History of Photography

<http://www.dmu.ac.uk/about-dmu/academic-staff/art-design-humanities/elizabeth-edwards/elizabeth-edwards.aspx>

early twentieth century photographic societies and networks of photographic knowledge ??

Dr Kelley Wilder

<http://www.dmu.ac.uk/about-dmu/academic-staff/art-design-humanities/kelley-wilder.aspx>

Dr Wilder’s current research interest in photographic practices in the Nineteenth and Twentieth centuries includes subjects at the crossroads of scientific and photographic practices in Europe and North America.

# Workers and Consumers: The Photographic Industry 1860-1950 - CALL FOR PAPERS

**CALL FOR PAPERS**

**Workers and Consumers: The Photographic Industry 1860-1950  
Photographic History Research Centre, De Montfort University, Leicester  
24-25 June 2013**

The history of photography has largely been dominated by concerns about aesthetic production and its political framings. Such ‘art historical’ approaches have marginalised the study of the economic base of the medium manifested through a developing photographic industry, its related trades and its mass consumers.  Work is now emerging in this field, scattered across a number of disciplines: history, anthropology and history of science in particular. While there has been extensive research on both the politics and the affective qualities of popular photography, family albums, for instance**, the missing component in the analysis is often a detailed and empirically informed understanding of the social and economic conditions of product development, labour forces, marketing and consumer demand.** This two-day conference aims to bring together a critical mass of research in this area, to explore the state of play in this overlooked but crucial aspect of history of photography, and to suggest new directions for research in the economic, business and industrial history of photography. The conference will explore the period 1860-1950: from the rise of a clearly defined photographic industry, which had a profound effect on the practices and thus social functions of photography, to the expansion of mass colour technologies.

Abstracts of no more than 300 words , for 30 minute papers , should be sent to Professor Elizabeth Edwards ([eedwards@dmu.ac.uk](mailto:eedwards@dmu.ac.uk)) and Dr Kelley Wilder ([kwilder@dmu.ac.uk](mailto:kwilder@dmu.ac.uk)) by November 30th  2012.

Details of the conference will be posted in December 2012.

Theses.com

Dark-room = 0

Darkroom = 8 that do not sound related to practice

“home processing” photography = 0

“home processing” = 0

“photographic chemicals” = 1 increased risk of miscarriage from exposure to photographic chemicals and to use of sunbed Farrow A Bristol 1995 Miscarriage and environmental factors

<http://photomuse.org/>

Photographic chemicals and their uses, Shearcroft

I.D.11 and D.76 are formulae developed and published by Ilford and Kodak respectively. They have the same metric measurements, but not the same avoirdupois measurements. (for films and film packs)

I.D.2 D.61a for plates, or for films instead of I.D.11 and D.76

1978 Instructional book

mainly seems to be using packets of chemicals which are dissolved, or ready made concentrated solutions which are then diluted. However, the chemicals and their functions are named and explained. The cost of home processing is highlighted (cheaper than sending away). Urged to buy special dedicated kit, for the sake of good photographs, not for avoiding harm to people who might use the appropriated kitchen equipment. Not much on safety, though with colour processing rubber gloves are recommended as those chemicals in particular can be allergenic or toxic. Solutions should not be stored in soda or beer bottles because the consequences could be “disastrous!” . Advises that the chemicals should be mixed or dissolved away from foodstuffs but not why. The main drawback of Cibachrome material is described as the bleach which is “very acidic” (I guess this is the bleaching component, as bleach is alkali) and must be treated with extreme caution. Kits include a neutralising solution which was to be mixed into the bleach before discarding it. Advises speaking to reputable photographic dealers (not named in text, no suppliers list at back) in order to choose the most suitable for them processing kits. No special instructions are given for disposing of any of the other chemicals, so running them down the sink seems to be generally accepted. I don’t know whether it is, could find this out, don’t know what effects these chemicals have on the environment.

1948 instructional book Shearcraft

“We live in a chemical age… as photographers we are practical chemists but manu of us find our inferiority complexes working overtime when we come into contact with the usual methods in which chemistry is explained.”

How was chemistry usually explained? Despite promising to not be very technical, it does go on. The explanations are clear, and you’d learn a lot about photographic chemicals from this book.

