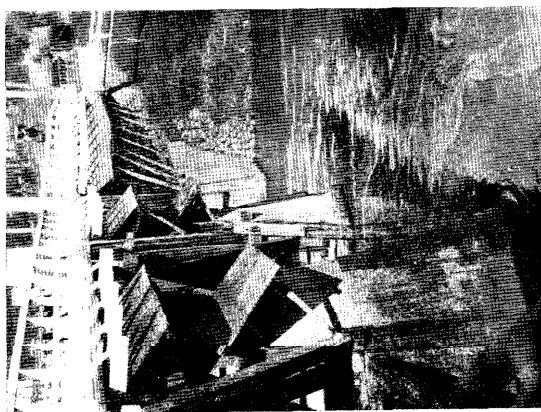
The Middle Tones

As soon as it is found that the lighter half-tones do not pigment with sufficient strength, the print may be returned to water not necessarily of a higher temperature. After blotting off the excess of moisture, thin the ink with a touch of the softer pigment. Very little softer ink or medium is sufficient to make a great difference to the result. This ink is not to be confined to the lighter half-tones, but to be worked from them into the darker tones, which will be thus strengthened. It might be said that this could have been done straightway from the beginning without a resoaking ; but this is not the case, because the ink, if so applied, would soon have exhausted the capacity of the gelatine for taking pigment, and that without giving the necessary depth of tone.

This slightly softer ink on the re-swelled gelatine has strengthened the too feeble half-tones, giving them detail and smoothness. It has also added pigment to deeper markings that were indistinguishable before. Moreover it has attacked the lighter tones of the subject with a kind of first charge, as the middle-tones were attacked before the re-swelling.



Verlief Bridge



(Bromide)

From Canadian Bridge

Final Stages

A third or a fourth swelling may be found necessary to complete the print, but each successive swelling will usually require a corresponding softening of the ink.

These methods of working are more necessary for prints of a large size, for the time occupied in inking is naturally prolonged, and matters are further complicated by drying, which takes place rapidly in a warm room.

Over-Swelling and Softening

It should be observed that all papers do not respond to re-soaking in the same way. Some, on being re-immersed, seem to reject the ink already deposited. This may be a sign of over-swelling, and the use of too soft an ink. If, however, a paper persists in acting in this way, under any conditions, the only thing to do is to avoid using it. There are others.

CONTROL IN PIGMENTING.

Before methods of control can be considered in relation to any photographic process, it is necessary to be quite clear as to the nature and extent of the control possible in that process. The oil processes are not capable of unlimited control ; nor are they capable of control at all, except by technical methods, unless such control is to be unpleasantly obvious in the result. After reading the foregoing paragraphs, the worker in oil will see that control will chiefly be possible in the tone values of the print.

Adjustments by Soft Ink

What has been already said concerning pig-menting applies to the more or less faithful re-production of the tones of the original bromide print, and of the preliminary print in the case of the oil process. These original tones may be modified by an alteration in the consistency of the ink used.

A very slight softening of the ink tends to deepen the darks, as already explained, but anything more has the opposite effect.

The most satisfactory method of darkening tones is to print them deeper in the original print. If by so doing, the lighter tones become too dark, they may receive during pigmentation the proper attention for their adjustment.

Ink which is too thin for the degree of swelling that has taken place produces a flat result. But advantage may be taken of this to subdue by local treatment, any harsh contrasts that may exist.

If this soft ink, which is normally too thin, be applied very sparingly, by means of the hopper, to parts already inked, detail will be preserved, but the general tone of the area will be lightened.

If the same ink be used on the darker pigmented parts, the result will again be a flattening of tones ; but there will be no depth nor richness, whatever quantity of ink be applied. To increase the richness of the darker tones the ink must be rich in pigment, which means that it must be relatively stiffer .

It will be inferred from these remarks that it is easier to lighten tones than to darken them. This is true if the quality- of the finished print is not to suffer. At present we have only considered the modification of harsh contrasts by bringing about a flattening, which means that the dark tones have been lightened, and the light tones have been darkened by the use of a very thin ink. In fact, a very thin ink acts as a stain, and as such is useful for" toning down any areas which are approximately white paper.

