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& FINE ART PHOTOGRAPHY

No. 12  
Feb 99



JOURNAL



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# JOURNAL

THE ASSOCIATION FOR HISTORICAL & FINE ART PHOTOGRAPHY

Formed in 1985

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## From the Chairman

Paul Gardner *British Museum Photographic Services*

I WOULD LIKE to thank the members for electing me to serve another year as Chairman of the Association. I have had an enjoyable first term as Chairman, due mainly to the wonderful people to whom it has introduced me. I wish to extend my gratitude to all the people who have helped me and the Association during my time as Chairman, especially the sponsors, the hosts of our conferences, the committee, for all their help in running the Association and, finally, to you, the members, for supporting the events the Association has held.

This year has been another triumph for the Association with the inaugural Northern Conference at The National Railway Museum in York and the Annual Conference at the Tate Gallery.

I am once again much indebted to Trevor Drake of Fuji for suggesting holding a Northern Conference. More than this, he sponsored the day and worked extremely hard to make it the success it was.

I also have to thank Andrew Scott, head of the National Railway Museum, for allowing us to hold the event in his museum, and Chris Hogg and Lynn Patrick of the Photography Department for all their hard work and effort in hosting and setting the day up. The conference was a great success.

I am delighted to say that Andrew Scott has invited the Association back to hold next year's Northern Conference there on Wednesday 12 May 1999. Trevor Drake has kindly agreed that Fuji will sponsor the event again. This is marvellous because I have the impression that regional conferences are a great idea since some members find it difficult to come to London for the Annual Conference. So, one nearer home is very welcome.

I was unable to attend the Annual Conference owing to poor health. Fortunately I am making a good recovery and am back in fighting form. I am told by all concerned that the conference was a great success and I have to thank everybody who stepped into the breach for me.

I especially have to thank Nicholas Serota, Director of the Tate Gallery, for allowing us to hold our conference at his institution, Chris Taylor of Ilford Ltd and Brian Judge of Sky Photographic Services Ltd for all their hard work, and their respective companies for sponsoring the event. Thanks, too, are due to Dave Clarke for all his hard work, all members of Dave's department and the speakers the Tate Gallery provided all helped make the days the success they were.

Next year's conference will be at the National Gallery on Thursday 7 October 1999 and will be sponsored by Kodak.

*THIS IS THE FIRST issue of the Association for Historical and Fine Art Photography's journal to appear in colour. That the Association has made this breakthrough is thanks to the generosity of The Image Bureau at IPC. The staff there have been helpful and very patient because they are as anxious as we are to make this issue, the last of the millenium, a prestige product. They have their reasons for wanting this. The Association is keen to persuade you, the members, that this is something worthy of your contributions, that this is a publication which may be found, later this year, in the waiting-rooms of Wimpole Street.*

*Looking through the back numbers of our journal, it is interesting to note the variety that has been wrung out of contributors. Articles range from the academic and highly technical to the practical and immediately useful. Yet in all the editorials there is always the plaintive cry: send us your views, share your experiences, however mundane they may seem to you, they can be of use to others. We are an association. Individuals may be in competition, but in union there is strength to consolidate our position with regard, for example, to copyright and to gaining recognition for the 'invisible' work we do.*

*This year's journal is biased towards the digital, a sign of the times which is right and proper. We shall hear more of this, as silver nitrate gives way to the silicon chip, but we are also custodians of 160 years of a technology without which this new one is inconceivable. There is much interest among the membership in historical processes—Dave Francis of the Bromoil Circle contributed a most informative article about their work two years ago—both for practical reasons and for purposes of research. It would also be useful, and probably entertaining, if members would describe their experiences with specialised or unusual pieces of equipment.*

*This year, unfortunately, there is no space for a members' portfolio but it shall be revived, not so much within the confines of our work but as a showcase for any image that is good.*

*It is hoped to issue a newsletter twice a year to coincide with an adequate period of notice for the Fuji Bursary and the delegates' print exhibition at the annual conference.*

*Perhaps this can also be used as a forum for correspondence and discussion. So, here's a facer to start a heated debate. A penniless actor asks you to take some publicity pictures of him, a fee is agreed and two rolls of 35 mm, two contact sheets and six 10x8s later, he says 'thank you very much' and he'll have some duplicates run out at a repro house. This is as much a moral as a commercial conundrum.*

Colin Maitland



## CONTENTS



FROM THE CHAIRMAN **Paul Gardner**, of the British Museum, summarises this year's activities. 3

THE TATE LOOKS TO THE FUTURE **David Clarke**, of The Tate's Photographic department, gives an account of this far-sighted gallery's wholehearted embracing of new technology. 6



THE NEFARIOUS CAREER OF LEON WARNERKE **Peter Bower** is a forensic paper historian and paper analyst, specialising in the examination and analysis of papers for purposes of dating, attribution, authentication and usage. This article is edited material from his forthcoming book on Warnerke. 9

THE DIGITAL FUTURE FOR THE V&A'S PAST **Sarah Scott & Chris Meaney**, of IPC, describe a pilot project linking the Victoria & Albert Museum's collection with the hi-tech Image Bureau. 13



THIS YEAR'S FUJI/AHFAP BURSARY WINNER **Ivor Kerslake**, of the British Museum and our membership secretary, writes about his project to save some deteriorating archaeological images from the ravages of time. 15

DIGITAL IMAGING: THE NMM PERSPECTIVE **Tina Chambers**, Head of Photography at the National Maritime Museum, charts the rough waters on the voyage to digitisation. 16



BOOK REVIEWS by Colin Maitland. 19

*Cover photograph by David Clarke & Marcus Leith*

## The Tate looks to the future

*The Tate Gallery's photographic department is keeping up with technology and with the increasing demands of this rapidly expanding establishment, writes David Clarke*

THIS YEAR the Tate Gallery is 101 years old. For most of that time it has stood alone at the London Millbank site holding the national collection of British art from the sixteenth century onwards and international modern art. Until recently only a small fraction of the 60,000 piece collection could be displayed simultaneously. Within the last 15 years there has been a major initiative to make the collection accessible to a wider audience. The Tate has reorganised and expanded to become four galleries with a large offsite storage facility in south London. Already open is Tate Gallery Liverpool, Tate Gallery St Ives and, by the summer of 2000, a disused power station in Southwark will become the monumental Tate Gallery of Modern Art. The Tate Gallery of British Art is due to open in 2001 where it is being developed within the original Millbank site at Westminster.

The photographic service, since its creation in 1960, has steadily expanded to meet the varying demands of the gallery. Originally one photographer was employed solely for conservation photography, a practice which is still the backbone of the operation today. Gradually other demands arose and a broader service was developed employing more photographers to record and support the collection. There is now a total of ten photographic staff.

