

spectacular successes of investigators who evolved surgical techniques to obviate or eliminate the dire effects of mitral stenosis and rheumatic aortic insufficiency.

The work of Denny and colleagues is a classic of cardiology by any definition; but it is not to be found anywhere in *Classics of cardiology*. Yet another relatively unsung classic is 'The pharmacological actions of polymethylene bis-trimethyl ammonium salts' (Paton and Zaimis: *Br. J. Pharmacol.*, 1949, 4: 381–400) which ushered in the first effective treatment (but not cure) of essential hypertension, even in its dreaded malignant phase. It also reduced the effect of hypertension as a risk factor in accelerating the march of arteriovascular disease. The drug (hexamethonium), brought to the fore by Paton and his colleagues, was not to be the last word in the treatment of essential hypertension; but the drug treatment of essential hypertension has extended the life spans and vastly improved the quality of life for countless thousands of sufferers from the disease.

The identification of so-called risk factors in the development of arteriosclerotic heart disease, including obstruction to coronary arterial blood flow, very properly receives attention in part 2 of volume 4. Ancel Keys's perceptive statement of 1953 (part 2, pp. 693–701) is still amazingly current, although no one is as yet able to say precisely why the morbidity of, and mortality from, coronary arterial disease are today on the decline in the western world. As things now stand, the investigator who devotes an entire career to such worthy efforts is taking an immense gamble with regard to personal recognition for his efforts during his lifetime. But no other research project seems at present as likely as the studies of Keys and his co-workers to yield a reasonable synthesis of the pathogenesis of arteriosclerotic disease in general, and coronary arterial disease in particular.

Deficiencies notwithstanding, the fourth volume of *Classics of cardiology* is a useful and courageous undertaking, the chief criticism being that the author-compilers seem to have defined cardiac classics too narrowly. But the question *what is a classic?* is once again raised by the inclusion of cardiac transplantation, while excluding immensely valuable but less dramatic items such as the prevention of rheumatic fever and effective treatment of essential hypertension. Cardiac transplantation, however spectacular and daring, seems to have created more problems than it is capable of solving; the question of donors is one such; the cost in money and professional time is another. But there is also the disturbing spectacle that developed in December 1967, immediately after Christiaan Barnard's success in transplanting a human heart from a cadaver into a 54-year-old man: within weeks there was a badly motivated scramble by some groups of surgeons to leap quickly on the bandwagon, with results that were often deplorable.

The profession's feet of clay were, for a time, all too visible. Running through all clinical research there must be a fundamental controlling principle that places the welfare, interests, and legitimate rights of the patient above all else within the professional relationship. *Classic*, whether *cardiac* or *of cardiology*, implies that the item be "of the highest rank or importance; approved as a model; standard, leading" (*OED*). But deficiencies notwithstanding, volume 4, and indeed the entire series, contains some of the stuff of history as well as an implied but strong suggestion that the crucial and complex calling of clinical investigation requires to hold its scales of values and, even more troublesome its motives, constantly under critical review.

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DANIEL M. FOX and CHRISTOPHER LAWRENCE, *Photographing medicine: image and power in Britain and America since 1840*, Contributions in Medical Studies 21, New York, Westport, and London, Greenwood Press, 1988, pp. 357, illus., £36.50.

ANNE HUDSON JONES (ed.), *Images of nurses: perspectives from history, art and literature*, Philadelphia, University of Pennsylvania Press, 1988, pp. xxii, 253, illus., £39.90, £18.95, (paperback).

In *Photographing Medicine* Daniel M. Fox and Christopher Lawrence present an impressive compilation of 271 images of medical men and women, institutions, and patients in the United

States and Britain from 1840 to the present. In the accompanying text and picture captions they seek to prove their theses that photography recorded images of medicine that were held by individuals who wielded the power in the profession, that is doctors, hospital governors, or leaders of the nursing profession, and that photography enabled orthodox medicine to make its professional image public. They trace the development of photographic medical iconography through analyses of images of doctors, nurses and diseases, wards, surgical operations, public health clinics, medical instruction, and patients and their treatment and divide the material into four chronological sections (1840–90, 1880–1918, 1918–39, and 1939 to the present). Their final chapter functions as an explanatory bibliography of the sources for medical photographs and secondary sources in the history of photography, studies discussing the use of photographs as historical sources, and finally work relating specifically to the history of medical photography.¹

In their effort to synthesize disparate visual material, Fox and Lawrence group images to reflect trends in representation, and thereby to explore the public image of medicine. For instance, the domesticity shown in early photographs of British hospitals is contrasted with the overwhelmingly functional character of military hospitals recorded during World War I. By the mid-1930s, representations of wards gave way to close-ups of patients and their medical attendants; these reflected the influence of press photography and the documentary approach which placed emphasis on the lives of ordinary people. The twentieth century witnessed an expanding range of activities in which nurses were represented, responding to the redefinition of nursing and its increasingly professional status. Fox and Lawrence also observe that, in the nineteenth century, the scientific character of medicine was not a major theme in photographs, whereas in the twentieth the science of medicine—the handling of apparatus in the laboratory or the treatment of patients by means of the latest in equipment—becomes a subject for photography.