Modification by Restraint

Tones may be kept on the light side by the simple method of applying the ink with restraint, and not using the full capacity of the gelatine for taking ink in those parts. We must consider the effect of this method on the darks and on the lights separately.

In the case of the darks the tones take the ink uniformly over a certain range of tones ; and, as has been shown, it is not until the deepest tone has received its full quantity of ink, that the

tone next above is differentiated from it. If, then, in an attempt to keep our tones light by a restraint in pigmenting, we cease to apply the ink before this differentiation between the lower tones takes place, the result may certainly be lighter, but detail will be lost in the darks. Some improvement in this respect may be obtained by swelling further, and lightly hopping, which action lifts the ink from the tones next the deepest, and deposits it on the latter.

It is an important point to remember, that to pigment in lighter tones than the original print exhibits can only be done at the expense of detail unless further swelling takes place.

If it is desired to lighten the tones at the top of the scale by restraint in the application of the ink, the result will be granular unless the ink has been thinned. Therefore the correct method is to swell further, thin the ink, and apply with considerable reserve.

No Modification by Over-Inking

It may be assumed that if tones may be lightened by reserve in the application of the ink, the reverse will hold good, and that an excess of ink will produce a darkening of tones. If the adjustment of the swelling of the gelatine to the consistency of the ink is correct, it will be found that it is impossible to make the gelatine take an excess of ink of that consistency. The ink may be plastered on to the surface of the gelatine, but it will be there irrespective of the original image, and all detail will be clogged up. Ink so applied, always produces a disagreeable effect on the surface of the print. The only method of

satisfactorily darkening an area is to use an ink very slightly softer than the normal, always remembering that if it is too soft, the reverse effect is produced.

WHEN TO CONTROL.

Recession of Planes

It is easier to know how to control than to know when to control. One obvious reason for control of tone values is to secure a proper recession of planes. In other words, objects must take their proper place according to their distance. The illusion of distance is brought about by a decrease in the size of the object, and by a modification of tones according to the nature and extent of the intervening atmosphere. It is useless to argue that the distant object **was** dark, or **was** light. The pictorial requirement is that it shall take its place according to its distance, and the problem becomes not whether it is dark or light, but *how* dark, or *how* light in relation to the other parts of the picture.

Use and Abuse of Latitude in Values

It will be concluded from this that there is a certain latitude available in the management of these tone values, provided the picture as a whole hangs together-as the expression goes. This latitude is a valuable help for placing and managing the accents of a picture. Here, of course,

judgment and knowledge are essential ; and there is no way of arriving at a proper judgment in these matters except by the experience of continual observation of the ways of nature.

Legitimate Modifications

A tone may be modified, without affecting adversely any vital pictorial requirement, in order to give prominence to another tone, or in order to secure concentration at a certain spot. These are matters which do not concern Nature, and no subject, however correctly photographed, will fulfil these aesthetic conditions. When, however, modification goes too far, it is to be condemned, for a greater truth is sacrificed for a lesser.

Skies

The methods of inking already described, will suggest that clouds in the original bromide or negative can be retained quite easily in the pigmented print, and, indeed, there is no other way of obtaining clouds satisfactorily. However, clouds do not always accommodate themselves to pictorial requirements, even when they are recorded on the negative with a printable density, and some modification may be required. For instance, it may be desirable to connect two slightly detached light cloud forms, and the best way is not to ink the intervening darker area. The edges of cumulus clouds are intricate in their varying contours, and it is hopeless to attempt to draw them with the tools of the process, which are not made for purposes of draughts-

manship. Where the process does help, is in printing-in well-chosen clouds, using control to make good any little deficiencies in joining up. It is often stated, quite gratuitously, that "cotton wool" clouds are a product of the bromoil and the oil processes. Sometimes they are. On many days of the year, however, a certain type of cloud may be seen which is more like cotton wool than it is like anything else ; and these filmy, formless clouds are often of the greatest use pictorially.

Colour Values

Control of tone values is often necessary to secure a suggestion of colour effect, for it is well recognised that even the correct use of panchromatic plates does not always give the true visual effect.