A basement studio and darkroom was replaced in 1979 with a new department which includes a large double studio plus a suite of darkrooms, offices, finishing and storage rooms. It is a professional facility designed to cope with the smallest watercolour and the largest sculpture. However, the size of paintings, sculptures and, in particular, multimedia installations, has grown beyond all expectation, necessitating the use of a warehouse-size imitation gallery space at the store in south London. Much photography is now location work, particularly at St Ives and Liverpool where there is no studio space. The plan is to service all the sites from the current central department. However, a future move to a purpose-built unit within the store is very likely. This would offer more space and the opportunity to store photographic material in controlled conditions, with the possibility of creating a central image library, currently shared with Tate Gallery Publishing.

The service has a speciality in conservation photography which includes reflected and transmitted infra red, reflected and fluorescent ultra violet, raking light, macro photography and x-ray. A recent addition is manipulated and enhanced micro cross-sections from oil pigments on canvas. A small digital camera has been useful in recording damage to works of art, which might befall a loaned work during transport. After photography an image can be e-mailed instantly to the owner or insurer anywhere in the world for assessment. Fast transport of images by e-mail is useful and increasingly popular.

In addition to photography of works of art, the photographic service meets all the other needs of the gallery including portraiture, architecture, press and sponsorship photography, which is in very high demand, education, exhibition work and advertising.

As we all know, the biggest development in recent times to affect photography is digital imaging and the Tate is no exception to the trend. Our photographers have attended endless seminars and demonstrations pronouncing electronic imaging to be the best thing since sliced bread. Eventually, two years ago, a toe was gently put into the water but now, of course, we are up to our necks at the deep end.

Seven thousand colour transparencies were scanned onto Photo CD, processed, cropped and transferred to JPEG format at three different sizes. The images were attached to an existing text database to form an internal image database. The same images are now the cornerstone of the Tate's website. Unfortunately there are still copyright complications with various artists and some images can't be shown.

There is a major project to make available as much of the British collection as possible within the next three years. This will involve extensive new photography of previously unrecorded works. There are a number of watercolours and drawings which are suitable for digital photography. This is the ideal time to explore the practicalities of electronic capture which promises new levels of colour control and accuracy, a problem always faced with Turner pigments.



Since acquiring Macintosh and PC imaging workstations which include scanners, CD writer, Jaz drive and a Fuji Pictography printer, work demands have expanded at an alarming rate. It was feared that the equipment would be underused but it is now difficult to keep up with newly created peripheral requests, which illustrates the wide versatility of this technology. One of the most impressive and useful elements is the Pictography machine which produces A4 digital prints fast, cheaply and at an astonishingly high quality. These facts have been quickly grasped by the Press and Development departments who make enthusiastic use of the service.



Marcus Leith

Of course with any new venture teething troubles occur and mistakes are made. The one major error of judgement was underestimating the staff time needed to operate the equipment and indeed the level of expertise needed to operate it efficiently. With that rectified it could be argued that digital technology may well turn out to be the best thing since sliced bread (assuming you like sliced bread).

As we all know, in-house photography departments are increasingly under financial scrutiny. There is constant pressure to make the service viable by either saving money or creating income. Luckily the specialist and diverse nature of the work at the Tate helps ensure that the in-house option is indeed cheaper than buying in a service. The speed, quality and level of production quite simply could not be delivered at the same price outside. Strong parts of the equation are items of high output such as duplicate transparencies and

digital prints which are produced at a small fraction of the commercial cost and much faster. It is a compelling statistic to quote cost savings of £60,000 last year on these two items alone.

Even if it can be shown that a service is more effective and economical managed in-house it would be very unwise to rest on one's laurels. One sure way to survive is to trade and make a profit, which, I know, sticks in a lot of people's throats because it is often the antithesis of their operation. It is indeed difficult or impossible for many specialist units to achieve, but, if there is a resource and a market, it makes sense to utilise it. Not to compromise the main purpose of operation must be of prime importance. The Tate's photographic core objective is to record the collection and to support other corporate objectives including care and research of the collection. These objectives must be met before creating a commercial enterprise.

Luckily the Tate has a very attractive resource in its collection and a large market in its two million visitors a year. The collection is well known worldwide and is in great demand for reproduction. The photographic service supplies colour transparencies to Tate Gallery Publishing for this purpose which generates substantial income. More recently the introduction of the gallery website, which includes access to the image database, makes the collection available to everyone with a computer whether they have visited the gallery or not. The marketing potential is obvious and ordering direct from the web a distinct possibility in the future. Another possibility is the sale of digital colour prints direct to the public via the gallery shop, which I believe is now practised at the National Portrait Gallery. Income from any of the above would be a spin-off from carrying out core objectives, eliminating any conflict of interests. At the moment the photographic service does not trade independently.

The Tate has seen changes in the last 15 years, as have all large public institutions. Some have fared better than others. As the result of a forward-thinking display policy and a far-reaching development strategy the gallery is perceived as a vibrant and dynamic place to be and attracts consistently high visitor numbers and excellent sponsor support both nationally and internationally.

Internal reorganisation, including financial management, has meant a relatively painless passage towards the millenium. It is a popular place to work and high quality enthusiastic people are always recruited. Staff tend to want to stay, particularly in the photographic department. There is certainly an interesting and challenging future for everyone at the Tate.

## The nefarious career of Leon Warnerke

*The facts of the strange life of Leon Warnerke are only now beginning to emerge nearly a hundred years after his death. His photographic achievements are documented in various histories of photography but there was another side to this extraordinary man. Peter Bower investigates a criminal mastermind who was never caught.*

FROM Leon Warnerke's obituary in the *BJP* Almanac, 1901.

Although during the last two or three years Mr Warnerke's participation in British photographic work was very slight, for nearly a quarter of a century his activity had been incessant. Hungarian by birth, he settled in England about 30 years ago, his profession being that of civil engineer. A taste for photography led him into the paths of experiment, and from a brief biography of him which was published in *The British Journal of Photography* nearly seventeen years ago, we learn that he first appeared prominently before the photographic public in 1875, when, at a meeting of the old South London Photographic Society, he read a communication on 'Paper versus Glass', and exhibited and described his roller slides and sensitive collodion tissue. In 1876 he addressed the Photographic Society of Great Britain on the subject of 'Investigations in Collodion Emulsion', in which he gave the results of a series of experiments on the relative values of different salts for emulsion purposes.

From that date forward the record of Mr. Warnerke's writings and papers would be a very lengthy one, for he did not confine himself to the societies and journals of this country, but made frequent appearances at photographic societies in Russia, Belgium, Germany and France. At St. Petersburg, twenty years ago, he founded a photographic society and a photographic journal, and we believe that at one time he was commercially interested in dry plate making in that city. In 1877 he was awarded the prize offered by the Photographic Association of Belgium for the best dry process, and 1881 the Progress Medal of the Photographic Society of Great Britain was conferred upon him. Until a year ago he was a member of the Society's Council, and one of its most active supporters.