Get appropriate apparatus such as the chemist uses (no details on where from), rejects from the kitchen do not make for efficiency as they are the cause of many mishaps in [developing photographs] from impurities derived from them.

Purity of chemicals is stressed, BUY NOTHING BUT BRANDED CHEMICALS. Sodium carbonate can be bought for a penna apound and is as pure as it needs to be for washing greasy plates and for scrubbing floors. Ordinary washing soda will not do. Asking for trouble.

It is not good enough to ask at the nearest druggist shop for say sodium sulphite unless you specify what you want. Annaler reagents. The extra expense incurred by purchasing standard chemicals is repaid by increased efficiency.

Chemicals should never be left in paper packets. Use glass gbotles… fitted with good corks, modern Bakelite screw on tops are excellent. Lavelled w lefible writing. Airing cupboard is the worst possible place for storing bottles of chemicals but is for some unknown reason is a favourite. Recommends moving chemicals to sunlight to kill moulds.

Never handle chemicals with fingers, which are chemically filthy (no mention of any risk to health) . Cleaning equipment is especially important, persistent staines remove with concentrated hydrochloric or nitric acid states that these are dangerous, corrosive chemicals. Also suggests caustic soda, washing odea and benzene – which means that all of these must have been reasonably easy to get hold of.

Crabree and Matthews – this is more for professionals working on industrial scales, but it is referenced in Shearcraft and would have been available to interested home processors and the preface states that it should be useful to all including amateurs.

When was nitrocellulose phased out? Laquer nitrocellulose.

Uranium salts produces chocolate – brickred tones – isn’t this radioactive? No mention given.

Protective gloves are evidently not aprt of the photographer’s kit, as there are many little recipes given for stain removal of the hands. “If care is used to avoid presence of acid on hands before treatment and wash thoroughtly after, ther is no grate danger in using water and sodium /potassium cyanide plus iodine, but wash it quickly down the sink to avoid the cyanide potentially mixing with acid in the drain and producing toxic gases. Mentions importance of ventilation, don’t think the others. Do.

Lots of practical advice given – like store bottles of acid on the floor so they can’t drop of a shelp onto your face as you reach them down. Other advice is geared towards carbouy amounts of reagents.

Hints, tips and gadgets for the amateur photographer

Selected from the Amateur photographer

May 1944

P71 A home made chemical balance

“Many keen amateurs, although they delight in carrying out their own processing, never dream of weighing out and making up their own solutions. The usual difficulty is the lack of a suitable balance and a set of weights. [illustration of balance] The finished article is quite sensitve enough to show variations of a single grain in weight and is caable of doing really useful work. “

This is interesting because based on the instructional books read (e.g. Shearcraft) I had thought people did make up their own solutions, weighing out chemicals is specifically dealt with, e.g. onto paper not the pan surface directly and spatula recommended instead of chemically filthy fingers.

P107 a thermometer tip

Thermometers have an annoying have of slipping off the edge of the dish and submerging in the solution. The difficulty can be got over by putting a rubber washer from the top of an ammonia bottle over the metal cap at the top. This provides a large soft flange that will catch on the edge of the dish..

This shows that ammonia bottles had a rubber washer – what was it for?

Contains advert for Shearcroft’s book

1954 seems to be mostly the same (regarding mentions of chemicals at least) although does not have any book adverts at the back.

British Photographic Almanac 1946

12 page advert for Kodak “Goods and Services”

p9of advert are the ‘Kodak’ packed chemicals

Negative Developers:

Time standard (powder, replenisher) for film or plate tanks, maintains uniformity of negative quality and time of development throughout its long life

D.177 Pyro-soda (powder) two –solution developer for plates or sheet film

D.8 Maximum contrast (Powder) A caustic hydrouinone developer

D.154 Kodaline for Kodaline films and papers, and prcess films and plates.

D.76 Fine grain (P,R) general purpose dish or tank developer.