Breadth

Breadth of tone is something which should be a characteristic of the subject photographed ; but in this matter the lens is more insistent than the eye in picking out myriad points of light or of dark, and giving them undue prominence. These points should not always be eliminated entirely, or a loss of sparkle will result ; but they may be modified somewhat. The light points may be made less obtrusive by giving a final inking with a brush bearing a minute quantity of very attenuated ink. This will not affect the general tone of the print, but will have a marked effect on the breadth of the result. Dark spots may be lifted with one of the very small brushes, which is their only use, for they will not *deposit* ink

with any satisfaction. A pointed rubber will remove dark spots when the ink is nearly dry, but this method causes an alteration in the texture of the print, and should not be used except for small areas. Breadth is destroyed by too much detail, especially in the shadows. Hopping accentuates this ; but working with a full brush used with a smudging action, tends to keep down detail. By not inking an area to the fullest capacity of the gelatine, a broad tone is produced, but without any suggestion of texture. It is therefore not to be recommended as a general practice. Breadth is a matter of many other considerations, and so far as inking is concerned, the merging of one tone into another is important. A series of definite planes indicated by sharply divided tones is to be avoided as a rule ; but in this respect no hard and fast laws can be laid down, for so much depends upon the subject, and the particular effect desired.

Some Pitfalls

Apart from the question of the recession of planes, and the errors which may arise in this respect through incorrect inking, there are other pitfalls into which the unwary may fall in making any modification of tone. Shadows have been seen proclaiming the fact that they have been lightened by hopping. It is a difficult matter to lighten a shadow, and at the same time to keep its edge consistent with the adjacent sunlit area. A hard black edging is often the result, and this is as incorrect as a shadow which fades off into the light. Again, they who fearlessly

modify their shadows should know that a gradation of tone is always found within a shadow. This is due to reflection from surrounding surfaces, and is very marked when a light vertical surface throws the shadow. A lightened shadow often betrays its impoverishment because the deeper darks within the shadow are affected, resulting in a flat, textureless, insipid, tone.

Reflections are dangerous to control at any time ; but when they appear in water they are more dangerous still, and there is probably no phenomenon of nature more intricate in its representation, or more tinkered with by photographers. In any case, it must be remembered that every reflection is a tone modified by the nature of the reflecting surface, and that any alteration in tone of the parts above the water, immediately calls for consideration in the corresponding reflection.

Modification in the Original Print

If modifications can be made during printing operations, it is better to make them then ; for the inking will be more straightforward in consequence, and the final print will have more quality. The removal of, and the substitution for, undesirable features occupying a large area of the picture, should not be attempted, for evidence of the control is almost certain to be obvious. If such drastic alterations are necessary, the negative could not have been worth making.

OTHER APPLICATIONS of the PIGMENTING METHOD.

Oil-Print and Bromoil

There are methods of working which, as yet, have been neglected. One is to combine the bromoil process with the oil process. A finished and dried bromoil print may be sensitised as for the oil process. The print may be completely immersed in the sensitiser, or the part to be printed may be sensitised locally. When dry, the portion not to be printed-in may be masked off, and the usual procedure of combination printing followed. Great care should be exercised in pigmenting the part introduced, in order that it may merge suitably into the rest of the picture. A suitable sensitiser for this purpose is a $2\frac{1}{2}\%$ solution of Potassium Bichromate. If the original bromide contains dark areas which it is desirable to remove, it may be done by dissolving out with hypo and ferricyanide, and well washing afterwards. On inking a print treated in this way these parts will remain quite clear, thus facilitating the insertion of other matter as described.