One branch of work brought him very prominently before photographers-actinometry and sensitometry. The Warnerke Actinometer was

based upon the employment of a phosphorescent tablet, upon which to record the impress of the light's action, whilst the well-known sensitometer, which bears—or, rather, bore—his name, also utilised the same principle, and was for a long time the recognised and, indeed, the only, standard of speed measurement for dry plates. Until comparatively recently most, if not all dry plate-makers indicated the speeds of their plates by readings obtained on the Warnerke sensitometer. We believe that to Mr. Warnerke was due the credit of the establishment of the lens standards of the Photographic Society of Great Britain, a committee having been appointed by the Society at his suggestion to take the matter into consideration. He was a constant attendant at the various Photographic Congresses, and it may in brief be said of him that British photography is distinctly the richer by the close touch which he served to establish and maintain between photographic progress in this country and abroad.

In more recent years, we remember the very exhaustive account he gave of photographic educational institutions in Berlin, Vienna and other Continental cities. It was Mr. Warnerke who introduced the well-known optician, Mr. C.P. Goerz, to a meeting of the Photographic Society, when the double anastigmat lens was first exhibited in this country, and to him that English photographers were indebted for sustaining interest in the Lippmann process of interference colour-photography, Messrs. Lumière's remarkable results being shown by him at a Society of Arts meeting in the year 1893.

In 1991 a remarkable collection of banknotes, printing trials, watermarks, paper-making moulds, letters, receipts, Memorandum book, photographic material, press cuttings, and ink trials was brought to my attention. Examination of this complex material has revealed an extraordinary story. Until recently the accepted biography of Leon Warnerke ran as follows. In 1871 a wealthy young man, with his wife and young daughter, arrived in London from Paris. Over the years he established himself as a very

successful businessman and inventor dealing with the technology of photography, winning prizes and awards and enjoying the respect of his peers. Although based for most of the latter part of his life in a large imposing house on Champion Hill, in southeast London, his business and photographic interests led him to travel constantly throughout Europe. He is reported to have died in Geneva in October 1900 but this is by no means certain.

However, the mass of documents which surfaced in 1991 tells a very different story, suggesting that this well-respected man had another life: for some thirty years he was also involved in forging the banknotes of Russia and other countries as part of a widespread conspiracy that grew out of an alliance of survivors of the Paris Commune, anarchists, Polish exiles and rebels fighting the Russian influence in their country, and gangsters out for what they could get.

Resolving all the riddles posed by these letters, where every discovery prompts new questions, will be a painstaking task, but with careful translation and analysis they should reveal more of the extraordinarily complex lives of those involved. Perhaps the most fascinating part of the collection, however, is the banknotes and of these the most intriguing are the counterfeits of the 1866 10 rouble issue. Many were printed on English-made paper watermarked J. WHATMAN, but they also contain the normal lined and patterned 10 rouble mark. Close examination of the two



LEON WARNERKE.

Leon Warnerke, 1884, photograph by Sprague & Co, London

marks show that the J. WHATMAN mark is on the wire side of the sheet, as one would expect in a handmade sheet. The style and scale of the letter forms visible suggest that this WHATMAN sheet was made by W. & R. Balston at Springfield Mill, Kent. Balston's were supplying Russia with some handmade writing papers in the nineteenth century, but never banknote paper. The real curiosity lies in the relationship between the two watermarks. The Russian mark is on the opposite (felt) side. No paper-making process, then or now, allows watermarking from two sides of the sheet.

There is, however, an explanation for this apparent conundrum: a friend and colleague of Warnerke, who sat on various Royal Photographic Society committees with him, and who lived nearby in Camberwell, was Walter Woodbury<sup>1</sup>, inventor of the

'Woodburytype' method of reproducing photographs. Woodbury also developed a further refinement of his technique which he called 'photo-filigrane'. Woodbury's technique used a relief of hardened gelatine in which the lights and shades of any photograph were reproduced by varying the thicknesses of the gelatine. When such a gelatine film was placed in contact with a sheet of already made paper and the two were subjected to very heavy pressure, the paper was more impressed where the gelatine was thicker, and less impressed where it was thinner, thus producing a picture, on the first impression exactly like a watermark. It is possible that Warnerke, who well understood the properties of gelatine, paper and the techniques of photography, adapted

or utilised his own version of Woodbury's technique for the watermarks in some of the earlier forgeries, although he was later to depend on making up true watermarks on moulds.

Warnerke's methods changed considerably throughout his working life and the curious blend of amateurish but inspired improvisation and complex technological sophistication becomes more and more marked as one examines the various trials, proofs, essays and finished products, particularly towards the end of his working life. Warnerke's use of a version of Woodbury's photo-filigrane process, probably whilst Woodbury himself was developing it from his Woodburytype photographic engraving process, is a measure of his familiarity with the most up-to-date methods and techniques, and a measure of his imaginative

use of anything that might further his purpose, whatever the source.

The extent of his knowledge is quite extraordinary, ranging from photography to paper-making, watermarking and printing. One of his special areas of knowledge, essential to anyone wishing to forge the banknotes of the period, was the use and preparation of the gelatine used for sizing the sheets of paper. In a report on a lecture, given by Thomas Bolas as part of the Bolt Court series, we find the chairman asking Warnerke to round the meeting off by describing a method of purifying gelatine that Warnerke had recently tested:

Mr Warnerke said that the method in question consisted of making a solution of gelatine or glue in hot water, to which was added alum in excess, which would cause the gelatine to

precipitate. In this state it could be thoroughly washed in hot water, after which it was strained out and a little citric acid added. This rendered the gelatine again soluble. The next step was to allow the gelatine to set, and to wash it in cold water to remove the excess of citric acid. The final result would be a gelatine of very considerable purity.

Warnerke was a frequent visitor to such meetings throughout his life and as an article about him states:

Mr Warnerke is of the most sociable and genial disposition, and ever ready to assist by his advice or otherwise, in any matters photographic; and few of the regular frequenters of the meetings of the metropolitan photographic societies, or of those who have enjoyed his hospitality, but have cause to be grateful for his kind assistance in some photographic difficulty.

printed image on the back of the note had to align precisely with various parts of the watermark.

The very high quality of this particular note, and the 10 and 25 rouble notes from the same period, suggest that at least at some periods in his career as a banknote forger Warnerke had access to highly experienced paper-makers and to the necessary equipment and raw materials, if not to genuine material as well. Josef Eder's account of Warnerke's time<sup>2</sup> in St. Petersburg suggests such a possible connection during the early 1880s, through the Imperial Russian Office for the Production of Government Papers. According to Eder, Leon Warnerke was born in 1837 in Russia. He was a civil engineer, but devoted himself entirely to photography. He spent his youth in St. Petersburg and came to London in 1870, where he started a private photochemical laboratory and invented the roll holder with silver bromide collodion stripping-



Recto of the 1890s 100 rouble 'Rainbow' note, one of the most extraordinarily skilful banknote forgeries.