On this level the book is an extremely helpful guide to the reading of the chosen images. However, their major thesis, that the images reflect medical orthodoxy, can be questioned, at times because of the nature of the image itself and at other times because of the nature of its purpose or source.

Amusing as the image might be in certain quarters, can we really believe that nurses at the top of their profession would have approved the press photograph of a model wearing a new mini-skirted nursing uniform, with the hem nearest the camera pulled provocatively upwards (fig. 5.39)? Does that representation relate “to changes in medical power” controlled by the medical orthodoxy, the authors’ central thesis? Conversely, the authors group another representation of a nurse (fig. 4.36), posed elegantly with arms outstretched, with images making nurses “objects of sexual interest”. Their interpretation subsequently appears glib when we learn, from the caption, that the photograph was taken to help raise funds for Charing Cross Hospital (c. 1933). A more revealing analysis might have involved a comparison with contemporary fashion photography; the elegance of the pose and welcoming smile would have appealed to potential benefactors more used to the imagery of fashion plates and homes-and-gardens magazine representations than to a portrayal of the scrubbed operating theatre and officious assistant in surgical mask.

In their laudable effort to bring together a corpus of images and give them a thematic coherence, the authors fail to stress one of the central problems which confronts photographic researchers: most of the medical photographs which exist in archives have lost specific documentation regarding their origins. There are notable exceptions to this, for instance the album compiled from 1906 to 1940 by Basil Hood at Charing Cross Hospital (fig. 3.54) and elsewhere (today in the Iconographic Collections at the Wellcome Institute for the History of Medicine) or photographs taken to commemorate specific surgical operations, such as Dr Harvey Cushing performing a craniotomy at the Peter Bent Brigham Hospital in Boston in 1934 (fig. 4.57). That most of the photographs included in the book are given approximate dating is evidence of the scarcity of specific archival documentation for the images. The importance of this dating is crucial since the authors divide the images according to chronological periods and base their interpretation of trends on an evolutionary development. And yet nowhere do they state how they arrived at the dating, or that dating presents a significant problem for the historian.

Also lost from record for the majority of the images are the identities of the photographers and those who commissioned them. This becomes crucial in interpreting the intent. A good case in point is the series of negatives taken of smallpox victims hospitalized during the Gloucester smallpox epidemic of 1896 (in the Iconographic Collections, Wellcome Institute for the History of Medicine). The book's caption inaccurately refers to the images as being contained in an album and to "circumstantial" evidence that they were "taken to demonstrate the adequacy of the isolation hospital". Careful archival research should have noted that we have only the original negatives (not contemporary photographs mounted in an album) and that these are housed in carefully captioned envelopes identifying the victims and their ages, the date of admission, the stages of the disease at which each were admitted, subsequent recovery or death, and, at times, the patient's stand on vaccination. Despite the lack of information on photographer and commissioner, a careful reading of accompanying manuscript information can be combined with analysis of the images (the selection of subjects and poses as well as the choice of which stage of the disease to document) and study of contemporary attitudes in the literature² to make a statement regarding their probable purpose and the underlying beliefs which occasioned them.

The problem with the authors' decision to be encyclopaedic in their inclusion of images is that such individual in-depth analysis of the representations and their context becomes impossible. As in slide lectures, it is often this latter type of analysis (rather than a compendium of rapidly flashed images), combined with carefully selected comparisons, that furthers the understanding.

The decision to discuss type rather than individual images at length also results in the description of images as "similar" when the techniques employed—and the resulting message—are quite dissimilar. A group photograph (fig. 4.32) celebrating the gala held at King's College in 1937 should have been *contrasted* with the representation of the "Nurses ball" (fig. 5.8), which appeared in *Picture Post* in 1939. The carefully composed formality of the former is in marked contrast with the snapshot effect of the latter. In the former the subjects are obvious participants, aware of the photographer's presence; several smile and look towards the photographer and their careful arrangement around equipment (presumably for testing lung capacity) suggests that the image is a collaborative representation. In the *Picture Post* photograph, the informal grouping, cropped figures, conversing attitudes, and glances contained within the pictorial field suggest the subjects' supposed lack of awareness of the photographer; this presents a candid record—a caught-in-the-act impression. The two very different images show a contrast in how the medical profession allowed itself to be presented.