DK.20 Extra fine grain (P,R) recommended for fine grain development as prefable to paraphenylenediamine formulae

D163 Kodak Special (P or Solution) – for dish or tak devt of films paltes lantern plates or papers

D61a Elon-Hydroquinone (P, R)

Kodinol – highly concentrated paramino-phenol developer of improved type (S)

Print Developers

D.163 Kodak special – for bromide papers, bromesko, velox and lantern plates (P, S)

DA 158 Velox – elon-hydroquinone dev for blue black Velox prints (P,S)

Kodak press contrast brilliant plucky prints for reproduction (S)

D156 Warm Tone for bromesko kodura and other warmtone papers (P)

D166 Extra wam tone Broesko kodura or other wamr tone papers

Fixers Hardeners and sundries

Kodak rapid fixer

Kodak acid fixing salt with hardener

Kodak liquid hardener

Kodak Hardener PowderKodak Sepia toner

Kodak Selenium toner

Kodak Wetting Agent

KAF Kodak Anit-Fog powder

Kodak funcidide powder

Kodak glazing solution etc

X-ray chemicals

D19b Kodak Developer (PR) Kodak XRay acide fixing salt with hardener Kodak xray rapid fixer, an acid fixer for use with or without hardener Kodak xray ultra rapid developer and xray ultra rapid fixing salt.

Vanguard 2 page advert – one side about jubilee year, also remarks that nearly all production was earmarked for First Priority work of the many Govt depts. And War industries using Photography.

All British manufactured

Actinone – transparent non-actinic medium for negatives

Bango – simples and most brilliant glazing solution.

Boroactholene – protects hands against developer stains

Frictol – density reducing paste for negatives

Lustralene – perfect finish for matt prints

Nigrogene – finest dead-black for all camera work

Photopake – finest blocking out medium, liquid or cake form

Sceenolene for blacking cinema announcement slides

Spottopake – fine spotting mediumTixit – absolutely pure photographic paste

Vitrivene varnish – protective varnish for all photographic surfaces.

Vanguard E Co Maiden head, England

Johnsons of Hendon

Johnson developers – liquids, ready to use for industrial, commercial and professional needs

(so does not state amateur or hobbyist)

Azol – popular dev for quality netatives

Meritol metol gives negatives of exceptionally fine grain.

Bromide for prits and enlaremnets on all makes an dgrads of bromide papers

Contrast Quick acting dev for press photograph and all reproduction work where brilliant prints are reuired. (photop of bottle)

Chlorquinol liquid deve. Warm tones on all makes of chlorobromide papers. Concentrated eight times.

Universal – concentrated MQ dev ontianing one four tow and three two six

Sold in 20oz bottles and 80oz winchesters.

Johnson

British developing agents for those who prepare their own solutions

Metol – Hydroquinone – Pyro – glycin 0 chlorquinol – amidol – meritol

[new page]

Amidol developer in 5 gallon tins, each tin contains 10 serparate tudes ob Amidol and the necessary Sulphite for making ½ gallon of solution as required.

Constant endura 0 for photo finishers and prof photographers. 2 gall – 48 gall with the necessary quantty of strengthener in each tin.

Bromide, rapid developer – 3 gal – 24 gall, (picture of tin)

Gas light – suitable for all makes of contact papers – 1 gall to 40 gall

Fine grain – for miniature camera negatives intended for enlargement. Contains CALGON to eliminate hard water deposit on films. Pack 1 -20 gallons

Meritol-Metol, the meritol gives fine grain, the metol speeds up development.

Super fine grain – contains meritol…

MQ 0 made from a well balanced formula and equally suitable for films plates and papers, one size only to make 2 gall developer.

x-ray for radiographi work used by many of the leading hospitals and instutitions, 1/2gall – 10 gallon sizes

Over the page we have most of the same stuff but in convenient and handy form for amateur users

Azol 3oz, 8oz and 16oz bottles

Universal an all round M-Q developer containing one-four-two for brighter prints and prevention of stains or fog and Three-two-six for even flowing of solution and elimination of air bells. Gives good negatives and fine prints. 8oz and 20 ozt bottles. (picture of bottle)

Bromide – 8 /20

Contrast, for those who want bright, sparkling prints, acts rapidly without loss of control in development.

Chlorquionl liquid devl. Concentrated 8 times in 8 or 20oz bottles

Packet developers for making small quantities of solution.