One area where the blend of amateur ingenuity and sophisticated professional techniques can clearly be seen is in the construction and employment of the mould and watermark for the 1890s 100 rouble note. The watermark has been traced directly from a genuine note onto a celluloid film using pen and ink. Warnerke was, however, well aware that all paper shrinks as it dries and when he constructed the watermark on the mould's surface he had to take this shrinkage into account. The notebook found amongst Warnerke's papers shows several examples of such calculations. Comparisons of the handwriting identified as Warnerke's in some of the letters with the writing in this notebook shows that these calculations were all made by Warnerke. They were absolutely crucial to the success of the counterfeiting of this particular issue as the

paper. He worked a great deal with silver bromide collodion, received a prize from Belgium in 1877 for his work in this field, and in 1881 the Progress Medal of the Royal Photographic Society of Great Britain. He gave lectures before the photographic societies of England, France, Belgium and Germany. In 1880 he founded, at St. Petersburg, a photographic firm and a technical journal. He also had financial interests in the manufacture of dry plates in Russia. The first Russian gelatine dry plate factory was erected by A. Felisch in 1881. Then Warnerke, with Stresnowsky, established a gelatine silver bromide plate factory in St. Petersburg, to which he later added the manufacture of gelatine silver chloride papers.

Official photography [in Russia] was advanced especially by the Imperial Russian Technical Society in St. Petersburg, which consisted of several

sections, each of which dealt with one of the different technical fields as its subject proper. Urged by Warnerke, the fifth group of the Society, 'The Photographic Section', was established in 1880. It became the important centre of the photographic industry and of the various branches of industrial, artistic and scientific photography...

The Imperial Russian Office for the Production of Government Papers was responsible for the production of bonds, rouble notes, stock certificates and valuable printed matter of all sorts. This appears to be Warnerke's connection with the official production of Russian banknotes, but further work needs to be done to resolve this question.

The painstaking accuracy for which Warnerke strived is well illustrated by the large numbers of photographic negatives and positive prints also found in this collection. Many of these bear the marks of additional alterations and working out of specific details by hand. He also spent considerable time and effort to achieve the correct balance of inks for the 100 rouble rainbow-tinted note, listing in more than one place in his notebook the specific colours necessary. The annotation of these colour trial sheets in English, with the names of artists' colourmen working in London, suggests that at least the trials and proofing were being done in England. The colours on one sheet bear names of makers such as *J Winston Bronze 1893*, *Miller Blue* and *Stanbury 1893*, but most of the colours are merely labelled with their names. There is some evidence in some of the letters that work was also being done in France and Poland, but the heart of the conspiracy was here in England, in a large and comfortable private house in a quiet and secluded road in Camberwell; where a very civilised and popular gentleman, well respected by his friends and neighbours, lived an extraordinary double life.

#### Notes

1. Walter Woodbury (1834-1885) was a well travelled and inventive man. During his younger years he lived both in Australia and Java before returning to his birthplace, England, in 1863. Between 1866 and his death, nineteen years later, he took out over twenty patents for photomechanical and photochemical printing processes and for photographic and allied apparatus. He died suddenly at Margate in 1885 from the effects of an overdose of laudanum. Examples of his work can be seen in Bower, Peter, 'Walter Woodbury and the Photo-Filigrane Process', in *The Quarterly*, the Journal of the British Association of Paper Historians, No 12, Sept. 1994.

2. Eder, Josef Maria, *History of Photography*, translated by Edward Epstein, New York, 1945.

## The digital future for the V&A's past

Sarah Scott & Chris Meaney of IPC, sponsor of this year's Journal, describe how and why the V&A chose The Image Bureau for their digitisation programme

IPC'S INVOLVEMENT in scanning began back in 1995 when we wanted to populate our own digital picture library with digital images. We investigated sending our material to external suppliers, but, on evaluation of their results, we decided to embark on the task ourselves. This way we could guarantee attention to detail and the care of the images themselves.

By November 1995, after a significant investment in a Kodak Photo Imaging Workstation (PIW), our scanning services were proving successful in-house. This department, now known as The Image Bureau, had spare capacity over and above the services being provided to IPC, and it was decided to see if there was an external market for the skills we had developed. Terry Friend, the manager of The Image Bureau, contacted various companies and institutions which have subsequently provided business. One contact was James Stevenson, the Photographic Manager at the V&A, and the rest, as they say, is history.

The timing of the contact was opportune because James wanted to begin digitising all the work going through his studio by January 1996. He had considered employing somebody full time at the V&A to deal with scanning, but could not justify the labour costs and related issues. External operators would solve this problem, while giving James the services he needed. The tenders went out to ten companies and, in April 1996, The Image Bureau won the contract for all of James's work for the V&A. By June 1996, all the systems were in place and the scanning began in earnest. The Image Bureau now scans 1,000 images a month from James's team and has scanned in excess of 20,000 images in all.

So, what sold The Image Bureau to the V&A?

According to James Stevenson, the fact that there was no 'hard sell' was a definite plus. 'We liked the atmosphere at The Image Bureau. There was a feeling of calm professionalism among the staff and each image is given individual attention. We are very pleased with the quality of the images that have been scanned.' Terry Friend takes up the story.

'Because of our experiences working on our own digital image library, we were comfortable with the way James and his team wanted to handle their workload. They send us envelopes, each containing 100 transparencies and a numbered CD. They also supply us with a written list of the images to be scanned, and the order in which they should appear on the CD—this supports their own cataloguing system. Once the 100 transparencies have been scanned, we provide a thumbnail print, so James and his team can see at a glance what each CD contains.' As far as James is concerned, this system was one of the key reasons why they chose The Image Bureau. 'This ideally suited our cataloguing methods and by dealing with images in small batches, it ensures that the risk of misplacing any transparencies is greatly reduced. In fact we have never had any issues regarding service or quality.'

Before the actual scanning takes place, each image is 'dusted' using a high-pressure air jet and then brought up on the screen to check the highlight reading and look for any small scratches or missed dust. If necessary it will be cleaned again at this stage. Only once this quality is assured will the transparency be scanned. It takes approximately four hours to scan a hundred 5x4 transparencies using the state-of-the-art PIW. 'This is top of the range Kodak kit, and over the years we have upgraded it to ensure we are constantly on top of new technical developments. We also keep ourselves as up to date as possible with any new business processes and technology, so we fully understand all the advantages to be gained by any institutions or companies we work with,' explains Terry. 'We pride ourselves on the fact that we have very good relationships with all our customers—we listen to them to find out their needs and keep them fully involved with all the work in progress.'