Bromide Print and Bromoil

A second modification of the bromoil process has not been investigated to the extent that it deserves. A bromide print may be tanned, washed, but not fixed. When dry it should not be exposed to strong daylight or a purple image

may appear. This print can be inked in the usual manner, and after drying for a few days, the underlying bromide image may be redeveloped. This amounts to a process of intensification, and if the inking has been carefully carried out, tone for tone with the bromide, there should be no suggestion of any variation in colour throughout the print. If, however, any modification is contemplated during pigmenting, it will be necessary to use an ink matching the bromide in colour. Instead of redevelopment with an ordinary developer, a sulphiding solution may be employed to produce a brown colour. It should be noted that it is strongly advisable to allow the ink to become dry before redeveloping. Some difficulty may be experienced in redeveloping the bleached image, but this will depend upon the particular tanning solution used. This method of strengthening portions of a print is far preferable to that of dabbing, in an arbitrary manner, oil pigment upon an untanned bromide, a procedure adopted by the "straight" photographers.

The Carbro Method of preparing Oil Paper for Pigmenting

A gelatine coated paper may be prepared for pigmenting by adopting the Carbro method of obtaining carbon prints from a bromide print.

A full>- developed bromide print is required. It should have been thoroughly washed, and if the pigmented image is intended to be transferred, there is no need to make a reversed print. but if the pigmented image is not to be transferred, the bromide should be reversed when printed.

There is no doubt that this method of making pigmented prints possesses advantages over the bromoil process. There is not that uncertainty concerning the behaviour of the particular batch of bromide paper being used, for a gelatine coated paper is likely to behave more uniformly than a gelatine emulsion. This method of working does not necessitate the making of an enlarged negative, for enlarged bromides can be used.

The working instructions as given by the Auto-type Company are as follows :—

Stock Solution A.

Potassium Bichromate	..	..	..	1 oz.
" Ferricyanide	..	..	..	1 oz.
Bromide	..	..	..	1 oz.
Water"	..	..	..	20 ozs

Stock Solution B.

Glacial Acetic Acid	..	..	..	1 oz.
Hydrochloric Acid (pure)	..	..	..	1 oz.
Formaldehyde, 40%	..	..	..	22 ozs.

In making up the Stock Solution B, the addition of 1½ ozs. of water will prevent any precipitation in cold weather.

Working Bath No. 1.

Stock Solution A	..	..	..	6 ozs.
Water	..	..	..	18 ozs.

Working Bath No. 2.

Stock Solution B	..	..	..	1 oz.
Water	..	..	..	32 ozs.

The No. 1 Bath may be used for a considerable time. It is advisable to pass it through muslin after use.

The No. 2 Bath should be renewed frequently, as it is altered by the A solution transferred to it

on each immersion. The baths should be used at a temperature of 60 to 65 degrees F.

Three dishes are required, the first containing water into which the bromide print is placed to soak. Take a piece of oil printing paper about half an inch larger than the bromide, and immerse in Bath No. 1 for three minutes. See that it is evenly covered and that no air bells are present. Allow it to drain from one corner for 15 seconds; then place in Bath No. 2 for from 15 seconds to 35 seconds.

Place the bromide, face up, on a sheet of glass, and pour a pool of water on it; then take the oil paper from Bath No. 2., drain for 5 seconds, and bring into contact with a flat squeegee lightly applied. Place the adhering papers between grease proof papers, and allow to remain for 20 or 30 minutes. On separating the papers the oil paper is ready for pigmenting. It is advisable, however, to dry it first, and resoak.

Redevelopment

The bromide print which has become bleached by contact with the oil paper, should be washed in running water for 20 minutes, and can then be developed with any developer usually employed for bromides. Fixing is not necessary. It is then washed in running water and is available for making further Carbrós. With the Autotype Co.'s new Oil paper this method of working is remarkably successful, the pigment being deposited with great facility and also being as easily removed, thus giving rise to great powers of control.

FINISHING AND CLEANING THE DRY PRINT

Before the ink has become thoroughly hardened, a certain amount of control is possible on the dry print. It will be found that the lighter tones are dry several days before the deeper tones, and the best time to effect any modification is just before the ink is quite dry.

In spite of the utmost care during inking, the inked print is sure to have collected on its surface a vast number of exceedingly fine hairs, which are always floating about an ordinary room. These hair-like motes would not matter in themselves, for they are practically invisible; but they become visible because they pick up and retain a considerable amount of ink, quite enough to degrade the finer tones of the picture. It is useless to attempt to remove them singly; the only method is to use a clean, old linen handkerchief, or better still, a silk handkerchief. This should be made into a pad, and gently rubbed over the print. It will be found that an astonishing amount of ink is removed. This ink formed no part of the image, but is that held by the aforementioned fine hairs which have been removed by the silk.