MQ in packets to make 10oz Amidol in packet to make 10oz

Also the comprehensive fine grain group sold in tins to make 20oz

Fine grain – the original fine grain developer and in increasing demand

Meritol – metol for use when considerable degree of enlargement is required. The meritol gives fine grain, the metol quickens the action. Super fine grain, contains meritol and gives excellent negatives for the maximum degree of enlargement. CM 100 prepared from the formulae published in and recommended by the Miniature Camera Magazine.

Johnson chemicals for various purpose for all those who practise photography in any form

One-Four-two “142” the new chemical to improve dev soln. Makes old and stale sensitive material usable. Brightens prints and prevents staining. 4, 20 and 80 oz bottles. [picture of bottle]

Three-two-six “326” Johnson wetting agent, for use with all solns without altering alkalinity. 20 or 80oz bottles.

Acid fixing – stops the action immediately – 8ox to 28lb tins

Liquid acid hardener for adding to plain fixing baths for film and gaslight prints. Prevents softening in hot weather and where heat is used for drying. 20 oz and 80 oz

Antiscratch – makes films almost impervious to scratches and abrasions. Prevents finer markings.

Intensifiers – for making thin negatives printable by increasing deposit in their highlights. Copper – in boxes to make 30ox and 1lb bottles to make 2 galls. Uranium, in 3oz and 6oz bottles.

Mountant – pure photographic paste of highest quality, free from acid and keeps well for any length of time. 4ox to 1 gallon jars.

Remember always if you have a photographic problem that johnsons have a chemical for it.

Acid fixing stops the action of the deelper immediately, keeps prints clean and bright 8 -28lb tins

Final page of 12 page advert lists wholesale agents and stockists across empire.

ALWAYS LOOK FOR THE SCALES BRAND TRADE MARK ON PHOTOGRAPHIC CHEMICALS IT IS FOR YOUR PROTECTION AND IS A GUARANTEE OF PURITY, EXACT COMPOSITION AND RELIABILITY. [caps in publication]

100% purchase tax on picture postcards is at present severely restrictive of their sale. We used to do millions annually. (Hood photographic engravers)

Ilford advert

P2 Quality and service are one and indivisible in the Ilford organisation. They are the fundamental on which our business has been build up dirng the past seventy years and will be the keystone of our policy for the future.

Close contact with our customers at home and abroad has given us an intimate knowledge of their requirements, and in the range of sensitised materials which we manufacture we have adequately filled their needs with grades of unimpeachable quality.

Our Technical Service Department is always at the disposal of photographers to solve any problem which may arise in their work, and we hope that the fullest advantage will be taken of it.

Penultimate page is on chemicals

Ilford chemicals are compounded according to our published formulae and a complete range is available. These are fully listed in the Ilford Chemical List, which may be obtained on application. The following is a short list of some of the principal items:-

ID20 MQ dev for bromide and plastika papers

ID2 Metol Hydroquinone dev for plates and films

ID 11 dev for miniature films

ID 48 extra fine grain dev for mini films

ID 49 Plastika warm tone devl

ID 36 Selo MQ Dev for contact paper s

ID 19 Metol Hydroquinone S-ray dev

ID42 Blue label high contrast mqxray dev

Ilford Certinal (conc liquid dv)

Ilford Wetting agent.

Epitome of Progress p146 -157

A sort of round-up, digest or summary of news from other publications about processes

e.eg mentions the introduction of new Kodak developers, D-23 and D-25 notable for simplicity efficiency in their respective field and the fact that their ingredients are standard chemicals.

D-23 – Elon –sulphite, needs 19% longer dev time fthan D-76 discusses grain, contrast etc. keeping properites – satisfacoty and deve may be sored severa months in a stopperd bottles.

Gives formula 0 Water (125 deg F\_ …750cc

Elon…..7.5gm

Sodium sulphite (dessicated) 100gm

Water to 1000cc

D-25 0 Eon sulphite bisulhite deve of the true fine grain type. Exposure should be increased by one half to one full stop to equal the density prouced by development in D-76 or D-23

Formula as

Water 750 cc , Elon 7.5gm Sodum sulphite dessiated 100gm, sodium bisulphite 15gm water to 1000cc

Tips such as “if the fixing bath is not sufficiently acid, a white scum may form on the film, this may be removed by soaking in 2 % acetic acid solution.