The Image Bureau began by scanning just the images the V&A had shot themselves, but have now added the scanning of such collections as black and white popular music prints, from the 1940s, and one of the work of the Lafayette Portrait Studio, dating from the turn of the



The Image Bureau

century, to their repertoire. The V&A chose the hundred best images from these collections to help them build up their own image references and also to give much wider access to these otherwise 'hidden' collections.

The scanned images are linked to the V&A's own database, enabling students, the general public and businesses to insert key phrases to search for particular images. This latter group enabled the V&A to increase its revenues by 35% through improved marketing of their image hire. Within eighteen months the imaging system had paid for itself.

Once these images have been viewed *in situ*, prints can then be made and paid for by an integrated invoicing system. The invoice system allows the public to choose how the image is reproduced, i.e., as posters, postcards, books, on TV, in videos and so on. 'This whole technological package has allowed us to make our images as accessible as possible, which is one of the main criteria as to why we exist,' says James. Another *raison d'être* is to preserve for posterity the thousands of artefacts, letters, books, costumes and so on that the V&A is charged with. This historical element and the safeguarding against quality degradation particularly appeals to Terry. 'As a company, IPC has many historical libraries of its own, linked to particular magazines, such as photography, railways and aeroplanes. However, my personal favourite is the *Country Life* library. Here we have many images, some of which were suffering degradation, and some of country houses no longer in existence.' This further experience

appealed to the V&A when making its choice of supplier.

The *Country Life* library was put onto film ten years ago, with 50% of the cost met by the Historical Monuments Commission. IPC then donated it to the Commission. 'It is a bonus for us, that as well as operating in a commercial way, we are able to provide this kind of non-profit service, preserving both the heritage of our company, IPC, and that of the country,' adds Terry.

It was the attraction of preserving and recording our heritage that led to the Image Bureau's involvement with the Association for Historical and Fine Art Photography, and subsequent sponsorship of this issue. David Cordery, from The Image Bureau, says, 'Paul Gardner and Roy Asser as chairman and president of the association are doing a great job at achieving the organisation's aims and promoting its expansion. This is the first time the journal has appeared in colour, and we are pleased to have enabled this to happen.'

## Fuji/AHFAP Bursary 1997

Ivor Kerslake, of *The British Museum* and the Association's membership secretary, describes his project, financed by the Fuji/AHFAP Bursary



Photo: Ivor Kerslake/BM

AS ONE OF the Seven Wonders of the Ancient World, the location of the Temple of Artemis at Ephesus in Asia Minor had intrigued scholars for many years. One such, an Englishman, J. T. Wood, spent six seasons excavating in conditions of tremendous hardship, plagued by malaria, until, in 1868, he uncovered fragments of inscriptions that proved he had found the site of the temple.

In 1905 the British Museum sent out a team to reopen Wood's excavations and appointed Mr D.G. Hogarth to lead the task. He in turn took on a Mr A.E. Henderson, an architect on recommendation, noting at the time in his diary his 'untiring energy and zeal' and 'in addition to his proper work he has rendered great service as a photographer.'

Henderson recorded the excavations in progress, the architectural details and many of the small finds uncovered during the season and the resulting collection of some 200 glass plates became part of the British Museum's archive. The negatives are seldom used and have slowly deteriorated over a period of nearly a hundred years.

Fascinated by the story of the search for the temple, through accounts of Wood's years and Hogarth's diary, I began looking for ways to preserve the images and also make them more readily accessible. With the support of Trevor Drake at Fuji and the Fuji/AHFAP Bursary I was able to start

digitising the negatives with a flatbed scanner and begin a programme of cleaning up the images and saving them on compact disc format. This process immediately posed some questions. What would be the optimum resolution for the initial scans and how much work could the images sustain before they were no longer Henderson's photographs?

I decided on a resolution of 1000 dpi at 100% for the first scans, the negatives ranging in size from 3"x2" to 6"x4". I found this a good standard which gave excellent prints on the Fuji Pictography 4000 and with the assistance of Amanda Johnston at Fuji I was able to mount a selection of images at the AHFAP Northern Conference, held at the National Railway Museum and later at the Annual Conference in October.

As for the digital retouching, I decided to limit my work to cleaning up physical surface damage to the negatives. Many of the marks visible on the images are from Henderson's original processing and therefore I considered them legitimately as part of that image.

Today virtually all that remains as proof of Hogarth and Henderson's endeavours are the pictures they brought back. Because of underground springs and seasonal rains the site speedily became a pond and, after the local villagers suffered a severe outbreak of malaria the Turkish officials requested that the site was filled in and it remains that way today.



## Digital imaging: The NMM perspective

*Tina Chambers has worked at the National Maritime Museum for 9 years and now is head of Photography. The following is a reduced version of the paper presented at the Fuji Focus on Imaging in Birmingham in February of this year.*

IN 1995, AS PART OF the IT strategy group's initiative, it was decided that the National Maritime Museum needed greater access to its collections and the development of information resources. This access was to be through a collections database. Members of museums and related institutions were already working together to procure such a collections management and access system.

During this period the group became aware of databases specifically used for images but which could not hold the quantity of in-depth data required for collections management. The picture library and photographic studio were aware that an image database would provide easier access and the generation of further income. However, we needed the collections data to create the image database and, vice versa, the collections data needed images to enhance the text.

There appeared to be two ways of producing digital images: to subcontract all the work to a bureau or invest in the equipment and undertake the work in-house.

Since subcontracting takes control away from the museum and involves a third party, the utmost care must be taken when supplying original transparencies. Although no additional staff are required, the project has to be managed. There would be a lack of flexibility because of contractual agreements. It would have to be project-led rather than on demand.

If we invested in the technology we would be far more flexible. There would be cost savings depending on the equipment purchased. If there was investment in a digital camera then there would be additional savings from the film which would not be needed. We anticipated that with a shift in working practices we would be able to cope with existing staff. How naive we were.

We undertook a cost benefit analysis and made recommendations on investment in scanning equipment across all areas of the information division which provides visual access to the collections. Initially the group was to concentrate on the costing and exploring how adoption of the new technologies might affect working practices.

Suddenly other members of staff became aware of what other institutions were doing on the digital

front. Quite often PhotoCD came up as the solution to all our problems, and it was cheap. As part of the Scanning Group [formed of departmental representatives from photography, the picture library, a planner and a curator from our ships' plans section] I was not quite so sure. PhotoCD fulfilled a need but the resource could not be re-purposed. You could not produce a good quality photographic standard print from it. If we sent out our original media, such as historic glass archive negatives, to a bureau we were putting our collection at risk. To be economical originals had to be smaller than 5x4 and this would involve format-conversion, costing valuable time and money for little return. PhotoCD may be a way to populate a database relatively quickly, cheaply, and provide access. But we did not have the staff to do this and we would end up with only a low resolution image. Was it really worth it?