A slightly stronger pressure of the handkerchief used with a circular motion imparts a gloss to the surface of the print.

A retouching scapel is a useful tool for the removal of black spots which were too small to lift with one of the tiny brushes. This tool will also remove those lines of ink which are left on the gelatine by broken hairs from the brushes.

The removal of these hairs from the wet print does not mend matters, for a line of ink is still left.

Any scraping or hard rubbing on the dry print affects the surface texture of the picture, and should be avoided if possible.

Ink should not be applied to the dry print. If it is desirable to darken a particular spot, the print may be re-soaked for the purpose and the ink applied with a small brush.

Good Craftsmanship

Apart from the purely pictorial considerations involved in the making of a picture by the oil processes, there is the question of pride in one's craft. The print should be turned out in a workmanlike manner, and there is no doubt that the reputation of the process has suffered considerably because of the exhibition of slovenly work. It will be concluded from what has been said, that the value of control lies in its application to a great number of little modifications, and not to wholesale alterations. After all, the process is a photographic one, and photography can give us many most desirable qualities. It is these qualities which we should endeavour to obtain ; first in the negative, then in the print, and finally in the pigmented result. The proper use of the characteristics of the process, and care in the selection of papers for the transfer processes, will provide all the scope necessary for the most rabid control worker, and will at the same time, silence the arguments (sometimes justified) that the processes play no part in the advancement of photography.

BERTRAM COX.



Fred Judge

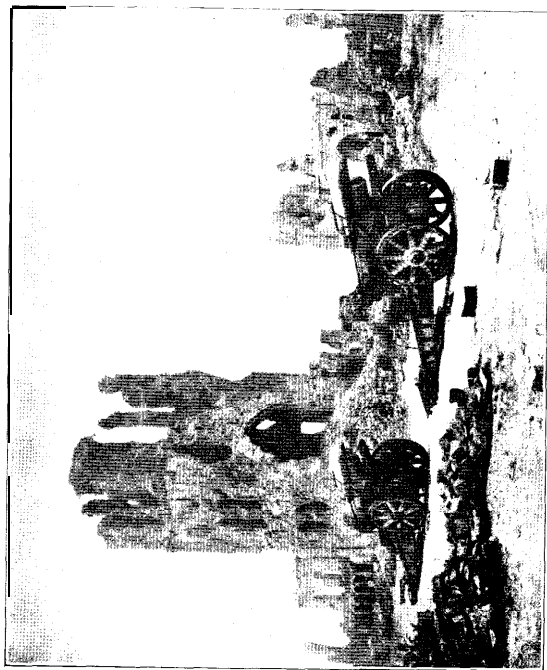
In Arnold Park

LESSONS FROM THE ILLUSTRATIONS

The River by Bertratin Cox

In spite of the size of this bromoil-it measures 17 x 14 inches-there is a comprehensive handling in it which has secured that *one-ness* already referred to, as the indispensable feature of a work of art. Its subject matter is eminently of a kind that might easily have become "bitty"; yet though each item preserves its distinctive character, the whole thing is in keeping.

I say nothing as to its excellent composition; that must be obvious to all, and particularly the sinuous line made by the lighters. In spite of the strong tone of these craft the Tower Bridge holds its own, and is, in fact, the theme, with its glistening, ethereal turreted piers. It gives great beauty to the middle distance stretching to the left in the mystery of silver haze. In pigmenting this Mr. Cox has treasured the faint gleams of light upon the buildings, whilst letting the multitude of dark accents sink into the breadth of the mere suggestion they now bear. To me, the shining side of the building on the left is one of the gems—perhaps the loveliest gem of the whole galaxy.