Replenisher as above but instead of bis – Kodalk 20gm water to 1000cc

Waterproofing printing paper base

Polyvinyl acetal resin. Esp suiable are polyvinyl mehylal resins derived from polyvinyl acetate by hudrolysing partly or completely and reacting the resulting hydrolysis product with formaldeyde. Such resins are available commercially under the trade makr “Formvar”.

In a British Patent specification – this example is given as suitable w soln – “formvar” 20arts, Benzene 252 parts, Ethyl alcohol 108 parts. Before coating the emulsion a subbing layer may be applied and his may consist of a layer of nitrocellulose and one of gelatine. The sub coat first applied should have preferably some slight solvent action on the wap resin. Plasticisers may be added if desired and other solvents of the resins may be used to modify the coatings. Such solvents may be chlorinated hydrocarbons, dioaxane, acetic cid, mixtures of ethyl alcohol with toluene, xylene, monochlorbenzene or carbon tetrachloride and a mixture of ethylene dichloride and methyl alcohol.

Re-sensitisation of chromic acid treated fogged photographic plates.

Chromic acid, sodium nitrate,

Bucket processing of cine film (combat sit, only processing machine is a bucket). The secret is largely in the prehardener bath (UH-!) the formula given as

Water … 80cc, Calgon…0.5gm, sodium bisulphite 3 gm, sodum sulphate (an) 50 gm, paraformaldehyde, 4 gm, sodium carbonate (dess) 4.28gm, 6 – nitrobenzimidazole nitrate 0.027gm, water to make 1Litre.

The equivalence of sodium bisulphite and potassium metabisulphite

Reports the tests carried out by Henn and Crabtree on LLodak formuala using Kodak branded chemicals. It was concluded that for the most photographic purposes the cheaper, more available and more readily soulbel sodium bisulphite may be substituted for potassium metabisulphite in a ration of 84 parts to f the sodium salt ot 100 of the potmetabis.

Glossary given, very explanatory but still in quite technical // chemical terms. E.g. preservative” Usually a sulphite or acid sulphite capable during stoage of a developing solution of selective oxidation thus preserving the developing agent from oxidation. During development the preservative prevents the formation of coloured quinoinoid oxidation product, thus keeping the developer relatively colourless until the preservative is itself oxidised.

Formulae

Desensitising

There are now so many efficient commercial desensitisers on the market that there is little reason for making up one’s own. In almost every instance the best procedure is to bathe the sensitive material in darkness for 2-3min in a solution of the strength specified then rinse and transfer to the develop. … best known desensitisers are: Pinacrytol green, energises hydroquinone, causing it to work more like metol, little effect on MQ and puro, restraingin effect on amidol.

Pinacryptol yellow. Recoeeded for colour plates in preference to princrypol green. … cannot be added to dev as it is precipitated by sulphites. (both Hoeschst brand, no longer obtainable in UK)

Qualitol (Ilford) general purpose, desensitising yellow, supplied in 1gramme tubes and the contents dissolved in I litre, 35 oz of water. Keeps indefinitely in a brown bottle in the dark.

Johnson’s yellow desensitiser – supplied in powder form, dissolved in water.

PAC desensit N (Photographic accessories and Chemicals Ltd)

Cheap non-staining home made desensitiser – phenosafranin-chrysoidin (basic Scarlet N) while not so efficient as the best commercial desensitisers, works well, is cheap, non staining and has little effect on the properties of deve. Only used as a forebath must not be added to the developer

Chrysoidin, phenosafranin, water (disilled or boiled) alcohol. This is diluted 1:50 with boiled water.

One and two solution developers p198

Discussion about making up solutions and also how to store them (adding citric acid or potassium metabisulphite) then neutralising it for use (sodium carbonate)

P 338 adverts

For every phase of photography ‘Tabloid’ photographic chemicals

The convenience and dependability of Tabloid brand Photographic chemicals have gained for them a well deserved popularity among amateurs. For the pro photograher too there are Tabloid products which can be of considerable assistance. For instance, intensifiers and reducers which may be required infrequently can be prepared quickly and conveniently. Scientific workers who occasionally employ photography in their work find Tabloid dev and other processing agents invaluable time and trouble savers. Travellers and explorers may wish to develop exposures en route. The agents of choice for such workers are Tabloid chemicals. They keep perfectly in extremes of climate and occupy little space in the kit.