While the authors state at the onset that they did not intend to explore "the relationship between technical innovation and changing photographic conventions", this should not have been ignored. As a result, at times readers are presented with factually misleading statements. A *carte-de-visite* is described, for example, as "an albumen paper colloid print"; aside from the fact that *cartes-de-visite* were printed using other processes as well, there is no such thing as a colloid print; I believe the authors meant to say "an albumen print from a collodion negative". Moreover, in contrast to the authors' assertion, hand-coloured photographic prints are quite different from hand-coloured engravings. Whereas watercolours add colour to engravings, where the contour, texture, and shading are retained in the syntax of carefully related lines, in albumen prints added watercolour tends to obliterate photographic detail: the watercolours "take" to albumenized paper in a way quite different from untreated paper and the result was often a rather garish imposition of colour over the photographic form. Indeed, in Balmanno Squire's publication devoted to skin diseases (issued in parts between 1864 and 1866), the hand-applied colours stand out from the albumen prints and sit on the surface. Yet it is the individually applied colours which give details of, as well as colour to the variegated surface of the diseased skin—essential description which the camera and the printing techniques were unable to capture. Such representational problems resulted from the insensitivity of the negatives to the complete colour spectrum (resulting in distortions in the tonal ranges). Moreover, Squire's publication was not followed by scores of others. Before the half-tone process, photographs had to be individually printed and mounted in books. This labour-intensive process limited the publication of photographically illustrated works generally.

The authors also become confused when they refer to printmaking media; contrary to their statement, lithography did not use cross-hatching to distinguish textures and colours of pathological specimens. Lithography is a tonal printmaking process which employs techniques close to that of the draughtsman. (Indeed it often allowed the original draughtsman to delineate the image on a lithographic stone, rather than having to rely only on a professional printmaker to reproduce it.) Lithography therefore could offer an extremely accurate transcription of the original drawings—an important consideration for medical imagery. In contrast, line engraving imposes a system of lines on the original draughtsman's conception. Because the professional engraver translates tonal values into lines, his skill becomes all-important in determining the reliability of the resulting representation.

Fox and Lawrence should be commended for undertaking an extremely involved subject and for trying to tie together a compendium of images from two countries and over a 140-year period. As the only survey of its kind, their work will find immediate use by medical, social, and photographic historians and will, by the questions it raises, stimulate further investigations and analyses.

A more focused study of medical imagery can be found in *Images of nurses*, which attempts to bridge the increasing compartmentalization of historical research. Scholars from many disciplines are brought together to study visual and verbal representations of nurses. Contributions discuss the nurse in painting and sculpture before Florence Nightingale (Natalie Boymel Kampen), photographs in the history of nursing (Rima D. Apple), the architectural context of nursing (Karen Kingsley), images of nurses in fiction and popular culture (Leslie A. Fiedler), the 'satiric image and the translocated ideal' of nurses (Kathryn Montgomery Hunter), nurses and patients in twentieth-century short stories (Barbara Melosh), Patrick White's round-the-clock nurses (Joanne Trautmann Banks), historical images of black nurses (Darlene Clark Hine), socialization and sexism in nursing (Janet Muff), and Hollywood's images of Florence Nightingale (Anne Hudson Jones).

Two chapters are devoted to visual representations. Kampen, discussing images of nurses before the mid-nineteenth century, attempts to link images executed in various media and over a wide range in time—an ambitious undertaking that results in a rather cursory analysis of the individual works. Pursuing the subject of photographic images of nurses, Rima D. Apple raises questions that cannot (as well as can) be answered by the photographic records and uses contemporary verbal texts to complement the information in the images. She discusses representations in greater depth than do Fox and Lawrence. This is best shown in their respective discussions of the same photograph of a nurse and patient in the Emergency Smallpox Hospital, Boston (1902). While Apple treats the photograph as a rare record of a nurse's soothing care for a patient (she is identified as bathing and swabbing his pustules), Fox and Lawrence use it as an illustration of a nurse being recorded with unkempt hair.

The range of scholarly viewpoints in *Images of nurses* makes the volume ideal reading material for courses in medical and women's history. The authors carefully state their theoretical premises and the introduction thematically ties together the strands: nursing essentially is a female profession; as a form of female power, it brings with it the conflicts of a mother-child relationship; both positive and negative images of nurses must be analysed in order to better understand the public perception of nurses and their self-image.

¹ In addition to Helmut and Alison Gernsheim's *A Concise History of Photography* (published by Thames and Hudson in 1965), readers might wish to consult their more authoritative standard work, *The history of photography*, first published by Oxford University Press in 1955, or the new and enlarged edition published by Thames and Hudson in 1969; recently Helmut Gernsheim has written a revised third edition, *The origins of photography* (Thames and Hudson, 1982). An interesting addition to their section on secondary sources discussing medical images is Georges Didi-Huberman's essay on 'Photography—scientific and pseudo-scientific', which appeared in Jean-Claude Lemagny and André Rouillé (eds.), *A history of photography: social and cultural perspectives*, Cambridge University Press, 1987 and the entries for public health images by Dorothy Porter (née Watkins) in Stephen Farrow (ed.), *The public health challenge*, London, Butler and Tanner for Faculty of Community Medicine, 1987. I discussed social issues relating to medical portraits in a chapter, 'A question of image: Victorian medical men and portrait

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publications', within a doctoral thesis entitled 'Fame and photography: portrait publications in Great Britain, 1856–1900' (University of Texas, Austin, 1985).

² Dr Dorothy Porter and I attempted such an analysis in a combined lecture given at the Royal Institution Centre for the History of Science and Technology in 1985.

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