If we purchased the equipment we could carry out the work in-house. We could scan to acceptable resolution for archival purposes and store via CD-ROM, then compress the images for populating the database. The archival image could then be printed and re-purposed for whenever we required it. There was just one problem—staff resources—and that meant more money and a higher risk if we got things wrong.

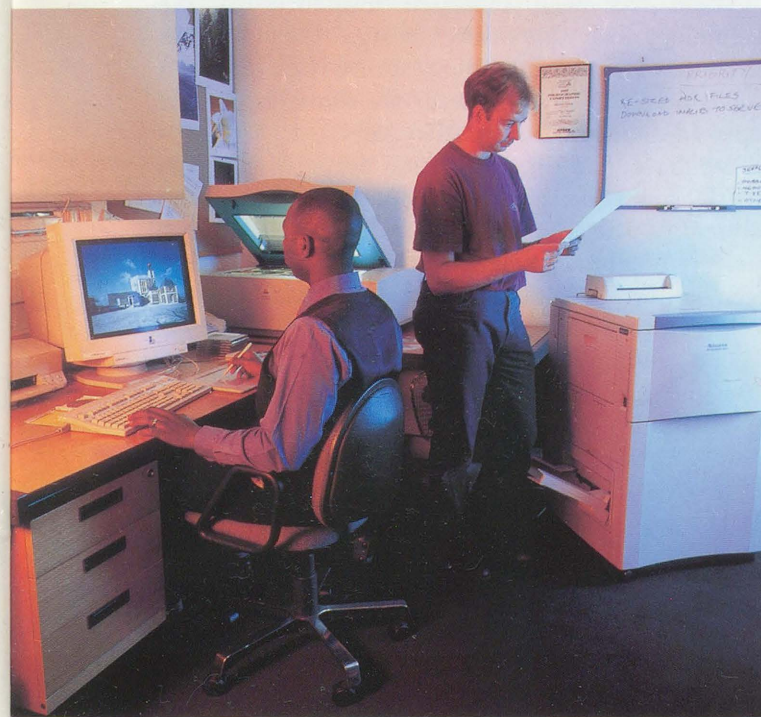
During this time of uncertainty and unanswered questions the picture library was proposing the production of its own CD-ROM for promotional purposes. Of course, the most cost-effective option for them was PhotoCD. The museum was keen to increase awareness of the picture library which, in turn, would increase income.

Because a representative of the picture library was part of the Scanning Group it became increasingly difficult to remain objective. After all, there was a conflict of interests. The picture library wanted its CD-ROM. Understandably, other members of the group felt it would be better to wait and see if the bid for the scanning equipment and digital camera was accepted. We were all eager to get a result but if we went for the PhotoCD option for the picture library it could jeopardise the whole project.

The Scanning Group produced a document outlining the cost benefits for both options,

subcontract or in-house production. Since both departments engendering income, that is, the picture library and the photographic studio, were heavily involved in the proposed project we also had to look at the services we were providing and how they might be enhanced. Of course, there was a never-ending list of what could be done once we were committed, but the management had to be persuaded to invest the museum's money.

The first assessment to be made was which services the studio provided and what activities we carried out and how they would be affected even if we went partially digital. At the time, in 1996, average figures taken from the previous three-year period showed that we produced, to the public customer only, 6,500 prints per annum, but only 800 in colour. We also provided photography services and colour duplicate transparencies for the picture library clients.



Victor Owopetu and Rob Petherick

We had to consider what services we continued. Should we close the conventional black and white print darkroom and produce prints on a digital output device? Could we persuade picture library clients to take colour prints or digital files for reproduction rather than a conventional transparency?

These decisions could not be made without having cost proposals for the equipment, unit production costs and the profit margin on the products and services we provided.

I had, over a period of time, collected literature on equipment I felt would meet our requirements. I began my research into types of scanners, cameras, output devices and the storage media available on the market. I visited trade shows, conferences and seminars and talked to my peers who had already done some groundwork. Most

people seemed to be getting in at entry level with inexpensive scanners and cameras. Indeed, members of staff at the museum were buying their own A4 scanners.

Owing to the nature of our resource and the type of work in our publications programme I felt we needed a higher standard of scanner. I began to look at flatbed scanners in the £15-40k price bracket. This type of scanner would provide us with reproduction quality digital files for our publications but could also batch-scan smaller masters offering us productivity, flexibility and long-term cost savings on scans for publications. The equipment I initially selected was:

- Pictography 3000 colour output device
- Scitex 340 A3 flatbed scanner
- Leaf catchlight digital camera
- Hardware to run the equipment

Total cost in the region of £75k

The museum, like any other, had a long list of objectives and projects to which it was committed, such as Neptune Court and the opening of twelve new galleries, education and research programmes and the provision of greater access to the collections. If the proposed equipment was purchased and implemented at local level it would only serve existing services with real potential to grow. However, by creating a programme of work which would require greater resources, the benefits could be improved access and interpretation of the collections, thus supporting a greater number of the museum's objectives.

In December 1996 a summary proposal paper submitted to the executive team recommended the creation of a visual database of digital images of the collections with accompanying text. The prime objective was to build a database comprising some 30,000 images over the next three years.

We also needed to accommodate the contractors and the equipment. With floor-space at a premium this was a hidden cost to the project.

### NETWORKS

During our research the museum was undergoing another technological change. Our IT department was installing a network to the main site and outstations. This meant that, in the end, all members of staff would have access to the Multi-Mimsy database through the network. Because any digital files we created would be placed in the MM database we were concerned that our network could cope with pushing image files around it efficiently. There is no simple answer to this, I am afraid and, as we found out, it is dependent on a number of factors.

To retrieve and store the images efficiently, once digitised, they are placed on a server. There are a number of servers on the market, some with hefty price tags. I do not want to dwell on this side because I am not an IT expert and have to admit that we were guided by the expertise of that

department, but would like to add that the price of this storage is dropping and I would recommend that you invest as much as possible in the management of your images. *Retrieval of the image is as important as its creation.*

With the subcontract work we are, at present, utilising file sizes in a JPEG format with a compression ratio of 2:1. Files average 1.1k and don't appear to cause any working practice problems, but the workstation needs a minimum specification of 32 Mb of RAM and 4 Mb of video RAM. Otherwise software runs annoyingly and frustratingly slowly.

### SUBCONTRACTING

Tenders had previously been sent out for research purposes but now we finalised in detail what our requirements were. We proposed a programme requiring 1,000 to be scanned per month, because JPEG files compress at a ratio of 2:1: 1024x1280 pixels full screen display and a thumbnail image of 180x180 pixels.

The choice of company was based on its ability to enable us to meet our targets. The subcontractor was not merely scanning but tagging the images with file references, scanning in alphanumeric order and providing documentation of each disk of scanned images. This is by no means the most time-consuming part of the process but has to be carried out methodically and consistently.