John A. Studair

The Glory of War

Rigorous repression of unessentials has also been active in the foreground. We see, or rather are just conscious of, certain surfaces and lines of light in the dark mass of craft ; but we are not intrigued by them into an examination of boat-construction. We take everything for granted in the lighters and pass over them as over a threshold into the hazy air beyond, where we find a fascination in the beautifully gradated surface of the river, an impression of movement in the broadly depicted tug and " tramp," and a perfect fairy-land of town and traffic in the left middle-distance. Through the bridge we are only allowed to be dimly conscious of wharves and vessels in abundance, away into the thickening air which shuts in the view by obscurity that is full of suggestion. The inking-up has obviously been directed to this simplification of interest.

A middle plane is well established by the tone of the warehouses on the right. On their wharves a deal of activity is going on: we feel it-almost hear it-but we do not see it. To have seen it in detail as we might have done in a straight print would have been to recognise and accept a counter-theme, and that would have been just the kind of complex interest that the photograph gives in its unselective opulence of record. The chief principle of pictorialism, it must be remembered, is simplification of interest.

The picture is an example of gain of quality through the softening of effect. And the soft effect has come about, not by smudging and fuzziness-there are plenty of firm lines and shapes -not by- a general melting of tones one into another by diffusion of focus. It is a strong, tonic

softness ; not a disintegration ; and it is true to the beauty of the hazy Thames on a sunny day. It is the result of pigmenting the light passages so that the dark markings in them are of less strength than a straight print would give ; and next of pigmenting the darker passages so that the small detail in the shadows disappears altogether. Thus the tones are simplified and breadth is secured. The tale is told in fewer words, with more directness. No loss of brilliance is suffered because the full scale has been kept, although the tones have been generalised, averaged, in each plane. This truth of recession and simplification is the truth of the beauty of the scene-a worthier truth than that of the structural details of the scene.

A French-Canadian Bridge by Herbert Bairstow

This subject has been specially pigmented for me by Mr Bairstow to show how far it is possible to avoid literal representation and to get additional naturalistic truth. A reference to the bro-mide print which is also reproduced, reveals the fact that the nearest pier of the bridge is in strong sunshine, as the others are. In the bromoil this near pier has been veiled in the shadow of a passing cloud.

What was the justification for this drastic change ? First, it appeared to me that the immense scale of the nearest pier was out of keeping with the rest. I considered that if instead of its angular patches of brightness and darkness one could have a general half-shade over it all, it would be less dominating : it would, in fact,

stand near us quietly, without pulling our sleeve and nudging at our elbow. This is how all close objects comport themselves in human vision when they are not directly looked at. Next the mass of unaggressive tone thus gained would allow the gaze to pass to the middle pier, which would then play the chief role by retaining its forceful contrasts of sun and shadow.

I asked Mr Bairstow, therefore, whether he could remove the cast shadows altogether from the large pier and bathe it in that gentle shade which objects bear in the diffused illumination of transition from light to dark, or vice *versa*, as clouds intervene. To my eye this treatment has heightened the pictorial effect.

The removal of those cast shadows was delicate and difficult work, and Mr Bairstow is to be congratulated both on his skill and on his success. But in general practice such radical alteration is not advisable. The example is given as being something in the nature of a *tour de force*, to show what resources are possible in pigmenting when pictorialism makes great demands.

In Arundel Park

by Fred Judge

This is typical of Mr Judge's preferences and moods. It gives with much feeling his favourite effect of hazy air pierced by the beams which are stopped by the trees on the top of the hill. Such breath as this print displays could not have been given, even by Mr Judge himself, in a straight print with the same poetic suggestion as pigmenting has secured. A straight print would have given a beautiful thing, doubtless ; but a

different thing. It is obvious from what we see here that the tones would have had much more force and the detail would have been specky. Here the larger forms have been cared for. The beauty of their shapes has not only been preserved, but emphasised, by the simplification of the record.

After the ink has been applied there has been just delicate tapping enough (probably no hopping) to give the great mass of trees a full roundness of modelling and to reveal its variety of growths. The effect Mr Judge wished to get did not admit of those rich shady holes among the trees that one naturally seizes upon : they would have cut out the atmosphere. Yet the mass establishes the foreground plane admirably, the tone relations of the whole thing being so truly kept that we feel forcibly the depth of space across the valley to the castle and wood and the light and air that lies between.