Rytol brand universal developer

Fine grane

Metol-quinol the most convenient presentation of this popular tpe of deeloper. Ore economical that nt eh usual packets since onl suffienct deve for the immediate req need be prepared this eliminating waste.

Amidol the tabloid products obviates the risk of blemishes due to air borne paricles of amidol.

Chromium intesniver – the most reliable all-round intensifier. Produces little increase in graininess. Quickl prepared, eail sotred.

Potassium ferricyanide. For the easy and convenient preparation of Farmers Reducer.

Ammonium persulphate The most reliable presentation of a notably unstable chemical. Its purity ensueres certainty oand uniformity of action.

Misc.

Potassium bromite – eliminates the necessity for weighting small quantities of this frequently used substance.

Reversing computng – suitable for the Dufaycolor porces.s Obviates the necessity for handling sulphuric acid.

Disodium thiosulphate hypo dried gr 28.5 Particularly valuable for travellers who do not wish to carry bulky chemicals.

Wellcome brand wetting solution. Concentrated soln which when… obviating flow marks and air-bells. Ensures clean rapid and uniform drying.

Tabloid brand wetting agent. The products are scored to permit easy quartering when treating smaller quantities.

Photographic department Burroughs Wellcome & Co (The Wellcome Foundation Ltd.) 183-193 Euston Road London W1.

P411

The britsh Journal of Photography

Every Friday price 4d

For the past ninety two years the BJ has been the most reliable guide and instructore of all who use a camera. It provides up to the minute info on every phase of intereset with which the professional, press, commercial , industrial, colour and advanced amateur photographer is associated with.

Storage of celluloid

Statutory rules and orders 1921, no 1825. Under section 79 of the Facoty and Workshop act. -🡪 professional photographers re the stoage of celluloid 0 does not exceed 14lbs sorage in a darwer or cupboard ina private office in which no handling of celludoid is done coplys as safe storage. Developed negatives depends on the amount of negatives – considerable weight kept in fire resisting store, kept locked. Not situated in work room where celluloid is handled nor on a stair nor near a door nor in a passage through which persons might ahave to pass to escape in the event o a fire. Nature of the contents should be marked on the outside.

P343

A Rossite product is a new idea [repeated around the border]

Complete kit for Rossite prints in colour PAT no 547382

Contains everything that is required for rossite prints in colour. T consists of twenty components producing material for months of successful colour work. The colours are obtained by immersion in the colourone bath : no artistic skill is required. An instruction book is provided with the kit. Price of kit 25s.

Other things (not chemicals) advertised – RF Hunter Ltd Celfix House 51 Grays Road London

Lomax ltd

Lomax for mounts (special prices for prof)

“Printamol” perfect dope for prints

“Handamol” will restore delicacy of touch to hands roughend by Chemicals, preventing Chapping and Cracks (Essential in every dark room).

PAC Chemicals manufacturing chemists London Epsom Manchester

5 Victoria St oLndon SW1

Photo-fine chemicals

Latitol, degrainol, super degrainil, tankronol

Ready prepared dev – latitol universal, degrainold fine grain, super degrainold ultra fine grain, tankronol latitutde tankronol high seed.

Desensit – new desnsitising medium

Resistol – antiscratch laquier

Glazine – high gloss glasing soln

Univol – univeral toning chemi

Wettol – new wetting againe

Chrominox – new british colour developer

Emulsol – new silver bromide sensitizer

P353 single page advert 0 Users say so too… The importance of fine quality in photographic material is obvious, and this advertisement is therefore simply a reminder of our claim that Our Criterion photographic materials meet the most exacting demands of the discriminating professional.

Oscar Moenich & Co lts

32 Birchington Rd, Crouch End London N8 photographic accessories chemicals etc.

FAllowfields - ,,, it is still to early to state how or when extra stock should be available but our old customers may be certain that what they require will be available in larger quantities. (no mention of chemicals) 87 Newman St London.

Owing to severe restrictions on the use of paper at the time of going to press the publishers regret they are unable to increase the subscription list until further notice.