The working practices for the museum were, however, far more complicated. Each month we would have to prepare 1,000 images, while receiving 1,000 digital files, the returned masters, for filing. Links between text and images had to be made via Multi-Mimsy.

### IN-HOUSE SCANNING

The purchase of the hardware could now go ahead. Unfortunately this did not include the purchase of a digital camera because there was doubt as to the benefits despite a viable business case. This is still under discussion and I am optimistic that we will, during the next financial year, purchase a digital camera.

### STAFF

We were to recruit two new members of staff, one to operate the scanning equipment. I decided that ideally we would require someone with a photographic background and relevant experience with the technology and with scanning. I believe it is essential for this member of staff to have a good knowledge of colour theory to be able competently to provide a service that bridges both RGB and CMYK colour reproduction. The second member was to manage the subcontract scanning operation. This is an area that should not be overlooked because there is a vast amount of work to be carried out.

Since September 1997, when all the equipment and staff were finally in place, we have adopted the technology in a way that neither the museum nor I really envisaged. The museum has realised that images are becoming increasingly important in reaching new targets and achievements. Perhaps the reason why we got this project off the ground was that we could clearly see long-term financial benefits.

We are reviewing the case for electronic publishing and have had a positive response from potential publishers. The printing industry in the past has been pretty much closed to photographers with respect to the supply of digital files, but now the reproduction houses realise that we can supply high quality digital files. This in turn will mean cost savings for the museum and a loss of revenue to the reproduction houses, so it is no wonder that they are reluctant to take us on board.

There has been increased awareness of the technology we are now using. Our quicker turnaround times for colour prints has led to a slight increase in sales and, in some cases, has replaced duplicate transparency sales.

We have had interest from other institutions which would like to use our commercial scanning services. Within the museum, staff are realising that there is potential for new products and there has been a flow of ideas about how we can use the technology we have.

The equipment we bought differed very little from our initial proposal and we finally purchased a Scitex Eversmart pro scanner and the Fuji Pictography 4000 digital colour printer. The Apple Mac 9600 has a specification of 164Mb RAM and 8Gb of hard drive and it's still not enough, so a word of warning, buy as much memory as possible, you can never have too much. If the computer is slow your workload suffers and your profit margin is lost.

Finally, if I had to do it again, I would not change a single thing. It is not a question of why, but when, to go digital.

*Note:* The Multi-Mimsy database now holds in excess of 14,000 images. The NMM has a Sinarcam digital camera, supplied in part by Silicon Imaging. One project, the Search Station Project, a public access database, has paid for it already through increased productivity and savings on staff time and materials.

## BOOK REVIEWS

### *The Plant Kingdoms of Charles Jones*

Sean Sexton, Robert Flynn Johnson

Preface by Alice Waters

Thames & Hudson, 1998

128 pp., 117 plates ISBN 0-500-54222-8 £16.95

IN THE EARLY 1980s, in almost every sale of photographs held at a London auction-house there appeared among the stiff portraits and scuffed leather albums of views of far-off lands, one or two images of stunning simplicity and concentration. These were gold-toned silver gelatin prints of vegetables, taken both with a clinical detachment and, it seemed, with a conscious, and successful, striving for their status as still life, as art. They were signed in pencil on the reverse with the initials, C J, or the name, C Jones, and inscribed with the common name and variety of the subject. So, two or three times a year, a small group of these images would make their debut. The necessary confidentiality of the salerooms precluded any investigation of their origin and still they kept coming.



Mangold Long Red

In the early hours of a Friday morning in 1981 at Bermondsey Market, Sean Sexton, the author and collector, bought for a modest amount a trunk full of old photographs, which had been missed or dismissed by the dealers. As he sold them, two by two, he researched their author.

Born in 1866, the son of a Wolverhampton master butcher, Charles Jones worked as an ingenious and valued gardener, principally at Ote Hall in Sussex. *The Gardeners' Chronicle* of 20 September 1905 singles him out for praise. His

garden planning, with natural windbreaks, and adaptation of materials to other or seasonal uses attracted the *Chronicle* correspondent's eye and approbation. The portrait of Jones at the frontispiece of the Introduction shows a dapper man gazing into the middle distance, his left hand in his pocket, his right held loosely closed at his side: it is big and brown, a gardener's hand, one more used to the spade and fork than the bulb shutter release. But, by lovingly photographing the estate's produce straight from the ground, much probably raised by that same hand, he has joined, perhaps unwittingly, the ranks of those photographers with an almost painful intensity of vision.

Little is known of the life of this single-minded man and still less of the purpose of his photographic undertaking. But this much is clear from the empirical evidence: he took pains and pride and joy in it. He selected his subjects with care — the finest examples, in prime condition — for their portraits. He isolated them against a light or a dark ground and lit them with the light they would have known had they been sentient beings. It is virtually shadowless — open shade, to be technical, probably in a greenhouse, or entirely *al fresco*, the ideal studio. Two plates in the book, of melons, are artificially lit and Edwardian gaslight proves no hurdle for this unassuming master.

Jones seems to have abandoned photography as suddenly as he embraced it. It is recorded that, later in his long life (he died in 1959), he took so cavalier an attitude to his negatives that he used them as garden clothes.

In his Introduction Robert Flynn Johnson places Jones in the pantheon with the likes of William Fox Talbot, Anna Atkins, Roger Fenton, Edward Weston and Josef Sudek. There are striking affinities, too, with Irving Penn and Tessa Traeger in our own day. Charles Jones's vision is Modernist, yet timeless; scientific and affectionate. He realised, through the medium of photography, Le Douanier Rousseau's putative dream of seeing primitively yet painting academically, while sidestepping the baser condemnations levelled at either standpoint.

*The Plant Kingdoms* is generous in its dimensions and many images are actual size. Printed in colour, the glass plate's tactile qualities and the paper's tonality are agreeably simulated.

## BOOK REVIEWS

### *The Camera as Conscience*

Edited by Gilles Mora and John T. Hill

Thames & Hudson, 1998

352 pp., ISBN 0-500-54225-2 £48

W. EUGENE SMITH joined Magnum in 1956. In 1958 he went to Haiti, ostensibly to record the opening of a new hospital sponsored by US drug companies, where mental patients were to be treated with experimental drugs. His reputation and research procedures allowed him also to observe the appalling poverty of 'Papa Doc' Duvalier's island domain and the long fingers of his sinister personality cult. This expedition illustrates the themes of his working life: distrust of the establishment and sympathy for the oppressed, and the opportunity to work at his own pace and with his own methods.

He joined *Life*, perhaps the most important magazine of its kind, in 1939 at the tender age of 21, having already worked for *Newsweek*, *Collier's* and *Parade*. These were popular magazines, where the 'photo-essay' was the medium for conveying general interest stories in a dynamic and easily digested way. Smith soon mastered this new format and the photo-essay became his *métier*.