The slight granulation is fascinating, I think, and is due to the texture of the transfer from which this noble subject was produced.

The Glory of War

by James A. Sinclair

From the peaceful and dreamy beauty of Arundel to the grim and harsh horrors of Ypres is a long cry. It is obvious that Mr Sinclair was not disposed to present the scene with any of the softening or of the charm of mystery which he usually imports into his street views when he works in bromoil. Here we have a straightforward presentment where every detail stands fully revealed as witness to the "glory" of the ironic

title. Mr Sinclair was fully justified in his choice.

It was for the reason that this powerful statement is so marked a foil to the misty qualities of two of the other pictures that I begged it for reproduction. It will, I hope, disabuse the minds of some who err in supposing that pigmenting gives nothing but smudgy, smeary and formless results. This is the untruthful verdict of the detractors of the process. The truth is that it interprets a negative just as one wishes it should. In "The Glory of War" Mr Sinclair has made it render the sharp, stark and bare facts of desolation and ruin.

When oil-printing first made its appearance it was hoped, and even claimed by some of its advocates, that it could repair the errors of a faulty negative, and thus produce a good picture impossible by any other printing process. This contention is no longer held, although it cannot be said to be entirely untrue, because pigmenting may, to some extent, palliate the ills of a negative. It is now admitted by all that, other things being equal, the best pictures result from the best negatives, and a properly exposed and properly developed bromide print gives a better bromoil than a faulty bromide can.

By no means does it follow, however, that the pigmenting process will become less desirable as photography becomes more efficient and more resourceful. In the first place its amenability to

the will and skill of those who practice it exercises a fascination that must certainly popularise picture-making by the camera, and that is a consummation devoutly to be wished by all from every point of view. Secondly, the pigmenting process is the immediate link between printing papers and the transfer; and, so far, no more artistic or permanent style of print can be imagined than the transfer, with its choice quality that can rank it in this respect with the well-established varieties of monochrome graphic art.

Pigmenting has the further advantage of allying itself to other photographic printing processes in directions yet unexplored. Mr. Cox shows the promise of this in the latter part of his contribution to this Tract. Of the Carbro method I can speak from knowledge, having found it easily responsive to the brush, with a good yield of richness and nuance.

In conclusion, I may be pardoned for offering the reminder that the unpardonable sin in the matter of control is unjustifiable alteration; and the justification is nothing but a righteous aim at the expression of naturalistic truth and artistic beauty. One goes quite wrongly to work in taking the brush in hand and saying, "Now, I've got to make something of this. I don't want a straight result. I haven't bleached my bromide for that!"—and then setting about a deliberate and blind disregard of the negative's image.

Here a subject has been well selected, the plate thoughtfully exposed and developed, and the basic print sympathetically made, it is not likely that any drastic alteration will be required. The pigmenter then will find that he cannot be

disrespectful to his negative with impunity. Of course such things as iron-railings and telegraph-posts have to be got rid of at times, and there is great joy in "controlling" when such little cares present themselves. Apart from such eliminations the pigmenter will be well advised to confine his control to the matters with which Mr. Cox has dealt: recession of planes, design and gradation in skies, and the broadening of tone. With regard to the latter I would urge that the picture-maker has an eye to the design of his lights and darks-Chiaroscuro-as fully argued in the first of these Tracts, "The Real Pictorialism."

On the happy occasions when everything is satisfactory-and when the "straightist" denies the advantage offered by pigmentation over other processes-the merits of pigmentation will appear in certain tender tone-generalisations, by which the spirit shines more clearly through the letter of the subject-matter. There will be increase in luminosity and richness; and, above all, the pigmented print will be available for transferring, and that is a purpose in which it may, without question, be said to find its greatest and most fitting reason for existence.

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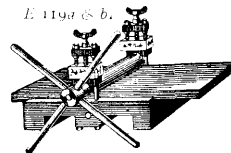
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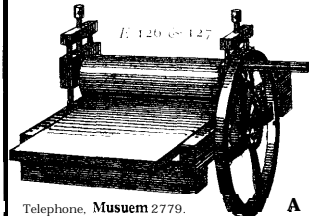
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