*The Camera as Conscience* is a comprehensive collection, at more than 300 plates, of Eugene Smith's photographs, with essays and commentaries by eminent authors. It also includes some of the original page-layouts in *Life* magazine and valuable notes on his techniques and processes. The plates are reproduced from painstakingly made copy negatives.

His father killed himself in 1936 in despair at the Depression and his death was made lurid by the local newspapers, instilling in Smith a lifelong disgust with the gutter press. This, not surprisingly, scarred him, but war scarred him too. He was wounded, in May 1945, by shrapnel in Okinawa Gunto, at the southern tip of the Japanese islands, where he was covering the campaign, having failed, owing to poor hearing, to join Edward Steichen's aerial photography unit. He was so badly hurt that he was unable to work for two years. His mother was an amateur photographer whose role as mentor he found ultimately unhealthy—her death in 1955 both freed him and set him adrift.

The war introduced him to amphetamines, addiction to which enabled him to spend days and nights on end in the darkroom, but which contributed, with a predilection for whisky, to his death from a cerebral haemorrhage in a Tucson pet shop in 1978.



Country Doctor 1948 (Dr Ceriani after the loss of a patient)

Images from his projects, such as his portrait of a country doctor or his work on mercury-poisoning in Minamata enjoy masterpiece status in the history of photography. The studied formality of some of these images masks accumulated frustration at his lack of control over the editorial process. Commitment to thoroughness and high quality defied deadlines and his efforts to marry pictures and text on his own were discouraged. Political commitment, a term which usually denotes leftism, was a further handicap, but he could sublimate it. Indeed his grander pictures, while they do not have the unsympathetic coldness of Karsh's portraits, have an old-fashioned quality and an affinity more with Pictorialism than with the modernism of his contemporaries, such as Robert Frank or Lee Friedlander. So it is surprising to learn that he joined the anti-war demonstrators in 1969 as much as a participant as a photojournalist.

He did not subscribe to Cartier-Bresson's insistence on the integrity of the whole negative nor did he believe in the perfect negative, as Ansel Adams did. Manipulation in the darkroom was as much a tool as his many lenses, and as honest a technique as Adams's near-devotional 'visualisation' before the subject. His work seems to have more in common with British photographers, such as Bill Brandt, particularly in its theatricality and use of contrast, or Bert Hardy, in his championship of ordinary lives. His *Country Doctor* is a romantic figure, rather than an existentialist anti-hero. Albert Schweitzer, another country doctor in another country, Smith portrays as a triumphant bearer of the white man's burden—his editor's brief—rather than as the irritable paternalist he found and whose restrictions on his working methods he ingeniously circumvented.



Amedeo Modigliani, *Head*  
Photo: Anon/Tate Gallery c1960

# WHO'S AFRAID



PHOTO: © GRAEME COOPER

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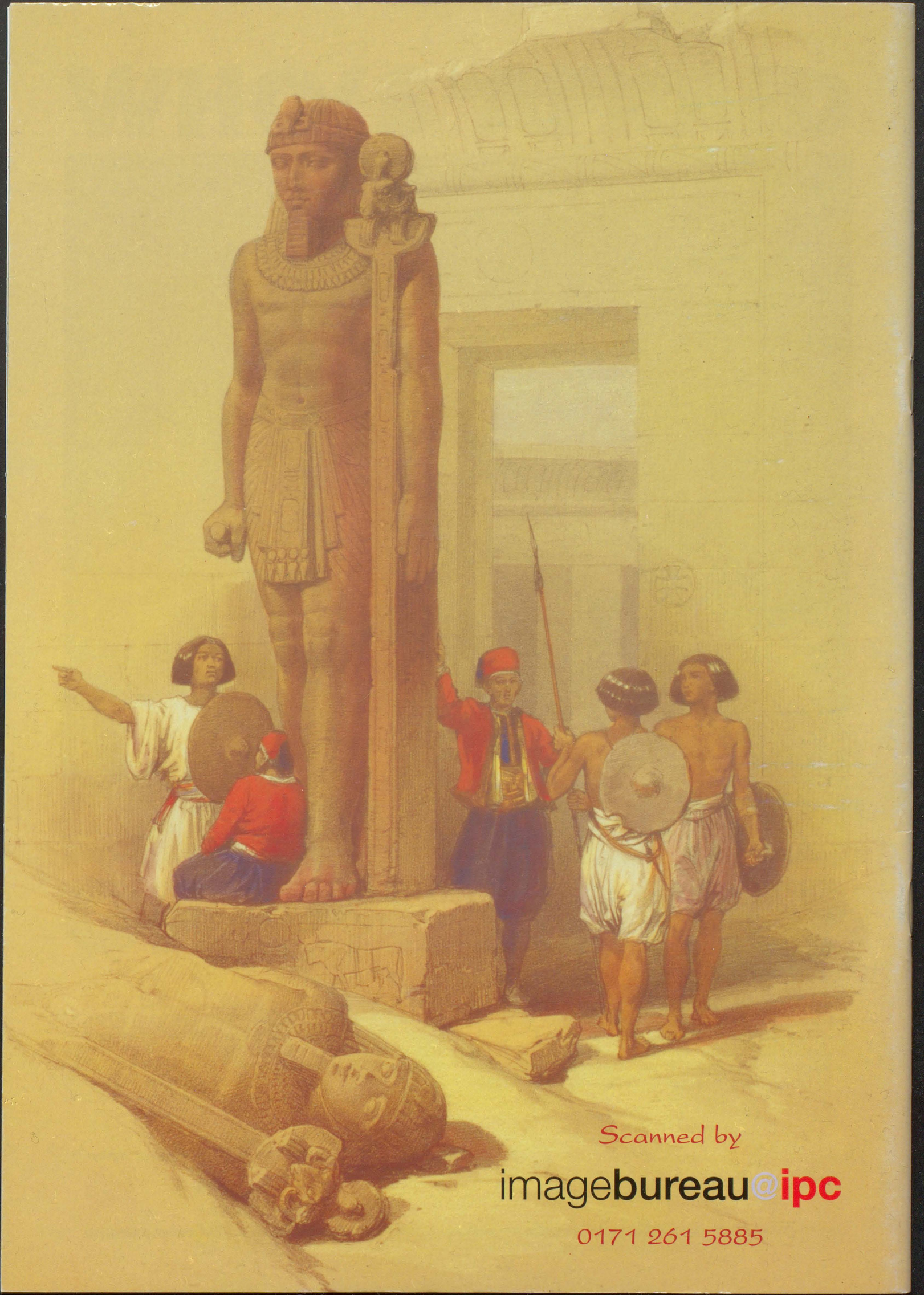
# vivid

- adj.*
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  2. brilliantly coloured
  3. conveying to the mind striking realism, freshness, or trueness to life
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